

# Enjoying cooperation and improvement: Cooperation on quality between Statistics Norway and other producers of official statistics

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## **Abstract**

Statistics Norway (SSB) has collaborated with other producers of official statistics for many years. With the introduction of the new Statistics Act in 2019, cooperation became more concrete. Collaboration takes place through the Committee for Official Statistics, the methodology network, the dissemination network and through the system for quality of official statistics. Recommendations are given on quality-enhancing measures, but SSB has no possibility of sanctioning other manufacturers. Our experience is that all producers are eager to improve the production in all aspects, they are very positive to the coordinating role of SSB and find the cooperation useful. Quality evaluations and reviews are parts in the annual report on the quality of official statistics.

The quality evaluation and reviews are based on the quality requirements in the Statistics Act and the quality principles in the European Statistics Code of Practice (CoP).

The first overall quality evaluation of all official statistics was carried out in 2021 and was followed up with a new corresponding survey and data collection in 2022. In this quality evaluation, a questionnaire-based survey was combined with interviews. Based on the answers from the questionnaire and the interviews, SSB recommended 42 improvement areas, asked the producers for improvement actions, and followed up on status for the actions, much like the process undertaken in the ESS Peer reviews.

In 2023 SSB conducted one in-depth quality review on one statistics at the Directorate of Fisheries. Our ambition is to carry out 4 quality reviews on single statistics by other authorities in 2024.

The main impression is that the commitment to quality has increased among the producers, and they have effectively implemented some of the actions based on recommendations in the quality reports. One area where the evaluations have been effective and led to improvements is improved and more accessible documentation. Some producers have established clear responsibility for official statistics in their organisation and improved the information on their role as producers of official statistics both within their organisation and on the website.

In 2023 the quality evaluation was changed to examine each statistic in the National programme for official statistics, in total 344 statistics (52 from authorities outside SSB). Some results from this evaluation is presented in this paper.

To improve official statistics according to user needs and to the CoP, a step-by-step approach is often appropriate. Communication, evaluation and follow up on improvement actions contribute and inspire to improvement work.

**Keywords:** Official statistics, quality, quality frameworks, cooperation, evaluation

## **1. Background**

Statistics Norway (SSB) has collaborated with other producers of official statistics for many years and has organised regular meetings in the group now called the Committee for Official Statistics (SSB 2019b) since 2003. With the introduction of the new Norwegian Statistics Act (SSB 2019a) in 2019, also including quality criteria from the European Statistics Code of Practice, cooperation became more concrete. According to this act, Statistics Norway shall report to the Ministry of Finance on the quality in official statistics each year. The Statistics Act and the Code of Practice is the foundation of the Norwegian quality system for official statistics.

The National Programme for Official Statistics defines what is official statistics (SSB 2024). Draft for the programme is prepared by Statistics Norway and the Committee for Official Statistics, the programme for 2024 – 2027 was adopted by the government in December 2023. There are 15 producers of official statistics outside Statistics Norway, they are not evaluated according to the requirements for official statistics before they are included in the programme.

The Committee for Official Statistics, quality evaluations- and reviews, the methodology- and dissemination networks are all vital for collaboration within this system. Statistics Norway gives recommendations for quality-enhancing measures but has no instrument of sanctioning. All producers of official statistics are eager to improve the production, they are very positive to the coordinating role of Statistics Norway and find the cooperation useful. Quality evaluations and reviews are essential for the annual report on the quality of official statistics (SSB 2019-2024).

## **2 Quality evaluation**

The first overall quality evaluation of all official statistics was carried out in 2021 and was followed up with a new corresponding survey and data collection in 2022. In this quality evaluation, a questionnaire-based survey was combined with interviews. Based on the answers on the questionnaire and the interviews, Statistics Norway recommended 42 improvement areas, asked the producers for improvement actions, and followed up on status for the actions, much like the process undertaken in the ESS Peer reviews.

Before carrying out the survey, the plans and questionnaire was anchored in the Committee for Official Statistics, and each institution was thoroughly informed.

In 2023 the evaluation was changed to examine each statistic in the National programme for official statistics, in total 343 statistics (52 from authorities outside Statistics Norway). Some results from this evaluation are presented in chapter 2.2.

## **2.1 Institution, improvements**

The main impression is that the commitment to quality has increased among the producers, and they have effectively implemented some of the actions based on recommendations in the quality reports. One area where the evaluations have been effective and led to improvements is improved and more accessible documentation. Some producers have established clear responsibility for official statistics in their organisation and improved the information on their role as producers of official statistics both within their organisation and on the website.

## **2.2 Each statistics, results and recommendations from the first self-assessment**

The results of the quality evaluation show that compliance with the quality requirements in the Norwegian Statistics Act and the Code of Practice is largely fulfilled. For some of the quality requirements, however, there is room for improvement. There is considerable variation between manufacturers on some requirements.

The quality evaluation at the statistical level has, by involving those responsible for statistics, contributed to increased awareness of the quality requirements of those who produce the statistics. This is an important and positive effect of the quality evaluation. To raise awareness more systematically, it is recommended that quality training courses are made mandatory for all new employees.

However, there is always room for improvement, and the report from the latest evaluation have some recommendations. Some of the main recommendations are:

- Improving visualisation tools and routines
- Raise awareness of calculations and communication of uncertainty
- Increase competence and awareness of statistical confidentiality
- Increase the use of quality indicators.

For the first time, an indicator of timeliness is presented, covering all official statistics. On average, the timeliness of all official statistics is somewhat better than the requirement for Statistics Norway.

The quality evaluation shows that staff ask for better tools and clearer guidelines for visualisation of the statistics. The use of visual instruments in the publication of statistics makes

the statistics easier to understand and use. This corresponds with the response from users in focus groups<sup>1</sup> connected to quality reviews.

The quality evaluation maps the extent of calculation, assessment, documentation, and dissemination of statistical uncertainty. Only 23 per cent calculate uncertainty. In addition, sources of uncertainty are often described or assessed without making specific calculations. Half of the statistics are communicated with descriptions of possible reasons for uncertainty. Awareness of communicating uncertainty can be increased, and all producers should consider how calculation, documentation and dissemination of uncertainty can be improved.

With the GDPR and the new Norwegian statistics act, the requirements for disclosure control is stricter and more challenging to fulfil. Confidentiality is one of the most important quality requirements, and approximately two-thirds of official statistics are of such a type that there is a need to use methods to secure confidentiality, so as not to reveal information about persons or companies in the statistics.

To keep the risk of information being disclosed at an acceptable level and at the same time publish as much information as possible, using dedicated software for statistical disclosure control that is based on established best practices and methods is crucial. The quality evaluation shows that for approximately 20 per cent of the statistics, it is uncertain whether confidentiality has been adequately secured when the statistics are published. This shows that there is a need to increase both awareness and competence about confidentiality.

The results of the quality evaluation show that the use of quality indicators, to measure quality in statistical processes or products, is relatively low in the production of official statistics. This confirms findings from previous quality evaluations at the institutional level.

### **3 Quality review**

Quality reviews are a systematic method to enhance the quality of an individual statistic. A quality team reviews the production process with staff responsible for the statistics. The review includes self-assessments based on the Code of Practice and description of the production process based on the UN's "Generic Statistical Business Process Model, GSBPM", (UNECE 2019), and description of the data quality based on the Total Error model (Zhang, 2012) The dissemination of the statistics is also reviewed, including a focus group consisting of user representatives. The review results in recommendations for improvements and an action plan.

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<sup>1</sup> More on focus groups in paper 102\_Q2024: Put the users in focus! By Frode Berglund and Per Ola Haugen, Statistics Norway

## **4 Commitment to quality**

Commitment to Quality is principle four in the Code of Practise and is important for cooperation and building competence and quality.

Except for Statistics Norway, the production of statistics is not the main task of any of the producers. The attention on producing statistics may be low in the organisation, and we can see that those in charge of the statistics production often appreciate the attention from colleagues in Statistics Norway on quality issues. Sometimes the quality requirements for the statistics in the National programme for official statistics also rise the attention in their own organisation.

There is a wide variation between producers in terms of resource use to produce official statistics. If we exclude Statistics Norway, resource use varies from 0.2 to 30 full-time equivalents (FTEs) among the producers. All of them collect data for administrative purposes (administrative data) within their areas of responsibility. The producers of official statistics are a heterogeneous group, and the major variation in resource use has implications for the design of the quality system for official statistics. It is important that the quality follow-up supports all producers, including those who have few official statistics and use few resources on statistics production and development.

To foster a shared understanding of key issues and explore potential solutions, active involvement of all producers is crucial through transparent information, sharing and open dialogue. This establishes a basis for broad ownership and commitment.

When planning quality reviews and the annual evaluations, we invite the members of the Committee for Official Statistics to discuss the plans and the questionnaire. This contributes to better surveys and anchoring of the process.

Statistics Norway has no possibility of sanctioning other manufacturers. However, the mandate in the statistics act for the coordinating role of Statistics Norway and the quality requirements according to the Code of Practise is essential. Open communication and positive cooperation are another key to common effort to improvement. We find it useful to approach quality issues not as an inquisition but striving for cooperation with the aim to improve official statistics. Sharing of good practises, training courses and networks on methods and dissemination contributes to take care of and develop quality culture.

The feedback from interviews with the producers, when we discuss quality issues in the committee and in other discussions, is mostly that all producers are eager to improve the production in all aspects. They are mainly positive to the coordinating role of Statistics Norway and find the cooperation useful, even though they sometimes find the quality requirements challenging.

Two other authorities were invited to the Council for Statistics Norway, to share their experience with the national statistical system. The Norwegian Directorate of Immigration UDI and the Norwegian Water Resources and Energy Directorate (NVE) gave an account of the work on official statistics in their enterprises and their experiences of being part of the statistical system. Both pointed out that there has been a need for internal clarifications on what it means to produce official statistics in an organisation that has other main tasks. UDI participated in Eurostat's peer review of European statistics and said that it contributed to raising awareness of professional independence in the production of official statistics and the need for good documentation of the statistics, both internally and to the public. The UDI has established its own statistical team. With few statistical resources, quality evaluations and documentation requirements were initially demanding. Both the UDI and the NVE are working step by step on improvements. Both expressed the view that the statistical principles receive more support by being in the programme and through participation in the Committee for Official Statistics.

## **5 Recommendations and follow up on quality improvement actions**

An important part of quality reviews and quality evaluation are recommendations on quality-enhancing measures. Action plans are drawn up, and the measures are implemented by the producers of statistics or their support functions. All action plans are followed up annually by Statistics Norway's quality team. In addition, there are action plans that are set up after Peer review.

### **5.1 Quality-enhancing measures after quality reviews**

Since 2015, a total of 20 quality reviews have been carried out, and a total of 460 measures have been planned and initiated because of these. 382 (83 per cent) of the measures had been completed by the end of 2023. There is considerable variation in the number of measures arising from individual quality reviews. Furthermore, the measures vary in size, type and based on how resource-intensive they are to implement.

With a renewed and streamlined methodology for quality reviews, we see that both the number of reviews and quality-enhancing measures are increasing.

### **5.2 Quality-enhancing measures after quality evaluations**

In 2023, Statistics Norway published "Report on quality in official statistics, 2023", see Statistics Norway (2019-2024). The report contains 45 recommendations (K1-K45) on how to improve the quality of official statistics, and the statistics producers are encouraged to follow up the recommendations from the quality evaluations. The producers of official statistics make independent cost-benefit assessments of the recommendations and create plans with

prioritized actions based on the assessments. The action plans contain information about the time of start-up and completion of the measures, as well as the status of the work. Statistics Norway collected the status of the action plans for all producers as of January 2024.

All manufacturers have drawn up an action plan, and many of the measures have already been implemented. This applies, for example, to areas related to documentation and transparency. In the period 2022-2023, a total of 161 measures were planned. Of those, 68 had been completed at the time of the status reporting in January 2024. At the October 2022 status report, 113 measures were planned, of which 27 had been implemented.

### **5.3 Peer review**

In the period 2021-2023, Statistics Norway and four other producers of Norwegian official statistics were subject to an external peer review as members of the European statistical system<sup>2</sup>. The other four producers were the Directorate of Fisheries, the Norwegian Institute of Public Health (FHI), the Norwegian Institute of Bioeconomy Research (NIBIO) and the Norwegian Directorate of Immigration (UDI), all reporting statistics to the European statistical authority, Eurostat.

Statistics Norway and the four other authorities have drawn up a joint action plan that follows up the recommendations. The action plan has been approved by Eurostat, and the implementation of the measures must be reported annually from the end of 2024 to the end of 2027. Some of the measures set up after the Peer review coincide with the measures set up after the quality evaluations.

## **6 Conclusion**

Below we summarise what contributes to success and what challenges we have experienced in the cooperation with the producers of official statistics and in quality work.

### **6.1 Criteria of success**

We do benefit from the general high trust in the Norwegian society, but there are also other elements contributing to good cooperation and improvement of official statistics:

- Building trust over time
- Approach not as an inquisition, but joint cooperation with the aim to improve official statistics
- Mandate in the statistics act for coordination and quality reporting

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<sup>2</sup> More on Peer review in paper 226\_Q2024: Peer reviews – impact of their recommendations and first results by Vidar Lund, Statistics Norway

- The National programme defines what is Official statistics, and requirements
- Anchoring plans and surveys
- Testing questionnaires on respondents (more on this, see Q2024 Vilnius)
- Strive for SMART recommendations and actions: Specific, Measurable, Achievable, Relevant and Time-bound
- Offer training courses and seminars
- Sharing good methods and practises
- Follow up on actions

## **6.2 Challenges**

There are still room for improvement of official statistics and the system for quality insurance, here are the main challenges in the quality work for Statistics Norway and other producers:

Statistics Norway

- Resources to fulfilling the responsibility on quality in the statistics act
- Onboarding for new members in the National Programme for Official Statistics
- Recommendations are given on quality-enhancing measures, but Statistics Norway has no possibility of sanctioning other manufacturers.

Authorities outside Statistics Norway

- Attention in own organisation, the production of statistics is not the main task
- Resources for production of official statistics and quality work
- Engage and contribute to quality work, take part in reviews at others and open up for quality reviews at own statistics

## **Acknowledgment**

We thank the producers of official statistics for filling out the self-assessment, giving useful inputs to the quality system and the reports, being eager to learn more about quality requirements and methods for production and taking action to improve official statistics.



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