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Items 4 (a) and 8 of the provisional agenda

Coordination of international statistical work

in the United Nations Economic Commission for Europe region:

Outcomes of the recent in-depth reviews carried out

by the Bureau of the Conference of European Statisticians

Data ethics – a key enabler of social acceptability

In-depth review of data ethics

Addendum

Outcome of the electronic consultation on in-depth review of data ethics

Prepared by the Secretariat

Summary

This document presents the outcome of the in-depth review of data ethics that the Bureau of the Conference of European Statisticians carried out in October 2022, and summarises the feedback from the electronic consultation on the review among members of the Conference of European Statisticians in April–May 2023.

The in-depth review paper (ECE/CES/2023/5) was prepared by a group of experts from Canada and the United Kingdom with contribution by Eurostat. The paper provides the definition of data ethics, summarises the state of practice and development of data ethics in a number of countries and statistical professional organisations, explores the related issues and challenges, and presents conclusions and recommendations.

The Conference will be invited to endorse the outcome of the in-depth review on data ethics and discuss what further activities under CES are needed in this area.



I. Introduction

1. Each year, the Bureau of the Conference of European Statisticians (CES) reviews selected statistical areas in depth. The purpose of the reviews is to improve coordination of statistical activities in the region of the United Nations Economic Commission for Europe (UNECE), identify gaps or duplication of work, and address emerging issues. These reviews focus on strategic issues and highlight concerns of statistical offices of both a conceptual and coordinating nature.
2. The Bureau carried out an in-depth review in October 2022 based on a paper by Canada, United Kingdom and with contribution from Eurostat (provided as document ECE/CES/2023/5).
3. The UNECE Secretariat conducted an electronic consultation in April–May 2023 to inform all CES members about the in-depth review on data ethics and provide an opportunity to comment on its outcomes.
4. The following 9 countries replied to the electronic consultation: Ecuador, France, Mexico, Malta, Netherlands, Russian Federation, Türkiye, the United Kingdom and the United States.

II. Outcome of the Conference of European Statisticians Bureau discussion in October 2022

5. The Bureau conducted an in-depth review of data ethics in October 2022.
6. The Bureau considered the paper very timely and relevant. NSOs engage in new activities and operate in a new context – the privacy legislation is getting sharper, public acceptability cannot be taken for granted, partnership with data owners is needed, and any misstep may have serious consequences for the whole community.
7. The Bureau noted that the concept of data ethics needs to be explained and communicated both in the international statistical community and within the NSO – what it is, why it is important now and how it links to the existing frameworks: the Fundamental Principles of Official Statistics, core values, the EU code of practice, the OECD-CSSP recommendations, statistical legislation, and to other concepts discussed.
8. Data ethics practices aim to assure the public that their data is safe, used appropriately and for the public good. Ethics should be seen as a system that includes public engagement and transparency of actions. When communicating with the public, referring to concrete use cases should be more effective than to data in general. We should also be clear that we are not discussing ethics because of bad practices, but rather because of the new context.
9. On the practical side, data ethics decisions are becoming part of the daily business along the entire data life cycle. Sharing of experience and practical advice is needed, including examples of unethical behaviours that can be observed with some private sector providers. Data ethics decisions cannot be based on any algorithm as the cases are never black and white, and the context constantly changes. It seems, therefore, preferable to have a small number of high-level principles, a mechanism to follow the developments and an independent and diverse group of people who can discuss based on the agreed framework. However, only a few countries have already established such practices, so we still need to monitor their impact.
10. The statistical community needs to participate in the broader discussion on data ethics. For people outside statistics, it is intuitive to talk about data ethics, but they do not see statistics as part of the picture. A discussion is needed on how the statistical aspects can be placed in the broader conversation.
11. The Bureau agreed with the recommendations proposed in the paper by Canada, the United Kingdom and Eurostat. The CES Bureau supported further work in this area and agreed with the recommendations presented in the in-depth review paper, including the

organization of a CES seminar on data ethics. The Bureau will consider the outcome of the June 2023 CES plenary session and the need for follow-up work at its October 2023 meeting.

III. General comments received in the electronic consultation

12. Countries expressed support for the in-depth review and appreciated the quality of the paper. Data ethics is recognized as a global debate topic that transcends national boundaries and requires international cooperation and collaboration (**Ecuador, France, Netherlands, Türkiye, the United States**). It was also suggested widening the study cases to other world regions. (**Ecuador**).

13. Countries highlighted the importance of establishing a succinct and generally accepted definition of data ethics (**Mexico, Poland**). It has been noted that data ethics is not a new concept but has gained more attention in recent years. Countries endorse the concept of data ethics and highlight its relevance throughout the data lifecycle, particularly with the increasing use of non-traditional data sources and artificial intelligence. Moreover, countries emphasize the importance of ensuring that data ethics practices serve the public good and uphold scientific integrity while protecting respondent confidentiality and ensuring data are free from undue influence (**Mexico, Russian Federation, the United States**).

14. It was noted that it would be useful to include in the paper concrete examples of changes made by specifically created entities in Canada and the United Kingdom, as not many NSOs have developed organisation and practices to deal with data ethics in a systematic way (**France**). Countries also suggest putting more emphasis on the explanation of meaning of data ethics and its connection to various fields, such as: business, AI, privacy, FPOS and core values (**Poland**). It was also suggested to elaborate more on the institutionalization of data ethics, identifying potential situation and problem areas and taking into account the organizational culture and management practices. Establishing a bridge between theoretical research and practice by developing ethical business behaviour strategies was also proposed (**Türkiye**).

15. Countries also highlighted that data ethics is closely related to the principles of data quality assurance, including statistical confidentiality, impartiality, objectivity, and sound methodology. However, there is a need to address trade-offs with principles of relevance and accessibility (**France**). It was also noted that society's views on privacy and data usage are constantly evolving, often responding to conjunctural situations such as health crises. Data ethics frameworks should consider these changing perspectives (**Mexico**). Data ethics should also take into account sensitive issues like victimization and how to obtain data to solve the problem at the same time maintaining respondents' privacy and mental health (**Russian Federation**).

16. Countries expressed interest in collaboration and knowledge-sharing regarding data ethics. Importance of exchanging experiences, establishing dialogue, and involving various actors, including experts, educators, researchers and civil society representatives was emphasized (**Mexico, Netherlands, Türkiye**). Countries also highlighted need to address the issue of continued professional education on data ethics (**France**). NSOs should address ethical considerations related to the collection, linking and processing of data from diverse sources, including microdata linkage. The increasing use of non-traditional data sources and artificial intelligence raise new ethical questions and require consideration how the concept of treating data ethically will also need to expand and flex (**Mexico, the United States**).

17. Countries (**France, Mexico, and Poland**) emphasised that they would like to see the UNECE work on this topic continue in several possible directions:

- (a) Identifying a set of basic principles defining the structure for action and the scope covered;
- (b) A collective reflection on consultation with other actors in the data ethics space – which profiles or expertise should be involved and which concrete procedures should be put in place;

(c) Providing specific examples of the ethical dilemmas that NSOs may face, especially related to using non-traditional data sources and expanding methods and toolkits to data science, and how they can address them;

(d) Discussing possible solutions to the challenges that exist in data privacy legislation, due to the emerging technologies and new use of data;

(e) Developing concrete recommendations/guidelines in approaching and embedding data ethics conceptually, production-wise and organisationally in NSOs.

18. It has been also emphasized that the topic should be clearly delimited within work strands of the existing UNECE bodies as it is extensive and touches upon many aspects of the ongoing work (**Poland**). **Netherlands and Poland** expressed their interest to be involved and are willing to contribute to the future work. Netherlands also shared examples of their approach to data ethics.

19. Detailed substantive comments are provided in the Annex. The comments will be taken into account in the CES discussion and in further work in this area.

Annex

Detailed substantive comments received from electronic consultation

<i>Country / Organization</i>	<i>Comments</i>
Ecuador	Data ethics is a global debate topic; thus we suggest widening the study cases to other countries belonging to other world regions. Nowadays, countries move forward in the definition of laws to protect their citizen's data, but these regulations, sometimes, hinder the access to data for statistical purposes; for this reason, national statistical offices have to look for answers suitable to their own realities. It should be noted, for instance, that in Ecuador the National Directorate of Public Records, in accordance with the Organic Law of Personal Data Protection, has made a regulation with the participation of the social society, international organizations, this regulation is aimed to guarantee the right to personal data protection established in the Constitution of the Republic. Basically, ensures that public and private entities use citizen data correctly, so that the exchange of information is safe, transparent, and timely.
France	<p>This report is very rich and interesting because of the different national and international experiences it reflects. The examples described are numerous. Each one is part of the particular history of our national statistical institutes, all of them correspond to issues and objectives that are clearly shared. We are moving forward collectively on the basis of national initiatives, sharing lessons learned.</p> <p>This report also shows how, with the development of artificial intelligence and all the new technical possibilities, the use of data raises new questions in society that should lead us to continually broaden the questions about our statistical work.</p> <p>So far, few NSOs have developed organisations and practices to deal with data ethics in a systematic way internally, and even less so with their partners. In this respect, it might have been useful to cite in this paper concrete examples of changes made by the specifically created entities in Canada and the UK (perhaps in the form of footnote links). For instance, an example of a sensitive case would have been interesting on page 6 paragraph 27; or the documents on vulnerable segments of the population in paragraph 28; or page 10 in paragraph 53 on the metrics used in the UK to measure the impact of the framework put in place.</p>

Comments on further work

France supports the objective of developing an organisation to deal with the concerns of data ethics, which allows it to integrate its own dialogue mechanisms that have been built up over the course of history and which currently contribute to the confidence established in public statistics. We would therefore like to see the work carried out within the UNECE statistical framework continue in several directions.

First, work could identify a set of basic principles, which would be structuring for action and ambitious in the areas covered. This would allow it to be integrated as a reference for the practices of NSOs. For example, we have in mind tools such as Canada's Necessity and Proportionality Framework. These basic principles should be enriched by exchanges on national achievements, which would allow for regular validation of their quality. Recommendation 87 should enable progress to be made in this direction.

<i>Country / Organization</i>	<i>Comments</i>
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France would also be very interested in a collective reflection on consultation with other actors in the data ethics space: which profiles of expertise should be involved, which concrete procedures should be put in place? With reference to recommendation 91, we believe that exchanges are necessary with actors that go beyond the representatives of data users and professional organisations of statisticians that are listed in the document. In France, we have opened an in-depth dialogue on data matching with actors in society who are concerned about data protection and civil liberties, benefiting from various profiles (legal, information technology, philosophical, human rights). Bringing together profiles of expertise that are complementary to those usually solicited in consultations on statistical work has helped us to make progress in our trade-offs on the “necessity and proportionality of the work”. This broadening of the consultation to include new profiles corresponds to the expansion of the role of data in our societies and the development of associated expertise. Thus, we are enriching what is already provided by the National Council for Statistical Information¹, which brings together many representatives of civil society (elected representatives, employee and professional union representatives, researchers, associations representing consumers or vulnerable populations, rights defenders, data protection authorities, etc.).

Finally, we believe that professional continuing education on data ethics is an issue which should be addressed together, in order to develop a reflex to question the objectives of the work, its legitimacy, its contribution to society and its acceptability for all statisticians responsible for designing operations. We could also share our knowledge on the initial teaching of ethics to students in data science and engineering courses, in order to better position the continuing education for which our institutes are responsible.

Mexico

This proposal considers both the conceptual and practical sides of data ethics, without establishing a generally accepted definition of what is meant by data ethics. Consequently, the need to generate reflection and dialogue around what is meant by data ethics is a priority.

Data ethics frameworks should take into account that in the data collection phase, rules are regularly established about which types of information or data sources are sensitive.

In addition to data ethics considerations for Big Data processing through Artificial Intelligence, it is important for this initiative to consider the issue of data ethics in linking microdata from different data sources.

The paper repeatedly mentions that data ethics depends on national legislative and cultural contexts. However, society's views on privacy and the use of data are also constantly evolving and responding to conjunctural situations, such as health crises.

The document mentions that data ethics is closely related to the principles of data quality assurance, particularly, statistical confidentiality, impartiality, objectivity, and sound methodology. However, it is also important to address the relationships and trade-offs that exist with the principles of relevance and accessibility, for example, in terms of the growing demand for more disaggregated information and access to microdata.

While the text acknowledges the importance of data ethics in the use of non-traditional data sources and expanding methods and toolkits to data science, it

¹ National Council for Statistical Information (CNIS) : In France, the CNIS' main mission is to ensure consultation between producers and users of official statistics.

<i>Country / Organization</i>	<i>Comments</i>
	<p>does not provide specific examples of what these ethical considerations may entail. It would be helpful to provide concrete examples of ethical dilemmas that NSOs may face and how they can address them.</p> <p>It would be useful to discuss possible solutions to the challenges that exist in data privacy legislation due to the complexity of its application to emerging technologies and new uses of data, such as creating more flexible regulations.</p>
Malta	Malta is in agreement with this document, particularly due to its relevance in the context of use and reuse of register data and PHD.
Netherlands	<p>We'd like to start with a compliment to the authors. The paper on data ethics is a very clear and well written document, thanks!</p> <p>Statistics Netherlands is also actively involved in data ethics. Ethically responsible handling of data requests is even one of the 12 strategic goals in our multi-year program.</p> <p>Statistics Netherlands considers data ethics as part of the legal, methodological and ethical checks on requests for statistical research. It has an ethics committee consisting of several disciplines: colleagues responsible for policy, legal and methodological aspects and social and business statistics. They provide advice on ethical aspects of a data request. We work demand-driven: on request of project leaders/management. In this way we handle approximately 10 cases per year.</p> <p>To reflect on our ethical work, we organize a reflection session with professors of ethics once a year. During these sessions we reflect on both our ethical framework and the case studies. We also regularly exchange experiences with ethics committees of other government institutions such as the Social-Cultural Planning Agency.</p> <p>Statistics Netherlands would like to remain closely involved in this subject.</p>
Poland	<p>Statistics Poland's view on the notions of data ethics and social acceptability is very much in line with the spirit of the October 2022 CES Bureau Discussion.</p> <p>Indeed, two concepts are not new but seem to be ample and confusing in the sense that they are often used in alternance without a clear explanation of what they are and what are the relations (cause-effect? Other?) and interlinkages between them.</p> <p>Bearing in mind the purpose of the topic brought into debate at the CES, we believe that perhaps more emphasis should be put into explaining succinctly what is meant by data ethics from the outset and what are interlinkages of data ethics with all subsequently enumerated fields and topics: business, AI, privacy, FPOS, core values etc. Without this the fuzziness of the concept persists instead of getting decreased².</p> <p>However, Statistics Poland would like to stress the importance of this topic and to congratulate the authors of the paper, mainly because of the thoroughness of the case-study part. Cases indeed show the complexity of</p>

² E.g. Para 2 introduces data ethics, para 3 jumps into social acceptance. There is one sentence that establishes the connection (To earn the trust and social acceptance of society, data ethics has an important role in guiding NSOs in the realm of what can be done versus what should be done.) but in our opinion it is rather general and enigmatic (indeed already section III in para 13 states that "Common issues in data ethics include de- and re-identification, trust and transparency, responsibility, consent, and the secondary use of data. It is argued that data itself are not an ethical concern, but concern comes from how data are used, particularly as ongoing technological advancement means the future uses of data are unknown (Hand 2018).")

Country / Organization	Comments
	<p>the phenomenon, as they approach data ethics from different angles: from the organisational one, through conceptual one, ending with content-related aspects. We find this part enriching and worth expanding into concrete recommendations/ guidelines in approaching and embedding data ethics (conceptually, production-wise, and organisationally) in national statistical institutes.</p> <p>We welcome the continuation of the debate on data ethics among UNECE countries and organisations. In fact we support a clear delimitation of the topic within work strands of the existing UNECE bodies (working groups/ task teams) – as the topic is extensive and touches upon many aspects of the ongoing work. Therefore, taking into account the complexity of the topic, we reiterate the need for a clear definition, clear guidance and clear work planning to which we would gladly contribute.</p>
Russian Federation	<p>The importance of data ethics at all stages of collecting information is absolutely undeniable.</p> <p>Data confidentiality and use of scientific methods are cornerstones of all statistical offices work. Now the necessity of a fully transparent approach to dealing with administrative and alternative data is becoming clear to gain public support.</p> <p>It is worth noting the problem of privacy in collecting of socially important information associated with some sensitive issues such as victimization. In such cases it is necessary to deal with dilemma between obtaining data to solve the problem and maintaining the respondent's privacy and mental health.</p>
Türkiye	<p>Although data ethics is influenced by the culture of the region or country, today it has gained a universal character as a result of globalization.</p> <p>Contribution/Suggestion:</p> <ul style="list-style-type: none"> • It can be useful to elaborate on the activities and objectives regarding the institutionalization of data ethics. • It may be beneficial to maintain and develop cooperation between educators, academics/researchers and experts in this field. • It is useful in your report to identify potential situations/problems/areas in terms of data ethics in Institutions. • While guides, seminars, managerial meetings, ethical management decisions are the visible parts of the subject, the other invisible parts of the subject are organizational culture and management practices. Successful implementation of effective transparency mechanisms and favourable working conditions have positive effects on public administration. • It can be beneficial to establish a bridge between theoretical research and practice through the development of ethical business behaviour strategies. <p>It will be possible to enrich the cooperation in cross-functional and intercultural projects (through TurkStat's online and face-to-face participation) in the meetings. Besides, specified for the sharing of experiences and ideas, and creating an environment of dialogue and cooperation in economic, social, and environmental dimensions that affect the Institutions at a national and international level are the most important topics.</p>

<i>Country / Organization</i>	<i>Comments</i>
USA	<p>The United States commends Canada, the United Kingdom, and Eurostat for the robust in-depth review of data ethics. Our only concern is how the report frames “data ethics” as a new and emerging issue that needs further exploration. The U.S. suggests revising statements describing data ethics as “new” to state, “data ethics has gained more attention in recent years...”, as data ethics has been present in the literature for many years (for example, see “Normal and Normative Ethics in Behavioral Sciences” Reese & Fremouw 1984).</p> <p>With that said, the U.S. endorses the concepts expounded in the report, particularly regarding the ways in which ethics applies to all aspects of data throughout its lifecycle and the importance of ensuring the public good is always clearly demonstrated. The U.S. also recognizes and supports the need to consider how the concept of treating data ethically will need to expand and flex, particularly as use of non-traditional data sources expands. Data ethics concepts – ensuring data are free from undue influence, protecting respondent confidentiality, and scientific integrity – are key components of current U.S. policy (Statistical Policy Directives, Evidence Act, and the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) (for policy documentation see https://www.statspolicy.gov/policies/)). Lastly, the U.S. particularly supports the need to consider data ethics as the uses and applications of artificial intelligence continue to grow at an exponential pace.</p>
