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**Economic Commission for Europe**

## Conference of European Statisticians

**Group of Experts on Population and Housing Censuses****Sixteenth Meeting**

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**Operational aspects of censuses****Appendix on Fundamental Principles of Official Statistics -  
Draft text for the Conference of European Statisticians  
Recommendations for the 2020 census round****Note by the UNECE Steering Group on Population and Housing Censuses***Summary*

This document presents the draft text for the appendix on the Fundamental Principles of Official Statistics for the Conference of European Statisticians (CES) Recommendations for the 2020 Round of Population and Housing Censuses. The document, revised by the UK Office for National Statistics, has been submitted by the UNECE Steering Group on Population and Housing Censuses.

**I. Appendix of the CES Recommendations: The fundamental principles of official statistics in the context of population and housing censuses**

1. Official Statistics on the number and condition of the population and housing, such as those produced by the censuses, are an essential feature of a country's statistical system. They are therefore expected to encompass the Fundamental Principles of Official Statistics. These principles were adopted for the ECE region by the Economic Commission for

Europe in 1992<sup>1</sup>, and by the United Nations Statistical Commission at its Special Session of 11-15 April 1994<sup>2</sup>. The principles have been endorsed also by the United National General Assembly during its 68th session on 23 January 2014. This was an historic recognition of their importance as basic framework for official statistics at the global level.

2. The principles are:

1) Official statistics provide an indispensable element in the information system of a democratic society, serving the government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information.

2) 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.

3) To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.

4) The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.

5) Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.

6) Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.

7) The laws, regulations and measures under which the statistical systems operate are to be made public.

8) Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.

9) The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels.

10) Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

3. These fundamental principles have been incorporated into the standards, principles, definitions, legal frameworks, and Codes of Practice of the majority of national and international statistical systems.

4. Enshrining principles in law is very instrumental, but not sufficient in itself. These principles have to be translated into institutional governance structures, public assurances, and guidelines for staff. Processes must be established by which decisions, especially in borderline cases, are taken in such a way that they build up a set of consistent case-laws

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<sup>1</sup> Economic Commission for Europe, Report of the 8th meeting, 15 April 1992.

<sup>2</sup> The Statistical Commission adopted a revised preamble for the Fundamental Principles at its forty-fourth session in 2013.

within the statistical system or at least within the NSO (National Statistical Office). These guidelines for ethical and professional behaviour should be interpreted by staff, through training and implementation, as part of their everyday data collection, processing, and dissemination work. The senior statisticians in NSOs should give a model of behaviour to all other staff in this respect, and contribute to promoting the ethical foundations of official statistics with all stakeholders, the media, and the public.

5. These principles are a formulation of the professional and ethical standards that are necessary to ensure credibility in the results of official statistics by all users, and to ensure the integrity of the national institutions that act as producers of official statistics. They are meant to be applicable to all subject areas of official statistics, to all national producers of official statistics, and for all the processes that are involved in producing and disseminating official statistics. They should be the yardsticks for the national legislation that defines the institutional framework of official statistics, and for the behaviour of all staff involved in these processes. Many countries have developed a general statistics law that meets these criteria, and have elaborated them in their national context in the form of a public-facing Code of Practice.

6. The notion of a national statistical system is used here as the sum of all public bodies that are producers of official statistics in the sense defined by the relevant national legislation. The eighth principle asks that these producers do not act in isolation, but are coordinated. In addition, the statistical system should include any coordinating or advisory bodies for official statistics foreseen by the statistical legislation or set up on the basis of this legislation.

7. In the case of public bodies other than the NSO (or statistical offices at regional or local level) acting as producers of official statistics, the fundamental principles of official statistics imply that statistical tasks are subject to the statistical legislation, and that they are clearly separated in the organisation chart from other tasks assigned to this department, ministry or agency. The notion of producer of official statistics (and of the statistical system) does not necessarily include therefore an entire ministry, department or agency, but only those organisational sub-units that have regular tasks as producers of official statistics in the above sense. Where such sub-units are led by a named senior responsible statistician this adds further to statistical governance control and greater public reassurance. All government units other than producers defined in this way are considered as potential users of official statistics. This clarification is important because the notion of professional independence refers to this boundary in terms of decisions to be made within the statistical system. Also, the exchange of data subject to statistical confidentiality should not be extended to government units other than the statistical producers in the above definition or research institutions.

8. Population and housing statistics are some of the most publicly visible activities of national official statistics, in particular where there is direct data collection such as in the Census in most countries, and therefore adherence to these principles is of particular importance. NSOs must ensure that population censuses, both in reality and in the perception of users and respondents, are in line with these principles, so that the credibility not only of the census, but of the entire NSO and the whole statistical system are not compromised. It is therefore recommended that any specific legislation on the population census in countries where a general statistics law with explicit recognition of the fundamental principles is in force, explicitly acknowledges the applicability of these principles for the census.

### **Privacy and Confidentiality**

9. In the context of a population census, the most important principle for the population as the provider of the information is the interference with personal privacy at the time of

data collection (when there is direct data collection), and the subsequent confidential use of their individual information. The fifth principle refers to the selection of sources in consideration of the burden on respondents. Deciding the balance between the public good value of a statistic and the private life intrusion of the data collection is one of the most difficult tasks facing a statistics office. In the context of a census, where a response to the inquiry may be mandatory, it is likely that the national parliament must debate that balance and enshrine the outcome in legislation. Where a member of the public is to be compelled by the state to reveal matters that are private to them, an unambiguous mandate for such collection is of the essence, especially if refusal to supply such information on demand could result in legal sanctions against the individual.

10. When private and personal information is obtained under compulsion, it is all the more important to guarantee its confidentiality. The sixth principle refers to the use by statistical authorities of individual data, whether they refer to natural or legal persons<sup>3</sup>, to be strictly confidential and used exclusively for statistical purposes. When collecting individual data from respondents through surveys or censuses, statistical producers must state this pledge, which in most countries is enshrined in national legislation, very prominently in order to persuade respondents to participate and to provide correct information. The term “statistical purposes”<sup>4</sup> in this context excludes the use of such information for any decisions by a government or public sector authority (including courts) targeted at an individual unit. Thus, it eliminates the possible perception of respondents that the individual information they provide in good faith about themselves could be used against them. Secondly, the principle ensures that the statistical producers are seen to take seriously the concern of respondents about the privacy of the information they provide.

11. The clearest way for statistical producers to comply with this principle is the so-called “one-way” principle for individual data referring directly or indirectly to protected units. Statistical producers can receive such data, but, with the two possible exceptions mentioned below, should never release or make accessible such data. The one-way principle should apply to all individual data, irrespective of the source (census, survey, or administrative source). Survey and administrative data should be covered by the same statistical confidentiality provisions, or separate provisions with equivalent effect, in all stages of collection, processing, and dissemination, from the moment they are handed over to a statistical producer.

12. Statistical legislation may prescribe two exceptions to the ban on statistical authorities making protected individual information partially accessible: the exchange of individual information between statistical producers bound by the same or equivalent laws, policies and Code of Practice; and the granting of access to microdata files with individual data, under certain conditions, to approved researchers. The details of the latter are described in the chapter on methodology. The first exception has to be strictly limited to purposes of official statistics, and the second exception to tabulation / analysis by approved researchers in a controlled environment.<sup>5</sup> Because of the ban on non-statistical use of

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<sup>3</sup> The protection of the statistical unit “natural person” is not effective if the “household” is not also protected. Dwellings or buildings are not protected unless there is an indirect risk of disclosure for a person.

<sup>4</sup> The term “statistical purpose” should not be interpreted as allowing the use of individual information for tables. Statistical purposes also cover the matching of individual information with other sources of official statistics.

<sup>5</sup> Both exceptions may be limited to national partners, or extend to cover statistical departments of supra- and international organisations in the first case, or researchers abroad or being part of an international research network in the second case. National legislations and practices differ in this respect.

microdata, the use of the first exception is especially delicate if the statistical producer at the receiving end is a division of a larger government unit whose main task is the non-statistical use of data, as a minimum, the national statistical legislation has to be fully applicable to the statistical producer in order to make such a statistical producer eligible to receive confidential census microdata from the NSO. Most effective are legislative protections that travel with the data, meaning the non-disclosure and statistical purposes only protections apply wherever the data are being processed.

13. It is of overriding importance that NSOs are perceived as completely trustworthy with respect to confidentiality. For this reason, requests for release of individual data for non-statistical purposes should always be refused. If, on the basis of legislation in areas other than official statistics, such an access for non-statistical purposes is lawful (e.g. in the case of data originating in administrative sources, or in the case of a dual-purpose census) such access should be provided by other appropriate government authorities, and not by NSOs.

14. The sixth principle implies not only the exclusion of disclosure by direct identification of units (through names, addresses, or generally available reference numbers), but also by indirect identification (through a combination of characteristics, or as part of a narrowly defined small aggregate). It also implies strict security rules for handling questionnaires and stored individual data. The recommendations in the context of a population census are presented in more detail in the chapter on technology.

#### **Professional independence**

14. The delimitation of professional independence for a statistical authority is important. This is especially so for an operation like a population census, where the NSO is dependent on government budgets (at national, regional and local level, plus international donors where applicable) and a mandate for data collection from the national legislature. The Fundamental Principles assist in deciding the matters that fall into the responsibility of the professional statistician. The Principles require the selection of data sources, statistical methods, and processing procedures to be decisions of professional statisticians, only. These are important matters in the context of a Census, and professional independent decisions by statisticians should therefore be subject to scrutiny. However, for professional independence to be meaningful the scrutiny should be carried out by an independent statistical standards authority or by the national legislature – and not by Ministerial government.

16. In terms of processes, professional independence means that, while a variety of stakeholders, especially major users, will be consulted about professional issues, the decisions in the scope of professional independence will be taken entirely within the system of official statistics and not by Ministerial government or any political body. “Within the statistical system” can mean by the head of the NSO, with possible involvement, for major issues, of an advisory board like a statistical standards authority that is set up by the relevant legislation on official statistics, or of a body composed of all or some producers of the national statistical system. In the case of population census, the census law may provide for a special census committee to play a role in such decisions. Whatever the form of decision-making mechanisms within the statistical system of a country, it is crucial that the relevant law enshrines very clearly that all bodies involved are subject to the fundamental principles (which preferably are also enshrined in a general statistics law). Decisions that are necessarily beyond the scope of those that can legitimately be taken by professionally independent government statisticians should be made by the national legislator, after debating proposals made to the legislator by the national statistics office. Other than some residual responsibilities, such as presenting material for debate in the legislature and providing assurances to the legislature about the adequacy of budget for the proposal(s) made to the legislature, etc, there is no substantial role for Ministerial government in census

taking. The primary function of Ministerial government is to respond, as a key user of statistics, to the NSO's consultations on statistical needs.

17. The importance of professional integrity in census statistics is so high that the head of the NSO should decide on the allocation of overall resources for official statistics between subject areas, with only the total budget decided at the political level as part of the budgetary process). Where this is not achieved, it is all the more essential that visible professional independence, free from any Ministerial government influence, decides:

(a) The design of data collection instruments for official statistics with respect to coverage, questionnaires and the terminology used therein, selection of respondent units (in the case of non-exhaustive coverage). This extends to the design of pilot surveys and post-enumeration surveys;

(b) The choice of administrative sources to be used in the preparation of the census, or (as in the case of register-based censuses) in the implementation phase;

(c) The follow-up of non-response in the case of primary data collection, or the verification process of administrative data by the persons concerned and the respective follow-up of non-response in this approach;

(d) The choice of methods and strategies for editing raw data (from primary data collection or from administrative sources), for imputing missing information or for correcting erroneous information, for classifying open-ended questions, and for combining various sources in the best possible ways (either at unit or aggregate level);

(e) The choice of the aggregates to be compiled from the census to be disseminated as results of official statistics, including the terminology used for these aggregates and the ways of compiling them;

(f) The ways in which these results are disseminated in full respect of the relevant fundamental principles, including the timing of the release;

(g) The standards, methods and processes of quality control for the various steps of the operation, and the decisions whether certain aggregates cannot be released because of insufficient quality;

(h) The ways in which census data are used for improving other outputs or activities of official statistics (benchmarking of time series, use as sampling frame); and

(i) The way in which edited unit level data from the census are organised, documented and stored to facilitate additional tabulation on request according to specifications of individual users (statistical services) and for any later use in official statistics (analytical studies).

18. Two general qualifications concerning the input of professional statistical advice to the decisions of the legislature are worth making. The first issue is linked to another fundamental principle: the issue of response burden in primary data collection (5<sup>th</sup> principle). This includes response obligations, the consideration whether certain questions, especially in the context of a census, may be considered as too much of an intrusion into privacy, and the issue of penalties for respondents who refuse to comply with response obligations. The second issue is about the division of work and the allocation of responsibilities between the various players and bodies of the statistical system of a country for the various parts of a statistical programme in a country, assuming that all of them are subject to the statistical legislation. For a basic operation like the census that is exclusively for statistical purposes, the overall responsibility is normally allocated with the NSO as the major producer of official statistics and coordinator of the statistical system, even though certain elements may be assigned to other players in the statistical system.

19. In the context of a traditional population census, the details that will be enshrined by law and secondary legislation based on this law are often of a more detailed character than for other primary data collections for official statistics such as sample surveys. There is therefore a certain risk of Ministerial government getting involved in decisions that are listed above as being the core of professional independence. In order to prevent the involvement of Ministerial government in the preparation of detail of legal text proposals, the primary and secondary legislation for censuses should not go beyond listing the characteristics to be covered by the census in a general way, leaving the exact wording of questions in the questionnaire to the statistical system. Legal texts about census should not contain an exhaustive list of tables as outputs, but if any specification of the output at legal level is considered to be unavoidable, it should be in general terms, leaving the exact definitions and the methods of aggregation entirely to the statistical system. The most important aspects of output specification in legal terms refer to impartiality and possibly timeliness.

20. For the choices to be made under professional independence, the responsible players within the statistical system “need to decide according to strictly professional considerations, including scientific principles and professional ethics” (2<sup>nd</sup> principle), so that the results of official statistics are as reliable a picture of the characteristics of a society as possible. In most cases, such decisions are not made in a void; there is a recognised stock of international and national professional standards and good professional practices of official statistics for many of the decisions listed above; they can and in most cases should be considered as a valid option at national level, not only because they facilitate international comparisons, but mainly because they offer an impartial and professionally sound solution about methodological issues.

21. A specific problem of professional independence in the context of a census may arise from the pressure from certain ministries and outside interest groups to see certain characteristics included. This should be avoided by ensuring ministries are visibly included in the NSO’s consultations on characteristics for the census. The NSO should publish consultation responses and explain how those responses have assisted the NSO in its decisions. No other form of ‘pressure’ is acceptable and should be reported to the national statistical standards authority or the national parliament

### **Impartiality**

22. Impartiality is an important consideration for all phases of the statistical production and dissemination process. It implies, among others, the use of factual and stable terminology for the results to be disseminated, the use of understandable, non-offensive terminology in questionnaires, and the avoidance / correction of any biasing factors in collecting, processing and presenting results, such as the complete omission of certain groups of the population. The most important aspect, however, is the impartiality in making results of official statistics available to all users.

23. Impartiality in dissemination has several aspects; all results declared as official results have to be publicly accessible, and the dissemination of these results has to be simultaneous for all users, including government users, at dates determined by the statistical system, and not by Ministerial government. Therefore, it is good practice for NSOs to have an advance release calendar. The advance release calendar may be a rolling one, where the release dates become gradually more precise over time. Results may be released as provisional and final in order to be timely, but the principle of impartiality in dissemination must be respected in all cases.

24. As with other issues within professional independence, the selection of results and the choice of the dates of release have to be based on professional considerations. Once checked for quality and consistency, results should be released as soon as possible.

Concerns that certain results may be unwelcome or untimely from the point of view of the government or other important stakeholders should never be taken into account, whether these concerns are expressed explicitly or as second-guessing on the part of statisticians. This would be an infringement of the fundamental principles. Dissemination is the part of official statistics where attempts to undermine strict adherence to integrity are most likely. Therefore, it is very important that the NSO has acquired a reputation for being strict in this respect in all areas of official statistics, so that there is no room for deviation from an established standard in the particular case of the population census. If there is not a clear history in this respect, the population census, through its high public profile, is an excellent opportunity to build up and promote a new standard of integrity to be applicable throughout official statistics during and after the census. A solution is to issue census results to Parliament, followed immediately by release of the same material to the public. This arrangement would make pressure from Ministerial government for privileged access an abuse of Parliamentary procedure.

25. Advance information to certain government departments is sometimes given under embargo, but this practice should be minimised, scrutinised, and the arrangements made public. The purpose of this advance information is that key users in the government can prepare themselves for confronting questions of the media with respect to policy implications of these results. It is not to invite them to comment on the way the NSO disseminates the results. Therefore, this advance information, if used at all, has to be limited in time (not exceeding one day), because the greater the time, the greater the risk of a breach of the embargo, or of attempts to interfere with the dissemination by the NSO.

26. An often neglected, but essential part of both professional independence and impartiality is the choice of terminology for the results to be disseminated. Decisions about this terminology should be made entirely within the statistical system (that is they should not be imposed from outside), and they need to demonstrate impartiality. There should therefore be a limit to the use of catchwords or the language of advocacy for certain policies, in releases by official statisticians.

27. Countries may differ in their practice about what impartiality implies for the provision of explanatory comments together with the release of new results. The minimum is to add the definitions and other technical explanations about the coverage and accuracy of the results, so that at least expert users can receive guidance on the correct use. In view of the dissemination to the media and the public at large, this may not be sufficient, especially for benchmark results such as the census. Explanations need to be added that help media, and through them the public, to help them to understand the most significant elements of this new information, and to transform the quantitative information into everyday language that can be easily understood and put into relation to other, non-statistical, information, but without coming into conflict with impartiality. As a minimum, it is the duty of NSOs to distinguish, in quantitative terms, between those parts in developments / differences that are due to changes in methodology when they occur, and those that correspond to “real” changes or differences.

28. The selection of the most important elements among the many aspects of the new census results for the so-called “story-telling”<sup>6</sup> is not always easy, but marked differences over time, across geographies (both within and between countries), and between population groups are certainly a first promising approach. The message for the media and the public is certainly enriched by comments that allow pointing to causal factors of a development or of differences between groups and areas that show up in the results; but in order not to be in conflict with impartiality, comments of this nature made by official statisticians have to be

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<sup>6</sup> UNECE: <http://www.unece.org/stats/documents/writing/>

backed by facts and should never be policy-prescriptive. The DQAF of the IMF insists (see paragraph 0 of this Appendix) that “products of statistical agencies / units are clearly identified as such”, or, in other words, that comments by other units than the NSO, whether they contain policy-prescriptive comments or not, are clearly separated from NSO products and releases. The art of adding relevant comments to statistical releases is gained with experience and feedback from users, and should be based on a general policy of the NSO applicable to all areas. The principle of impartiality has to avoid any bias or partisan jargon. The risk of biasing the information is especially present when using charts or maps, where the first impression is the prevailing one for most non-expert users.

29. Whereas the strict application of the principle of simultaneous dissemination to all users is standard for economic statistics, it is sometimes less strictly applied in demographic and social statistics. There is no professional reason why such a difference between subject areas should persist. One argument is that, because of the low periodicity of certain results in demographic and social statistics, these results need to be discussed and verified with the assistance of outside experts before they are released. However, quality management is an integral part of statistical processes whatever the subject area and the periodicity, and where quality management includes the assistance of outside experts, statistical producers have to make sure that no leakage to ministries or interest groups can arise as by-product of the quality assurance process. This risk is minimised when the necessary expertise for quality control is within the statistical office, or at least within the national statistical system.

30. A special problem in the context of impartiality arises from the use of aggregate census results for “allocation purposes”. This covers uses such as the allocation of seats in the Parliament or other bodies proportional to the benchmark population, or the funding of local governments from the national budget on the basis of statistical parameters, such as the benchmark population. It also covers schemes where funding is tied to eligibility criteria for local or regional entities, one of them being a population (or population ratio) threshold. When the benchmark is renewed through a new census round, fears that the outcome would be unfavourable to one body or another, or be inequitable, may be presented to the NSO in order to influence its choice of methods. If these issues are presented in consultation as issues relevant to NSO decisions this may be acceptable, but in any other circumstance it is not. It risks introducing biases and deviations from good professional practice and standards, and in doing so, the principle of impartiality of official statistics would be violated, since the choice of methods should not be influenced by such considerations (nor by considerations of how the country’s ranking in an international league table would be influenced).

31. An answer to these concerns that is fully compatible with integrity considerations is to clarify the responsibilities of official statisticians, and those responsible for the allocation processes, in the light of the fundamental principles. It is the decision of the latter, and not of official statisticians, to statistical parameters (and certain subjective weights to aggregate them) as key for their decisions on allocation or eligibility. However, their choice is not constrained by the results of official statistics published by the NSO; other options may be a subset of the official overall results (that is excluding certain components), or “adding in” some other elements that are measured separately (provided that sufficiently reliable statistics are available for these elements). The NSO would certainly be able to compile any key according to user specification. However, this should not replace the officially released benchmark result as defined by statisticians, but rather be an additional product with its own status. The distinction between the two is that the NSO bears the full responsibility for the official results, whereas for the user-specified concept, the NSO is only responsible for the accuracy of the information. The responsibility for the concept and the terminology lies with users outside the statistical system.

**Institutional safeguards for the NSO following from professional independence and impartiality**

32. Confidentiality, professional independence and impartiality are the key ingredients for the integrity of the NSO and the whole statistical system from the point of view of users and respondents. It is not sufficient that these principles are mentioned in laws. They have to be associated by institutional and organisational safeguards for the NSO and its head. For building and maintaining trust in the eyes of the media, the public, all users, and respondents alike, both the existence (and respect) of these safeguards and the clear implementation of all fundamental principles in everyday practice by the NSO are essential.

33. First and foremost, the NSO has to be free of non-statistical assignments that may create conflict of interests with its core task of producing unbiased statistics about relevant phenomena in the society, or with its obligation to use individual data exclusively for statistical purposes. Any such assignments would prevent the NSO from being perceived as impartial, and would risk in being equated with an advocacy instrument for government policies.

34. Secondly, it is essential that there is no official or unofficial clearance process involving government bodies outside the statistical system for the release of results, for whatever area of official statistics including the census. NSOs must have the right to communicate directly with the media in order to fulfil their dissemination function, without being forced to channel their messages through intermediate government bodies.

35. Thirdly, as a corollary of professional independence, the head of the NSO has the full responsibility for the professional quality of the results, for the integrity of the whole chain of processes leading to these results and for the strict application of the confidentiality rules for individual data. The process of selecting and appointing the head of the NSO and other senior staff, and the legal and other means of protecting the head against any interference from government or pressure from other interest groups in matters falling under professional independence, or affecting impartiality or confidentiality, is crucial for the integrity, and the perception of integrity, of official statistics.

36. In the context of the census, a special organisational issue with implication for integrity may arise through the involvement of government bodies in the data collection process of traditional censuses that are not considered part of the statistical system, notably bodies at local and regional level. Such bodies may have responsibilities other than official statistics that have the potential to create conflicts of interest. It is therefore important that, in addition to stipulating in the law that they are fully subject to the fundamental principles, notably for confidentiality, for all activities in the context of the census, methods to check their compliance are set up and implemented as part of the quality control processes. In view of the eligibility (or non-eligibility) criteria, local administrations may also be tempted to influence the overall results for their area in order to increase (or reduce) the prospects of falling under a certain government scheme (for example introducing bilingual administration if the linguistic minority reaches a certain percentage of the total population). In such cases, special organisational measures that ensure checks and balances at local level may have to be set up on a mandatory basis through the census legislation in addition to the quality control measures of the NSO.

37. In the case where certain parts of activities of official statistics are outsourced to private operators (which can be a cost-effective solution for a large and infrequent operation like the census), the respective contracts should specify the obligations of the contractors in the same way as if the same activity were carried out within the NSO. Any data processed by such contractors must be used by a private contractor only within the terms of the contract, excluding any other purposes, be they statistical or other. The census law should prescribe that penalty provisions are applicable also to staff from such

contractors working for the census in the case of violations, for example of confidentiality provisions. It is in the interest of private contractors to respect these contract terms, as failure to do so would jeopardise future contract from the NSO.

38. Any form of delegation of parts of the census activity to either public or private organisations does not in any way diminish the full responsibility of the NSO for the integrity of the whole process from the beginning to the end, and for the official results.

### **Transparency**

39. The principle of transparency (3<sup>rd</sup> fundamental principle) is a necessary counterpart to professional independence. It ensures that official statisticians are fully accountable to the community of users, respondents and taxpayers for their decisions under the umbrella of professional independence. All methods used in the production and dissemination process should be made transparent, so that critical users can question the choices made and ask for reasons. The IMF DQAF asks that for major changes in methodologies advance notice be given before results are disseminated. All dissemination of results must be accompanied by detailed information on sources and methods, which should be accessible to anybody. If results do not reach predefined quality levels, they should be marked accordingly, or not released at all, with the reasons explained publicly, and the background material for this decision being open to scrutiny. Any quality assessment of census operations, or parts of it, should also be publicly accessible.

40. If the principle of transparency seems to impose a burden on NSOs, it is necessary to prevent and counter any accusation of unaccountable “black box” behaviour, which is frequently the first step in accusing statisticians to give in to interference or pressure aimed at shaping results in a certain direction. Transparency is necessary in today’s official statistics, since even in the case of exhaustive operations like censuses results are no longer compiled exclusively as frequency counts, sums or averages, but as a complex and iterative sequence of algorithms including components of “estimation” based on editing, imputing, extrapolating and combining different sources. Transparency is also the prerequisite of making use of the 4<sup>th</sup> principle, which entitles all statistical producers to comment on erroneous interpretation and misuse of statistics by a third party (including government users of statistics). The decision on when to make use of this right comes under professional independence, and lies with statisticians without the need for approval from outside the statistical system.

41. Another element of transparency is the 7<sup>th</sup> principle, by which the “laws, regulations and measures under which the statistical system operate are to be made public”. Censuses have a particularly voluminous range of regulations, instructions and manuals, given the large number of staff used for most types of censuses, especially traditional ones. Such material should be available to anybody either on request, or made generally accessible through the web.

### **Relationship to respondents**

42. According to the 5<sup>th</sup> principle, burden on respondents is a mandatory consideration for all decisions regarding the choice between primary and secondary data collection, and the design of primary data collection. The way this principle is applied in reality is, together with the confidentiality pledge, the essence of the integrity aspect for the relationship between the NSO and respondents. This is especially relevant for a primary data collection in the form of a traditional census where all persons in a country are subject to a response obligation.

43. The elements of integrity in the relationship to respondents are:

(a) A selection of questions, strictly based on relevance and the proven inadequacy of less burdensome forms of data collection such as sample surveys;

(b) A serious effort of testing questionnaires in various local environments through pilot surveys, and of drawing the necessary conclusions by dropping problematic items from the census and directing users towards other forms of data collection;

(c) A well designed publicity campaign, starting well ahead of the census date;

(d) Disseminating clear information to each household, at the latest when the data are collected, about the purposes of the census, the legal basis, the use of the data and the public authorities that have access to individual data, the confidentiality measures, the obligations for respondents and the possible consequences of non-compliance, combined with information where and how additional information about the census can be obtained;

(e) A way of contacting households and persons at the time of data collection that is proportionate, non-intrusive, and takes into account the sensitivities of special population groups. This implies that field staff is well instructed and trained, and selected so as not to increase resistance from respondents; and

(f) A carefully designed stepwise policy of reminder / re-contact, and a clearly stated policy when to make use of penalty provisions for non-compliance and for starting an infringement procedure.

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