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"Fundamental Principles of Official Statistics: Threats and Responses"

# Can the Resolution on fundamental principles of official statistics prevent attacks on independence of statisticians and integrity of statistics?<sup>1</sup>

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1. The key words of the last World Statistics Day, celebrated on 20 October, 2010, as they are displayed on the page of the WSD site prepared by the UN Secretariat were Service -**Professionalism** - Integrity. These three key words are fundamental for any paper discussing ethical issues in official statistics. In modern democracies, it is largely admitted that free access to statistical information is one important constituent of the citizens' right to information, necessary for an efficient functioning of these democracies. On an other hand, the essential confidence in official statistics of all categories of users can be reached only if all stakeholders accept certain ethical rules and good practices, so that users of official statistics may be sure to get reliable and trustful data and suppliers of raw data respond favourably to the requests for information placed on them by statistical offices. That means that governments have to create an adequate environment and to provide a fair juridical and budgetary framework to produce and disseminate statistical data meeting all users' needs and not only their own needs and to guarantee the respect of best practices and the integrity of statistics. But it also means that the statistical community as a whole (including the national and international statistical societies) has to get and promote a set of ethical principles and good practices

An historical perspective of ethical issues in official statistics. Birth of the Resolution [4].

2 Building such a set of ethical principles and good practices was a long and difficult process. During the 20 years after the end of the  $2^{nd}$  World War (1945 – 1965), statistical legislation in developed countries put the accent mainly on confidentiality and protection of individual data

<sup>&</sup>lt;sup>1</sup> This paper is largely founded on papers presented by the author in previous meetings or published in statistical journals [4] [5] [6].

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and co-ordination of statistical systems; but there were no real discussions between producers and users about the content of statistical programmes, and occasional pressures on NSOs had sometimes affected the integrity of official statistics and hampered the necessary professional autonomy of official statisticians

- 3. During the following 25 years (1965 1989), statistical offices gradually shifted from a supply-driven strategy for providing statistics to a demand-driven statistical strategy; National Statistical Councils were created in a number of countries and official statisticians started to discuss with their users the best strategies for disseminating and pricing statistical information and more generally the role of statistics as a service to society These discussions permitted some kind of public control by the stakeholders of the national statistical systems and therefore contributed to increasing the independence of statisticians and the integrity of statistics. In parallel, as a reaction of the society in front of the EDP developments, commissions or ombudsmen, aimed at strengthening protection of the privacy and confidentiality of individual data, were implemented in many European countries in response to societal concerns about privacy.
- 4 During this period, in the then centrally planned economies, the main function of official statisticians was to check that the most important economic results be in accordance with the requirements of the central planning authority. To this end, statisticians were in charge of a huge bookkeeping activity. The ministries in charge of economic sectors requested individual information while no real decision was taken at the level of the production units. In general the macroeconomic aggregates were kept secret and accessible only to the highest authorities. In that way, statisticians' tasks were very different as between centrally planned economies and market economies.
- 5. After the fall of the Berlin Wall and the collapse of the communist systems, the market-oriented system obliged a far greater number of people with economic and social responsibilities in society to take decisions. Such decisions implied the use of an adequate information system and, in particular, sound and relevant statistical information. Moreover, it was vital for statisticians to gain the confidence of the public in the information they were to produce In the late months of 1989 and the early months of 1990, statisticians from Central and Eastern Europe were fully aware that it was not so easy to face this new challenge and to gain this indispensable trust of the public. They were looking for new references, new landmarks, to serve as a framework in which to fulfil their duties. Such references were maybe not so different from the strictly technical point of view, but totally different where the concept of the role of statisticians in society was concerned. They recognised that economic and social statistics should be both legitimate and credible, i.e. they should satisfy the criteria of impartiality, reliability, relevance and transparency.
- 6. During the  $38^{th}$  session of the Conference of European Statisticians (21 23 May 1990), Poland presented a draft for a "Statistical Convention" and a working group<sup>3</sup> was asked to prepare a final document taking into account "relevant results obtained by other international institutions, in particular the work done by the ISI<sup>4</sup> on ethical guidelines for statisticians". Thus the Conference of European Statisticians adopted the Fundamental Principles of Official Statistics during its  $39^{th}$  session held on 17 21 June 1991 and the Principles were endorsed

<sup>&</sup>lt;sup>3</sup> Bulgaria, France Poland, Romania, Spain, Switzeland, Turkey, Eurostat and the ISI

<sup>&</sup>lt;sup>4</sup> ISI Declaration on Professional Ethics adopted during the Centenary Session of the ISI held in Amsterdam in August 1985

at the ministerial level by the plenary session of the UN Economic Commission for Europe on 15 April 1992 (decision C(47) of the UN/ECE).

### Independence of official statisticians and integrity of official statistics.

- 7. In looking at the "matters arising from the 47<sup>th</sup> session of the ECE", the 40<sup>th</sup> session of the CES held on 15-19 June 1992 "expressed its satisfaction with the approval of the ECE decision C(47)" and "reiterated its views that this decision can be considered as one of the major results of co-operation in recent years"; it "hoped that the decision would further strengthen the production of impartial statistics in the region" and "was of opinion that decision C(47) is of universal significance". It therefore "expressed the wish that the contents of the decision be communicated by the chairman of the Conference to the UN Statistical Commission and to the other Regional Commissions of the UN". The UN Statistical Commission contacted the regional statistical divisions with a view to having ECE decision C(47) circulated to all member countries in their regions and to obtaining their opinions concerning the possible application and usefulness at the regional and global levels of the principles set out in the decision. More than 100 UN member countries were in favour of a declaration of principles and agree with the concept of universal significance of the "European" principles. The Resolution was therefore adopted at the global level on 15 April 1994 in New-York as the UN Resolution on Fundamental Principles of Official Statistics [18].
- 8. After the adoption of the Resolution, a number of other international or supranational organisations contributed to a strong endorsement of the principles by actively using them as a point of reference in their relations with their member countries as well as the terms of their multilateral responsibilities. And all official statisticians and their stakeholders have progressively become fully aware of the importance of the UN Resolution and recognised the professional value of the concept of independence.
  - the IMF proposed to its member countries to subscribe to the General Data Dissemination System (GDDS) [9] or to the more demanding Special Data Dissemination Standard (SDDS) [11]; it also developed the Data Quality Assessment Framework (DQAF) [10] to support overall strategies and action plans for the enhancement of data quality;
  - for the accession of new countries to OECD, the OECD Council decided to examine the legal and institutional framework for statistics of the applicant countries, assess the quality of the statistical data available in those countries and, ensure the applicant countries' integration in its reporting and information system upon accession, by reference to the UN Fundamental Principles.
  - a number of countries have proposed national codes of practices, descriptive or prescriptive, and codes of conduct that state the main principles governing the collection, processing and dissemination of official statistics;
  - during the past twenty years, the statistics legislation in developing and transition countries has converged with the best practices observed in developed countries, in particular by improving legal protections (status of official statistical bodies, data confidentiality, appointment of the head, etc.) or through providing some practices guaranteeing improved transparency such as pre-announced schedules of released dates for statistics;
  - in response to the Greek misreporting, the European Commission promulgated on the 25<sup>th</sup> of May, 2005, a European Code of Practice for the national and community statistical authorities [8] as a recommendation on the independence, integrity and

- accountability of the national and community statistical authorities; it is based on fifteen principles<sup>5</sup>;
- the African Union Commission has adopted in 2009 an African Charter on Statistics [1] and the UN Economic Commission for Latin America and the Caribbean (ECLAC) is preparing such a Code of Practice by reference to the European Code,
- most of the developed countries and a large number of transition and developing countries have created national statistical councils that are playing an important role in the preparation of national statistical programmes, including taking account of the needs of all users and not only the needs of governments;
- more recently "Independent Authorities" have been created to guarantee statistical integrity in the UK [18] and in France; also, a European Statistical Governance Advisory Board (ESGAB) [7], reporting to the European Parliament and the European Council, has been created at the European level.

# How to react when independence of official statisticians and integrity of official statistics are endangered?

9. In spite of the efforts of national and international statisticians, there are many examples in the contemporary history of official statistics where statistical integrity has been undermined and the independence of official statisticians threatened. In a UN working paper written few months after the adoption of the UN Resolution in 1994, William Seltzer [16] described eleven modes of undermining statistical integrity (i) extending the role and missions of the official statistical bodies to political analysis or political work<sup>6</sup>, (ii) unfair cutting of budgetary resources<sup>7</sup>; (iii) political appointment of staff members of the official statistical bodies; (iv) pressures to suppress or extend statistical fields or statistical series<sup>8</sup>; (v) political pressures on methods, concepts, classifications, definitions, ..., (vi) using classifications for non statistical uses without official statisticians' acceptance; (vii) censoring or altering data; (viii) violating the rules on the extent and timing of the release of data; (ix) threatening to data confidentiality; (x) using the statistical agency for political analysis or other political work and; (xi) organising active campaigns to discredit statistical services outputs, methods, or staff

10. These threats may also concern the preparation of statistical programmes as well as in the collection and processing of data or the dissemination and analysis of aggregated data. Of course, one thinks at first of political interferences in dictatorial systems where statisticians and statistical offices are generally forced into the official line of the political power. This

The fifteen principles of the European Code are (i) Professional independence, (ii) Mandate for data collection, (iii) Adequacy of resources, (iv) Quality commitment, (v) Statistical confidentiality, (vi) Impartiality and objectivity, (vii) Sound methodology, (viii) Appropriate statistical procedures, (ix) Non-excessive burden on respondents, (x) Cost effectiveness; (xi) Relevance, (xii) Accuracy and reliability, (xiii) Timeliness and punctuality, (xiv) Coherence and comparability, and (xv) Accessibility and clarity. A set of indicators of good practice for each of the fifteen principles provides a reference for reviewing the implementation of the Code Peer reviews are organised in every country of the European Union to assess compliance with the Code Eurostat has also prepared a "self-assessment questionnaire" to invite the member countries of the EU and invited its statistical partners to form judgements on the independence and integrity of its statistical system

<sup>&</sup>lt;sup>6</sup> A particularly wicked form is the increasing use of statistically-driven formula for political decision-making

<sup>&</sup>lt;sup>7</sup> There is obviously a problem in distinguishing between proper executive and legislative budgetary control and the use of budgets for partisan ends

<sup>&</sup>lt;sup>8</sup> A statistical office can easily become paralysed if decisions on every statistical field, or on every statistical series, become an issue for political debate

was, for instance, the case in Nazi Germany after 1933 where the statistical office was obliged to supply state and party authorities with individual data for carrying on the anti-Semite policy [15], or in the former German Democratic Republic where statistics were manipulated to illustrate the alleged successes of the communist system [14]. But unfortunately such threats are not the monopoly of dictatorial systems and also exist in democratic countries

- 11. Political authorities (governments or parliaments) are often tempted to intervene in statistical activities by interfering or even manipulating the technical choices of statisticians<sup>9</sup>, or by limiting the role and missions of official statistical bodies. Outsiders often make inaccurate use of statistical data (which is particularly dangerous when these outsiders are political decision makers) or they may organise a media campaign to discredit the statistical service, its outputs, methods, or staff Sometimes, a wrong or inappropriate use of a statistically-driven formula may, in the eyes of the public impose on statisticians a responsibility for political decision-making; in this case, the additional burden placed on official statistics may be enormous and often lead to bad practices<sup>10</sup>. Finally, sometimes data are censored or their publication is delayed for good or bad reasons. Such events are frequent in developing or in transition countries, but may also happen in developed countries, for instance in situations where the statistical services are decentralised in line ministries that are generally weaker than the central statistical office. One unfortunate case is the announcement of statistical results by a political authority.
- 12. Until now, in spite of the impressive catalogue of institutional responses, many problems remain on the agenda, even if the situation seems globally better than fifteen years ago, when the UN Resolution on Fundamental Principles for Official Statistics was adopted. Meetings and seminars have been organised; the text of the Resolution has been largely disseminated and popularised. Many countries have prepared and adopted codes to propose additional measures and to go deeply into the defence of the integrity of official statistics. The laws on official statistics passed during these past lifteen years are very often referring, directly or indirectly, to the UN Resolution. The practice of peer reviews has become general, not only in developed countries The adoption within the European Union of the European Code of Practices was a very positive step for improving the effectiveness, efficiency, transparency and relevance of official statistics by dealing with such issues as professional independence, mandate for data collection, adequacy of resources, quality commitment, statistical confidentiality, impartiality and objectivity. The creation in the UK and in France of independent authorities and at the European level of the ESGAB is full of promise for the future. The increasing practice of systematically organising "peer reviews" may also contribute to improve integrity of statistical systems.
- 13. One problem remains present: both governmental institutions and scientific NGOs have been prolific for years in producing declarations and papers on "good practices" but, most of the time, in case of a serious attack on the independence of statistics or use of "bad practices", all institutions, official or even non-governmental, may get some difficulties in reacting appropriately and rapidly

<sup>&</sup>lt;sup>9</sup> See for instance [3]

<sup>&</sup>lt;sup>10</sup> Within the European Union, by the end of the 1990s, and because of the preparation for the introduction of the Euro and the criteria introduced by the Maastricht Treaty, there was some temptation in several countries to adopt "creative accounting rules" Generally, proposals made by the member countries were scrutinized by Eurostat to ensure that the proposals respected the requirements of the European System of Accounts Nevertheless, during the last decade, one has observed on several occasions widespread misreporting of the Greek deficit and debt statistics, according to Eurostat, the October 2009 misreporting by the Greek authorities was exceptional in terms of procedure, but unfortunately it is neither without precedent, nor an isolated episode

14. The UN Resolution and the rules and codes of practice adopted by different international organizations are ways to maintain statistical integrity in the face of political pressures or pressures coming from different lobbies. But responses organized by the profession itself, in particular through the international or national statistical societies are also an important way to defend professional independence and statistical integrity. Some societies have adopted ethical codes that address to individual professional statisticians. One of the first attempts to formalise ethical rules was certainly the ASA Code of Conduct for Statisticians adopted in 1979 by the American Statistical Association under the leadership of W. Edwards Deming, now, after revisions in 1989 and 1999, the ASA Ethical Guidelines for Statistical Practice [2] W. E. Deming was also one of the promoters of the Committee of the International Statistical Institute (ISI) that prepared the ISI Declaration on Professional Ethics adopted during the Centenary Session of the ISI held in Amsterdam in 1985 with the aim to document share professional values (defined as respect, professionalism, and truthfulness and integrity), and to promote knowledge and interest in professional ethics among statisticians worldwide [15] After 25 years and the passage of time, the ISI decided to revise and update its declaration. this revised declaration was presented to the whole statistical community on the last World Statistical Day and is posted on the ISI Website<sup>11</sup>.

15 The ISI declaration is very general and applies to the statistical community at large (academic statisticians, researchers, statisticians working in industry, etc. and not only to official statisticians). It doesn't take into account two specific characteristics of official statistics:

- official statisticians do not work for a specific consumer or a small group of users, they receive public funds to be at the service of the society at large and to contribute in their domain to the citizens' right to information
- the individuals' right to privacy very often conflicts with the society's right to information (in order to know its collective characteristics).

Moreover, within the domain of official statistics, problems, attempts and violations of ethical rules are more often coming from the statistical institutions or their stakeholders.

### Looking forward?

16. One question is often raised do international organisations or scientific NGOs get legitimacy for taking measures in case of malpractices or infringement of the fundamental principles or any other international ethical standards. After all, governments are sovereign and if some government is comfortable with trashy information, who is in a position to tell it otherwise? Unfortunately, however, in our globalised world, the statistical malpractices of one country may throw doubt upon the integrity and competence of all others. It is not possible for instance to respect the rules of the WTO without a reliable statistical information on the partner countries. Moreover, when countries are member of economic or monetary unions, it is necessary to organise some kind of "multilateral surveillance".

17 International organisations may put some actions on their agenda:

<sup>&</sup>lt;sup>11</sup> The twelve ISI ethical principles are pursuing integrity; clarifying obligations and rules, assessing alternative impartially, conflicting interests, avoiding preempted outcomes, guarding priviledged information, exhibiting professional competence; maintaining confidence in statistics, exposing and reviewing methods and findings, communicating ethical principles, bearing responsibility for the integrity of the discipline and, protecting the interests of subjects

- some methodological issues should be deepened. is statistical information a "public good" and what does it mean? what ethical rules should be used for data not primarily collected for statistical purposes? compulsory responses? . .;
- it seems desirable to conduct periodic reviews of the ten principles through questionnaires sent to member countries reports and peer review<sup>12</sup>, moreover some mechanisms might be defined in case of violations of the principles;
- pursuing and developing training on ethical issues [17], organising an advocacy programme, in particular in developing countries in liaison with PARIS21<sup>13</sup>, helping member countries to pass legislations or regulations making binding the respect of the principles;
- the "Country Practices Database" established in 2000 by the UN Statistical Division has registered only good practices but there is nowhere any recording of "bad practices", problems arising all around the world and possible solutions for restoring public confidence in official statistics after attacks, whatever might be the origin of the attacks; of course, it is not easy for the UN or any other intergovernmental institution even not possible to take direct responsibility for such a data base, but the international community of statisticians may certainly organise itself through its network composed by ISI and national statistics societies to build this database

18. In addition to these institutional responses, official statisticians have today many tools they may develop by themselves to support their professional independence and therefore contribute to the integrity of statistics

They may create – or be active in - professional national statistical societies (grouping official and academic statisticians as well as statisticians working in industry). The role of the Royal Statistical Society in the debate in the UK after the decisions of the Prime Minister in 1981 was fundamental in the change of mind of the British government some years after the unfortunate decisions taken by the Prime Minister in 1981. In several countries, the national statistical society is considered by the political authorities as the representative of the civil society as a whole 14.

Moreover, the international network of national statistical societies and the ISI may be helpful, not only for exchange of information between statisticians (in addition to information exchanged through intergovernmental organisations), but also to organise events or create a "club of friends" when necessary to support colleagues when they have to deal with a difficult situation.

In case of intrusion of political authorities in the methodological choices of statisticians in a country, the presidents of the ISI and NSOs may support the statisticians of these countries, such supports were recently provided for countries where mappropriate decisions were taken by governments.

Statisticians in most countries have now established strong links with users and the media, who are generally good allies

Several statisticians have also understood the importance of having a dialogue with political decision-makers, without compromising official statistics; it is always useful for official statisticians to understand the needs of politicians who are one of the main constituencies of

<sup>&</sup>lt;sup>12</sup> Eurostat proposed a questionnaire in order to help NSOs (including partner countries) to make an auto-evaluation of their countries with regards to the respect of the Code of Practices, peer reviews are organised in the member countries of the Union

<sup>&</sup>lt;sup>13</sup> The ISI and NSOs may be associated to this action.

<sup>&</sup>lt;sup>14</sup> In some countries, the President of the National Statistical Society is a member ex-officio of the national statistical council

statistics users and for politicians to understand the constraints the official statisticians face in fulfilling their mission.

19. Progress can certainly be made through increasing the links between national statistical societies and official statistical bureaus at the national level, and between the international organizations and the ISI at the international level to address these matters.

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