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TASK FORCE TO TEST AND FURTHER DEVELOP THE FRAMEWORK FOR MEASURING THE VALUE OF OFFICIAL STATISTICS: REVIEW OF PROGRESS AND THE WAY FORWARD

Prepared by the Task Force

The note summarizes the work done and current challenges for the Task Force on testing and further developing the framework for measuring the value of official statistics. The Covid-19 pandemic has impacted the work of the Task Force in two ways: introducing some delay due to extra demands being placed on Task Force members and the cancellation of a planned brainstorming sprint; and the changing perception of the value of official statistics, which needs to be reflected in the Task Force's work and final report. ***The Bureau (i) considered the ways that the Covid-19 pandemic has affected the concept of value and the approaches to its assessment in NSOs; (ii) extended the mandate of the Task Force by one year, until June 2022.***

I. SUMMARY

1. The events of 2020 have led to significant changes in the ways in which data and statistics are used by a wide range of stakeholders, from governments to the general public. These changes in usage have entailed, in turn, changes in how valuable official statistics are to the users, as well as in the dimensions of such value and the balance between these dimensions. For example, timeliness may carry greater value than accuracy for informing pandemic responses. This changing nature of what is understood by value, in combination with the added pressures on members of the Task Force due to altered work environments, has led to a need for additional time for the Task Force to fulfil its mandate. This review looks at what has been achieved so far, how the Task Force will adapt its work in light of the pandemic, and how it will use the additional time requested.

II. INTRODUCTION

2. The value of something is what it is worth – how important or useful it is considered to be, how much it is appreciated, how much people would miss it if it were not there. In monetary or material terms, value is how much someone is or would be willing to pay for something, or what they would give in return for it. So what is the value of official statistics? They do not come for free—gathering and processing data and publishing statistics costs time, money and effort. How do we assess their value? How do we know if the resulting statistics are worth it?

3. The opening chapter of the 2018 UNECE *Recommendations for Promoting, Measuring and Communicating the Value of Official Statistics*[1] recognizes that value is dynamic, rather than an intrinsic and static feature. Hence "value often depends on changing circumstances and needs", and "has to be assessed and re-built continuously". Never before has this truth been so apparent for official statistics. In 2020 we have seen circumstances change at a rate and in ways that no-one could have foreseen, and with these changes have come unprecedented shifts in the value of official statistics.

4. The idea of gauging the value of official statistics in terms of their "fitness for use" remains unchanged. But the uses to which statistics are now being put and the demands being made of the offices producing them are in many ways very different from what they were before the onset of the global coronavirus pandemic. The relative importance placed on the various aspects of quality – accuracy, timeliness, clarity, comparability, for example – has for many kinds of statistics been transformed. Accuracy, often the 'gold standard' for official statistics, has in many instances taken a back seat to timeliness when policymakers, scientists and the public have needed information urgently to inform their rapid-response decisions related to the progress or impacts of the pandemic.

5. With this shifting balance in the dimensions of quality, along with a sudden and massive proliferation in uses of statistics and greatly increased public awareness of statistical offices, the ongoing Conference of European Statisticians (CES) Task Force to Test and Develop the Framework for Measuring the Value of Official Statistics – hereafter, for brevity, the Task Force on Measuring Value – has prepared this report to showcase the progress of its work and to demonstrate how it has adapted its outlook to respond to and capitalize on these changes. Discussions among the Task Force have reiterated one of the conclusions of the 2018 *Recommendations*: that by continuously producing measures of the value of their products, national statistical offices (NSOs) are better positioned to demonstrate and communicate that value at short notice should the need arise, such as when a crisis strikes.

III. BACKGROUND

6. Producers of official statistics know that their products, underpinned by the Fundamental Principles of Official Statistics, are uniquely valuable and essential for evidence-based decision-making, for political accountability and for democracy. But simply stating this is not enough: it must be demonstrated. There is a need to look at the wider benefits and impact of official statistics both in the short and long term. Furthermore, given the unique position of National Statistical Offices (NSOs) in the field of quantification, there is an expectation that they should be able to justify *in quantitative terms* the investments made in them. Only by proving that their work represents good value for money can NSOs defend their position in a world awash with data.

7. The Task Force on Measuring Value of Official Statistics was created to respond to this imperative, following directly from the need for further work in this area identified by the preceding Task Force on Valuing Official Statistics, whose work culminated in the *Recommendations for Promoting, Measuring and Communicating the Value of Official Statistics*, endorsed by the CES in 2017.

8. The *Recommendations* proposed a three-pronged framework for measuring the value of official statistics, comprising: **observable or objective indicators** (reflecting actual use of

[1] Available from http://www.unece.org/fileadmin/DAM/stats/publications/2018/ECECESSTAT20182.pdf

statistical products, and/or demonstrating adherence to the Fundamental Principles of Official Statistics); **subjective indicators** (covering perception, trust, support, satisfaction etc.); and **monetary valuations** (quantifying the impact of statistics in monetary terms and/or weighing the value of outputs against the cost of inputs). The Task Force to test and further develop the framework for measuring the value of official statistics, established in June 2019, aims to test the feasibility of this framework and refine it, developing more detailed practical guidance for countries to apply it.

IV. PROGRESS OF WORK

A. Activities undertaken

9. The United Kingdom (ONS) chairs the Task Force. A core group of Task Force members comprises twelve countries (Armenia, Australia, Canada, Hungary, Ireland, Israel, Mexico, the Netherlands, New Zealand, Poland, United Kingdom and United States) that have met regularly online since the imposition of Covid-related restrictions. Other countries and organizations represented on the wider Task Force include Belgium, Cape Verde, Czechia, Denmark, Lithuania, Mauritius, Namibia, Romania, Slovenia, the United States Bureau of Economic Analysis, and the Gulf Cooperation Council.

10. Against the backdrop of unprecedented changes in the role and visibility of national official statistics producers, the activities undertaken by the group have had to adapt and evolve during 2020.

11. The first task of the group was to gather information on measures of value already being trialled or produced. In an **initial scoping exercise,** participating countries were asked to provide information about how they apply or plan to apply the three component areas of the value measurement framework. Twelve countries[2] provided information. The results revealed some important initial findings. Only three countries were working on monetary valuation, while four had no plans to engage in this area. In contrast, all the responding countries currently produce or plan to produce objective and subjective indicators.

12. On 24-25 September 2019 the Task Force met in London for a **kick-off event** to foster a common understanding and raise the profile of the work. The event was hosted by the United Kingdom Office for National Statistics (ONS). It combined insights from a range of countries and organizations on the importance of and methods for measuring value, with workshop-style discussions to agree on the overall structure and format of the Task Force's final report. **A key theme identified during the event was the need to both *prove* and *improve* value.**

13. The group concluded that the final product must be a multi-layered output targeting a hierarchy of levels from strategic management to the technical experts involved in producing value indicators. The final Task Force report will be in an interactive, electronic format rather than as a printed publication.

14. The event showcased several ongoing efforts to produce indicators across all three dimensions of value in participating countries. Observations from participants were combined into a promotional video highlighting the importance of the Task Force for UNECE countries.

[2] Armenia, Belgium, Denmark, Hungary, Israel, Lithuania, Mauritius, Mexico, Namibia, the Netherlands, Poland and the United States of America (Bureau of Labor Statistics)

15. The Task Force had **planned to conduct a sprint on 16-17 March 2020**, hosted in Warsaw by Statistics Poland. Unfortunately, it had to be cancelled due to the restrictions imposed by the Covid-19 pandemic. However, the preparations for the sprint were in themselves useful and helped identify leads and group members to work on chapters of the final report.

16. Mitigating against the delays caused by cancellation of the sprint, the Task Force has convened **fortnightly virtual meetings over the course of the last six months**. Participation in meetings and availability for this work has inevitably been affected by the extra demands placed on Task Force members due to Covid-19, especially as many members have a crucial role in public relations and communication in their offices. However, this opportunity for continuous online collaboration has enabled some individuals to participate according to their availability, with some renewing their involvement after a period of absence.

17. The Task Force has developed a common template for **case studies** to share methods, impacts, challenges and solutions, and lessons learned from producing indicators of value. Nineteen case studies have been proposed so far. Some of these include:

- United States Bureau of Labor Statistics (BLS): Informing users of the accuracy and relevance of statistical data during a pandemic.
- Armenia: Showing how far statistical products are perceived as independent, objective, impartial, transparent and free from political influence.
- UK: A Covid-19 outputs impact review, assessing the impact of ONS releases and how the organization approaches the measurement of success.
- Hungary: The Central Statistical Office's (HCSO) internal dashboard uses objective and subjective indicators.
- US (BLS): Using digital object identifiers (DOIs) to track usage.
- Poland: Measuring value through education activities.
- Australia, UK and New Zealand: Cost benefit analysis of censuses.
- Israel: Measuring value through tailor-made statistics.

18. A number of countries have tested and provided **feedback on the generic survey questionnaire** from the 2018 *Recommendations* (e.g., Armenia, Hungary, Ireland, Mauritius, UK).

B. Ongoing review of indicators of value in NSOs

19. The Task Force has used the 2018 framework and built upon it to develop a 'long list' of indicators for measuring the value of official statistics, covering the objective, subjective and monetary dimensions. Twelve countries and organizations have provided information so far[3] on whether their office is currently producing or testing these indicators, and rating the importance of the indicators. This allows identification of some preliminary findings.

20. The **objective measures** that most responding NSOs produce include the number of website visits, most viewed/downloaded statistics, punctuality of statistical releases, accuracy

[3] Armenia, Australia, Hungary, Israel, Mauritius, Mexico, New Zealand, Poland, Slovenia, UK, USA (Bureau of Labor Statistics) and Gulf Cooperation Council.

of statistics, average number of revisions required, downloads of statistical data by domain, and number of social media followers.

21. NSOs were also asked to rate how important and suitable the indicators are for quantifying value. Some observations arising from the review of the objective measures include:

- *'Punctuality of statistical releases'* is a longstanding key performance indicator for many NSOs and is considered an important dimension of statistical quality. For some countries the centrality of this measure is influenced by the need to comply with European quality standards and the European Statistics Code of Practice.
- *'Share of statistics released with metadata'* is an important measure to help improve the understanding and use of statistics. For European Union countries, all statistics released must have metadata according to the European Statistics Code of Practice.
- *'Number of statistics app downloads'* is important to some countries: Poland and Slovenia have games about statistics and monitor app downloads. Mexico also report on apps on mobile devices and visits to apps.

22. An interesting outcome is that for **many measures,** those **that are considered of high importance are not produced**, for various reasons. For example, monitoring social media followers can only be done by those with dedicated social media accounts. Another example is an innovative set of measures proposed by the Task Force, 'interoperability & linkability' (how easy is it to work with, aggregate and join up data sets). This is not yet routinely reported by any responding country, yet it has the highest rating of importance. In the coming months the Task Force will focus on the areas that are considered highly important yet little reported, looking at the factors that impede their production, and developing guidance to help countries produce those measures that could be the most fruitful.

23. The **subjective measures** that most responding NSOs produce include the degree of trust in official statistics, degree of belief in the political independence of the NSO, average satisfaction rating for a specific product, average share of users who found what they were looking for, and key stakeholder surveys to find out about their specific needs.

24. The Task Force has noted that there is an overlap and lack of conceptual clarity between the subjective and objective measures, and plans to review this and make recommendations accordingly.

25. All the measures in the subjective component received a high average 'importance' rating. The measures reported as the most important are:

- Option value (potential value > current value)
- Degree of trust in official statistics
- Degree of understanding of the remit of the NSO
- Average share of users whose information needs were met

26. *'Option value'* is a newly suggested measure looking at the 'potential' versus the 'current' value of a statistical output, trying to predict how such value might change with new technologies or questions presented. In the coming months the Task Force will explore this further.

27. A key observation arising from the review of the subjective measures **is the importance of trust in official statistics as an indication of their value**. Much work is being undertaken in this area, with many NSOs having surveys that incorporate the measurement of trust (e.g. UK Public Confidence in Official Statistics survey; the Australian Bureau of Statistics' (ABS) five-yearly trust survey; Statistics New Zealand is developing a survey on trust; the Hungarian Central Statistics Office plans to start measuring trust biannually (in 2020); Armenia (Armstat) has produced a paper examining the reasons for lack of trust in statistics).

28. '*Degree of belief in the political independence of the NSO'* is considered by many countries to be one of the most important measures in the subjective component.

29. The majority of NSOs are reporting on only a limited number of **monetary measures**, if any. The two measures most likely to be produced are cost-based approaches:

- Total actual costs of producing official statistics
- Cost-benefit ratios.

30. For most NSOs the '*total actual cost of producing official statistics'* is a long-standing measure obtained from annual reporting and budget documents which is relatively easy to obtain. However, it offers only limited insight since cost does not equal value – the economic and societal benefit of the production of official statistics may far exceed the cost of producing an output or service.

31. Cost-benefit ratios are used in spending reviews to secure funding and budgets, and to demonstrate a clear return on investment. They help show the monetary value of the work that NSOs perform. Work in this area has looked at the return on investment in a census. Both the Australian 2016 census and 2011 UK censuses saw a return on investment of 6:1 (meaning that an estimated $6 or £6 of value was generated for every $1 or £1 invested in the census). ABS's evaluation of the Australian census was done externally to obtain credible independent findings. Statistics New Zealand reported a return on investment of 5:1 for their census. They have also looked at specific outcomes for the Māori community, with an eightfold return on investment.

32. The monetary measures reported as the most important were:

- Cost-benefit ratios
- Total actual costs of producing official statistics
- Impact assessments.

33. Having measures to show the monetary value of official statistics is a powerful way to demonstrate their worth. However, attempts to test methods and apply monetary valuations are very challenging, and many NSOs look to others to lead the way. Case studies are being developed with detailed methodologies to help with this. Further work on developing monetary measures is being explored.

34. The ongoing review of measures is serving to highlight what is important across countries, identify commonalities and gaps. The importance ratings given to the different measures will guide the Task Force in developing its final recommendations—asking two sorts of questions. **First, 'why do countries continue to produce value indicators which are perhaps not that useful?' and second, 'why are countries not producing measures of value that they think are very important?'**.

35. It has become increasingly clear that different levels of organizational maturity along the three dimensions (as well as different political, socio-economic and cultural circumstances) will lead to **different needs, expectations and feasibility for the production of measures of value. No single framework of indicators will be suitable for all countries.** On the other hand, the Task Force does not wish to present simply a wish list or 'menu' from which countries can pick any combination of measures. More guidance is required, proposing core and supporting indicators along with their pros and cons in various circumstances, suggestions for combining them, as well as methodological guidance for their production.

36. The feedback from Task Force members on this exercise has shown that it **has helped inform more overall strategic planning for their organizations' goals and outputs**. Being able to compare with other organizations is useful in identifying gaps.

C. Revisiting the concept of value

37. As noted in Section II, many NSOs were already starting to assess the value of their outputs prior to the Covid-19 pandemic, responding to the proliferation of statistical products that have become available in the marketplace. Today, however, we are witnessing how the perception of value changes in line with circumstances and the needs of the user or customer.

38. For example, with the onset of the pandemic, governments have been confronted with very different data needs to support their pandemic response planning. GDP metrics are still required to measure the economic impact, but a highly precise, quarterly product with a six-month time lag is inadequate for the prevailing circumstances. Instead, 'flash GDP'-type products have evolved. These products feature much **higher frequency and timeliness but** have **possibly lower accuracy**.

39. Whilst these products diverge somewhat from the traditional value model of official statistics, they **respond directly to customer needs (and their perception of value) for dynamic decision-making**. Noting that in fact all of these attributes—frequency, timeliness, accuracy, correspondence with user needs, among many others—are **aspects of quality** that together determine the value of the output (the fitness for purpose, where that purpose is user-defined), the Task Force has decided to **dedicate an opening chapter of its final report to examining this changing face of value**. The development of this chapter is led by New Zealand and Australia.

V. REMAINING ACTIVITIES AND PROPOSED TIMETABLE

40. The Task Force proposes the following timetable for its remaining activities:

Oct-Dec 2020	Complete analysis of measures and collection of case studies
Jan 2021	Detailed outline of final report and format of chapter write-ups agreed by task force; all chapter leads and contributors identified
Feb-Mar 2021	Text of high-level chapters drafted (redefining value; objective; subjective; monetary): to include rationale, sub-components, suggested indicators/measures (core and supporting); lessons learned from countries' experiences; conclusions and recommendations

Apr-Jun 2021	Lower-level text drafted (inclusion of relevant case studies; detailed indicator tables with descriptions, sources, concepts, guidance on production, interpretation and use)
Jul-Sep 2021	Final editing of text, preparation of electronic format
Sep 2021	Submit final report containing revised measurement framework & related recommendations to CES Bureau for discussion (for October 2021 meeting)
Nov-Dec 2021	Revise according to input from CES Bureau
Jan-Feb 2022	Electronic consultation among CES countries
Mar-Apr 2022	Revise according to input from member states in consultation; finalize and edit
May 2022	Submit final report for expected endorsement by CES at plenary session (meets in June)

VI. PROPOSAL

41. The Task Force seeks an extension of its mandate in order to complete its work taking into account the new developments, circumstances and challenges outlined in the preceding sections.

42. **The Bureau is invited to**

(a) **consider the ways that the Covid-19 pandemic has affected the concept of value of official statistics and the approaches to its assessment in NSOs;**
(b) **extend the Task Force's mandate by one year, until June 2022.**

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