

Differences between preliminary and final BAS statistics

Population by Labour market status (BAS) is a statistical product that uses administrative data to describe the supply of labour in Sweden. Statistics are disseminated concerning the number of employed, unemployed and persons outside the labour force, among other things, for the registered population aged 15 to 74. BAS describes the population based on six labour market statuses (Employed, Unemployed, Students, Retiree, Sick and Others).

These statuses are defined and generated according to a hierarchical principle, which means that a person can only hold one labour market status. The definition of labour market status mainly uses earnings and benefits data, as well as the person's enrolment, during a given period, in an activity that can be linked to a status. The information in BAS is based on administrative data from several government agencies.

BAS is disseminated in three variants: preliminary statistics, based on monthly data (BAS preliminary); final statistics, based on monthly data (BAS final); and final annual statistics (BAS annual register). BAS preliminary and BAS final publish monthly, quarterly and annual statistics. BAS is published in different versions in order to meet the various needs of users. The purpose of the statistics is the same for all variants, and they differ only in terms of their publication time and the information then available. The preliminary statistics are up-to-date, yet the final statistics contain slightly more updated and correct administrative information.

BAS preliminary is produced monthly for the monthly reference period, quarterly for the quarterly reference period, and annually for the annual reference period. The statistics are normally disseminated two months after the end of the reference period. Quarterly and annual disseminations consists of average estimates based on constituent monthly data.

BAS final and BAS annual register are reported at the same time, in November of the year following the reference year. The BAS final for twelve months, average estimates for four quarters, and the average

estimate for the year are disseminated at the same time as the BAS annual register.

The most important differences between BAS preliminary and BAS final are summarised below. More information on the two variants can be found in [Quality Report - Population by Labour market status \(BAS\) Preliminary statistics based on monthly data, 2023 \(scb.se\)](#) and [Quality Report - Population by Labour market status \(BAS\) Final statistics based on monthly data, 2023 \(scb.se\)](#).

Population

The frame population of BAS preliminary is all persons registered in the population records of Sweden, according to the Total Population Register (TPR), on the last day of the month preceding the reference month. The frame population of BAS final is the TPR as of the last day of the reference month.

This means that the frame populations differ slightly between the two variants. For example, persons who were registered in the population records on the last day of the month preceding the reference month, but who were not registered on the last day of the reference month, are included in preliminary statistics but not in final statistics. And likewise for the reverse. Another consequence of this is that data from the TPR used to create study domains, such as region of residence, refer to different reference times between the preliminary and final statistics. However, in both variants, age refers to age on the last day of the reference month.

Apart from the fact that the reference times of the frame population differ between the preliminary and final statistics, the same version of the TPR is used.

For the 15-74 age group, the difference between the preliminary and final statistics, in terms of the size of the frame population for the months of 2022, is 2,200 persons on average. For all months, the frame population is larger in the final variant.

Supplementary income data for employees

The data on which the statistics are based are collected from several government agencies. The PAYE returns are the main source used to classify employed persons. The preliminary statistics retrieve the data available one month after the end of the reference period. The final statistics take into account corrections made by employers up to August of the year following the reference year. The number of corrections between preliminary and final statistics is relatively small.

The final statistics include other types of income data, that is not included in the preliminary statistics. These data concern income that

is only available on an annual basis, e.g., annual statements of earnings and tax deductions filed by employers. The addition of data does not mean that the number of employed increases proportionally. In many cases, persons receiving an annual statement of earnings and tax deductions filed by employer also have other income which means they are classified as employed.

Income data for persons working in other Nordic countries are used in the production of the statistics. Final statistics use data referring to the relevant reference year. However, these data are not available for the production of preliminary statistics. The preliminary statistics instead use data for the year which preceded the reference year by two years.

Self-employed persons and status in employment

Additional information is available on an annual basis to classify self-employed persons that is not available on a monthly basis. This information primarily includes annual business tax returns and qualified holdings in closely-held companies. The final statistics, which take into account more data sources, therefore identify more self-employed persons than the preliminary statistics. Many persons classified as outside the labour force in the preliminary statistics thus become self-employed persons in the final statistics. Also, many of those classified as employees in the preliminary statistics are re-classified as self-employed persons in the final statistics.

Payment date in BAS preliminary

BAS preliminary uses register data based on the date of payment, while the final statistics use data on the period when the activity to which each payment refers actually took place. The final statistics use such data in cases where this information is available. This applies to various benefits from the Swedish Social Insurance Agency, the Swedish Pensions Agency and the Swedish Board of Student Finance, and mainly affects individuals who are temporarily absent, students or sick.

Students

Student status in the final statistics is based on when the activity was carried out, and not, as in the preliminary version, when payment took place, and persons enrolled at some point during the month in basic higher education or municipal adult education are also included. Depending on the month, between 20,000 and 90,000 people are classified as students despite not receiving student finance from the Swedish Board of Student Finance.

Workplace data

All employed persons in BAS are linked to a main place of work. This workplace provides information on, among other things, the industry and the location of the workplace, and is used in statistical reporting.

Information about the workplace is retrieved from the Business Register and is based on a local unit number that employers are expected to report to the Swedish Tax Agency via the PAYE return in cases where the enterprise has operations at more than one address. If an employer fails to report local unit numbers or reports unknown numbers, or if the reporting is improbable, then mechanical processing occurs. This processing differs between BAS preliminary and BAS final, which affects the statistics.

In the preliminary statistics, only missing and unknown local-unit-number data are imputed, while in the final statistics certain types of improbable reported local unit numbers are also processed. This means that the same person can be placed in different workplaces in the preliminary and the final statistics.

Numerical comparison

The preliminary and final statistics provide information on the size and development of the labour supply in Sweden. As mentioned above, differences in the production of BAS preliminary and BAS final impact the statistics. In particular, the statistics in the final variant are based on updated material and utilise information that was not available when the preliminary variant was produced. Some of these differences are summarised numerically below.

In Table 1, an increase in the total number of employed persons can be observed between the preliminary and final variants. On average, the number of employed persons increases by 117,000 in a given month in 2022. This increase in employment consists mainly of additional self-employed persons.

Table 1. Difference in labour market status between BAS final and BAS preliminary, 15 to 74 years (2022)

| Year Month | Employed | Unemployed | Students | Retiree | Sick | Others |
|------------|----------|------------|----------|---------|---------|----------|
| 2022 01 | 106 300 | -3 700 | 73 000 | -18 900 | -9 800 | -145 000 |
| 2022 02 | 115 000 | -4 000 | 47 300 | -20 100 | -9 500 | -126 600 |
| 2022 03 | 114 300 | -4 200 | 45 800 | -21 000 | -10 200 | -122 800 |
| 2022 04 | 115 800 | -4 100 | 39 500 | -21 400 | -9 800 | -117 600 |
| 2022 05 | 115 700 | -4 100 | 40 100 | -22 400 | -10 200 | -117 300 |
| 2022 06 | 116 100 | -4 000 | 137 100 | -23 200 | -10 600 | -214 500 |
| 2022 07 | 124 200 | -4 100 | 18 500 | -22 500 | -7 500 | -107 600 |
| 2022 08 | 125 300 | -4 500 | 66 500 | -25 300 | -9 500 | -147 200 |
| 2022 09 | 119 400 | -4 000 | 45 100 | -25 200 | -10 700 | -122 000 |
| 2022 10 | 121 300 | -4 100 | 47 200 | -25 400 | -10 700 | -125 600 |

| Year Month | Employed | Unemployed | Students | Retiree | Sick | Others |
|------------|----------|------------|----------|---------|---------|----------|
| 2022 11 | 122 600 | -4 000 | 40 700 | -26 200 | -11 300 | -118 600 |
| 2022 12 | 120 100 | -4 200 | 56 300 | -26 500 | -11 900 | -133 300 |

The number of persons classified as employees is lower in the final statistics. Many of those classified as employed in the preliminary statistics have a different main status in employment in the final statistics (see Table 2).

Table 2. Difference in status in employment between BAS final and BAS preliminary, 15 to 74 years (2022)

| Year Month | Not employed | Employees | Self-employed persons | Self-employed persons in a joint-stock company | Frame population |
|------------|--------------|-----------|-----------------------|--|------------------|
| 2022 01 | -104 400 | -29 100 | 58 200 | 77 100 | 1 900 |
| 2022 02 | -112 900 | -24 100 | 60 700 | 78 300 | 2 100 |
| 2022 03 | -112 300 | -24 000 | 61 700 | 76 700 | 2 000 |
| 2022 04 | -113 400 | -23 500 | 63 200 | 76 100 | 2 300 |
| 2022 05 | -113 900 | -24 100 | 64 200 | 75 700 | 1 900 |
| 2022 06 | -115 200 | -24 200 | 64 700 | 75 600 | 900 |
| 2022 07 | -123 100 | -20 900 | 66 700 | 78 400 | 1 000 |
| 2022 08 | -119 900 | -21 200 | 69 100 | 77 400 | 5 400 |
| 2022 09 | -116 900 | -24 800 | 68 400 | 75 800 | 2 500 |
| 2022 10 | -118 600 | -22 100 | 68 600 | 74 900 | 2 700 |
| 2022 11 | -119 400 | -21 500 | 69 500 | 74 600 | 3 100 |
| 2022 12 | -119 500 | -20 400 | 68 000 | 72 500 | 500 |

Table 3 shows the shifts among labour market statuses between the preliminary and final statistics for November 2022. The 'Employed' row is summed up to the number of persons employed in the final statistics, broken down by their labour market status in the preliminary statistics. For example, 5,151,900 persons were classified as employed in both preliminary and final statistics, and 66,800 persons belonged to the group 'Others' in the preliminary statistics and 'Employed' in the final statistics.

Table 3. Shifts between preliminary and final statistics in November 2022, ages 15 to 74 (rows refer to numbers in final and columns refer to numbers in preliminary)

| Labour market status | Employed | Unemployed | Students | Retiree | Sick | Others | Outside the population | Total final |
|-------------------------------|-----------------|-------------------|-----------------|----------------|-------------|---------------|-------------------------------|--------------------|
| Employed | 5 151 900 | 4 900 | 3 900 | 39 300 | 14 300 | 66 800 | 1 400 | 5 282 500 |
| Unemployed | 900 | 246 500 | 0 | 0 | 0 | 0 | 200 | 247 600 |
| Students | 900 | 0 | 565 000 | 1 100 | 1 000 | 42 000 | 700 | 610 700 |
| Retiree | 400 | 0 | 0 | 827 500 | 0 | 14 800 | 100 | 842 900 |
| Sick | 300 | 0 | 0 | 0 | 203 400 | 4 300 | 0 | 208 000 |
| Others | 4 500 | 0 | 1 000 | 0 | 300 | 408 100 | 5 900 | 419 700 |
| Outside the population | 1 100 | 300 | 200 | 1 200 | 300 | 2 300 | 0 | 5 200 |
| Total preliminary | 5 160 000 | 251 700 | 570 000 | 869 100 | 219 300 | 538 300 | 8 300 | |