

Official statistics principles compared

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In 2011, the European Statistical System Committee – a committee of the European Commission (EC) – adopted the European Statistics *Code of Practice* (<http://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-32-11-955>) becoming the first of three major organizations to issue new policy guidance in as many years for national statistical agencies. The United Nations approved its *Fundamental Principles of Official Statistics* (<http://unstats.un.org/unsd/dnss/gp/fundprinciples.aspx>) in 2013 and the United States White House Office of Management and Budget Office became the third in November 2014 with its issuing of *Fundamental Responsibilities of Federal Statistical Agencies and Recognized Statistical Units*. (<http://www.gpo.gov/fdsys/pkg/FR-2014-12-02/pdf/2014-28326.pdf>). These three actions collectively affirm the importance of official statistical data to the governance, economy, and democracy of countries around the world. They also affirm the responsibilities of the dedicated statisticians, economists, demographers, sociologists and other professionals working to produce official statistics.

Each of the three documents represents an updating of previous guidance. The 2011 European Statistics Code of Practice is a revision of the original 2005 document. The U.N. first adopted its *Fundamental Principles of Official Statistics* in 1994 but revised and updated the preamble for the 2013 release. The U.S. document – also referred to as Statistical Policy Directive Number 1 – combines previous guidance with new guidance into a unified policy statement, while also expanding its application to three agencies beyond the thirteen primary U.S. federal agencies. The documentation accompanying the U.S. directive's issuance cites both the UN Fundamental Principles of Official Statistics and European Statistics Code of Prac-

Table 1
Ten (10) UN Fundamental Principles of Official Statistics

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1. Official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis
 2. Strict professional considerations for methods and procedures on the methods and procedures ... for the collection, processing, storage and presentation of statistical data
 3. Present information according to scientific standards
 4. Entitled to comment on erroneous interpretation and misuse of statistics
 5. Data for statistical purposes may be drawn from all types of sources
 6. Individual data ... are to be strictly confidential and used exclusively for statistical purposes
 7. Laws, regulations and measures under which the statistical systems operate are to be made public
 8. Coordination among statistical agencies within countries is essential
 9. Use of international concepts, classifications and methods promotes the consistency and efficiency
 10. Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.
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tice as informing their four responsibilities. It also cites and follows closely the fifth edition of *Principles and Practices for a Federal Statistical Agency* (http://www.nap.edu/openbook.php?record_id=18318) from the U.S. National Academy of Science.

Paraphrased summaries of the ten UN principles, the 15 EC principles, and the four U.S. responsibilities appear in Tables 1–3, respectively. The verbatim versions and accompanying documentation are readily available online.

As one would expect, the three documents have significant overlap. In almost all cases, the EC principles tend to go into more detail on any principle, owing to the document having 15 principles with several practices under each. The UN principles and U.S. responsibilities are more succinct. In the U.S. directive's intro-

Table 2
Fifteen (15) European Statistics Code of Principles

1. Professional independence
2. Mandate for data collection
3. Adequacy of resources
4. Commitment to quality
5. Statistical confidentiality
6. Impartiality and Objectivity
7. Sound Methodology
8. Appropriate Statistical Procedures
9. Non-excessive Burden on Respondents
10. Cost Effectiveness
11. Relevance
12. Accuracy and Reliability
13. Timeliness and Punctuality
14. Coherence and Comparability
15. Accessibility and Clarity

Table 3
Four (4) U.S. Statistical Responsibilities Directive Number 1

1. Produce and disseminate relevant and timely information
2. Conduct credible and accurate statistical activities
3. Conduct objective statistical activities
4. Protect the trust of the information providers by ensuring confidentiality

duction, it explicitly states its responsibilities are consistent with the UN and EC principles.

The three documents all have eight common components, as shown in Table 4. Each document emphasizes the importance of confidentiality, impartiality/objectiveness/independence, and sound methodology/appropriate procedures. They also all note data may come from a variety of sources and all cover the basic tenet of the role (or mandate) of government to collect and disseminate statistical information. Finally, they all include comments on transparency, timeliness and punctuality, and efficiency or cost effectiveness.

The UN and EC documents have five components not mentioned in the U.S. responsibilities. They both include the notion of the right/responsibility of an agency to comment on the erroneous interpretation or misuse of statistics. They also emphasize the clear and high quality presentation of information (which is done by a separate U.S. document, the 2003 OMB *Government-wide Information Quality Guidelines*) as well as non-excessive burden on respondents (with the EC document having six practices on the latter category.) Both documents also encourage the use of unifying common international concepts, classifications and methods and multilateral cooperation. (The U.S. document doesn't mention the use of international guidance in the responsibilities but notes in the background that international practice has informed the federal government's legislative and executive actions regarding federal statistics.)

Table 4
Overlapping components among all three principles

	UN Principle	EC Principle	U.S. OMB Responsibility
Impartiality/objectiveness/independence	Preamble, 1	1, 6	3
Mandate for data collection/dissemination	1	2,15	1
Data drawn from variety of sources	5	14	1
Confidentiality and use for statistical purposes	6	5	4
Sound methodology/appropriate procedures	2	7,8	2
Transparency	Preamble, 7	6	2, 3
Timeliness and Punctuality	5	13	1, 3
Efficiency/Cost Effectiveness	5	10	1, 2
Comment on erroneous interpretation/misuse of statistics	4	1	
Clear, high quality presentation of information	3	15	
Non-excessive Burden on Respondents [†]	5	9	
Use of international concepts, classifications and methods	9	7	
Multilateral cooperation	10	Preamble	
Intra-country statistical agency coordination	8		1
Commitment to quality		4	2
In-house expertise*		7	1
Relevance/input from data users [†]		11	1
Accuracy/reliability [†]		12	2
Innovate/Improve		4, 7, 10, 12	1,2

*This component is presented in the context of independence in the U.S. document and in the context of sound methodology for the EC principles. [†]The EC principles emphasize this much more.

Table 5
Non-overlapping principles

EC	3. Adequacy of resources 14. Coherence and Comparability Administrative Data
UN	Citizens entitlement to public information (part of Principle 1)

The EC and U.S. documents have five common components. They both have guidance on the commitment to quality in the process of producing statisti-

cal information. They also include as a principle the relevance of the data as informed by feedback from the data user community. The two documents also emphasize accuracy and reliability and a striving to constantly innovate and improve processes. Lastly, both documents emphasize the importance of in-house expertise.

The UN and U.S. documents both encourage intra-country statistical agency coordination.

In some cases, common components are mentioned in different contexts. For example, for in-house expertise, it is mentioned in the independence responsibility of the U.S. document and in the sound methodology principle of the EC document. However, as noted in the U.S. document accompanying material, the responsibilities of maintaining and enhancing the envisioned quality of official statistics are mutually reinforcing.

There are only a few elements mentioned in just one of the documents. (See Table 5.) The EC Code of Practice has principles on the adequacy of resources and the coherence and comparability of statistical data. It also encourages data sharing and generally has much more guidance for the use of administrative data. The U.N. document on the other hand is the only one to note the citizens' entitlement to public information (as part of Principle 1).

Collectively, these documents are a testament to the commitment and high standards of national statistical agencies in their missions to produce high-quality statistical information. They also reinforce the appreciation and understanding for the importance of

statistical information by the UN, the EC and the U.S. However, as statistical agencies around the world deal with challenges relating to budgets, survey response, privacy, and big data, it is imperative to inform policymakers and the public about these standards and commitment, as well as the vital role of statistics to governance, the economy, and democracy. These qualities and the importance of official statistics are in part why Roderick Little referred to statisticians as guardians of democracy (http://www.sph.umich.edu/news_events/findings/fall12/policy/census.htm). This source like the others are all cited and Internet available (http://www.sph.umich.edu/news_events/findings/fall12/policy/census.htm).

References

- [1] European Statistics Code of Practice – revised edition 2011, DOI: 10.2785/18474.
- [2] R. Little, Statisticians: Guardians of Democracy, *Findings* 28 (2012), 35–39.
- [3] National Research Council. *Principles and Practices for a Federal Statistical Agency: Fifth Edition*. Edited by C. F. Citro and M. L. Straf. Washington, DC: The National Academies Press, 2013.
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- [5] United States Office of Management and Budget, 2014. *Statistical Policy Directive No. 1: Fundamental Responsibilities of Federal Statistical Agencies and Recognized Statistical Units*. Washington, DC., Available at <http://www.gpo.gov/fdsys/pkg/FR-2014-12-02/pdf/2014-28326.pdf>.