



Explanatory notes for Year 12 statistical reports 2022

These notes are provided to help schools understand the parameters the School Curriculum and Standards Authority (the Authority) uses in compiling statistical reports on Year 12 participation and achievement.

Schools can download the following statistical reports from SIRS.

Report number	Title of report
STS010	Year 12 provider statistics
STS009	Year 12 State statistics
STS022	Year 12 ATAR course school statistics
STS028	School grade distribution against State grade distribution
STS029	ATAR course marks distributions
STS036	Statistical moderation and concurrent validity of school assessments
MF01, MF02 and MF03	Detailed written examination feedback (Maximising feedback)
CSE077	Student summary details by provider
AWD007	Exhibition and Award Notification – exhibition only
EST018	Externally Set Task – Percentage school marks and grades

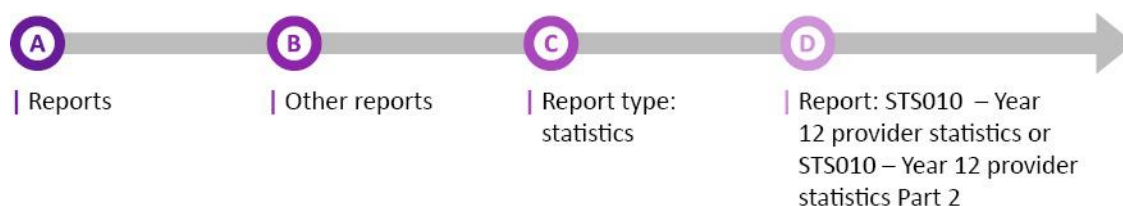
If you require assistance with logging into SIRS (relating to logging on or access to reports), contact the SIRS helpdesk at the Authority on 9273 6719 or email SIRShelp@scsa.wa.edu.au.

It is best to use the 'run report as batch' option when generating reports from SIRS. This option enables users to continue to work in SIRS while the report is processing. The report is sent directly to your email address. This is particularly useful when generating reports that contain a large amount of data.

Note: the Authority is **not** responsible for statistics relating to university admission, such as the scaled score or the Australian Tertiary Admission Rank (ATAR). All enquiries concerning these statistics should be directed to the Tertiary Institutions Service Centre on 9318 8000.

STS010 – Year 12 provider statistics

This report consists of six sections and can be downloaded from SIRS using the following pathway:



Section 1: Summary statistics

1a Student population

Section 1a provides the number of Year 12 students who completed at least one course or course unit, VET unit of competency, or endorsed program or equivalent in the year their results were awarded or equivalent. It also provides the number of repeating, re-entering, overseas and mature-age students.

Note:

- ‘Completing’ a course or a course unit is defined as obtaining either a grade A, B, C, D or E in the course or course unit.
- ‘Repeating’ are Year 12 students who complete at least one course or course unit or equivalent in the year following first enrolment in Year 12.
- ‘Re-entering’ are Year 12 students who complete at least one course or course unit or equivalent more than one year after first enrolment in Year 12.
- ‘Mature-age’ students were aged 19 or more on 1 March of the year their results were awarded.

1b Western Australian Certificate of Education (WACE)

Section 1b provides the number of full-time students who are eligible to achieve the WACE, demonstrated both the literacy and numeracy standard and who achieved the WACE.

The WACE is awarded to students who have successfully met the requirements for breadth and depth, the achievement standard and the literacy and numeracy standard in their senior secondary schooling.

For 2022, these requirements were:

Breadth and depth

Students must complete a minimum of 20 units (or the equivalent) of which at least 10 Year 12 units (or the equivalent) must be included. The 20 units (or the equivalent) must include at least:

- a minimum of ten Year 12 units, or the equivalent
- four units from an English learning area course, post-Year 10, including at least one pair of Year 12 units from an English learning area course
- one pair of Year 12 units from each of List A (arts/languages/social sciences) and List B (mathematics/science/technology).

Of the 20 units required for a WACE, up to a maximum of four Year 11 units and four Year 12 units may be substituted by VET qualifications and/or endorsed programs. A student may choose to study VET qualifications and/or endorsed programs and is able to substitute using only VET qualifications (up to eight units) **or** using endorsed programs (up to four units) **or** using a combination of VET and endorsed programs (up to eight units but with a maximum of four units with endorsed programs – two in Year 11 and two in Year 12).

Achievement standard

Students must achieve at least 14 C grades or higher (or the equivalent) in Year 11 and 12 units, including a minimum of six C grades (or the equivalent) in Year 12 units.

Both VET qualifications and endorsed programs can contribute to the WACE standard requirement of a C grade in at least 14 units. A C grade in a maximum of eight units (four in Year 11 and four in Year 12) can be replaced by unit equivalents from VET qualifications and/or endorsed programs. Of these eight unit equivalents, a maximum of four can be from endorsed programs (two in Year 11 and two in Year 12).

In 2022, students are required to complete a program of:

- at least four Year 12 ATAR courses, or
- at least five Year 12 General courses and/or a combination of Year 12 General and up to three Year 12 ATAR courses or equivalent (up to two units from endorsed programs can be used towards meeting this requirement), or
- a Certificate II (or higher) VET qualification.

Literacy and numeracy standard

Students must demonstrate the minimum standard of literacy and numeracy.

The minimum standard is indicative of Level 3 of the *Australian Core Skills Framework*. Students who have achieved Band 8 or higher in the corresponding Year 9 NAPLAN component (Reading, Writing and Numeracy) have met the standard required for that component. Students who had not prequalified in reading, writing or numeracy were required to achieve a Category 3 result in the corresponding component/s of the Online Literacy and Numeracy Assessment (OLNA).

The detailed requirements for achievement of the WACE are provided in the information paper *The WACE 2022 – Your Guide to the Western Australian Statement of Student Achievement (WASSA), Western Australian Certificate of Education (WACE) and ATAR Course Report*, which is available on the Authority website at <https://senior-secondary.scsa.wa.edu.au/certification/wace>.

It has been agreed, in consultation with stakeholders, that the percentage of students achieving the WACE is calculated from a base population consisting only of those full-time Year 12 students who could have achieved the WACE (if they had achieved at a suitable standard).

The population of full-time students eligible to achieve the WACE is also used as a base when calculating the numbers of ATAR examination students, course unit students, VET students, endorsed program students and General course students.

1c WACE course units

Section 1c provides the number of full-time students who are eligible to achieve the WACE, and who attained a grade of A, B, C, D or E in at least one pair of course units in either ATAR, General, Foundation or VET industry specific courses. Also included is the number of these students who attained a grade of A in at least one pair of course units.

Generally, students taking fewer than four Year 12 ATAR courses in Year 12 are not able to obtain an ATAR, so they may be regarded as not aspiring to university study in the following year.

1d ATAR examination students

Section 1d provides the number of students eligible to achieve the WACE who attained four or more ATAR combined scores. Usually, students aspiring to enter university need at least four scaled scores to obtain an ATAR.

1e VET

Section 1e provides the number of full-time students eligible to achieve the WACE who completed at least one qualification at Certificate II or higher in Year 10, Year 11 or Year 12.

Students in this category may also be included in category 1c or category 1d.

Note: VET qualifications, reported by schools, are not awarded by the Authority and need to be verified by sighting the relevant certificate.

1f Endorsed programs

Section 1f provides the number of full-time students eligible to achieve a WACE, and who were enrolled in at least one endorsed program.

Also reported is the number of these students who achieved a result in at least one endorsed program.

Students in this category may also be included in category 1c or category 1d.

1g General course students

Section 1g provides the number of full-time students eligible to achieve the WACE who achieved grades in five or more Year 12 General courses or a combination of Year 12 General and up to three Year 12 ATAR courses (or equivalent).

Up to two units from endorsed programs completed in Year 10, Year 11 or Year 12 can be used to meet the WACE achievement standard where students have completed four Year 12 General courses or a combination of General and up to three Year 12 ATAR courses.

Foundation courses do not contribute to meeting the WACE achievement standard with this option.

Section 2: WACE courses

Section 2 shows the distribution of full-time students eligible to achieve the WACE, by the number of Year 12 course unit pairs completed by each student.

Section 3: ATAR course examinations

Section 3 shows the distribution of full-time students eligible to achieve the WACE, by the number of ATAR course examinations sat by each student. Subtotals show the number of students who sat the ATAR course examination in enough courses to obtain an ATAR (at least four) and the number who sat the ATAR course examination in less than four courses. The number of ATAR course examinations sat by a student is defined as the number of course combined scores obtained.

Section 4: VET studies

VET qualifications count towards achievement of the WACE. However, unit equivalence is not awarded for partially completed Certificate I and II qualifications.

Section 4 provides the distribution of VET qualifications completed among full-time students eligible to achieve the WACE. Students who have completed more than one VET qualification will be counted as many times as they have completed qualifications.

Note: VET qualifications reported by schools are not awarded by the Authority and need to be verified by sighting the relevant certificate.

Section 5: Endorsed programs

Endorsed programs count towards the achievement of the WACE.

Section 5 provides the distribution of unit equivalents achieved for endorsed programs among full-time students eligible to achieve the WACE. A unit equivalent of an endorsed program is equivalent to one course unit.

Section 6: Combinations of Year 12 General and ATAR courses

Section 6 shows the distribution of full-time students eligible to achieve the WACE, by the number of Year 12 General and Year 12 ATAR courses completed. The data are listed according to gender of the student.

The number of Year 12 General courses and Year 12 ATAR courses is defined as the number of grades achieved in these courses in 2022.

STS010 – Year 12 provider statistics Part 2

Section 6a: Summary of students' results by grade for courses

Section 6a provides the number and percentage of Year 12 students awarded each of the grades (A, B, C, D and E) for each WACE course by gender.

In addition, a statistical test has been carried out to compare the performance of males against females.

Under the heading **better performing group**, the following entries may be found:

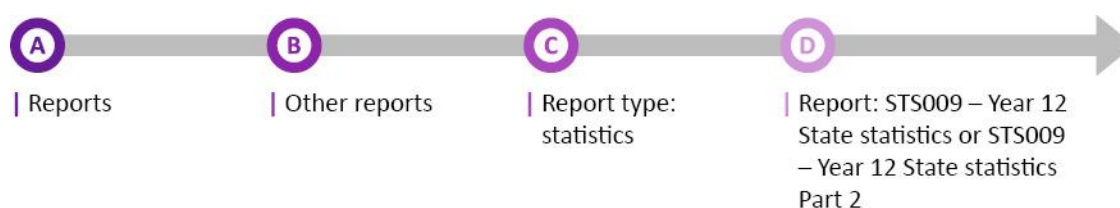
Entry	Meaning
Males	In this school, males had higher grades than females.
Females	In this school, females had higher grades than males.
NS	The statistical test showed no significant difference between groups.
-	No test was carried out because there were not enough candidates.

Section 6b: Summary of students' completions for Preliminary course units

Section 6b provides the number of Year 12 students who completed Preliminary course units by gender.

STS009 – Year 12 State statistics

This report follows the same format as the Year 12 provider statistics for 2021 report, but applies to the whole of the Western Australian senior secondary education system. This report can be downloaded from SIRS using the following pathway:



Results for all WACE courses or course units are tabulated. Under the heading **better performing group**, the following entries may be found:

Entry	Meaning
Males	For this course, males had higher grades than females.
Females	For this course, females had higher grades than males.
NS	The statistical test showed no significant difference between groups.
-	No test was carried out because there were not enough candidates.

STS022 – Year 12 ATAR course school statistics

This report provides details to help schools evaluate their students' marks in ATAR courses (Units 3 and 4). The report lists the distribution of various marks/scores (i.e. examination marks, moderated school assessments and combined scores) for students in a particular ATAR course at the school as a result of the marks adjustment process.

This report can be downloaded from SIRS using the following pathway:



The following information is included in this report.

- Section 1 provides the number of students who were enrolled in the pair of units of the course.
- Section 2 provides the number of students who received a grade in the pair of units of the course.
- Section 3 provides the number of students who have a combined score for the course.
- Section 4 provides the mean and standard deviations calculated from examination marks, school marks and moderated school marks achieved by students included in the moderation population. This section provides statistics for marks achieved in the written course component. This includes the mean and standard deviations calculated from examination marks, school marks and moderated school marks achieved by students included in the moderation population. In addition, this section provides statistics that show how the school marks were statistically moderated (adjusted) in this pair of units for the course under consideration. The adjustment (Up or Down) is shown as the difference between the mean of moderated school marks and the mean of school marks. For courses with a practical component, Section 4a provides equivalent statistics calculated from marks achieved in the practical course component.

Small group moderation

Section 5 is only applicable to schools involved in small group moderation (SGM) partnerships in this pair of units for the course. It provides the outcome of the Authority review. Although it was **mandatory** for schools with fewer than six ATAR course examination candidates to form partnerships, and it is clearly **in students' best interests** for partnerships to be effective, not all partnerships are successful in achieving comparability of marks between partner schools.

Schools that had six or more ATAR course examination candidates and were in an SGM partnership were given the option at the end of the year to be statistically moderated without their partner/s.

For all other partner schools, the Authority reviewed the school and examination marks achieved by students from schools in an SGM partnership and judged whether there were grounds for adjusting the partnership. If there was evidence that the school marks of students from partner schools were not on the same scale, partnerships were split or rearranged (in the case of multi-school partnerships) to give the fairest result.

Grade distribution

Section 6 provides information about the grade distribution for the pair of units for the course. It includes the number and percentage of students by each grade in the pair of units in the course offered by the school. For comparative purposes, State data are also provided.

ATAR course examination marks and school marks

Section 7 provides summary data of students who sat the ATAR course examination for the course. For comparative purposes, data from the school and State populations are provided. This section provides the means and standard deviations of school and examination marks, with written and practical marks provided separately where there is a practical examination.

Individual student achievement

Section 8 shows each student's ATAR course examination mark, school mark, and the intermediate marks used to produce the course combined score. The reasons for adjusting raw scores, and a brief description of each adjustment, are given on the Authority website at *Your Marks* (see the last page of this document). These adjustments are used to ensure that combined scores are fairly calculated for all students.

To compensate for variations, i.e. examination difficulty, which may occur from year to year for the same course, combined scores in each course were standardised to a predetermined shape such that each distribution has the same mean and standard deviation. A description of this adjustment is given on the TISC website at *Marks adjustment process for university admission* (see the last page of this document). Each student's standardised course combined score is provided.

The information on individual students is confidential and can only be used by the teachers involved in analysing results as part of the feedback on student performance. Individual student information must not be released to a third party without permission of the student concerned.

Explanatory notes

Each table includes some notes and abbreviations. These abbreviations mean:

Sickness/misadventure applications (column **SK**)

All students who applied for special consideration for the ATAR course under consideration have an entry in this column. It should be noted that a sickness/misadventure application could be submitted for either the practical or written component of the ATAR course examination. As such, entries in this column are component-specific.

'N' means that the application was rejected and no special consideration was given.

'S' means that the application was approved and an estimated examination mark, which was higher than the actual mark, replaced the actual examination mark. Students in the 'S' category are not included when statistical moderation parameters are calculated for the school/course group (i.e. they are not included in the moderation population for the school/course group).

'R' means that the application was approved, but the estimated examination mark was lower than the actual mark, and hence the actual mark was used in subsequent calculations. Students in the 'R' category are included in the moderation population for the school/course group.

*Anomalous performers (column **AN**)*

The primary method of identifying anomalous performers is through the use of a statistical process. The lower cut-off is two standard deviations below the mean difference between the ATAR examination and moderated school marks, across all candidates of the course. Students with a difference between the ATAR examination mark and moderated school mark that is below the cut-off of the course are categorised as anomalous performers.

In addition to the statistical process, there are several other methods of identifying students as anomalous performers and whose marks should not be included when calculating moderation parameters. The notations below list all of the codes to be found in the **AN** column. These refer to all of the possible reasons for excluding a candidate from the moderation populations of a school.

- 'A'** identified as anomalous by the statistical process
- 'C'** candidate incurred a penalty for breaching examination rules
- 'F'** the mark of the candidate had to be estimated because of exceptional circumstances.

*Absent from an examination (column **ABS**)*

Candidates who are missing an examination component are identified by a 'Y' in the column.

STS028 – School grade distribution against State grade distribution

This report can be downloaded from SIRS using the following pathway:



This report provides a graphical presentation of the school grade distribution for a course with reference to either the moderated school mark distribution or the ATAR course examination mark distribution.

For comparative purposes, the report also provides the State grade distribution for 2022 against the moderated school marks or the ATAR course examination marks. Summary statistics of school marks and of the moderated school marks or the ATAR examination marks are provided for the school and the State.

STS029 – ATAR course marks distributions

This report can be downloaded from SIRS using the following pathway:



This report provides a graphical presentation of various distributions of marks/scores for students enrolled in a Year 12 ATAR course at the school. The marks/scores include school marks, examination marks, moderated school assessments and combined scores.

Where a course has a practical and written component, the distributions of each component are indicated on the graphs of examination marks and moderated school assessments.

STS036 – Statistical moderation and concurrent validity of school assessments

This report can be downloaded from SIRS using the following pathway:



This report provides a graphical comparison of your school's marks moderation in relation to statewide school marks moderation. Your school is shown as a blue dot. Other schools are shown by solid green, solid red or hollow red dots.

The vertical axis shows the difference between the mean moderated school mark and the mean school mark at a school – a positive value shows that school marks have been moderated upwards, and a negative value shows they have been moderated downwards.

The horizontal axis shows the correlation between the school marks and the ATAR course examination marks at a school. A correlation of 0.7 or above (solid green dots) shows reasonable consistency, whereas values below 0.7 are considered poor (hollow red dots) or unacceptable (solid red dots). Correlations for schools with fewer than 10 students may not be reliable.

In the table, your school may be highlighted with:

- a grey shade, where the correlation is below 0.5 **OR** the mean moderated school mark is greater than 10 or less than –10 from the mean school mark, relative to the State difference.
- a pink shade, where the correlation is below 0.5 **AND** the mean moderated school mark is greater than 10 or less than –10 from the mean school mark, relative to the State difference.

Where a school is in an SGM partnership, the population is the moderation population of the small group moderation group.

Detailed Written Examination Feedback (Maximising Feedback): written – MF01, multiple choice – MF02 and practical – MF03

It should be noted that only a SIRS administrator (e.g. user name will be p**** and no alpha character [letter] after the school code) has initial access to the **Detailed written examination feedback (Maximising feedback)** reports. However, they can delegate this role to other staff. Details on how this can be done can be found in Section 2.4.2 Managing roles of other user accounts in the *Data Procedures Manual*, which is available on the Authority website at <https://www.scsa.wa.edu.au/publications/data-procedures-manual>.

Details relating to these reports are available from SIRS using the following pathway:



From there, it is possible to select the course required.

These reports provide a summary and individual marks awarded to students' responses to each of the questions for each ATAR course examination. Feedback is provided about performance on each written question (MF01) and multiple-choice item where applicable (MF02). Where applicable, feedback is also available on the practical component of the examination (MF03).

MF01 is provided for all ATAR courses. The report shows the raw marks for each student for each written, open-ended response item. This can be used to identify strengths and weaknesses across the examination candidates from your school. It also shows the choices that your students made where options were available to them. Part 2 of the report shows a summary of data for each question, including the:

- mean (school and State)
- standard deviation (school and State).

MF02 is provided for those ATAR courses that include multiple-choice questions. Part 1 of the report provides the school and State mean and standard deviation for the multiple-choice questions.

Part 2 is a distractor analysis for all candidates (the State), which provides for each question, the correct answer, the percentage of all candidates who answered correctly and the number of candidates who selected each distractor. Part 3 is the distractor analysis for the school, showing the number of students selecting each alternative (A, B, C, D) and the percentage who selected the correct answer.

Part 4 is a school diagnostic profile, which compares the school data to the data for all candidates and identifies questions where the school performance indicates relative strengths or weaknesses.

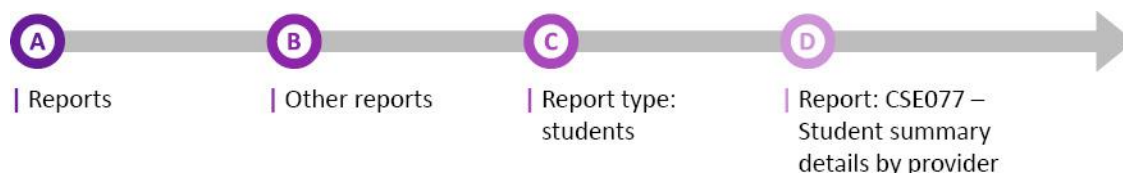
Part 5 is a student-item response table. Part 6 is a statewide distribution of scores, which shows the number and percentage of the candidates achieving each possible score.

MF03 is provided for those ATAR courses with a practical examination. Page 1 of this report shows the marks for each criterion and the total practical examination mark for each candidate at the school. Page 2 of the report shows a summary of data for each criterion, including the:

- mean (school and State)
- standard deviation (school and State).

CSE077 – Student summary details by provider (for a school)

This report can be downloaded from SIRS using the following pathway:



This report provides the results of individual Year 12 students in courses (and course units), VET units of competency, endorsed programs and VET qualifications. Students are listed alphabetically by family name.

The report also includes an indication of whether or not a student has met the WACE requirements. If the student has achieved the WACE, then the year this was achieved is also indicated.

On the first page of the report, there is a separate section indicating the achievement of each of the requirements (breadth and depth, achievement standards and literacy and numeracy standard) to achieve the WACE.

WACE Authentication

The Authority has provided a WACE Authentication web page where education institutions or employers can authenticate a student’s achievement of the WACE by entering their WA student number, provider code and the name on the certificate. The WACE Authentication link is available on the Authority website at <https://waceauthentication.scsa.wa.edu.au/>.

AWD007 – Exhibition and Award Notification – exhibition only (for a school)

This report can be downloaded from SIRS using the following pathway:



This report provides the names of the Year 12 students who received each exhibition and award. The winners are listed alphabetically by family name for each exhibition and award.

EST018 – Externally Set Task – Percentage school marks and grades

This report can be downloaded from SIRS using the following pathway:



This report provides a comparison between the student’s achievement in the externally set task (EST), given as a percentage, and the school grades awarded at the end of year. The school mark awarded to each student at your school is represented by a purple or green bar. The purple bar indicates the script that has been marked at the school level only whilst a green bar indicates that the script has also been marked by an external marker. The grey bars indicate the school marks for the State distribution.

There are two horizontal axes with different scales. The horizontal axis on the top of the graph shows the number of students at the school, whilst the horizontal axis at the bottom of the graph shows the number of students in the state sitting the same EST.

The vertical axis shows the end of year grades awarded by the school at each school mark (as a percentage)

Further information

An information pamphlet, *Your Marks*, is available from the Authority website at <https://senior-secondary.scsa.wa.edu.au/assessment/examinations/your-marks>.

A TISC information paper on the *Marks adjustment process for university admission* can be found on the TISC website at <http://www.tisc.edu.au> using the following pathway:



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