

1238	29481	29971	2850	2882
1515	14595	17879	1158	1776
201	906	986	156	7
1202	5962	5865	1458	
140	123	3240	5196	80
5972	5033	47704	49505	55
343	416	1835	1990	
72	740	388	9467	6507
88	82	32	1168	1448
882	983	710	4533	4988
590	822	694	5353	6618
507	845	744	3212	4017
128	343	241	2291	2387
616	733	611	10748	13057
5622	6112	5156	50944	54701
2498	1927	2011	16985	22476
168	409	316	3651	4108
15640	17549	19507
601	504	303	1302	122
704	1019	731	5131	474
1575	1473	1455	3618	32
2880	2996	2489	10051	92
6383	6152	7334	15130	140
1336	1335	890	2549	29
34688	46598	44121	1052	1

Preliminary statistics

and closely related concepts and terms

Previously published

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Preliminary statistics

and closely related concepts and terms

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Preliminary statistics and closely related concepts and terms

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Foreword

Twenty-five government agencies in Sweden are responsible for the official statistics. Statistics Sweden is responsible for the coordination of the statistics and there is a Council for Official Statistics which shall support the agencies. The Council handles fundamental issues on the availability, quality and usefulness of the official statistics, as well as issues to ease the response burden. The Council also promotes cooperation among the agencies responsible for official statistics.

The Council for Official Statistics includes four work groups which handle issues on e.g. giving access to data, methods and quality issues, electronic publishing and the response process. The work groups are led by Statistics Sweden and members include persons from government agencies responsible for official statistics.

This report has been produced by the work group for methods and quality issues, a group consisting of representatives from the statistical agencies, the unit head for Statistics Sweden's Central Methodology Unit and Statistics Sweden's quality coordinator. Statistics Sweden's Research and Development Department Head is the chairperson. The work group is a permanent work group under the Council and the work is directed towards issues on methods and quality within the official statistics. Primary tasks include information and human resources development.

The report deals with the assignment of the Council to clarify the concept of preliminary statistics and also includes clarifications of closely related concepts and terms. The importance of uniformity for concepts and terms is taken up, as is the importance of taking consideration to disclosure risks when statistics are changed. When changes are made to the statistics it is vital to inform the users. The quality requirements for preliminary statistics is also dealt with.

The Council has assigned the work group for electronic publishing to study the notation of the date for releasing the information including the level (publication, table), while the work group for methods and quality issues has been assigned to study how continuously updated registers ("living registers") should be handled; if there should be "frozen" register versions at chosen points in time etc. These two investigations are now underway.

This report has been prepared by a committee in the work group for methods and quality issues consisting of Mats Bergdahl and Eva Elvers from Statistics Sweden, Ingegerd Jansson from the Swedish Social Insurance Agency and Monica Lindquist from the Swedish National Board of Student Aid.

I would like to thank all the above persons and all statistical agencies who have participated in discussions and have given their viewpoints during the course of the work. The report was approved at the meeting of the Council for Official Statistics on 24 February 2006. Certain editorial changes have been made in this printed version.

Stockholm, December 2006

Kjell Jansson

Chairman of the Council for Official Statistics

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Summary

The work group for methods and quality issues under the Council for Official Statistics has been assigned by the Council to discuss and clarify the concept of preliminary statistics. Several closely related concepts and terms exist, and their usage varies somewhat. The following proposal for concepts and terms includes three types of measures or further processing of statistics - correction, revision and recalculation - and two types of statistics: preliminary and final. Earlier the word "definite" was often used instead of "final".

- Final statistics refer either to the only published statistics or the latest published statistics.
- Preliminary statistics are followed by at least one further planned publishing. This procedure is called revision. Final statistics cannot be revised.
- If there are several rounds of preliminary statistics, they should be distinguished in a suitable way, e.g. by having a date or a number. The concepts preliminary and final statistics are used to clarify the difference between the different publishing rounds in terms of needs

and intended use. It must be clear which publishing round that is intended to be the final one.

- Correction is a necessary but unplanned measure when errors occur in published statistics, as opposed to revision that is planned. Both preliminary and final statistics may be corrected.
- Recalculation of statistics can occur in addition to planned revisions through new knowledge or new data sources; such recalculations are not corrections but are considered to be new calculations. It must be clear that statistics have been recalculated and how recalculations have been made. Both preliminary and final statistics can be recalculated.

This report includes definitions of the concepts and establishes the terms regarding preliminary statistics. The importance of uniformity for concepts and terms is taken up, as is the importance of taking consideration to disclosure risks when statistics are changed. When changes are made to the statistics it is vital to inform the users. The quality requirements for preliminary statistics are also dealt with.

Background

Each statistical agency determines which statistics within their area of responsibility shall be published. The statistical agency is responsible for sufficient quality of the official statistics in relation to how the statistics are intended to be used. This applies to preliminary and final statistics alike. Responsibility also applies in those cases where the agency has chosen to commission a private firm or e.g. Statistics Sweden to produce the statistics.

According to the regulations for the release etc. of official statistics (SCB-FS 2002:16), official statistics are to be released as soon as they are produced. The statistics shall include information on previous publishing, and an annual publishing plan shall be available and updated continuously.

The Guidelines for decisions on content and scope of official statistics (approved by the Council for Official Statistics on 30 October 2003) state the following:

"When preliminary statistics are released, quality requirements must be

met so that the statistics can be marked with the designation Official Statistics of Sweden or the corresponding symbol. The quality requirements must strike a balance between timeliness and accuracy. In connection with the release of statistics, users should be informed that the statistics will be or have been revised.

In certain cases it may be necessary to correct statistics because the statistics that were previously released were incorrect. The new statistics should then be marked with the designation Official Statistics of Sweden or the corresponding symbol. In connection with publishing, the users should be informed that the statistics replace previously released statistics that were incorrect."

Proposals and viewpoints in this report are consistent with these guidelines and further develop and strengthen the demands for clarity when publishing. They also bring about a more clear structure for the area, defining concepts and establishing certain terms.

Users' needs

The definition of sufficient quality of official statistics puts quality in relation to the intended use of the statistics. Some users strongly emphasise timeliness. They may be satisfied with estimates that are uncertain or estimates of large study domains. Other users ask for detailed statistics, since they are not in a hurry to receive the statistics or it is not possible to quickly produce the statistics. These different requirements have been encountered for a long time by first producing preliminary statistics and later definite (final) statistics.

Accuracy increases with time while timeliness is reduced. There may be a series of preliminary publishing rounds, e.g. for national accounts. The users need knowledge about the different publishing rounds. In order to use and assess the statistics correctly, it is important to know whether the statistics are preliminary or definite (final). These terms are discussed and defined in the following sections.

Several rounds of publishing

This section describes some different reasons for several rounds of publishing. The reasoning behind the choice of concepts and terms is also explained.

Final statistics - the term replaces the term definite statistics

The term definite has often been used for the last planned publishing. An alternative to the strong connotation of definite statistics is final statistics. The term should be changed from definite to final. This term complies with the English term "final statistics". It shows more clearly that the statistics are the last ones in the planned publishing, but corrections or recalculations may be done.

Corrections

Sometimes statistics need a publishing round beyond the planning, e.g. if considerable errors have been discovered in the published statistics or if there is other information that was not known at the time of publishing, and which appears so relevant that the published statistics shall be revoked. When such discoveries are made it is normal to issue a notice and to make a change in the statistical databases. Disclosure must be avoided, something which may be difficult if corrections are due to a singular influential object. Explanatory text must be carefully formulated.

Revisions

There may be several reasons for planning for more than one publishing occasion. More sources of information can be accessible and used for another publishing. The amount of data increases because more respondents have time to reply or administrative data has time to become more complete. More time may

be needed for further checking, processing, analysis or comparisons with other material so that needs for more accurate statistics are met.

There are many variations. Microdata may exist as a "living register" that is updated continuously with additional information. Updating the statistics can be predetermined to be done a certain number of times or over a certain time period. Statistics for the period of one year can be frozen at a given point in time (then the first period has been updated longer than the last period).

Statistics that are published in the form of time series often have a sequence of versions. When statistical values for the period t are published for the first time, the period $(t-1)$ is included for the second time, the period $(t-2)$ for the third time etc. Many changes in the microdata may occur particularly in the second occasion, compared to the first one. These changes can have small or large effects on the statistics.

A significant error may be discovered after the last occasion even if there has been a planned period for adjustments and updates. This situation was described in the section on corrections.

Information on the type of statistics

When changes are planned, statistics are first published as preliminary and eventually as final. When statistics are preliminary on more than one publishing occasion, this should of course also be mentioned. It may be practical to use the date as a marker or inform that statistics are the first preliminary statistics, the second preliminary statistics etc.

It is also important to explain any differences in how preliminary and final statistics are produced. For instance, preliminary statistics can be a pure composition of "data received up until now" or be an upward adjustment with the purpose to obtain the same estimates as would complete material.

Recalculations

When new knowledge has been added, new calculations of for example emissions calculations can be made with new environmental knowledge about relationship models and emissions factors. In a similar manner, new sources can arise for the national accounts and be successively included, even back in time. This procedure involves making new calculations and not a correction or revision in the usual way, even if the new estimates refer to "the same things" as the old ones.

The term recalculation is also used in other contexts than the one just mentioned, which is tied to preliminary statistics and revisions. Recalculations are for example made among currencies and upon breaks in time series when time series are "recalculated" back or forward

in time. When a new time point/time period arises in a time series and seasonal adjustment is done, the entire time series is changed in general, even without revision of basic data. This is called recalculation, in contrast to seasonal adjustment of a revised basic series.

Information on changed values

Many changes only affect estimates of statistical characteristics - statistical values - to a slight degree but sometimes the consequences may be significant. One example could be an enterprise that is large, on the whole or in its particular industry. It could be a detailed statistic, where perhaps a changed goods code or country code would have significant effects for one or two of both the affected study domains. In connection with publishing statistics, it is very important to give clear information on changes and any effects these changes may bring about. The information should report that changes have occurred and what has caused these changes, if possible. However, the situation must be adapted with consideration to disclosure control, scope, importance etc.

Requirements for preliminary statistics

The specification of sufficient quality for official statistics says that the quality should be sufficient in relation to how the statistics are intended to be used. This applies to both preliminary and final statistics.

The intended use for preliminary statistics is different from that of final statistics. In both cases, a dialogue should take place with statistics users and in both cases a follow-up should be made.

It is important that preliminary statistics are treated seriously and are not treated as a “careless” version of the final statistics. Considerable differences between preliminary and final statistics reduce the credibility of the statistics - both for the relevant statistics and for statistics on the whole. It is not only the size of

the revision that is significant for confidence in the statistics and the statistics producers. Changes over time are often an important part of the statistics. If the revision causes a change in direction (e.g. that something has decreased instead of increased), many users may find the change to be more disturbing than a numerically larger revision with the same direction retained.

In general, preliminary statistics are less accurate than final statistics. Preliminary statistics are naturally less detailed than the final statistics.

Guidelines concerning preliminary statistics and closely related concepts and terms

- Final statistics refer to either the only publishing or to the last of several publishings.
- Preliminary statistics are followed by at least one further planned publishing. This procedure is called revision. Final statistics cannot be revised.
- The concepts preliminary and final statistics are used to clarify the difference between the different releases of statistics in terms of needs and intended use. The criteria for sufficient quality should be fulfilled also for preliminary statistics. The requests on well done balancing and information on the different versions and revisions are greater for official statistics than for other statistics. Trust in the statistical agency and in the statistical system is important to consider for official statistics and other statistics alike.
- It must be clear that preliminary statistics are preliminary, and dates for revisions should be stated. If previous versions of preliminary statistics have existed, this should be clearly stated. If there are several rounds of preliminary statistics, these should be differentiated in a suitable way. It may be practical to use a date or a number: first preliminary etc. When statistics are published with different numbers of revisions at the same time - typical for economic short-term statistics with time series - it may be easiest to describe the procedure, for example, revised in total three times. If preliminary and final statistics are presented together, they should be easy to separate. Final statistics must be clearly identified when released.
- Presentations of revisions are to be adapted to the situation and the size and number of the revisions. Current time periods, considerable changes and large study domains can be particularly important to comment on. Disclosure control should always be included and it can be problematic when a large error has been discovered. It is advantageous to inform how large the revisions usually are.
- Corrections are a necessary but unplanned measure, as opposed to revision that is planned. Both preliminary and final statistics may be corrected. When statistics are corrected, the changes should be evident and commented on.
- Recalculation of statistics can occur in addition to planned revisions through new knowledge or new data sources; such recalculations are not corrections but are considered to be new calculations. It must be clear that statistics have been recalculated and how recalculations have been made. Both preliminary and final statistics can be recalculated.
- All statistics that are published should be kept so that it is possible to make comparisons among publishing rounds and to go back to a certain publishing occasion. It is good if even the basic material on a micro level is archived for each publishing, but this may require considerable space if registers are large.

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Council for Official Statistics

The Council for Official Statistics has been established at Statistics Sweden with the purpose to provide assistance to statistical agencies regarding fundamental issues on official statistics. Availability, quality, usefulness and ways to facilitate submitting information are some examples of these issues. Moreover, the Council works to increase cooperation with the agencies responsible for statistics.

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