REPORT ON THE SCALING OF THE 2019 NSW HIGHER SCHOOL CERTIFICATE

UAC

CONTENTS

PREFACE

In New South Wales, student achievement in Stage 6 (Years 11 and 12) is reported in two ways: through the Higher School Certificate Record of Achievement and through the Australian Tertiary Admission Rank (ATAR).

A student's Higher School Certificate Record of Achievement presents a profile of their achievement in the courses they have completed, both academic and vocational. Their achievement is reported in terms of the standards they have reached in the courses they have completed.

In contrast, the Australian Tertiary Admission Rank (ATAR) is a numerical measure of a student's overall academic achievement in the HSC in relation to that of other students. This measure allows the comparison of students who have completed different combinations of HSC courses and indicates the position of a student in relation to other students. The ATAR is calculated solely for use by universities, either on its own or in conjunction with other selection criteria, to rank and select school leavers for admission to university.

Calculation of the ATAR is the responsibility of the Technical Committee on Scaling on behalf of the NSW Vice-Chancellors' Committee. The NSW Education Standards Authority (NESA) provides the HSC data from which the ATARs are calculated and the Universities Admissions Centre (UAC) advises individual students of their ATARs.

This report contains information on the calculation of the ATAR in 2019.

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Chair, Technical Committee on Scaling
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March 2020

ACKNOWLEDGEMENTS

Calculating individual ATARs each year and distributing them to the students who requested them is a major task. It requires a high degree of expertise, commitment and co-operation between the staff of several agencies:

- staff of the NSW Education Standards Authority (NESA) who supply the HSC data from which the ATARs are calculated
- staff of UAC who distribute the ATARs to individual students, handle enquiries from students following the release of the results and distribute information about the ATAR to schools during the year
- members of the Technical Committee on Scaling who play a central role with responsibility for translating policy decisions into processes, and for developing and maintaining programs that ensure the integrity of the data and the accuracy of the individual ATARs
- those members of the Technical Committee on Scaling who work closely with the Chair of the Committee when the ATARs are calculated, and at other times during the year.

Without the skill and commitment of these people, the calculation and distribution of the ATARs would not be possible.

DEFINITIONS

ABS

The ABS is the Australian Bureau of Statistics.

ATAR COHORT

ATAR cohort is used to refer to those students who received an ATAR in a particular year. The students may have accumulated courses over a five-year period.

ATAR COURSES

ATAR courses are Board Developed courses for which there are examinations conducted by NESA that yield graded assessments. Life Skills courses are not ATAR courses. If students wish to have English Studies, Mathematics Standard 1 or a VET course contribute to their ATAR eligibility requirements and calculation, they must enrol in the appropriate additional examination course and complete the examination.

BOARD DEVELOPED COURSES

Board Developed courses are courses whose syllabuses have been developed by NESA.

BOARD ENDORSED COURSES

Board Endorsed courses are courses whose syllabuses have been approved by NESA but which do not have formal examinations conducted by NESA.

HSC COHORT

HSC cohort refers to students who have completed at least one ATAR course in a particular year.

NESA

NESA refers to the NSW Education Standards Authority (NESA). Prior to 1 January 2017, NESA was known as the Board of Studies, Teaching and Education Standards (BOSTES).

VET EXAMINATION COURSES

The VET Curriculum Frameworks are based on training packages where the assessment is competency based. As competency-based assessment does not yield a mark that can be used in the ATAR calculations, NESA introduced an additional course for each VET Curriculum Framework that includes an examination. If students wish to have a VET course contribute to their ATAR eligibility requirements and calculation, they must enrol in the appropriate additional course and complete the examination. These additional courses are termed VET examination courses. Students who do not want their VET courses to contribute towards their ATARs are not required to complete these optional examinations.

1 THE HIGHER SCHOOL CERTIFICATE (HSC)

The Higher School Certificate (HSC) is an exit certificate awarded and issued by NESA. It marks the completion of 13 years of schooling, is the gateway to further study and employment, and presents a profile of student achievement in a set of courses.

1.1 ELIGIBILITY FOR AN HSC

To qualify for an HSC, students must complete a pattern of Preliminary and HSC courses containing at least 12 units of Preliminary courses and at least 10 units of HSC courses.

These HSC courses must include at least:
- 6 units of Board Developed courses
- 2 units of a Board Developed course in English
- three courses of 2-unit value or greater (either Board Developed or Board Endorsed courses)
- four subjects.

Further details about HSC eligibility and HSC courses can be found on NESA's website.

1.2 REPORTING STUDENT ACHIEVEMENT IN THE HSC

For most ATAR courses, NESA reports student achievement against published standards by:
- an examination mark
- a school assessment
- an HSC mark
- a performance band.

These results are shown on a student's Record of Achievement. A Course Report is also provided for most Board Developed courses. The report describes the standard achieved in the course using performance bands and provides a graph indicating the student's position in the course candidature.

1.2.1 Defining standards by performance bands

Standards in a course are described in terms of the content, skills, concepts and principles relevant to the course and represent the range of achievement expected of students completing the course. Performance band descriptors, which describe typical achievement at different standards (bands), have been developed for each course. There are six performance bands for 2-unit courses and four performance bands for Extension courses.

The percentage of students in any performance band depends only on how many students enrolled in that course perform at the standard specified by the performance band descriptor. There are no predetermined percentages of students to be placed in the performance bands.

It follows that, although the standards described by the performance bands in a course will be the same from year to year, standards in different courses are not the same as they are based on different criteria. Because of this, it should not be expected that the percentages of students in the six bands will be the same across courses. For any course, the percentages will also vary from year to year if the performance of the cohort choosing that subject changes.

The ranges of marks for the bands are as follows:

2-unit courses

Band	1	2	3	4	5	6
Mark range	0–49	50–59	60–69	70–79	80–89	90–100

Extension courses (except Mathematics Extension 2)

Band	E1	E2	E3	E4
Mark range	0–24	25–34	35–44	45–50

Mathematics Extension 2*

Band	E1	E2	E3	E4
Mark range	0–49	50–69	70–89	90–100

**Mathematics Extension 2 students have their achievement for both Mathematics Extension 1 and Mathematics Extension 2 reported using four bands but the mark range is out of 100 rather than 50.*

1.2.2 Examination marks

The examination mark reported on a student's Record of Achievement indicates the standard the student has attained in that examination. If, for example, a student's performance in the Society and Culture examination is at the standard described for Performance Band 3, the examination mark reported on their Record of Achievement for that course will lie between 60 and 69. In general, this mark, termed the aligned examination mark, will differ from the mark the student actually gained on the examination (the raw examination mark).

The aligned mark indicates the standard reached by a student and their position in the performance band. For example, a mark of 62 means that, while the student has performed at a Performance Band 3 standard, their achievement is towards the bottom of this band.

1.2.3 School assessments

To enable school assessments from different schools to be compared, marks submitted by schools (raw assessments) are first moderated using the raw examination marks gained by their students and then aligned to course standards. The school assessments reported on a student's Record of Achievement are the aligned assessments.

The process used for the moderation of school assessments and subsequent alignment with standards ensures that the rank order of a school's students in a course is maintained.

1.2.4 HSC marks

For each course, students receive three marks — an examination mark, a school assessment and an HSC mark — all of which have been aligned to NESA's published standards and rounded to whole numbers. The HSC mark is the average of the examination mark and the school assessment. It is the HSC mark that determines a student's performance band for the course.

Further details about NESA's processes can be found on NESA's website.

2 THE AUSTRALIAN TERTIARY ADMISSION RANK (ATAR) – AN OVERVIEW

2.1 BACKGROUND

The Australasian Conference of Tertiary Admission Centres (ACTAC) agreed that, as of 2010, all states and territories would adopt a common name for the ranking index used to rank students for university admission. The agreed name was the Australian Tertiary Admission Rank (ATAR). The name change was to emphasise the common scale used for reporting student ranks. NSW and the ACT adopted the new name in 2009.

The ATAR is a numerical measure of a student's overall academic achievement in the HSC in relation to that of other students. This measure allows the overall achievement of students who have completed different combinations of HSC courses to be compared. The ATAR is calculated solely for use by tertiary institutions, either on its own or in conjunction with other criteria, to rank and select school leavers for admission. Calculation of the ATAR is the responsibility of the Technical Committee on Scaling on behalf of the NSW Vice-Chancellors' Committee.

The ATAR, which aims to provide a fair and equitable method of ranking applicants from all states, is based on the assumption that the age cohorts from which the states' Year 12 cohorts are drawn are equally able to undertake tertiary study. That is, if everyone in the age group completed Year 12, it would be fair to consider the same proportion of each state's students as admissible to any particular university course.

The result of this procedure in NSW is a number which represents the position of a student in the appropriate age cohort, based on their overall academic achievement in the HSC.

From 1998 until 2013, NSW used data from the School Certificate tests administered by NESA as the link that enabled the positions of HSC students relative to their Year 10 group to be estimated from their positions relative to their Year 12 group. With the move to the ATAR in 2009, the School Certificate group was augmented to more accurately reflect the entire HSC-aged population of the state. The last School Certificate tests were held in 2011, so that procedure is no longer available.

From 2014 to 2016, a two-parameter logistic function was used to translate the HSC students' positions based on their scaled aggregate marks into ATARs. This was consistent with the procedure that had been used in most other jurisdictions without Year 10 examinations.

In 2016, all jurisdictions agreed to transition to a consistent process using a one-parameter cubic spline function, depending only on the proportion of the age cohort that is ATAR-eligible, as the means for converting student aggregates into ATARs. This was implemented in NSW in 2017. At present, Queensland is the only state not using this methodology, but will adopt it for the Year 12 cohort in 2020. It should be emphasised that these changes do not alter the rank order of students, and that changes are sufficiently small to permit valid comparisons of ATARs obtained in different years.

The ATAR is calculated as a number between 0 and 99.95 with increments of 0.05. The ATAR is not a mark. Specifically, a student's ATAR indicates the position of that student relative to the entire HSC-aged population of the state. Students who receive an ATAR of 80.00 in 2019, for example, have performed well enough in the HSC to place them 20% from the top if every HSC-aged person in the state had been ATAR-eligible.

Students who indicate on their HSC entry forms that they wish to be notified of their ATARs will receive an ATAR Advice Notice from UAC. ATARs are also made available to institutions for selection purposes.

2.2 CATEGORISATION OF ATAR COURSES

ATAR courses are assessed by formal examinations conducted by NESA and have sufficient academic rigour to be regarded as suitable preparation for university study.

ATAR courses are classified as either Category A or Category B courses. The criteria for Category A courses are academic rigour, depth of knowledge, the degree to which the course contributes to assumed knowledge for tertiary studies, and the coherence with other courses included in the ATAR calculations. Category B courses are those whose level of cognitive and performance demands are not regarded as satisfactory in themselves, but their contribution to a selection index is regarded as adequate if the other courses included in the aggregate are more academically demanding. In 2019, two new Category B courses were introduced – English Studies Examination and Mathematics Standard 1 Examination. English Studies Examination could also be used by students to satisfy the 2 units of English requirement for ATAR-eligibility.

The Category B courses in 2019 were:

- Automotive Examination
- Business Services Examination
- Construction Examination
- Electrotechnology Examination
- English Studies Examination
- Entertainment Industry Examination
- Financial Services Examination
- Hospitality Examination
- Human Services Examination
- Information and Digital Technology Examination
- Mathematics Standard 1 Examination
- Metal and Engineering Examination
- Primary Industries Examination
- Retail Services Examination
- Tourism, Travel and Events Examination

2.3 ELIGIBILITY FOR AN ATAR IN 2019

To be eligible for an ATAR a student must have satisfactorily completed at least 10 units of ATAR courses, which included at least:

- 8 units of Category A courses
- 2 units of English
- three courses of 2 units or greater
- four subjects.

2.4 CALCULATION OF THE ATAR

The ATAR is based on an aggregate of scaled marks in 10 units of ATAR courses comprising:

- the best 2 units of English
- the best 8 units from the remaining units, which can include up to 2 units of Category B courses (if English Studies has already been counted for the 2 units of English, all remaining 8 units must come from Category A courses).

Marks to be included in the ATAR calculations can be accumulated over a five-year period but if a course is repeated only the last satisfactory attempt is used in the calculation of the ATAR.

For students accumulating courses towards their HSC, scaled marks are calculated in the year the courses are completed.

2.5 THE ATAR ADVICE NOTICE

The ATAR Advice Notice includes:

- the student's ATAR
- a list of the ATAR courses which the student studied and the categorisation of each course
- the number of units of each ATAR course that were actually included in the calculation of the ATAR.

While ATARs are calculated for all ATAR-eligible students, only those students who indicate on their HSC entry forms that they wish to be notified of their ATAR will receive an ATAR Advice Notice from UAC.

There are two circumstances where an ATAR will not be shown on the ATAR Advice Notice. The first is when a student receives an ATAR between 0.00 and 30.00, in which case the ATAR will be indicated as '30 or less'. The second is when the student has not met the requirements for an ATAR, in which case the statement 'Not Eligible' will appear.

An example of an ATAR Advice Notice is given below.

UAC

AUSTRALIAN TERTIARY ADMISSION RANK.
2019 ADVICE

Full name	JANE CITIZEN
Year 12 student number	12XXXXXX
AUSTRALIAN TERTIARY ADMISSION RANK (ATAR)	**75.80 *SEVEN*FIVE***EIGHT*ZERO***

Shown below are the ATAR courses which were available for inclusion in the ATAR, together with the units that were actually included in the calculation. Information about ATAR eligibility and the calculation of the ATAR are available at http://www.uac.edu.au/atar

Course name	Category	Year completed	Unit value	Units included in calculation of ATAR
Business Studies	A	2019	2	2
Economics	A	2019	2	2
English Advanced	A	2019	2	2
Mathematics Advanced	A	2019	2	2
Textiles and Design	A	2019	2	2

Dr David Christie
Managing Director
14 December 2019

This notice is **digitally signed** by Universities Admissions Centre and registered on the **Ethereum Blockchain** network.

To verify the validity of this notice, scan the QR code using a compatible mobile phone, or visit the link below and enter the Year 12 student number and date of birth.

https://verify.uac.edu.au/digital-atar/2018/XXXXXXXX-xxxx-XXXX-xxxx-XXXXXXXXX

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3 CALCULATING THE ATAR IN 2019

3.1 OVERVIEW

Tertiary institutions are concerned with ranking school leaver applicants. From their perspective, the importance of HSC marks is that they convey information about a student's position in relation to other students.

With the exception of English, which is compulsory, students are free to choose their courses of study. Consequently, individual course candidatures vary in size and nature, and there are many different enrolment patterns. In 2019 there were 26,526 different enrolment patterns for ATAR-eligible students; only 206 of these 26,526 combinations were completed by 20 or more students and 19,252 were taken by only one student. Given the choice available, it follows that a student's rank in different courses will not necessarily have the same meaning, as good rankings are more difficult to obtain when the student is competing against students of high academic ability.

Because of the lack of comparability of HSC marks achieved in different courses, either when reported against standards or in terms of ranking, marks of individual students are scaled before they are added to give the aggregates from which the ATARs are determined.

The scaling process is designed to encourage students to take the courses for which they are best suited and which best prepare them for their future studies. The underlying principle is that a student should neither be advantaged nor disadvantaged by choosing one HSC course over another. The scaling algorithm estimates what students' marks would have been if all courses had been studied by all students and all courses had the same distribution of marks.

The scaling model assumes that a student's position in a course depends on the student's developed ability in that course and the 'strength of the competition'. Since the ATAR is a rank that reflects academic achievement, 'strength of the competition' is defined in terms of the demonstrated overall academic attainment of a course candidature.

Scaling first modifies the mean, the standard deviation (SD) and the maximum mark in each course. Adjustments are then made to the marks of individual students to produce scaled marks, which are the marks the students would have received if all courses had the same candidature and the same mark distribution.

Although scaled marks are generally different from the raw marks from which they are derived, the ranking of students within a course is not changed.

Once the raw marks have been scaled, aggregates are calculated for ATAR-eligible students. In most cases, the ranking or order of merit based on these aggregates is quite different from the order of merit using aggregates based on HSC marks.

The penultimate step is to determine what the percentiles would have been if all HSC-aged persons in the state were eligible for an ATAR. The last step is to truncate these percentiles to the nearest 0.05. These are the ATARs.

Each ATAR corresponds to a range of aggregates. The target for the number of students with each ATAR varies and is calculated using the cubic spline function referred to in section 2.1. The presence of candidates tied on the same aggregate means that the actual number of students with each ATAR may differ slightly from the calculated target.

The scaling process is carried out afresh each year. It does not assume that one course is intrinsically more difficult than another or that the quality of the course candidature is always the same. All students who complete at least one ATAR course in a given year are included in the scaling process for that year. Students who are accumulating courses towards their HSC have their scaled mark for each course calculated in the year that the course is completed.

3.2 THE SCALING PROCESS IN 2019

The scaling procedure used to produce the aggregates in 2019 was unchanged from that used in 2018.

3.2.1 Marks used in the ATAR calculations

For each course a student completes, the Board provides the following marks:

- a raw examination mark
- a raw moderated school assessment[1]
- an examination mark, which has been aligned to course standards
- a moderated school assessment, which has been aligned to course standards
- an HSC mark.

All marks are provided on a 1-unit basis to one decimal place. In the description of the scaling process that follows, to cater for both 2-unit and Extension courses, marks are described on a 1-unit basis.

3.2.2 Raw HSC marks

Raw HSC marks, rather than NESA's reported HSC marks, are used in the scaling process. A student's raw HSC mark in a course is the average of their raw examination mark and their raw moderated school assessment. These marks are not reported to students.

3.2.3 Combined courses

As NESA places English Studies, English Standard and English Advanced raw marks on a common scale, these courses are combined and scaled as a single course but are reported as separate courses in order to be consistent with NESA's reporting practice.

Similarly, while the examinations for the Automotive, Information and Digital Technology, and Hospitality VET Frameworks are separated into two or more streams, NESA places the raw examination marks for the various streams in each framework on a common scale. Consequently, the Automotive Exam, Information and Digital Technology Exam and Hospitality Exam are each scaled as a single course.

3.2.4 Initial standardisation

Before the scaling algorithm is implemented, a linear transformation is applied to the raw HSC marks in each course to set the top mark to a common value. The marks in each course are then standardised to a mean of 25 and standard deviation of 12 on a 1-unit basis.

3.2.5 Calculating scaled means and standard deviations

The model underpinning the scaling algorithm specifies that the scaled mean in a course is equal to the average academic achievement of the course candidature where, for individual students, the measure of academic achievement is taken as the average scaled mark in all courses completed. The model specification leads to a set of simultaneous equations from which the scaled means of 2-unit courses are calculated.

The scaled standard deviation for a 2-unit course is the standard deviation of the measure of overall academic achievement of the candidature of that course.

[1] *These are school assessments that have been moderated using the raw examination marks*

For Extension courses, the scaled means and standard deviations are determined by the performance of the Extension students on the corresponding 2-unit courses. The exceptions are History Extension which can be completed by both Modern History and Ancient History students, Science Extension which can be taken by students doing up to three 2-unit science courses (out of Biology, Chemistry, Earth and Environmental Science, Investigating Science and Physics), and the second Extension courses in English and Mathematics: English Extension 2 and Mathematics Extension 2.

A scaled mean is determined for the Modern History students in History Extension on the basis of their performance in the 2-unit Modern History course. A scaled mean for the Ancient History students in History Extension is found in a similar manner. The scaled mean for History Extension is then set equal to the weighted average of these two scaled means. The scaled standard deviation is found in a similar manner.

In the same way, the scaled mean and standard deviation of Science Extension are the weighted average of the scaled means and standard deviations of five groups of students, with each of the scaled mean and standard deviation calculated for students in Science Extension on the basis of their separate performances in 2-unit Biology, Chemistry, Earth and Environmental Science, Investigating Science and Physics.

Scaled means and standard deviations for English and Mathematics Extension 1 courses are calculated as described above. The scaled mean and standard deviation for the Mathematics Extension 2 course are then determined by the performance of the Extension 2 students in the Mathematics Extension 1 course. For English Extension 2, the scaled mean and standard deviation are determined by the performance of the Extension 2 students in English Advanced. (This option is not available for Mathematics as the Extension 2 students do not complete the Mathematics 2-unit paper.)

3.2.6 Setting maximum marks

The maximum scaled mark in a course is determined according to the academic quality of the course candidature in such a way that the maximum scaled mark for the combined 2-unit English candidature is 50 on a 1-unit basis. With the introduction of English Studies Examination in 2019, the combined 2-unit English candidature consists of students who have taken English Studies Examination, English Standard and English Advanced.

In 2019, the maximum scaled mark in a course was given by the smaller of 50 and the scaled mean + 2.46 times the initial scaled standard deviation, where the scaled mean and initial scaled standard deviation of the course are determined using the scaling algorithm.

The number 2.46 was determined on the basis that the maximum scaled mark in the combined 2-unit English course is 50. This number is calculated afresh each year.

3.2.7 Scaling individual marks

Once the scaled means and standard deviations are determined, individual raw marks are scaled using a non-linear transformation which preserves the scaled mean and standard deviation of a course and restricts the scaled marks to the range (0–50).

If this transformation results in a maximum scaled mark which is less than the maximum scaled mark described in 3.2.6, a further linear transformation is applied. The effect of this linear transformation is to increase the standard deviation so that the actual maximum scaled mark in the course is changed to be the same as the maximum scaled mark described in 3.2.6. This further transformation does not affect the scaled mean. In all tables presented in this report, the modified scaled standard deviations rather than the initial scaled standard deviations are shown.

For some courses with very small candidatures, the non-linear transformation is not always appropriate, in which case alternative transformations, which are consistent with the principles of the scaling algorithm, are used.

3.2.8 Calculating aggregates and ATAR-eligible percentiles

Aggregates of scaled marks are calculated to one decimal place according to the rules described in section 2.4. In 2019, there were 4,460 distinct aggregates. There are a large number of tied results with some aggregates shared by 30 or more students.

Table 3.1 shows the ATAR-eligible percentiles (the percentage of the ATAR cohort with an aggregate mark less than or equal to a given aggregate) corresponding to selected aggregates for the 2019 ATAR cohort. From the table, it can be seen that, for example, 77.3% of the 2019 ATAR cohort received an aggregate mark of 350 or less.

Table 3.1 ATAR-eligible percentiles corresponding to selected aggregates in 2019

Aggregate	ATAR-eligible percentile
450.0	98.9
400.0	91.2
350.0	77.3
300.0	61.2
250.0	44.1
200.0	28.1
150.0	14.5

3.2.9 Calculating the ATAR

In 2019 a one-parameter cubic spline model was used to translate the ATAR-eligible percentiles into ATARs. This model was adopted by some jurisdictions in 2016, and was used in all jurisdictions except Queensland from 2017. The model depends only on the participation rate observed in the jurisdiction.

The specific form of the cubic spline function will depend on the proportion of students in the target population who are ATAR-eligible. This proportion is called the participation rate. The target population served by UAC consists of students from the ACT and NSW. In 2019, the ACT and NSW combined participation rate, determined using ABS data, was 58.5%, down from 59.4% in 2018.

For jurisdictions with participation rates between 25% and 75%, the model expects that the proportion of people whose percentile rank within the target population is x who will be ATAR-eligible is given by

$$\frac{x^3}{(1000\alpha)^2} \text{ if } 0 \le x \le 100\alpha \text{ and } 1 - \frac{(100-x)^3}{(1000-1000\alpha)^2} \text{ if } 100\alpha \le x \le 100$$

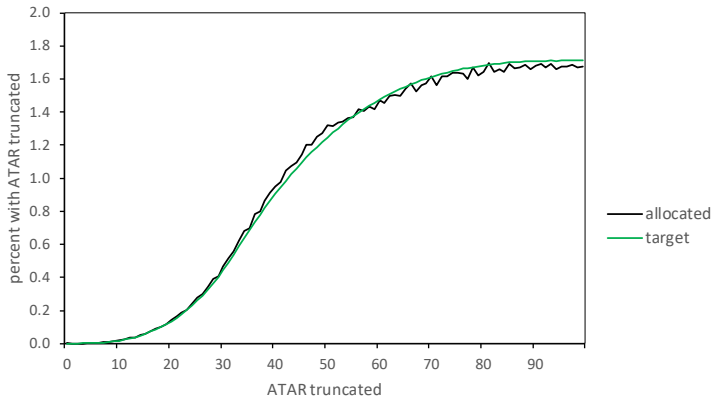
where α is 1.5 – 2*(participation rate). In 2019, the value of α in NSW was 0.33.

In particular, the model expects all the most able candidates to complete Year 12 and be eligible for an ATAR, and so the top category should contain 1/2000th of the target population. In 2019, this target frequency for an ATAR of 99.95 was N = 49 for ACT and NSW combined, meaning that the number of students from these two jurisdictions receiving 99.95 should not exceed 49.

With the 2019 ACT and NSW combined participation rate, the model expects that 94.0% of candidates who are at the 70th percentile in the target population will complete Year 12 and be eligible for an ATAR. Accordingly, the target frequency for an ATAR of 70.00 is 94.0% of 1/2000th of the target population, which was 46 students.

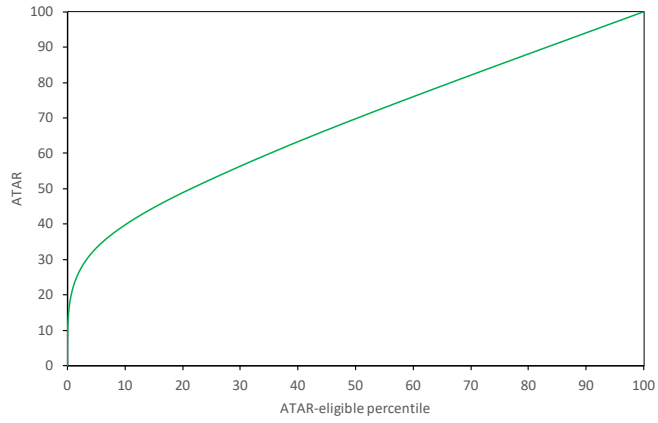
In order to implement this model, each ACT student is allocated a notional aggregate using the process, which has been in place since 2006, to equate NSW HSC and ACT Board of Senior Studies results. (Annual studies are undertaken to ensure that this process continues to be valid). Starting with the highest aggregate, the candidates are progressively allocated to ATAR bands to achieve the cumulative target frequencies, without exceeding them. (In 2019, the 99.95 ATAR category consisted of 46 NSW students and 2 ACT students.) There is noise in the allocation due to ties in the aggregates. The resulting pattern is shown in Figure 3.1.

Figure 3.1 Percentage of NSW ATAR-eligible students in each ATAR truncated category in 2019



The relationship between the NSW ATAR and ATAR-eligible percentile in 2019 is shown in Figure 3.2.

Figure 3.2 The relationship between NSW ATAR and ATAR-eligible percentile in 2019



The relationship between aggregates and ATARs in 2019 is shown graphically in Figure 3.3.

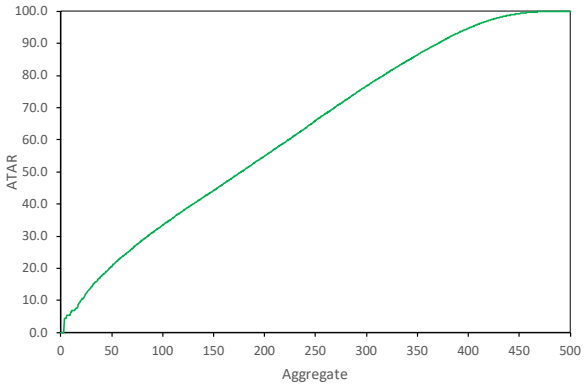


Figure 3.3 Relationship between aggregate and NSW ATAR in 2019

Each ATAR corresponds to a range of aggregate marks. The range of aggregates corresponding to one ATAR is greatest in the extremes of the distribution of aggregates and smallest near the middle of the distribution of aggregates. Table 3.2 gives ATARs for selected aggregates based on the 2019 data.

Table 3.2 Relationship between NSW aggregate and ATAR in 2019

Aggregate	ATAR
450.0	99.30
400.0	94.70
350.0	86.40
300.0	76.65
250.0	65.90
200.0	54.95
150.0	44.15

4 THE HSC AND ATAR IN 2019 – SOME RESULTS

4.1 OVERVIEW

A total of 73,853 students completed at least one HSC course in 2019, but 4,288 were removed from the database as they completed no ATAR course. Of the remaining pool of 69,560 students, 91.0% received an HSC and 79.1% received an ATAR. Only 3 students who received an ATAR did not receive the HSC award. While courses contributing to the underlying aggregate may be accumulated over a five-year period, 93.2% of those receiving an ATAR in 2019 included only 2019 courses in their aggregate.

The percentage of students enrolled in at least one ATAR course who were female was 52.3%, and 53.7% of students who received an ATAR were female. Neither figure changed from the previous year.

4.2 PERCENTAGE OF STUDENTS RECEIVING AN ATAR

HSC students who do not receive an ATAR fall into one of two broad groups:

- Those who are studying less than 10 units. These include private study students who enrol in one or two courses, mature age students who are studying a limited HSC program and students who are accumulating their HSC over two or more years.
- Those who enrol in a full HSC program which does not satisfy the requirements for an ATAR. These students normally complete 6 or 8 units of Board Developed courses, and choose the remaining units from Board Endorsed courses. They receive an HSC but not an ATAR. In 2019 there were 8,277 such students.

Table 4.1 Proportion of students receiving an ATAR, 2015–2019

Year	HSC candidature	Students receiving an ATAR	
		Number	%
2015	72,238	55,736	77.2
2016	72,014	55,956	77.7
2017	72,708	57,061	78.5
2018	71,407	56,127	78.6
2019	69,560	55,031	79.1

4.3 NUMBER OF UNITS OF ATAR COURSES COMPLETED

The pattern in 2019 was similar to that observed in 2018, with 49.0% completing exactly 10 ATAR units and 30.5% completing more than the required minimum number of ATAR units (Table 4.2).

Table 4.2 Percentage of students completing specified numbers of units[1] of ATAR courses, 2016–2019

Number of units	2016 %	2017 %	2018 %	2019	
				%	Number
1	0.5	0.5	0.6	0.7	493
2	7.3	7.4	7.4	7.3	5,046
3	0.6	0.6	0.6	0.5	376
4	5.1	4.9	4.7	4.2	2,929
5	0.1	0.1	0.1	0.2	125
6	5.2	4.8	4.8	4.3	2,995
7	0.1	0.1	0.1	0.1	90
8	3.0	2.8	2.8	3.0	2,116
9	0.1	0.1	0.1	0.1	88
10	46.3	47.1	48.3	49.0	34,116
11	17.3	17.2	16.8	17.5	12,161
12	12.6	12.7	12.1	11.3	7,890
13	1.4	1.3	1.3	1.3	901
14	0.3	0.3	0.2	0.3	197
15+	0.1	0.1	0.0	0.1	37
HSC cohort	**72,014**	**72,708**	**71,401**		**69,560**

[1] The units include current year units and units accumulated in previous years.

4.4 COURSE ENROLMENTS – TABLE A1

Table A1 in the Appendix provides for each course the size of the candidature, the number who received an HSC in 2019, the number who received an ATAR in 2019, the percentage of females and the maximum ATAR gained by a student enrolled in that course. The table includes students who completed the course in 2019 as well as those who completed the course in previous years and completed at least one ATAR course in 2019. The table excludes courses where there were less than 10 students.

What is clear is that in almost all courses some students gained an ATAR in excess of 95.00, and for the majority of courses the maximum ATAR is higher.

In Table A6 we have included a column showing for each course the maximum ATAR of any student doing the course in any year and including all units from that course in the ATAR calculation. For the vast majority of courses, the values for the maximum ATAR in Tables A1 and A6 agree.

The pattern of 'male-dominated' and 'female-dominated' courses was similar to the pattern exhibited previously. Female students were in the majority in languages, creative arts and the humanities, while males were in the majority in technology and computing courses.

A total of 19,346 students enrolled in at least one VET course, of which 11,840 students enrolled in a VET examination course. The proportion taking a VET examination course (61.2%) is lower than the corresponding proportion for 2018 (64.2%).

Overall, 79.1% of the 2019 HSC cohort received ATARs but the percentage varied across courses, from 52.5% to 99.7% for Category A courses with candidatures exceeding 100. For students enrolled in any VET courses, the overall figure was 54.7% but was higher, at 79.8%, for students enrolled in VET examination courses.

4.5 DISTRIBUTIONS OF HSC MARKS – TABLE A2

Table A2 in the Appendix shows the distributions of HSC marks in 2019. For each course, the percentage of students in Bands 2 to 6 are given, together with the median HSC mark and the band in which the median lies. Data is not provided for courses with less than 10 students.

Since the introduction of standards-referenced reporting in 2001, marks reported to students have not been constrained to a set distribution. Students demonstrating the highest level of achievement in a 2-unit course are placed in Band 6 and receive HSC marks of 90 and above. The data shows clearly that patterns of HSC marks vary across courses.

There are few students in Band 1. For most 2-unit courses the median HSC mark lies in Band 4.

Comparison of Table A2 with the corresponding table in 2018 shows that distributions of HSC marks have changed for some courses (see section 5.1.)

4.6 DESCRIPTIVE STATISTICS OF HSC AND SCALED MARKS – TABLE A3

Table A3 in the Appendix presents, for each course, descriptive statistics and the 99th, 90th, 75th, 50th and 25th percentiles for HSC and scaled marks. Data is not provided for courses with less than 10 students or courses in which all the students have a total of less than 25 results from other current year scaling courses. Percentiles are not included for courses with less than 40 students.

Although HSC marks are not used as the basis for scaling they are shown in Table A3 because raw marks are not released to students or teachers and hence cannot be presented in this report. Scaled marks are generally lower than HSC marks: few students receive HSC marks less than 25 (on a 1-unit basis) whereas the average scaled mark for the total HSC candidature is approximately 25.

In the table, marks are shown on a 1-unit basis, so the range is 0 to 50. The percentiles in a course are based on all students completing that course in 2019 irrespective of whether they were eligible for an ATAR or not.

When reading the table, it must be remembered that an HSC mark indicates a standard reached whereas a scaled mark reflects the position a student would have obtained in the course candidature had all students completed that course. Because HSC marks and scaled marks serve different purposes, comparing HSC and scaled marks is of little value and can lead to misinterpretations that may adversely affect student choices of courses to study.

Table A3 should not be used as a simple HSC to scaled mark conversion table for reasons explained below.

NESA reports HSC marks rounded to the nearest integer whereas raw marks are calculated to one decimal place. NESA aligns the raw marks to bands that best describe the standards that the students achieve. This can compress a range of raw marks to a smaller number of HSC marks. For example, all Band E4 performances in an Extension course (except for Mathematics Extension 2) are allocated one of the six integer grades 45.0 to 50.0. Thus, after aligning and rounding, for each HSC mark there can be a range of raw marks and hence a range of scaled marks. There is, in general, no unique scaled mark for an HSC mark.

A given HSC mark often corresponds to a range of raw and scaled marks and hence to a range of percentiles. Table A3 gives the HSC mark at the specified percentile. Not all students with that HSC mark will be at that percentile when the raw marks are considered. For example, in History Extension the HSC mark at the 90th percentile was 47.0. Students with a History Extension HSC mark of 47.0 in fact corresponded to the scaled mark percentile range 88.4 to 95.1.

The scaled marks reported in Table A3 are the scaled marks at the specified percentiles. The 90th percentile of the scaled mark distribution in History Extension was 42.0 but there was a range of scaled marks achieved by those with an HSC mark of 47.0.

Looking at Music Extension in Table A3, we see that the 99th and 90th percentiles of the HSC distribution are both 50.0 whereas the scaled marks at the corresponding percentiles are 50.0 and 48.2. This illustrates that there is not a unique scaled mark corresponding to a given HSC mark.

The primary purpose of Table A3 is to show the relativities between courses. For example, Table 4.3 shows the scaled marks corresponding to the 90th and 50th percentiles for English Extension 1, Design & Technology and English EAL/D.

Table 4.3 Scaled marks for selected percentiles

Course	Scaled mean	Scaled mark for	
		P90	P50
English Extension 1	36.4	44.1	37.1
Design & Technology	22.4	37.0	21.8
English EAL/D	22.2	37.6	22.0

Design & Technology and English EAL/D have similar scaled means and similar scaled marks corresponding to the 90th percentile. English Extension 1 has a higher scaled mean and higher scaled marks at corresponding percentiles. The table shows that the students who are at the 90th percentile of the Design & Technology and English EAL/D candidatures have similar scaled marks for those courses to the middle candidate in English Extension 1.

4.7 DISTRIBUTION OF ATARS – TABLE A7

Table A7 in the Appendix shows the distribution of ATARs. ATARs are not evenly distributed. For most ATARs the number of students on that ATAR lies between 20 and 50. The number of students on an ATAR is less for lower ATARs.

An ATAR of 99.00 does not represent the top 1% of the ATAR cohort; 1.7% of the 2019 ATAR cohort actually gained an ATAR of 99.00 or above. It does, however, represent the level of achievement necessary to be in the top 1% if all HSC-aged people in NSW had completed studies that made them ATAR-eligible in 2019. From Table 4.4 we see that, in 2019, 16.8% of the ATAR-eligible students received an ATAR of 90.00 or above and 33.4% gained an ATAR of 80.00 and above.

Table 4.4 Percentage of ATAR students receiving specific ATARs and above, 2015–2019

ATAR	2015 %	2016 %	2017 %	2018 %	2019 %
99.00	1.7	1.7	1.6	1.7	1.7
95.00	8.3	8.3	8.2	8.3	8.4
90.00	16.5	16.5	16.4	16.7	16.8
80.00	32.7	32.6	32.7	33.3	33.4
70.00	48.1	48.0	48.5	49.5	49.6
60.00	62.4	62.3	63.5	64.6	64.8
50.00	74.8	74.7	77.0	78.2	78.6

Table 4.5 Median ATAR, 2015–2019

Year	Median ATAR all students	Median ATAR female	Median ATAR male
2015	68.70	70.75	66.35
2016	68.65	70.45	66.55
2017	69.00	70.15	67.65
2018	69.65	71.10	67.80
2019	69.75	71.10	68.05

Table 4.5 shows the median ATAR and the median ATAR for male and female candidates for the years 2015–2019.

In 2019, 46 students received the top ATAR of 99.95. They comprised 30 males and 16 females from a mix of government and independent schools.

4.8 ATAR PERCENTILES AND RELATIONSHIP BETWEEN ATAR AND AGGREGATES – TABLES A8, A9

Table A8 in the Appendix shows the ATAR corresponding to selected ATAR-eligible percentiles. For example, 10% of the ATAR cohort in 2019 received an ATAR of 94.00 or above.

Each ATAR corresponds to a range of aggregates and the figures provided in Table A9 in the Appendix show the minimum aggregate corresponding to selected ATARs.

4.9 RELATIONSHIP BETWEEN SUBJECT CHOICE, BAND AND ATAR

There is considerable interest in the relationship between a student's selection of HSC courses and their ATAR. As mentioned in 3.1, students present an extraordinarily large range of HSC course combinations, and so it is not possible to describe a typical HSC result associated with a particular ATAR. However, some insight can be gained from Table 4.6, which lists the 10 most common HSC course/band combinations for students in selected ATAR ranges. The patterns illustrate that the most able students generally choose the more demanding courses in subjects where choice is available, and that the reported HSC performance bands, at least for the most common courses, are reasonably consistent at most points in the ATAR spectrum.

Table 4.6 The 10 most common HSC courses and results achieved by students at selected ATAR ranges, 2019

ATAR range	HSC Course	HSC Band	Percentage of students in this ATAR range with this result
99.00 – 99.95	English Advanced	6	85%
	Mathematics Extension 1	E4	79%
	Chemistry	6	57%
	Mathematics Extension 2	E4	55%
	Physics	6	38%
	Mathematics	6	27%
	Economics	6	20%
	English Extension 1	E4	18%
	Biology	6	17%
	Modern History	6	17%
90.00 – 90.95	English Advanced	5	69%
	Mathematics	5	24%
	Biology	5	24%
	Chemistry	5	22%
	Mathematics Extension 1	E3	22%
	Modern History	5	19%
	Mathematics	6	18%
	Physics	5	16%
	Business Studies	5	15%
	Mathematics Standard 2	5	14%
70.00 – 70.95	English Standard	4	42%
	English Advanced	4	33%
	Mathematics Standard 2	4	30%
	Biology	4	28%
	Business Studies	4	25%
	PDH&PE	4	19%
	Mathematics	4	15%
	Modern History	4	15%
	Mathematics Standard 2	5	15%
	Studies of Religion II	4	13%
50.00- 50.95	English Standard	3	47%
	Mathematics Standard 2	3	34%
	English Standard	4	29%
	Biology	3	25%
	Business Studies	3	24%
	Mathematics Standard 2	4	24%
	PDH&PE	3	21%
	Community & Family Studies	4	17%
	Modern History	3	14%
	Legal Studies	3	13%

4.10 GENDER DIFFERENCES

As in previous years, female students outperformed male students in the majority of courses and had a higher median ATAR. The percentages of students receiving ATARs on or above specified values who were female are given in Table 4.7.

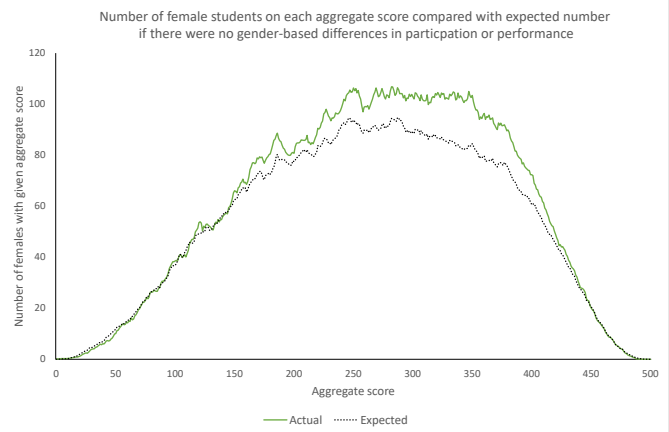
Table 4.7 Percentage of students receiving ATARs on or above specified values who were female, 2015–2019

ATAR	% female 2015	% female 2016	% female 2017	% female 2018	% female 2019
99.00	50.2	45.9	44.2	45.9	47.2
98.00	52.1	47.2	46.6	51.0	52.6
95.00	54.1	52.2	51.1	55.4	55.8
90.00	56.2	54.4	53.6	58.0	57.7
80.00	57.1	56.7	55.5	58.5	56.9
70.00	56.4	56.3	55.7	53.2	57.2
60.00	55.5	55.5	55.4	53.5	53.0
50.00	54.9	54.8	55.0	48.0	54.8
40.00	54.3	54.3	54.5	50.4	48.4
30.00	53.8	53.9	54.0	47.6	46.5
Total cohort	53.0	53.3	53.7	53.7	54.1

In 2019, the HSC-aged population of NSW was 93,449, of whom 45,505 (48.7%) were female. If there were no gender-based difference in HSC participation and performance, one would therefore expect 48.7% of the candidates with a particular aggregate score to be female. The solid line in Figure 4.1 shows the number of female students on each aggregate score (smoothed by taking a moving average), while the dotted line shows the expected number (48.7% of the total number of students with that aggregate score.)

It is evident from Figure 4.1 that the number of female students on a particular aggregate score is in very close agreement with this expected number for aggregate scores above 430 (ATAR 98.0) and below 142 (ATAR 42.5), indicating that participation and performance at the top and bottom of the scale is not significantly influenced by gender. However, there are considerably more females than would be expected given their proportion in the HSC-aged population on almost every aggregate score between 142 and 430, reflecting higher retention rates and better performance for females in this range.

Figure 4.1 Number of females on each aggregate score compared with the expected number if there were no gender-based differences in participation or performance



4.11 UNIVERSITY OFFERS

UAC makes several rounds of offers for semester 1 courses, starting from August and going through to February. The majority of offers to Year 12 students are made in December and January.

Of the 55,031 students who received an ATAR in 2019, 74.1% applied through UAC for a university course. The table below shows that the higher the ATAR, the greater the percentage of students applying for university through UAC.

Table 4.8 Applicants for university places by ATAR – domestic and international

ATAR band	Total number of students	Applicants	
		Number	Percentage[1]
90.00 – 99.95	9,236	9,017	97.6
80.00 – 89.95	9,166	8,607	93.9
70.00 – 79.95	8,917	7,883	88.4
60.00 – 69.95	8,367	6,522	77.9
50.00 – 59.95	7,551	4,897	64.9
Below 50.00	11,794	4,938	41.9
Total	55,031	41,864	76.1

[1] *These are percentages of the total number of students in the given ATAR band.*

Of those domestic students applying through UAC for undergraduate courses in semester 1, 92.5% were made at least one offer of a place. Of these applicants receiving at least one offer, 65.4% had an ATAR of 70.00 and above, and 91.3% had an ATAR of 50.00 and above.

It is important to note that not all applicants are made an offer solely on the basis of their ATAR. For some courses, alternative criteria are used and ATARs are not considered at all, and for other courses ATARs are supplemented by additional criteria.

5 TRENDS AND OTHER ISSUES

5.1 VARIATION IN PATTERNS OF HSC MARKS – TABLES A4, A5

As noted in Chapter 3, the scaling process uses the raw marks, not the HSC marks that NESA uses to report student achievement. Further, the raw marks for each course undergo an initial standardisation to a common mean and standard deviation before the scaling algorithm is implemented. The HSC marks that NESA uses to report student achievement are not used in the scaling process so any variation in the distribution of these marks across courses does not impact on the ATAR calculation.

A common question is whether changes in the pattern of HSC marks from one year to the next affects the pattern of scaled marks and hence the pattern of ATARs. For the reason given above, the answer is no. It is to be expected that the patterns of HSC marks may change from year to year, reflecting differences in student achievement against the published standards in individual courses. In contrast, one would expect to see differences in the patterns of scaled marks only if the overall academic quality of a course candidature changed.

Tables A4 and A5 in the Appendix show the distributions of HSC and scaled marks, respectively, in 2019 and 2018. The marks are on a per-unit basis (0–50) and courses with less than 40 students in either year are not included. Table A4 shows the percentages of each course candidature with an HSC mark less than 45, 40, 35, 30 and 25 for 2019 and 2018. Table A5 provides similar information for scaled marks. The data shows that while the distributions of HSC marks have changed for some courses, the distributions of scaled marks were generally the same.

Biology is an example of a course where the candidature was comparable between 2018 and 2019 but there is a change in the distributions of HSC marks (Table 5.1). The distributions of scaled marks in the two years were, however, similar.

Table 5.1 Distributions of HSC and scaled marks for Biology, 2018 and 2019, on a 1-unit basis

Mark	Year	Number	Percentage of students with mark less than:				
			45	40	35	30	25
HSC mark	2019	18,667	92.6	68.5	39.6	15.4	3.3
	2018	18,105	91.3	62.9	29.8	10.1	3.7
Scaled mark	2019	18,667	98.9	92.4	79.8	62.8	45.9
	2018	18,105	99.0	91.9	77.9	60.6	43.7

Taken together, the data indicates that the 2019 candidature in Biology performed less well than the corresponding cohort in 2018 in terms of the performance standards for Biology. However, their overall performance as judged by their scaled marks is almost the same. (It should be noted that the Biology curriculum changed in 2019, as did the descriptions of Biology performance standards so this apparent discrepancy is not unexpected.)

5.2 DISTRIBUTIONS OF ENGLISH AND MATHEMATICS MARKS, 2016–2019

Because all students study English, and most study mathematics, comparative data is shown for English and mathematics courses for the four years, 2016 to 2019. Table 5.4 shows the distributions of HSC marks and Table 5.5 shows the distributions of scaled marks.

Compared to 2018, there were fewer students completing English Extension 1 while slightly more students took English Extension 2 in 2019. English Studies Examination was offered as a Category B course for the first time in 2019 and could be used to meet ATAR eligibility requirements, and 993 students completed this course. Both English Standard and English Advanced had fewer students in 2019 than in 2018.

In 2019, 14.0% of ATAR-eligible students did not complete a mathematics course and 20.7% of those awarded an HSC did not include a Board Developed mathematics course in their Year 12 HSC subjects.

When considering the English marks, recall English Studies Examination, English Standard and English Advanced are scaled as a single group. In 2019, English Studies Examination, English Standard Paper 1 and English Advanced Paper 1 all shared a common question worth 20 marks. In addition, the English Studies Examination shared two additional questions worth 7 marks with the English Standard Paper 1, and the English Advanced Paper 1 shared two additional questions worth 8 marks with the English Standard Paper 1. These shared elements provide sufficient information for NESA to calibrate the marks on the remaining 61% of the English Studies Examination paper, 72% of the English Advanced Examination papers and 65% of the English Standard Examination papers so that they are all on the same calibrated raw mark scale. NESA then moderates school assessments for English Studies Examination, English Standard and English Advanced using these calibrated raw marks, and the usual NESA Standard Setting process is applied to transform these calibrated marks into HSC marks aligned to the common standard shared by all three courses, and these aligned marks are reported to students.

It is the calibrated raw marks for English Standard Examination, English Standard and English Advanced which are used for scaling. These marks are all combined and scaled as a single course. Thus, a given calibrated raw HSC mark yields the same scaled mark for English Studies Examination, English Standard and English Advanced students.

By contrast, the courses Mathematics Standard 1, Mathematics Standard 2 and Mathematics are distinct 2-unit courses. While, in 2019, the Mathematics Standard 1 paper shared 19 marks in common with the Mathematics Standard 2 paper, NESA does not use this information to calibrate the marks on the remaining 73% of the Mathematics Standard 1 paper and the remaining 81% of the Mathematics Standard 2 paper so that they are on the same calibrated raw mark scale. Consequently, the total raw examination marks obtained by Mathematics Standard 1 students are on a different scale to those obtained by Mathematics Standard 2 papers. These two scales in turn are different to the raw mark scale for Mathematics, as the Mathematics Examination did not share any elements in common with either of the Mathematics Standard Examinations in 2019.

For these reasons, Mathematics Standard 1, Mathematics Standard 2 and Mathematics are scaled as separate courses.

The performance band information for 2-unit only students on the Mathematics course, corresponding to Table A2, is given in Table 5.2, and the information captured in Table A3 is provided in Table 5.3 for this group of candidates.

Table 5.2 Distributions of HSC marks for Mathematics 2-unit only candidates, 2019

Course	Number	Median HSC mark	Median band	Percentage of students in Performance Band				
				6	5	4	3	2
Mathematics – 2 unit only	11,725	75	4	11	23	36	19	7

Table 5.3 Descriptive statistics for HSC and scaled marks for Mathematics 2-unit only candidates, 2019

Course	Number	Type of mark	Mean	SD	Max. mark	P99	P90	P75	P50	P25
Mathematics – 2 unit only	11,725	HSC	37.1	6.6	50.0	48.5	45.0	41.5	37.5	34.0
		scaled	28.0	9.3	50.0	45.7	39.2	34.6	29.0	22.4

Table 5.4 Distributions of HSC marks for English and mathematics courses, 2016–2019

	Year	Enrolment	Percentage of students with HSC mark less than:				
			45	40	35	30	25
English Studies Examination	2019	993	100	99.9	96.2	64.5	23.2
English Standard	2019	30,228	99.3	88.2	47.9	12.3	1.4
	2018	30,558	99.1	84.8	49.4	15.1	3.1
	2017	30,913	99.1	84.0	44.9	13.7	4.2
	2016	31,290	99.1	86.5	50.5	12.7	2.8
English Advanced	2019	25,251	86.5	38.1	8.1	1.0	0.1
	2018	26,127	86.2	37.3	9.5	1.4	0.2
	2017	26,779	84.8	36.3	8.2	1.4	0.4
	2016	26,080	84.6	38.0	9.5	1.1	0.2
English Extension 1	2019	3,490	65.8	24.6	5.8	1.2	0.2
	2018	4,064	62.1	21.6	4.3	0.7	0.2
	2017	4,333	70.0	26.3	6.5	1.6	0.7
	2016	4,354	64.6	21.7	4.8	1.0	0.2
English Extension 2	2019	1,326	73.8	48	19.8	3.3	0.4
	2018	1,525	83.3	59.9	28.6	6.3	1.0
	2017	1,672	79.4	51.9	22.4	3.9	0.4
	2016	1,619	81.8	51.4	20.4	5.1	0.6
English EAL/D (2019) ESL (2016–2018)	2019	2,138	96.1	76.3	41.2	13.8	3.6
	2018	2,311	96.9	74.4	43.1	15.3	3.9
	2017	2,336	94.7	74.5	44.0	17.5	6.9
	2016	2,327	95.3	72.7	40.7	15.7	6.2
Mathematics Standard 1 Examination	2019	1,139	96.9	82.4	43.2	15.6	2.8
Mathematics Standard 2 (2019) Mathematics General 2 (2016–2018)	2019	29,656	94.8	75.7	43.3	16.4	2.9
	2018	30,824	93.4	73.1	46.9	20.1	5.4
	2017	31,543	93.1	74.2	49.3	25.4	8.4
	2016	31,758	94.6	74.1	47.9	24.3	8.3
Mathematics	2019	17,311	76.4	50.7	21.5	7.6	2.6
	2018	17,825	77.5	48.1	22.1	7.4	2.0
	2017	17,060	76.4	46.3	24.8	9.1	2.9
	2016	16,139	76.8	47.3	23.4	7.8	3.5
Mathematics Extension 1	2019	8,830	60.9	36.6	19.7	9.6	4.4
	2018	9,021	67.1	40.4	20.1	9.5	3.6
	2017	8,770	61.8	36.3	18.1	8.2	2.6
	2016	8,671	66.9	40.7	20.4	8.3	2.8
Mathematics Extension 2	2019	3,134	64.2	32.5	14.1	7.0	3.0
	2018	3,164	66.8	34.3	14.4	5.9	2.1
	2017	3,223	66.4	36.1	15.9	6.2	2.4
	2016	3,251	67.9	35.9	14.5	5.7	2.0

Table 5.5 Distributions of scaled marks for English and mathematics courses, 2016–2019

	Year	Enrolment	Percentage of students with scaled mark less than:					
			45	40	35	30	25	20
English Studies Examination	2019	993	100.0	100.0	100.0	99.9	99.1	96.2
English Standard	2019	30,228	99.9	99.1	95.7	87.5	71.8	50.6
	2018	30,558	99.9	98.9	95.1	85.9	70.0	50.4
	2017	30,913	99.9	99.0	94.8	86.0	71.1	50.8
	2016	31,290	99.9	99.0	95.3	87.0	71.8	51.4
English Advanced	2019	25,251	97.5	83.6	60.1	37.1	19.4	9.0
	2018	26,127	98.0	84.2	61.2	38.6	21.3	9.8
	2017	26,779	97.4	83.3	61.6	39.7	22.1	10.5
	2016	26,080	98.0	83.4	60.6	38.7	21.4	9.9
English Extension 1	2019	3,490	93.6	68.5	37.5	15.2	5.2	1.5
	2018	4,064	95.2	71.8	39.6	18.5	6.0	2.0
	2017	4,333	95.5	71.4	38.6	17.1	5.7	2.1
	2016	4,354	94.4	67.4	37.3	17.0	6.3	2.3
English Extension 2	2019	1,326	89.7	66.7	42.4	18.3	5.5	1.3
	2018	1,525	91.2	72.4	48.0	23.7	7.5	2.2
	2017	1,672	90.7	71.0	45.5	24.0	7.1	1.3
	2016	1,619	91.0	70.9	43.8	21.2	8.5	2.5
English EAL/D (2019) ESL (2016–2018)	2019	2,138	98.6	94.0	85.9	74.2	59.3	44.6
	2018	2,311	99.0	93.8	84.0	71.6	56.0	42.3
	2017	2,336	98.4	92.8	84.5	72.5	58.9	44.2
	2016	2,327	98.9	94.2	85.3	74.0	59.8	46.1
Mathematics Standard 1 Examination	2019	1,139	100.0	100.0	100.0	96.0	89.6	80.2
Mathematics Standard 2 (2019) Mathematics General 2 (2016–2018)	2019	29,656	100.0	97.2	88.1	75.4	60.8	45.1
	2018	30,824	99.8	95.5	86.6	75.0	61.8	47.2
	2017	31,543	99.9	96.4	87.4	74.8	60.9	45.8
	2016	31,758	99.9	97.2	87.7	74.1	59.5	44.4
Mathematics	2019	17,311	95.9	81.3	61.3	40.7	24.3	13.5
	2018	17,825	96.4	81.5	60.5	40.5	24.0	13.2
	2017	17,060	94.0	78.7	60.0	41.1	25.3	14.6
	2016	16,139	95.8	80.1	59.1	39.5	24.1	13.6
Mathematics Extension 1	2019	8,830	82.0	45.5	21.7	10.2	4.8	1.9
	2018	9,021	78.8	45.6	21.4	9.9	3.9	1.5
	2017	8,770	77.5	48.6	24.0	10.1	3.4	1.0
	2016	8,671	76.5	44.1	22.0	10.4	4.3	1.7
Mathematics Extension 2	2019	3,134	64.5	18.6	6.3	2.4	0.8	0.1
	2018	3,164	52.5	13.7	4.6	1.5	0.7	0.3
	2017	3,223	60.1	17.4	5.2	2.0	1.0	0.4
	2016	3,251	50.3	14.7	4.9	1.8	1.0	0.5

5.3 COURSES THAT CONTRIBUTE TO THE ATAR – TABLE A6

If students complete only 10 units, all courses must be counted in the calculation of the ATAR, whereas if students complete more than 10 units at least 1 unit will be omitted. In 2019, 33,859 students out of the 55,031 ATAR-eligible students (61.5%) presented exactly 10 units.

Table A6 in the Appendix provides some information about students who completed more than 10 units. Data are not provided for courses with less than 10 students.

For each course:

The first column shows the total number of students who did the course in any year and received an ATAR in 2019.

The second column shows the number of these students who completed more than 10 units.

The third column expresses this number as a percentage.

The fourth column gives the percentage of these students who counted all units of that course towards their ATAR. The percentage is based on the number of students in the course who had completed more than 10 units.

The final column shows the maximum ATAR of any student doing the course in any year and including all units of that course in the ATAR calculation.

Of the 111 courses listed in Table A6, 78 have 70% or more of their students counting the course. The data shows that, while there are differences in the percentages of students who count a particular course towards their ATARs, there is no evidence of systematic differences across Key Learning Areas.

6 FREQUENTLY ASKED QUESTIONS

In recent years, most of the enquiries from students received by the ATAR Enquiry Centre at UAC concerned the relationship between their HSC marks and their ATARs, and the reason why one course contributed to their ATAR and not another. These two major enquiries will be discussed below, followed by a summary of some of the other frequently asked questions.

6.1 WHY IS MY ATAR LOW IN COMPARISON TO MY HSC MARKS?

The ATAR is a rank, not a mark, and so there is no reason why the scores should be close. From Table A2 we can see that the median HSC mark for most 2-unit courses is between 70 and 80. The median ATAR is 69.75 which is lower than the median score for almost all courses. So for students in the middle of the candidature, the ATAR will typically be lower than their average HSC mark.

There is, however, no simple rule to convert HSC marks to ATARs. Courses are unlikely to have the same scaled means from year to year and the pattern of HSC marks varies across courses so that the same HSC mark does not necessarily indicate the same position across courses. The following examples illustrate the complexity of the relationship between HSC marks and ATARs.

Example 1
Consider the following two students, Liam and Kellie, whose HSC marks are shown in Table 6.1. These students are middle students (the 50th percentile) in all of their courses. Their average HSC marks per unit are exactly the same, at 39.4, but their ATARs are quite different, 58.55 and 82.15 respectively.

Table 6.1 Two examples of student achievement to show the effect of different scaled means

Liam			
ATAR	Course	HSC mark per course	HSC mark per unit
58.55	Dance	80	40
	English Standard	70	35
	Music 1	84	42
	Society & Culture	78	39
	Visual Arts	82	41

Kellie			
ATAR	Course	HSC mark per course	HSC mark per unit
82.15	Chemistry	78	39
	Economics	80	40
	English Advanced	82	41
	Mathematics	79	39.5
	Physics	75	37.5

Both Liam and Kellie are at the 50th percentile in all of their courses, so the reason for the difference in their ATARs is the difference in the strength of the competition in the courses they have chosen. The average scaled mean for Liam's courses was 22.0, whereas the average scaled mean for Kellie's courses was 31.3. Since the mean scaled mark and the median scaled mark are generally very similar, Kellie's aggregate is close to 327, while Liam's aggregate is close to 217, reflecting the difference in the academic achievement of the students they have competed against. Consequently, Kellie's ATAR is significantly higher than Liam's ATAR.

Example 2

Consider the following two students, James and Amy, whose HSC marks are shown in Table 6.2. Their average HSC marks per unit are identical at 38.2, but their ATARs are quite different, 65.00 and 75.00 respectively.

Table 6.2 Two examples of student achievement to show the effect of different scaled means

James			
ATAR	Course	HSC mark per course	HSC mark per unit
65.00	English Standard	79	39.5
	Info Processes & Tech	79	39.5
	Mathematics Standard 2	71	35.5
	PDH&PE	75	37.5
	Society & Culture	78	39.0

Amy			
ATAR	Course	HSC mark per course	HSC mark per unit
75.00	Biology	79	39.5
	Chemistry	76	38.0
	English Advanced	76	38.0
	Mathematics	77	38.5
	German Continuers	74	37.0

Amy has an ATAR that is almost the same as her average HSC course score (76.4) whereas James's ATAR is much lower than his average HSC course score (76.4). If we look at Table A3, the average of the scaled means of the courses taken by James is 21.9, whereas the average scaled mean for the courses taken by Amy is 30.8.

Example 3

Consider the following two students who completed the same courses. The first student, Fred, receives an HSC mark of 35.0 per unit in each course, while the second student, Laura, receives an HSC mark of 40.0 per unit in each course (Table 6.3).

Table 6.3 Two examples of student achievement: Fred and Laura

Course	Fred		Laura	
	HSC mark per unit	Percentile	HSC mark per unit	Percentile
Biology	35.0	42	40.0	71
Business Studies	35.0	41	40.0	69
English Advanced	35.0	10	40.0	43
Mathematics	35.0	24	40.0	54
Modern History	35.0	36	40.0	63
Visual Arts	35.0	12	40.0	41
ATAR	**58.70**		**78.70**	

Their HSC marks per unit in each course differ by only 5, yet their ATARs differ by 20.00. Laura's ATAR is similar to her HSC course marks (80 per course), while Fred's ATAR is much lower than his HSC course marks (70 per course).

The reason for the large difference in the ATARs can be found in the differences in the percentiles shown in Table 6.3. The percentiles are much higher for Laura than for Fred. Given these large differences, it is not surprising that their ATARs are very different.

The courses and HSC marks shown for Fred and Laura are the same as in 2018. While their HSC marks are the same, the percentiles (their positions in their courses) have changed because of the changes in the distributions of HSC marks, so their ATARs are different. Table 6.4 presents the ATARs for 2010 to 2019.

Table 6.4 ATARs for Fred and Laura, 2010–2019

Year	Fred	Laura
2010	57.05	80.15
2011	58.20	79.80
2012	57.45	79.65
2013	57.55	80.00
2014	55.95	79.45
2015	57.50	79.65
2016	57.10	78.50
2017	57.55	78.05
2018	57.90	78.15
2019	58.70	78.70

The ATAR is about position, whereas HSC marks indicate levels of achievement in individual courses.

6.2 WHY DOES THIS COURSE CONTRIBUTE TO MY ATAR WHEN ANOTHER COURSE WHERE I RECEIVED A HIGHER MARK DOES NOT COUNT?

As in previous years, this question arose after the results were released because each student is advised which units contribute to their ATAR. The question is not always easy to answer, especially as students are only aware of their HSC marks, which provide little information as to their rankings in their courses.

The question can often be answered by reference to data on the distributions of HSC and scaled marks in Table A3 in the Appendix. Some examples are presented to illustrate the principles involved.

The examples illustrate the general principle that a student's position in their course and the scaled means and standard deviations of their courses are all important in determining which of their courses contribute towards their ATAR.

Also, it must be remembered that a given HSC mark usually corresponds to a range of raw and scaled marks.

Example 1 – Scaled means

The first example (Table 6.5) shows a set of HSC and scaled marks corresponding to results at the 90th percentile of the various course distributions.

Table 6.5 HSC and scaled marks – example 1

Course	Number	Scaled mean	Scaled SD	P90	
				HSC mark per unit	Scaled mark
Ancient History	7,233	23.9	11.0	44.5	38.5
Biology	18,667	25.9	9.9	44.0	39.0
Business Studies	17,586	24.0	10.9	44.5	38.7
PDH&PE	15,545	23.0	10.3	44.0	36.9
Study of Religion II	6,046	27.6	9.9	44.5	40.1

These HSC marks are similar and each is at the 90th percentile of a large course with comparable standard deviations. Since the position within the course candidature is the same for each course the scaled mark will depend on the academic quality of the candidature of the course concerned. The highest scaled mark is for Study of Religion II, which has the highest scaled mean. The lowest scaled mark is for PDH&PE, which has the lowest scaled mean.

Example 2 – Position

Consider students with HSC marks of 46.5 per unit in Earth & Environmental Science and Italian Continuers. The student in Earth & Environmental Science is at the 99th percentile and gains a scaled mark of 44.4, whereas the student in Italian Continuers is at the 90th percentile and gets a scaled mark of 41.9. Therefore, even though the scaled mean for Italian Continuers (30.4) is much higher than the scaled mean for Earth & Environmental Science (23.0), the difference in position compensates for this and the Earth & Environmental Science student gets the higher scaled mark.

Table 6.6 HSC and scaled marks – example 2

	Scaled mean	Scaled SD	Percentile	HSC mark per unit	Scaled mark
Earth & Environmental Science	23.0	10.6	P99	46.5	44.4
Italian Continuers	30.4	10.1	P90	46.5	41.9

Example 3 – Standard deviations

In some situations, particularly in courses with smaller candidatures, the difference in the distribution spread is also a factor in deciding which course contributes towards the ATAR.

Table 6.7 HSC and scaled marks – example 3

			P90	
Course	Scaled mean	Scaled SD	HSC mark per unit	Scaled mark
Geography	25.2	11.1	45.0	39.4
Study of Religion I	27.9	8.9	45.0	39.3

Consider students at the 90th percentile of Geography with an HSC mark of 45.0 per unit and scaled mark of 39.4 per unit, and at the 90th percentile of Study of Religion I with an HSC mark of 45.0 and scaled mark of 39.3. Study of Religion I has a scaled mean of 27.9 whereas Geography has a scaled mean of 25.2.

The course with the lower scaled mean has the higher scaled mark corresponding to the HSC mark of 45 even though the position is the same in both courses. The reason the scaled marks differ is the spread in the distribution as measured by the standard deviation (SD). Study of Religion I has SD 8.9 but Geography has SD 11.1. Geography has a candidature with more varied academic ability than Study of Religion I.

Example 4 – Raw versus HSC marks

As noted in section 4.6, there is not necessarily a unique scaled mark for each HSC mark. From Table A3, by focusing on the maximum mark and the 99th percentile, we see that candidates receiving the top HSC mark of 48.0 in Arabic Extension received scaled marks from 41.7 to 40.6. The top HSC mark in a course does not necessarily reflect the top raw mark in a course and so a candidate with the top HSC mark in the course may not receive the top scaled mark.

The pattern of several scaled marks corresponding to a given HSC mark can occur across the distribution, not just at the top of the range.

6.3 OTHER FREQUENTLY ASKED QUESTIONS

Does the school I attend matter?
No. The school attended does not feature in the ATAR calculation. The ATAR calculation is based only on marks provided by NESA; no other information is used.

Does my postcode matter?
No.

Are certain courses always 'scaled down'?
No. Scaling is carried out afresh each year: if the quality of the candidature changes, the scaled mean will also change.

Is it true that if I study this course I can't get a high ATAR?
No. As Table A1 in the Appendix shows, there are students in every course who achieve high ATARs.

What impact did the variation in patterns of HSC marks have on the ATAR calculations?
None. It is the raw HSC marks rather than the aligned HSC marks that are scaled. The fact that the percentage of students who are placed in Performance Band 6 differs across courses has no effect on the calculation of the ATAR.

Why can't I use my HSC marks to check the calculation of my ATAR?
There are two reasons. The first is the ATAR is a rank that indicates your position in relation to other students; it is not an average mark. Secondly, raw marks are used in the calculation of the ATAR, not the aligned HSC marks.

Can I find out what my scaled marks are?
No. Scaled marks are not reported to students. They are determined during an interim phase in the ATAR calculation.

I have similar HSC marks to my friend, but we don't have similar ATARs. Why not?
Your ATARs would be similar if your courses were the same.

Which courses should I study?
Do not choose courses on the basis of what you believe are the likely effects of scaling. Choice of which courses to study should be determined only by your interests, your demonstrated abilities and the value of courses for your future career plans. The scaling process is designed to allow students to choose according to these principles and not, as far as university selection is concerned, be disadvantaged by their choice. It treats all students on their merits.

Do I get a better ATAR if I study more units?
This is a common question. While the data show that students who study more units tend to gain higher ATARs, determining causality is difficult. The relationship between the number of units studied and ATAR might result from personal attributes including interest, motivation, effort and time management. You cannot assume that simply by studying more units your ATAR will be increased.

What happens if I repeat a course?
If a course is repeated only the last satisfactory attempt is used towards the calculation of the ATAR. Your aggregate will be re-calculated using your new mark. Your aggregate may increase, remain the same or decrease; it depends on your new mark. Since you are being compared with a different cohort your ATAR may increase, remain the same or decrease, even if your aggregate remains the same.

What happens if I accumulate the HSC?
Students who accumulate courses towards their HSC have their scaled marks calculated the year they complete the courses.

What happens if I already have an ATAR and add a new ATAR course the following year?
Your aggregate will be re-calculated using your new course and your previous courses. Provided all your previous courses were taken within the last five years, your aggregate may increase or stay the same but it will not go down. However, since you are being compared with a different cohort your ATAR may increase, remain the same or decrease.

Any courses taken more than five years ago will be ineligible for inclusion in your new aggregate.

If I'm eligible for adjusment factors, does my ATAR change?
No. Adjustment factors do not change your ATAR. They increase your selection rank for a particular course preference.

If adjustment factors don't increase my ATAR, then how do they work?
You might receive an offer to a course even though your ATAR is below the published lowest selection rank. Often this is because adjustment factors have been taken into consideration in combination with your ATAR and your selection rank for that course has been adjusted (and is higher than your ATAR).

These adjustments, which we used to refer to as 'bonus points', are due to factors such as performance in Year 12 subjects (only applies to current Year 12 students), living or attending school in a certain area, and applying for consideration through Educational Access Schemes.

Selection rank adjustments are applied differently from institution to institution and from course to course within the same institution. As selection rank adjustments are course-specific, your selection rank can be different for each of your course preferences.

7 APPENDIX

The following courses are not included in Tables A2 to A5 in the Appendix as they had less than 10 students in 2019:

- Arabic Beginners
- Dutch Continuers
- Filipino Continuers
- Hungarian Continuers
- Indonesian & Literature
- Indonesian in Context
- Korean Continuers
- Malay Background Speakers
- Maltese Continuers
- Swedish Continuers
- Ukrainian Continuers.

Some other courses do not appear in all tables if they have less than the minimum number of candidates required for a particular table.

Table A1 **Course enrolments, gender, ATAR eligibility and maximum ATAR by course**
Excludes courses with less than 10 students.

Table A2 **Distributions of HSC marks by course**
Excludes courses with less than 10 students.

Table A3 **Descriptive statistics and selected percentiles for HSC marks and scaled marks by course**
Excludes courses with less than 10 students completing the course in the current year, or if the students completing the course in the current year are undertaking less than 25 other ATAR courses in the same year, and no percentile data are given for courses with less than 40 students.

Table A4 **Distributions of HSC marks by course: 2018–2019**
Excludes courses with less than 40 students in either year.

Table A5 **Distributions of scaled marks by course: 2018–2019**
Excludes courses with less than 40 students in either year.

Table A6 **Courses that contribute to the ATAR (more than 10 units)**
Excludes courses with less than 10 students.

Table A7 **ATAR distribution**

Table A8 **ATAR percentiles: 2015–2019**

Table A9 **Relationship between the ATAR and aggregates: 2015–2019**

Table A1 Course enrolments, gender, ATAR eligibility and maximum ATAR by course

Notes:
(i) The **Number all** column includes students who have completed the course in 2019 or in a previous year (and who have done at least one ATAR course in 2019).
(ii) The **Number HSC** column shows the number of students who completed the course in 2019 or in a previous year and received an HSC award in 2019.
(iii) The **Number ATAR** column shows the number of students who completed the course in 2019 or in a previous year and who were eligible for an ATAR in 2019.
(iv) The % **female** column shows the percentage of students in the course who were female.
(v) The % **HSC** column shows the percentage of students in the course who received an HSC award in 2019.
(vi) The % **ATAR-eligible** column shows the percentage of students in the course who were eligible for an ATAR in 2019.
(vii) The **Maximum ATAR** column shows the maximum ATAR achieved by a student doing the course.
(viii) The table excludes courses with less than 10 students.

Course	Number all	Number HSC	Number ATAR	% Female	% HSC	% ATAR-eligible	Maximum ATAR
Aboriginal Studies	772	651	405	73.4	84.3	52.5	99.30
Agriculture	1,642	1,567	1,212	56.2	95.4	73.8	99.95
Ancient History	7,386	7,224	6,666	58.3	97.8	90.3	99.95
Biology	19,067	18,634	17,980	63.5	97.7	94.3	99.95
Business Studies	17,966	17,482	16,373	45.9	97.3	91.1	99.95
Chemistry	10,496	10,285	10,233	46.9	98.0	97.5	99.95
Community & Family Studies	8,489	8,267	6,882	90.6	97.4	81.1	99.45
Dance	1,004	946	852	95.0	94.2	84.9	99.55
Design & Technology	3,342	3,216	2,849	42.3	96.2	85.2	99.35
Drama	4,160	4,000	3,556	65.3	96.2	85.5	99.95
Earth & Environmental Science	2,065	2,008	1,820	47.5	97.2	88.1	99.75
Economics	5,146	5,110	5,076	34.0	99.3	98.6	99.95
Engineering Studies	2,299	2,246	2,178	8.3	97.7	94.7	99.90
English Studies Exam	993	897	457	41.0	90.3	46.0	84.35
English Standard	30,688	29,999	27,520	50.8	97.8	89.7	99.55
English Advanced	25,430	25,228	25,070	58.6	99.2	98.6	99.95
English EAL/D	2,163	2,094	1,983	50.4	96.8	91.7	99.95
English Extension 1	3,500	3,488	3,483	70.3	99.7	99.5	99.95
English Extension 2	1,329	1,324	1,321	71.9	99.6	99.4	99.95
Food Technology	3,137	3,041	2,540	76.2	96.9	81.0	99.75
Geography	4,253	4,161	3,864	48.6	97.8	90.9	99.95
Industrial Technology	5,794	5,582	4,051	15.6	96.3	69.9	99.55
Information Processes & Technology	23,09	2,110	1,926	18.4	91.4	83.4	99.95
Investigating Science	2,770	2,671	2,256	40.6	96.4	81.4	98.85
Legal Studies	10,700	10,451	10,002	63.5	97.7	93.5	99.95
Mathematics Standard 1 Exam	1,139	1,067	651	48.3	93.7	57.2	89.15
Mathematics Standard 2	30,090	29,395	26,985	52.0	97.7	89.7	99.55
Mathematics	18,037	16,636	16,569	48.0	92.2	91.9	99.95
Mathematics Extension 1	9,181	8,726	8,721	42.0	95.0	95.0	99.95
Mathematics Extension 2	3,174	3,104	3,104	35.5	97.8	97.8	99.95
Modern History	11,501	11,276	10,567	51.7	98.0	91.9	99.95
History Extension	1,836	1,824	1,822	63.5	99.3	99.2	99.95
Music 1	4,759	4,591	3,933	49.8	96.5	82.6	99.35
Music 2	768	723	720	49.7	94.1	93.8	99.95
Music Extension	423	419	417	51.8	99.1	98.6	99.95

Course	Number all	Number HSC	Number ATAR	% Female	% HSC	% ATAR-eligible	Maximum ATAR
PDH&PE	15,798	15,487	14,174	55.9	98.0	89.7	99.95
Physics	8,532	8,383	8,323	22.6	98.3	97.6	99.95
Science Extension	668	667	666	55.1	99.9	99.7	99.95
Society & Culture	4,865	4,715	4,388	81.6	96.9	90.2	99.95
Software Design & Development	1,870	1,774	1,695	11.1	94.9	90.6	99.95
Studies of Religion I	8,934	8,370	8,206	54.7	93.7	91.9	99.95
Studies of Religion II	6,262	6,078	5,968	64.0	97.1	95.3	99.85
Textiles & Design	1,289	1,254	1,117	97.1	97.3	86.7	99.35
Visual Arts	8,681	8,394	7,263	73.2	96.7	83.7	99.95
Arabic Continuers	324	294	254	65.7	90.7	78.4	99.35
Arabic Extension	114	107	98	76.3	93.9	86.0	94.75
Armenian Continuers	32	18	18	46.9	56.3	56.3	90.30
Chinese Beginners	38	38	34	73.7	100.0	89.5	99.30
Chinese Continuers	186	180	178	52.2	96.8	95.7	99.95
Chinese Extension	27	27	27	33.3	100.0	100.0	99.95
Chinese & Literature	584	578	574	57.4	99.0	98.3	99.95
Chinese in Context	107	106	106	73.8	99.1	99.1	99.25
Classical Greek Continuers	19	14	14	73.7	73.7	73.7	99.95
Classical Greek Extension	13	11	11	69.2	84.6	84.6	99.95
Classical Hebrew Continuers	20	20	20	80.0	100.0	100.0	99.65
Classical Hebrew Extension	13	13	13	76.9	100.0	100.0	99.65
Croatian Continuers	13	13	12	69.2	100.0	92.3	90.35
French Beginners	481	470	426	74.8	97.7	88.6	99.00
French Continuers	695	649	642	72.7	93.4	92.4	99.95
French Extension	182	180	178	68.1	98.9	97.8	99.95
German Beginners	95	92	85	63.2	96.8	89.5	98.60
German Continuers	221	202	200	54.3	91.4	90.5	99.95
German Extension	48	46	46	47.9	95.8	95.8	99.95
Hindi Continuers	25	21	21	48.0	84.0	84.0	98.80
Indonesian Beginners	29	28	25	65.5	96.6	86.2	96.80
Indonesian Continuers	72	71	71	73.6	98.6	98.6	99.35
Indonesian Extension	13	13	13	30.8	100.0	100.0	99.35
Italian Beginners	275	272	255	72.0	98.9	92.7	98.75
Italian Continuers	291	267	263	66.3	91.8	90.4	99.90
Italian Extension	54	51	51	61.1	94.4	94.4	99.90
Japanese Beginners	684	666	637	61.1	97.4	93.1	99.65
Japanese Continuers	652	620	606	64.4	95.1	92.9	99.95
Japanese Extension	146	143	142	68.5	97.9	97.3	99.95
Japanese & Literature	14	14	14	42.9	100.0	100.0	95.45
Japanese in Context	27	26	26	63.0	96.3	96.3	93.80
Khmer Continuers	11	11	11	90.9	100.0	100.0	98.80
Korean Beginners	117	115	115	83.8	98.3	98.3	99.15
Korean & Literature	22	21	22	63.6	95.5	100.0	93.75
Korean in Context	47	44	44	68.1	93.6	93.6	99.80
Latin Continuers	133	130	130	45.1	97.7	97.7	99.95
Latin Extension	83	82	82	48.2	98.8	98.8	99.95
Macedonian Continuers	12	12	12	50.0	100.0	100.0	86.15

Course	Number all	Number HSC	Number ATAR	% Female	% HSC	% ATAR-eligible	Maximum ATAR
Modern Greek Beginners	87	87	85	59.8	100.0	97.7	97.20
Modern Greek Continuers	103	84	83	64.1	81.6	80.6	99.50
Modern Greek Extension	50	42	41	72.0	84.0	82.0	99.40
Modern Hebrew Continuers	44	35	35	61.4	79.5	79.5	99.65
Persian Continuers	31	30	24	71.0	96.8	77.4	95.15
Polish Continuers	19	17	17	52.6	89.5	89.5	93.15
Portuguese Continuers	21	19	18	66.7	90.5	85.7	97.75
Punjabi Continuers	15	15	15	93.3	100.0	100.0	98.05
Russian Continuers	29	22	22	65.5	75.9	75.9	94.50
Serbian Continuers	25	24	24	68.0	96.0	96.0	97.20
Spanish Beginners	261	258	237	78.5	98.9	90.8	99.95
Spanish Continuers	175	169	162	66.9	96.6	92.6	99.30
Spanish Extension	50	48	48	68.0	96.0	96.0	96.85
Swedish Continuers	17	9	9	70.6	52.9	52.9	97.95
Tamil Continuers	51	28	28	66.7	54.9	54.9	99.10
Turkish Continuers	46	35	35	65.2	76.1	76.1	98.70
Vietnamese Continuers	177	168	157	52.5	94.9	88.7	98.90
Automotive Exam	277	238	136	7.6	85.9	49.1	87.25
Business Services Exam	1,183	1,099	932	72.9	92.9	78.8	96.85
Construction Exam	1,661	1,598	1,181	4.5	96.2	71.1	96.85
Electrotechnology Exam	245	232	164	3.3	94.7	66.9	88.05
Entertainment Industry Exam	742	716	632	50.3	96.5	85.2	95.45
Financial Services Exam	65	56	53	44.6	86.2	81.5	96.25
Hospitality Exam	4,757	4,410	3,954	71.6	92.7	83.1	97.65
Human Services Exam	746	734	664	93.0	98.4	89.0	96.55
Information & Digital Technology Exam	545	505	431	16.7	92.7	79.1	95.40
Metal & Engineering Exam	306	270	168	5.9	88.2	54.9	87.80
Primary Industries Exam	650	587	442	54.5	90.3	68.0	99.05
Retail Services Exam	949	846	731	69.3	89.1	77.0	96.40
Tourism, Travel & Events Exam	189	181	156	87.3	95.8	82.5	94.35
Total	69,560	63,302	55,031	52.8	91.0	79.1	99.95

Table A2 Distributions of 2019 HSC marks by course

Notes: (i) The **Number** column shows the number of students who completed the course in 2019.

(ii) The **Median HSC mark** column shows the median HSC mark per course.

(iii) The **Median Band** column indicates the Performance Band in which the median HSC mark lies.

(iv) The **Percentage of Students in Performance Band** columns show the percentage of a course candidature in each of the Performance Bands 6 to 2. Extension courses show only Bands 4 to 2 as they have four Bands only: E1 to E4.

(v) This table excludes courses with less than 10 students.

Course	Number	Median HSC mark	Median Band	Percentage students in Performance Band				
				6	5	4	3	2
Aboriginal Studies	699	68	3	11	18	17	26	20
Agriculture	1,579	73	4	10	22	29	23	12
Ancient History	7,233	75	4	9	27	30	19	10
Biology	18,667	73	4	7	24	29	24	12
Business Studies	17,586	74	4	9	24	29	22	11
Chemistry	10,277	78	4	16	30	21	21	9
Community & Family Studies	8,406	76	4	5	32	33	19	9
Dance	969	80	5	13	41	28	14	2
Design & Technology	3,221	79	4	14	32	36	13	4
Drama	4,080	78	4	15	29	40	14	2
Earth & Environmental Science	2,033	75	4	6	26	36	19	10
Economics	5,100	80	5	15	37	23	18	6
Engineering Studies	2,257	75	4	9	23	38	22	7
English Studies Exam	993	55	2		<1	4	32	41
English Standard	30,228	70	4	1	11	40	36	11
English Advanced	25,251	82	5	13	48	30	7	1
English EAL/D	2,138	72	4	4	20	35	27	10
English Extension 1	3,490	43	E3			34	60	6
English Extension 2	1,326	40	E3			26	54	19
Food Technology	3,068	75	4	8	25	34	23	8
Geography	4,188	78	4	10	33	29	15	8
Industrial Technology	5,702	69	3	6	16	28	30	15
Information Processes & Technology	2,098	75	4	11	24	28	22	9
Investigating Science	2,770	71	4	3	21	31	25	14
Legal Studies	10,516	76	4	14	28	24	19	10
Mathematics Standard 1 Exam	1,139	71	4	3	14	39	28	13
Mathematics Standard 2	29,656	72	4	5	19	32	27	13
Mathematics	17,311	79	4	24	26	29	14	5
Mathematics Extension 1	8,830	43	E3			39	41	15
Mathematics Extension 2	3,134	85	E3			36	50	11
Modern History	11,329	76	4	10	30	27	20	9
History Extension	1,825	40	E3			28	49	22
Music 1	4,676	84	5	22	44	25	7	1
Music 2	730	88	5	41	50	9	<1	0
Music Extension	417	47	E4			66	31	2
PDH&PE	15,545	74	4	6	25	31	26	9
Physics	8,404	75	4	12	25	27	21	10
Science Extension	668	37	E3			7	62	31

Course	Number	Median HSC mark	Median Band	Percentage students in Performance Band				
				6	5	4	3	2
Society & Culture	4,769	78	4	12	32	34	15	5
Software Design & Development	1,796	77	4	15	29	27	16	9
Studies of Religion I	8,475	39	4	11	35	33	17	3
Studies of Religion II	6,046	78	4	7	37	35	14	5
Textiles & Design	1,274	81	5	16	37	28	13	5
Visual Arts	8,526	82	5	16	47	27	8	2
Arabic Continuers	322	82	5	15	47	26	8	2
Arabic Extension	113	39	E3			22	48	30
Armenian Continuers	22	82	5	9	55	36	0	0
Chinese Beginners	38	73	4	24	13	24	21	11
Chinese Continuers	178	87	5	40	39	13	5	2
Chinese Extension	27	47	E4			70	26	4
Chinese & Literature	576	83	5	19	51	27	2	1
Chinese in Context	107	89	5	50	40	10	0	0
Classical Greek Continuers	19	91	6	63	32	5	0	0
Classical Greek Extension	13	47	E4			69	23	8
Classical Hebrew Continuers	15	94	6	67	20	7	7	0
Classical Hebrew Extension	11	47	E4			82	18	0
Croatian Continuers	13	80	5	8	46	31	15	0
French Beginners	479	78	4	24	24	20	17	10
French Continuers	648	85	5	31	34	23	10	3
French Extension	177	42	E3			29	59	12
German Beginners	95	77	4	24	18	31	23	4
German Continuers	209	82	5	22	34	33	10	1
German Extension	47	43	E3			43	57	0
Hindi Continuers	18	90	6	50	33	17	0	0
Indonesian Beginners	29	82	5	31	21	24	17	3
Indonesian Continuers	72	82	5	14	38	26	21	1
Indonesian Extension	13	42	E3			31	69	0
Italian Beginners	274	75	4	15	18	33	23	7
Italian Continuers	265	82	5	25	34	24	11	3
Italian Extension	52	45	E4			56	44	0
Japanese Beginners	677	77	4	14	29	23	15	12
Japanese Continuers	617	83	5	28	33	22	14	3
Japanese Extension	138	44	E3			46	43	10
Japanese & Literature	14	84	5	29	43	29	0	0
Japanese in Context	27	82	5	15	63	22	0	0
Khmer Continuers	10	87	5	30	60	10	0	0
Korean Beginners	116	82	5	24	34	23	15	3
Korean & Literature	22	87	5	36	45	18	0	0
Korean in Context	47	91	6	55	34	9	2	0
Latin Continuers	131	90	6	51	38	8	2	0
Latin Extension	83	47	E4			77	23	0
Macedonian Continuers	12	78	4	17	25	50	0	8
Modern Greek Beginners	87	87	5	37	38	15	7	3

Course	Number	Median HSC mark	Median Band	Percentage students in Performance Band				
				6	5	4	3	2
Modern Greek Continuers	80	89	5	48	31	18	3	1
Modern Greek Extension	42	38	E3			21	45	31
Modern Hebrew Continuers	39	92	6	62	31	5	0	3
Persian Continuers	30	80	5	17	33	50	0	0
Polish Continuers	17	91	6	65	35	0	0	0
Portuguese Continuers	21	87	5	33	48	19	0	0
Punjabi Continuers	15	88	5	33	60	7	0	0
Russian Continuers	29	90	6	55	38	7	0	0
Serbian Continuers	25	89	5	40	52	8	0	0
Spanish Beginners	259	75	4	18	19	27	20	12
Spanish Continuers	172	79	4	7	40	34	16	1
Spanish Extension	48	42	E3			25	69	6
Tamil Continuers	23	91	6	65	35	0	0	0
Turkish Continuers	32	88	5	44	34	9	13	0
Vietnamese Continuers	175	83	5	8	61	23	6	1
Automotive Exam	259	68	3	4	15	24	38	16
Business Services Exam	1,119	77	4	6	32	40	18	3
Construction Exam	1,614	74	4	1	24	42	23	9
Electrotechnology Exam	239	71	4	2	14	40	28	17
Entertainment Industry Exam	735	77	4	9	33	36	17	5
Financial Services Exam	62	72	4	2	31	21	42	2
Hospitality Exam	4,518	74	4	4	30	31	24	9
Human Services Exam	735	69	3	1	7	39	41	11
Information & Digital Technology Exam	483	75	4	2	24	54	18	2
Metal & Engineering Exam	276	65	3	<1	5	29	34	25
Primary Industries Exam	567	75	4	5	20	49	23	2
Retail Services Exam	841	70	4	1	12	40	33	14
Tourism, Travel & Events Exam	188	73	4	2	16	48	31	3

Table A3 Descriptive statistics and selected percentiles for HSC marks and scaled marks by course

Notes: (i) The **Number** column shows the number of students who completed the course in 2019.
(ii) The **P_{99}, P_{90}, P_{75}, P_{50}, P_{25} columns** refer to the 99th, 90th, 75th, 50th and 25th percentiles respectively.
(iii) The table excludes courses with less than 10 students completing the course in the current year, or if the students completing the course in the current year are undertaking less than 25 other ATAR courses in the same year. No percentile data are given for courses with less than 40 students.
(iv) This table should not be used as a simple HSC to scaled mark conversion table. For each HSC mark there can be a range of raw marks and therefore a range of scaled marks.

Course	Number	Type of mark	Mean	SD	Max. mark	P_{99}	P_{90}	P_{75}	P_{50}	P_{25}
Aboriginal Studies	699	HSC	34.5	8.0	49.0	48.5	45.0	41.0	34.0	29.5
		scaled	14.4	12.5	44.3	43.3	35.3	23.3	9.8	4.2
Agriculture	1,579	HSC	36.2	6.6	49.0	48.0	44.5	41.0	36.5	32.0
		scaled	18.9	11.3	45.7	43.5	35.9	27.2	17.4	9.9
Ancient History	7,233	HSC	36.5	7.0	49.5	47.5	44.5	41.5	37.5	32.5
		scaled	23.9	11.0	49.8	45.3	38.5	32.3	24.3	15.5
Biology	18,667	HSC	36.2	6.2	48.5	46.5	44.0	41.0	36.5	32.0
		scaled	25.9	9.9	49.7	45.2	39.0	33.5	26.2	18.5
Business Studies	17,586	HSC	36.3	6.7	49.5	47.5	44.5	41.5	37.0	32.0
		scaled	24.0	10.9	49.3	44.5	38.7	32.8	24.0	15.3
Chemistry	10,277	HSC	37.9	6.7	50.0	48.0	46.0	43.5	39.0	33.0
		scaled	31.4	9.9	50.0	46.7	43.1	39.3	33.1	24.5
Community & Family Studies	8,406	HSC	37.2	5.4	49.5	47.0	43.5	41.5	38.0	34.0
		scaled	18.8	10.5	44.2	41.0	33.8	27.0	18.2	10.1
Dance	969	HSC	39.5	5.2	50.0	49.0	45.5	43.5	40.0	36.5
		scaled	23.4	10.8	47.4	44.6	38.0	32.1	23.3	15.0
Design & Technology	3,221	HSC	39.2	5.3	49.5	48.5	45.5	43.0	39.5	36.0
		scaled	22.4	10.4	47.3	44.5	37.0	30.4	21.8	14.3
Drama	4,080	HSC	39.3	4.7	50.0	48.5	46.0	43.0	39.0	36.0
		scaled	23.6	11.0	49.9	46.8	39.0	32.0	22.9	15.1
Earth & Environmental Science	2,033	HSC	36.5	6.0	48.5	46.5	43.5	40.5	37.5	33.0
		scaled	23.0	10.6	48.3	44.4	37.1	31.1	23.2	14.7
Economics	5,100	HSC	38.9	5.9	50.0	48.0	45.5	43.5	40.0	34.5
		scaled	31.8	9.5	50.0	46.4	42.8	39.2	33.6	25.8
Engineering Studies	2,257	HSC	37.4	5.2	48.5	47.5	44.5	41.0	37.5	34.0
		scaled	25.8	9.7	48.8	45.6	38.8	33.2	25.8	18.9
English Studies Exam	993	HSC	25.7	7.8	41.0	37.0	32.5	30.5	27.5	25.0
		scaled	7.7	6.0	33.4	24.4	15.3	11.7	6.5	2.7
English Standard	30,228	HSC	34.8	4.4	49.5	44.5	40.0	38.0	35.0	32.0
		scaled	20.1	8.4	50.0	39.9	31.2	25.8	19.8	14.1
English Advanced	25,251	HSC	40.6	3.9	49.5	47.5	45.5	43.5	41.0	38.0
		scaled	31.9	8.2	49.8	46.4	41.8	38.0	32.9	26.9
English EAL/D	2,138	HSC	35.6	5.8	49.5	46.5	42.5	39.5	36.0	32.0
		scaled	22.2	11.0	48.7	45.4	37.6	30.4	22.0	13.4
English Extension 1	3,490	HSC	42.1	4.4	50.0	49.0	47.0	45.0	43.0	40.0
		scaled	36.4	6.4	50.0	47.5	44.1	41.1	37.1	32.5
English Extension 2	1,326	HSC	39.8	5.7	50.0	49.0	47.0	45.0	40.0	35.0
		scaled	36.2	6.9	50.0	48.8	45.1	41.7	36.5	31.3

Course	Number	Type of mark	Mean	SD	Max. mark	P_{99}	P_{90}	P_{75}	P_{50}	P_{25}
Food Technology	3,068	HSC	37.1	5.7	49.5	48.0	44.5	41.0	37.5	33.5
		scaled	19.9	11.3	46.9	43.8	36.1	28.5	19.1	10.4
Geography	4,188	HSC	37.6	6.7	49.0	47.0	45.0	42.5	39.0	34.0
		scaled	25.2	11.1	50.0	45.5	39.4	34.0	26.0	16.9
Industrial Technology	5,702	HSC	34.7	6.4	50.0	47.5	43.0	39.0	34.5	30.5
		scaled	17.2	9.9	41.2	38.8	31.6	24.6	16.2	9.1
Information Processes & Technology	2,098	HSC	36.5	7.0	49.0	48.0	45.0	41.5	37.5	32.5
		scaled	21.6	11.1	48.1	44.8	36.9	30.0	21.6	12.7
Investigating Science	2,770	HSC	34.6	6.8	48.0	45.5	42.5	39.5	35.5	31.0
		scaled	18.6	10.2	43.6	39.2	32.7	26.4	18.6	10.1
Legal Studies	10,516	HSC	37.0	7.2	50.0	48.0	45.5	42.5	38.0	32.5
		scaled	25.2	10.9	50.0	45.5	39.3	34.0	25.9	16.8
Mathematics Standard 1 Exam	1,139	HSC	35.0	5.8	48.5	46.0	41.5	38.5	35.5	31.5
		scaled	11.7	8.8	33.4	32.2	25.4	17.4	10.0	4.1
Mathematics Standard 2	29,656	HSC	35.5	5.9	50.0	47.0	43.0	39.5	36.0	31.5
		scaled	21.8	10.1	45.8	41.7	35.8	29.9	21.5	13.7
Mathematics	17,311	HSC	39.2	6.7	50.0	49.0	47.0	44.5	39.5	35.5
		scaled	31.1	9.6	50.0	47.2	42.6	38.3	32.3	25.2
Mathematics Extension 1	8,830	HSC	40.3	7.9	50.0	49.5	48.0	46.0	43.0	36.0
		scaled	39.1	7.0	50.0	48.6	46.2	44.1	40.7	35.9
Mathematics Extension 2	3,134	HSC	41.0	6.7	50.0	49.0	47.5	46.0	42.5	38.0
		scaled	42.9	4.5	50.0	49.0	47.3	45.9	43.7	41.1
Modern History	11,329	HSC	36.9	6.8	49.5	47.5	44.5	42.0	38.0	33.0
		scaled	25.6	11.0	50.0	46.0	39.8	34.3	26.3	17.2
History Extension	1,825	HSC	39.4	6.3	50.0	49.0	47.0	45.0	40.0	35.0
		scaled	33.7	6.9	49.9	46.4	42.0	38.7	34.3	29.1
Music 1	4,676	HSC	41.1	4.6	50.0	48.5	46.5	44.5	42.0	38.5
		scaled	21.2	10.7	46.6	43.0	36.1	29.3	20.9	12.7
Music 2	730	HSC	44.0	3.0	50.0	49.5	48.0	46.5	44.0	42.0
		scaled	33.3	8.5	50.0	48.1	44.5	40.2	33.9	26.8
Music Extension	417	HSC	45.5	4.3	50.0	50.0	50.0	49.0	47.0	43.0
		scaled	35.3	9.4	50.0	50.0	48.2	43.9	35.3	28.6
PDH&PE	15,545	HSC	36.5	5.7	49.0	46.5	44.0	41.0	37.0	32.5
		scaled	23.0	10.3	48.1	43.4	36.9	31.0	23.1	14.8
Physics	8,404	HSC	36.8	6.7	49.5	47.5	45.5	42.0	37.5	32.5
		scaled	30.5	9.7	50.0	46.5	42.3	38.2	31.8	23.8
Science Extension	668	HSC	36.8	4.9	48.0	47.0	43.0	40.0	37.0	33.0
		scaled	33.2	7.1	50.0	47.8	42.4	38.4	33.8	28.4
Society & Culture	4,769	HSC	38.6	5.5	49.5	48.0	45.5	42.5	39.0	35.5
		scaled	23.1	10.8	48.6	45.5	38.1	31.6	22.6	14.7
Software Design & Development	1,796	HSC	37.8	6.7	49.0	48.0	45.5	43.0	38.5	33.5
		scaled	25.7	10.7	49.8	46.1	39.3	34.2	26.4	17.4
Studies of Religion I	8,475	HSC	38.6	5.0	50.0	48.0	45.0	42.0	39.0	35.0
		scaled	27.9	8.9	48.3	45.0	39.3	34.8	28.4	21.5
Studies of Religion II	6,046	HSC	38.5	5.1	49.5	47.0	44.5	42.0	39.0	35.5
		scaled	27.6	9.9	50.0	45.8	40.1	35.2	28.6	20.8

Course	Number	Type of mark	Mean	SD	Max. mark	P_{99}	P_{90}	P_{75}	P_{50}	P_{25}
Textiles & Design	1,274	HSC	39.5	5.6	50.0	49.0	46.0	43.5	40.5	36.5
		scaled	22.9	11.2	48.6	46.0	38.0	31.8	23.0	14.3
Visual Arts	8,526	HSC	40.6	4.3	50.0	48.0	45.5	44.0	41.0	38.0
		scaled	22.3	11.1	49.2	45.7	38.0	30.9	21.7	13.3
Arabic Continuers	322	HSC	40.2	5.0	48.5	47.5	45.5	43.5	41.0	38.0
		scaled	16.5	11.5	44.5	41.8	34.5	24.2	14.6	6.8
Arabic Extension	113	HSC	39.1	5.2	48.0	48.0	46.0	44.0	39.0	34.0
		scaled	20.1	9.0	41.7	40.6	31.7	26.3	19.9	12.2
Armenian Continuers	22	HSC	41.1	2.8	46.5					
		scaled	26.8	11.7	50.0					
Chinese Beginners	38	HSC	36.9	7.8	48.5					
		scaled	20.9	14.8	48.3					
Chinese Continuers	178	HSC	42.7	4.8	49.5	49.0	48.0	46.5	43.0	40.0
		scaled	32.6	9.7	50.0	48.0	44.7	40.4	32.2	26.7
Chinese Extension	27	HSC	44.9	3.9	49.0					
		scaled	38.1	7.9	50.0					
Chinese & Literature	576	HSC	41.5	3.4	48.0	47.0	45.5	44.0	41.5	39.5
		scaled	24.8	10.8	50.0	48.0	39.4	33.3	24.5	16.6
Chinese in Context	107	HSC	44.3	2.8	49.0	48.5	47.5	46.5	44.5	42.5
		scaled	30.4	9.8	50.0	47.8	43.4	38.2	31.0	23.1
Classical Greek Continuers	19	HSC	44.8	3.2	49.5					
		scaled	39.4	7.7	50.0					
Classical Greek Extension	13	HSC	45.5	3.7	48.0					
		scaled	39.6	10.4	50.0					
Classical Hebrew Continuers	15	HSC	44.7	4.5	48.5					
		scaled	32.8	11.3	50.0					
Classical Hebrew Extension	11	HSC	45.8	3.7	50.0					
		scaled	36.3	8.6	50.0					
Croatian Continuers	13	HSC	40.1	4.0	47.5					
		scaled	24.4	11.2	50.0					
French Beginners	479	HSC	37.7	8.5	50.0	49.5	47.5	44.5	39.0	32.5
		scaled	23.7	11.2	47.9	46.6	38.9	32.7	24.3	14.8
French Continuers	648	HSC	41.3	5.2	49.5	49.0	47.5	45.5	42.5	38.0
		scaled	34.6	8.1	50.0	48.2	44.7	40.8	35.8	29.6
French Extension	177	HSC	40.6	5.3	48.0	48.0	46.0	45.0	42.0	37.0
		scaled	40.1	5.3	50.0	50.0	46.0	43.7	41.0	36.9
German Beginners	95	HSC	39.0	6.0	50.0	50.0	47.0	44.0	38.5	34.5
		scaled	26.0	10.6	50.0	50.0	39.9	33.0	25.5	16.8
German Continuers	209	HSC	40.7	4.7	49.0	48.5	46.5	44.5	41.0	37.5
		scaled	33.8	8.7	50.0	48.6	43.9	40.2	35.0	28.4
German Extension	47	HSC	43.3	3.4	50.0	50.0	47.0	46.0	43.0	41.0
		scaled	39.8	4.9	50.0	50.0	45.5	43.5	39.8	36.3
Hindi Continuers	18	HSC	43.9	3.1	47.5					
		scaled	30.5	10.5	50.0					

Course	Number	Type of mark	Mean	SD	Max. mark	P_{99}	P_{90}	P_{75}	P_{50}	P_{25}
Indonesian Beginners	29	HSC	39.3	8.4	48.5					
		scaled	22.8	12.7	46.5					
Indonesian Continuers	72	HSC	39.6	5.3	48.5	48.5	46.0	43.5	40.5	35.5
		scaled	30.4	9.6	50.0	50.0	42.0	37.1	30.8	22.9
Indonesian Extension	13	HSC	42.2	3.6	48.0					
		scaled	34.5	6.6	49.2					
Italian Beginners	274	HSC	37.0	6.5	49.0	48.5	45.5	41.5	37.5	33.0
		scaled	25.6	10.8	49.5	46.8	40.6	33.7	25.4	17.6
Italian Continuers	265	HSC	39.6	7.8	49.0	49.0	46.5	44.5	41.0	36.5
		scaled	30.4	10.1	50.0	48.8	41.9	37.7	31.2	24.1
Italian Extension	52	HSC	43.9	3.0	48.0	48.0	47.0	46.0	45.0	42.0
		scaled	38.3	5.0	50.0	50.0	43.9	41.5	38.9	34.8
Japanese Beginners	677	HSC	36.7	8.4	49.0	48.5	45.5	43.0	38.5	32.5
		scaled	23.7	10.9	47.9	45.1	37.6	32.6	24.4	16.1
Japanese Continuers	617	HSC	40.5	5.9	49.5	49.0	47.5	45.0	41.5	36.5
		scaled	31.2	10.1	50.0	48.2	44.1	39.3	32.5	24.1
Japanese Extension	138	HSC	42.2	5.2	50.0	49.0	48.0	47.0	43.0	38.0
		scaled	38.4	5.1	50.0	48.2	44.4	42.7	38.7	34.9
Japanese & Literature	14	HSC	42.4	3.5	48.5					
		scaled	24.3	9.4	44.0					
Japanese in Context	27	HSC	41.6	2.3	46.0					
		scaled	28.3	7.6	44.5					
Khmer Continuers	10	HSC	43.4	2.0	46.5					
		scaled	26.2	13.2	50.0					
Korean Beginners	116	HSC	39.9	5.6	49.0	48.0	47.0	44.5	41.0	36.0
		scaled	27.1	9.7	46.9	43.4	39.9	34.2	27.6	20.3
Korean & Literature	22	HSC	43.0	2.8	47.5					
		scaled	22.7	12.7	48.2					
Korean in Context	47	HSC	44.6	3.6	49.5	49.5	48.5	47.5	45.5	42.0
		scaled	28.8	9.8	50.0	50.0	41.9	36.5	28.6	21.0
Latin Continuers	131	HSC	44.2	3.5	49.5	49.5	48.0	46.5	45.0	42.5
		scaled	40.8	7.0	50.0	49.7	48.2	45.9	42.8	37.2
Latin Extension	83	HSC	46.0	2.8	50.0	50.0	49.0	48.0	47.0	45.0
		scaled	42.3	6.3	50.0	50.0	48.9	47.3	44.3	38.9
Macedonian Continuers	12	HSC	40.0	4.6	47.5					
		scaled	24.2	9.7	43.8					
Modern Greek Beginners	87	HSC	42.1	5.3	49.0	49.0	47.5	45.5	43.5	39.5
		scaled	27.7	10.6	46.8	46.8	41.2	35.5	28.8	19.6
Modern Greek Continuers	80	HSC	43.6	4.2	49.5	49.5	48.5	46.5	44.5	41.0
		scaled	24.7	9.5	45.0	45.0	37.9	30.2	24.3	17.6
Modern Greek Extension	42	HSC	37.9	6.6	50.0	50.0	46.0	44.0	37.0	33.0
		scaled	28.2	7.0	44.2	44.2	36.8	34.0	27.5	22.9
Modern Hebrew Continuers	39	HSC	44.7	3.6	49.0					
		scaled	35.6	8.3	50.0					

Course	Number	Type of mark	Mean	SD	Max. mark	P_{99}	P_{90}	P_{75}	P_{50}	P_{25}
Persian Continuers	30	HSC	40.7	3.4	48.5					
		scaled	19.5	8.8	38.8					
Polish Continuers	17	HSC	46.0	2.5	49.5					
		scaled	26.8	12.7	47.4					
Portuguese Continuers	21	HSC	43.0	3.0	47.0					
		scaled	29.8	9.8	44.3					
Punjabi Continuers	15	HSC	43.5	2.6	48.0					
		scaled	26.5	9.0	46.6					
Russian Continuers	29	HSC	44.1	2.7	47.0					
		scaled	30.1	9.1	44.4					
Serbian Continuers	25	HSC	44.2	2.7	48.5					
		scaled	24.8	11.4	48.0					
Spanish Beginners	259	HSC	37.1	7.1	49.5	48.5	46.0	43.0	37.5	32.5
		scaled	25.2	12.1	50.0	46.2	41.8	35.5	25.4	16.5
Spanish Continuers	172	HSC	39.0	4.6	47.5	47.0	44.5	43.0	39.5	36.0
		scaled	26.0	10.7	49.8	48.4	40.3	35.0	25.5	18.6
Spanish Extension	48	HSC	41.5	3.7	47.0	47.0	46.0	44.0	42.0	39.0
		scaled	33.0	7.2	47.8	47.8	42.0	37.6	32.9	27.4
Turkish Continuers	32	HSC	42.6	4.6	48.5					
		scaled	22.9	11.2	46.9					
Vietnamese Continuers	175	HSC	40.7	4.2	48.0	48.0	44.5	43.5	41.5	39.0
		scaled	19.3	10.8	45.6	45.2	33.5	27.2	19.3	11.0
Automotive Exam	259	HSC	34.3	5.7	47.0	46.0	42.0	38.5	34.0	31.0
		scaled	14.3	9.0	36.3	35.5	28.3	20.9	12.5	7.2
Business Services Exam	1,119	HSC	38.0	5.1	48.5	47.0	43.5	41.5	38.5	35.5
		scaled	18.9	10.4	44.1	42.1	33.4	26.0	18.2	10.7
Construction Exam	1,614	HSC	36.6	4.6	48.0	45.5	42.0	40.0	37.0	33.5
		scaled	16.0	9.6	39.5	36.8	29.4	23.4	15.4	7.6
Electrotechnology Exam	239	HSC	35.1	4.8	47.0	46.0	41.5	38.0	35.5	31.0
		scaled	17.1	9.4	39.9	39.2	31.0	22.5	16.5	8.5
Entertainment Industry Exam	735	HSC	38.4	4.9	49.0	47.0	44.5	42.0	38.5	35.5
		scaled	20.6	9.2	43.0	40.8	33.2	27.2	20.2	13.9
Financial Services Exam	62	HSC	35.9	5.8	45.0	45.0	42.0	40.5	35.5	33.0
		scaled	22.7	9.7	45.7	45.7	35.9	29.7	21.2	15.9
Hospitality Exam	4,518	HSC	36.4	5.8	48.5	46.5	43.0	40.5	37.0	33.0
		scaled	19.1	10.1	43.9	41.2	32.6	26.8	18.7	10.8
Human Services Exam	735	HSC	34.3	4.4	46.5	44.5	39.5	37.0	34.5	31.5
		scaled	19.5	9.5	42.4	40.8	33.2	26.4	18.0	11.8
Information & Digital Technology Exam	483	HSC	37.4	4.0	48.5	45.0	42.5	40.0	37.5	35.5
		scaled	17.9	9.0	39.9	36.5	30.9	25.2	17.3	10.6
Metal & Engineering Exam	276	HSC	32.0	6.1	45.0	43.0	38.5	36.0	32.5	28.5
		scaled	15.7	9.5	38.9	37.3	29.0	22.6	14.4	7.2
Primary Industries Exam	567	HSC	37.3	4.1	48.0	46.5	43.0	40.0	37.5	34.5
		scaled	16.9	9.7	40.6	39.4	31.4	24.0	16.0	8.5

Course	Number	Type of mark	Mean	SD	Max. mark	P_{99}	P_{90}	P_{75}	P_{50}	P_{25}
Retail Services Exam	841	HSC	34.5	4.7	46.0	44.0	40.0	37.5	35.0	31.5
		scaled	17.4	10.0	41.8	40.2	32.2	23.9	16.1	9.1
Tourism, Travel & Events Exam	188	HSC	36.3	3.7	47.0	45.5	42.0	38.5	36.5	34.0
		scaled	21.7	9.0	43.4	41.9	35.7	27.9	21.2	14.4

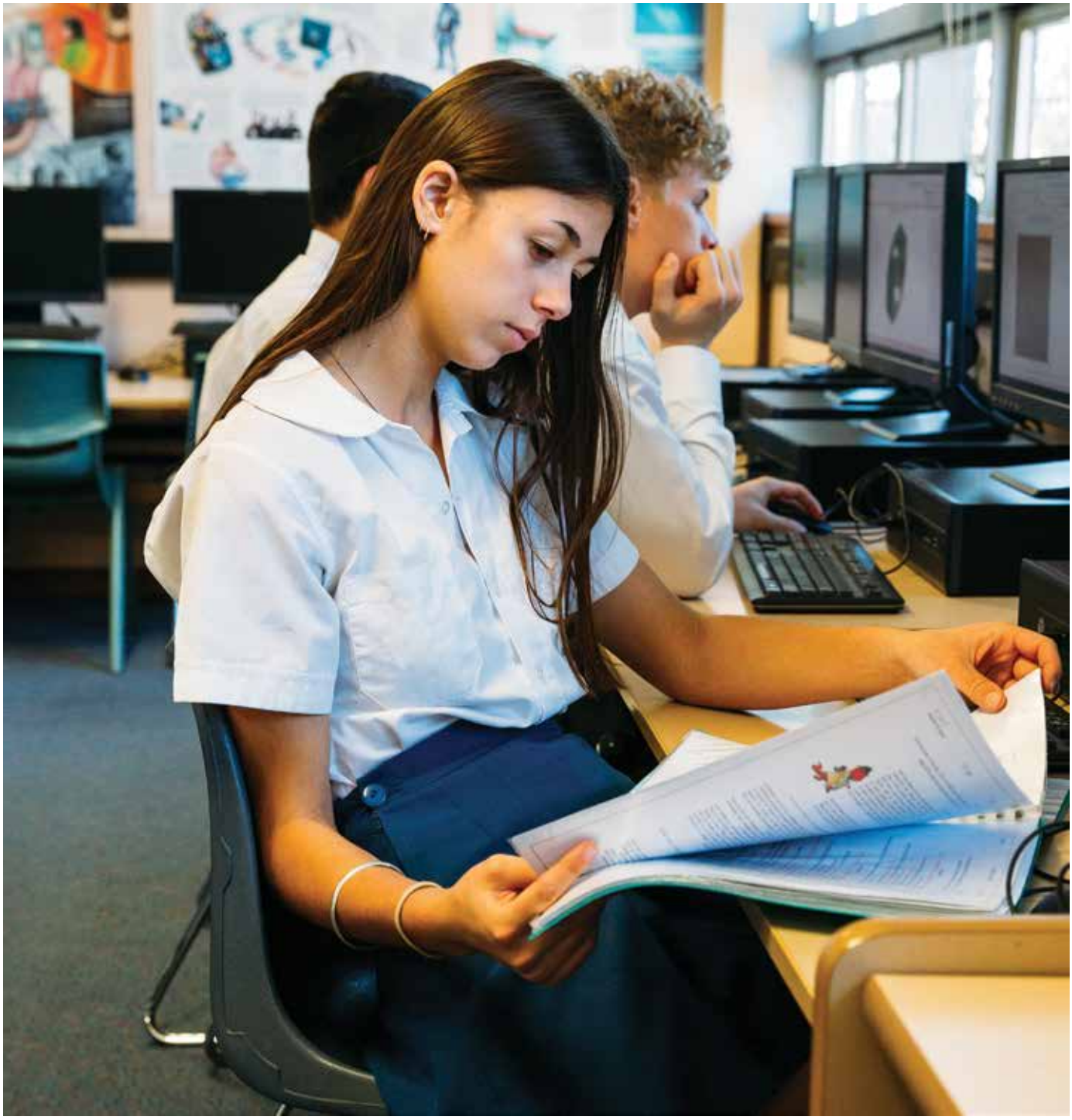


Table A4 Distributions of HSC marks by course: 2018 and 2019

Notes: (i) The **Number** column shows the number of students who completed the course in the given year.

(ii) Columns 45, 40, 35, 30 and 25 show the percentage of the course candidature with an HSC mark less than the specified mark.

(iii) The table excludes courses with less than 40 students in either year.

(iv) For new subjects examined for the first time in 2019, there is no comparative data for 2018.

Course	Year	Number	Percentage of students with HSC mark less than:				
			45	40	35	30	25
Aboriginal Studies	2019	699	89.0	71.0	53.8	27.9	8.3
	2018	625	90.1	76.2	56.0	35.0	8.2
Agriculture	2019	1,579	90.2	68.6	39.8	16.5	4.6
	2018	1,396	93.1	67.5	38.0	18.1	5.9
Ancient History	2019	7,233	90.7	64.0	34.3	15.0	5.5
	2018	8,177	90.4	63.5	36.7	15.1	4.5
Biology	2019	18,667	92.6	68.5	39.6	15.4	3.3
	2018	18,105	91.3	62.9	29.8	10.1	3.7
Business Studies	2019	17,586	90.6	66.6	37.9	16.2	4.8
	2018	17,611	91.5	62.6	34.9	12.4	2.2
Chemistry	2019	10,277	83.9	53.8	32.6	11.9	2.9
	2018	11,133	90.8	57.8	30.0	11.1	1.9
Community & Family Studies	2019	8,406	95.1	63.0	30.0	10.5	1.5
	2018	8,029	96.0	70.6	37.2	13.3	2.6
Dance	2019	969	86.9	45.9	17.5	3.5	1.0
	2018	922	86.2	44.6	16.1	4.9	1.7
Design & Technology	2019	3,221	85.6	53.3	17.8	4.7	1.0
	2018	3,305	88.2	53.2	16.4	3.3	0.6
Drama	2019	4,080	84.9	56.3	15.8	1.7	0.1
	2018	4,216	86.2	57.5	17.8	2.3	0.2
Earth & Environmental Science	2019	2,033	94.3	68.7	33.2	13.8	3.9
	2018	1,574	94.6	62.1	29.2	9.6	2.0
Economics	2019	5,100	84.7	48.1	25.3	7.5	1.4
	2018	5,190	86.8	53.4	27.6	7.6	1.5
Engineering Studies	2019	2,257	90.7	68.1	30.1	7.8	0.7
	2018	1,996	91.0	63.9	28.6	8.8	2.3
English Studies Exam	2019	993	100.0	99.9	96.2	64.5	23.2
	2018	–					
English Standard	2019	30,228	99.3	88.2	47.9	12.3	1.4
	2018	30,558	99.1	84.8	49.4	15.1	3.1
English Advanced	2019	25,251	86.5	38.1	8.1	1.0	0.1
	2018	26,127	86.2	37.3	9.5	1.4	0.2
English EAL/D	2019	2,138	96.1	76.3	41.2	13.8	3.6
English ESL	2018	2,311	96.9	74.4	43.1	15.3	3.9
English Extension 1	2019	3,490	65.8	24.6	5.8	1.2	0.2
	2018	4,064	62.1	21.6	4.3	0.7	0.2
English Extension 2	2019	1,326	73.8	48.0	19.8	3.3	0.4
	2018	1,525	83.3	59.9	28.6	6.3	1.0

Course	Year	Number	Percentage of students with HSC mark less than:				
			45	40	35	30	25
Food Technology	2019	3,068	91.5	66.3	32.3	9.6	1.6
	2018	3,144	89.8	67.1	37.2	13.8	2.6
Geography	2019	4,188	89.6	56.4	27.4	12.5	4.2
	2018	4,427	91.6	56.3	25.9	11.7	4.2
Industrial Technology	2019	5,702	94.4	78.5	50.4	20.2	4.9
	2018	5,712	93.8	77.4	51.2	23.4	7.8
Information Processes & Technology	2019	2,098	89.3	65.1	36.8	14.6	5.6
	2018	2,496	93.1	62.5	32.0	12.7	4.2
Investigating Science	2019	2,770	97.5	76.5	45.8	20.9	7.2
	2018	–					
Legal Studies	2019	10,516	86.4	58.4	34.3	15.7	5.7
	2018	10,309	87.7	55.5	27.0	14.2	3.9
Mathematics Standard 1 Exam	2019	1,139	96.9	82.4	43.2	15.6	2.8
	2018	–					
Mathematics Standard 2	2019	29,656	94.8	75.7	43.3	16.4	2.9
Mathematics General	2018	30,824	93.4	73.1	46.9	20.1	5.4
Mathematics	2019	17,311	76.4	50.7	21.5	7.6	2.6
	2018	17,825	77.5	48.1	22.1	7.4	2.0
Mathematics Extension 1	2019	8,830	60.9	36.6	19.7	9.6	4.4
	2018	9,021	67.1	40.4	20.1	9.5	3.6
Mathematics Extension 2	2019	3,134	64.2	32.5	14.1	7.0	3.0
	2018	3,164	66.8	34.3	14.4	5.9	2.1
Modern History	2019	11,329	90.2	60.3	33.4	13.6	4.4
	2018	11,089	89.5	57.8	28.4	14.8	6.2
History Extension	2019	1,825	72.3	45.7	23.2	7.1	1.5
	2018	1,788	76.3	48.6	21.1	4.5	1.5
Music 1	2019	4,676	77.8	33.7	9.0	1.8	0.4
	2018	4,462	78.9	35.1	9.7	1.6	0.3
Music 2	2019	730	58.8	9.0	0.1	0.0	0.0
	2018	735	58.4	8.6	0.3	0.0	0.0
Music Extension	2019	417	33.6	11.0	2.2	0.5	0.0
	2018	451	33.0	13.3	4.0	0.9	0.2
PDH&PE	2019	15,545	93.7	68.5	37.7	11.5	2.4
	2018	15,986	93.2	66.5	38.8	13.6	3.5
Physics	2019	8,404	87.6	63.0	35.6	14.3	4.0
	2018	9,454	90.4	66.1	34.7	12.9	2.7
Science Extension	2019	668	93.4	71.3	31.6	7.0	0.4
	2018	–					
Society & Culture	2019	4,769	87.6	55.5	21.4	6.2	1.5
	2018	4,520	87.3	52.6	22.3	6.9	1.9
Software Design & Development	2019	1,796	84.9	55.5	28.8	12.9	3.5
	2018	1,711	86.5	62.7	34.3	10.5	3.2
Studies of Religion I	2019	8,475	89.1	53.7	20.7	4.0	0.6
	2018	8,299	91.0	63.2	29.5	6.6	1.0

Course	Year	Number	Percentage of students with HSC mark less than:				
			45	40	35	30	25
Studies of Religion II	2019	6,046	92.6	55.2	20.3	6.4	1.2
	2018	6,192	93.3	58.8	29.0	9.3	2.2
Textiles & Design	2019	1,274	83.5	46.3	18.5	6.0	1.1
	2018	1,454	85.6	53.5	24.2	5.2	0.6
Visual Arts	2019	8,526	84.2	37.3	10.1	2.0	0.1
	2018	8,751	87.6	46.6	8.2	0.6	0.1
Arabic Continuers	2019	322	85.1	38.2	11.8	4.0	2.2
	2018	241	92.1	49.8	11.6	2.9	1.2
Arabic Extension	2019	113	77.9	51.3	30.1	0.0	0.0
	2018	97	79.4	48.5	22.7	1.0	0.0
Chinese Continuers	2019	178	59.6	20.8	7.3	2.2	0.0
	2018	173	54.9	12.7	1.7	0.0	0.0
Chinese & Literature	2019	576	80.7	29.3	2.6	0.5	0.0
	2018	622	87.3	28.9	3.1	0.3	0.0
Chinese in Context	2019	107	50.5	10.3	0.0	0.0	0.0
	2018	122	54.9	5.7	1.6	0.8	0.0
French Beginners	2019	479	76.2	52.6	32.6	15.9	6.1
	2018	472	78.4	58.3	31.1	14.0	5.1
French Continuers	2019	648	69.1	35.3	12.5	2.9	0.2
	2018	635	71.0	35.7	11.0	3.3	0.6
French Extension	2019	177	71.2	38.4	11.9	3.4	0.0
	2018	151	61.6	33.1	17.9	7.9	2.0
German Beginners	2019	95	75.8	57.9	27.4	4.2	0.0
	2018	113	65.5	31.9	15.9	5.3	0.9
German Continuers	2019	209	78.0	44.0	11.5	1.4	0.5
	2018	183	72.1	42.6	10.9	1.1	0.0
German Extension	2019	47	57.4	12.8	0.0	0.0	0.0
	2018	41	63.4	14.6	2.4	2.4	0.0
Indonesian Continuers	2019	72	86.1	48.6	22.2	1.4	0.0
	2018	62	64.5	30.6	9.7	1.6	0.0
Italian Beginners	2019	274	85.4	67.2	34.3	10.9	3.6
	2018	317	80.4	58.7	35.0	13.9	5.4
Italian Continuers	2019	265	75.5	41.1	17.0	6.4	3.4
	2018	242	79.3	44.2	21.9	5.8	1.2
Italian Extension	2019	52	44.2	11.5	0.0	0.0	0.0
	2018	61	59.0	16.4	6.6	0.0	0.0
Japanese Beginners	2019	677	85.7	57.0	34.4	19.2	7.5
	2018	718	85.8	55.0	28.4	14.1	4.3
Japanese Continuers	2019	617	72.3	39.7	17.8	3.7	0.8
	2018	679	71.3	38.9	14.3	4.6	0.1
Japanese Extension	2019	138	53.6	31.2	10.1	0.7	0.0
	2018	153	58.2	29.4	9.2	1.3	0.0
Korean Beginners	2019	116	75.9	42.2	19.0	4.3	1.7
	2018	97	78.4	40.2	17.5	6.2	2.1

Course	Year	Number	Percentage of students with HSC mark less than:				
			45	40	35	30	25
Korean in Context	2019	47	44.7	10.6	2.1	0.0	0.0
	2018	62	56.5	14.5	1.6	0.0	0.0
Latin Continuers	2019	131	48.9	10.7	2.3	0.0	0.0
	2018	156	50.0	13.5	2.6	0.6	0.0
Latin Extension	2019	83	22.9	3.6	0.0	0.0	0.0
	2018	94	14.9	3.2	1.1	1.1	0.0
Modern Greek Beginners	2019	87	63.2	25.3	10.3	3.4	0.0
	2018	79	50.6	32.9	13.9	5.1	0.0
Modern Greek Continuers	2019	80	52.5	21.3	3.8	1.3	0.0
	2018	100	69.0	30.0	5.0	0.0	0.0
Modern Greek Extension	2019	42	78.6	57.1	33.3	9.5	2.4
	2018	48	50.0	22.9	2.1	0.0	0.0
Spanish Beginners	2019	259	82.2	63.7	36.3	16.2	4.6
	2018	204	84.3	54.9	24.0	9.8	1.5
Spanish Continuers	2019	172	93.0	52.9	18.6	2.3	1.2
	2018	129	96.1	53.5	17.8	4.7	0.8
Spanish Extension	2019	48	75.0	25.0	6.3	0.0	0.0
	2018	43	74.4	46.5	11.6	0.0	0.0
Vietnamese Continuers	2019	175	92.0	30.9	8.0	2.3	1.7
	2018	141	96.5	29.8	3.5	1.4	0.0
Automotive Exam	2019	259	96.1	80.7	56.8	18.5	2.7
	2018	193	94.8	82.4	50.8	15.0	1.6
Business Services Exam	2019	1,119	94.2	62.4	22.5	4.8	1.3
	2018	1,056	94.8	64.9	27.8	10.8	2.9
Construction Exam	2019	1,614	98.6	74.1	32.5	9.3	0.6
	2018	1,510	97.7	81.5	30.0	5.5	0.3
Electrotechnology Exam	2019	239	98.3	84.5	44.8	16.7	0.0
	2018	220	100.0	88.6	49.1	11.8	0.0
Entertainment Industry Exam	2019	735	90.9	58.0	22.0	5.3	0.4
	2018	813	93.7	61.1	25.3	10.1	1.2
Financial Services Exam	2019	62	98.4	67.7	46.8	4.8	3.2
	2018	61	100.0	72.1	34.4	1.6	0.0
Hospitality Exam	2019	4,518	96.3	66.7	35.5	11.2	2.3
	2018	4,715	97.3	71.4	34.7	14.5	0.6
Human Services Exam	2019	735	99.5	92.5	53.6	12.8	1.6
	2018	667	99.1	89.5	51.1	9.1	0.4
Information & Digital Technology Exam	2019	483	98.3	74.3	20.7	3.1	0.6
	2018	569	97.0	74.2	29.5	8.6	2.1
Metal & Engineering Exam	2019	276	99.6	94.9	66.3	32.2	7.6
	2018	324	98.1	85.2	48.8	12.3	2.5
Primary Industries Exam	2019	567	94.9	74.8	25.6	2.5	0.4
	2018	569	96.5	73.1	25.1	3.0	0.7
Retail Services Exam	2019	841	99.2	87.3	47.7	15.1	1.5
	2018	811	99.9	91.2	46.0	14.9	2.6
Tourism, Travel & Events Exam	2019	188	98.4	82.4	34.6	3.2	0.0
	2018	224	99.6	75.9	23.2	1.3	0.0

Table A5 Distributions of scaled marks by course: 2018 and 2019

Notes: (i) The **Number** column shows the number of students who completed the course in the given year.

(ii) **Columns 45, 40, 35, 30, 25, 20 and 15** show the percentage of the course candidature with a scaled mark less than the specified mark.

(iii) The table excludes courses with less than 40 students in either year.

(iv) For new subjects examined for the first time in 2019, there is no comparative data for 2018.

Course	Year	Number	Percentage of students with scaled mark less than:						
			45	40	35	30	25	20	15
Aboriginal Studies	2019	699	100.0	95.4	89.6	84.5	77.1	69.8	61.9
	2018	625	100.0	95.4	89.9	85.3	79.5	71.7	63.5
Agriculture	2019	1,579	99.9	95.3	88.9	80.2	70.9	57.8	43.4
	2018	1,396	99.9	97.6	91.0	80.6	68.5	53.7	39.7
Ancient History	2019	7,233	98.8	92.8	82.5	68.1	52.6	36.7	23.9
	2018	8,177	98.6	92.7	82.7	70.4	55.3	40.3	25.8
Biology	2019	18,667	98.9	92.4	79.8	62.8	45.9	29.5	16.0
	2018	18,105	99.0	91.9	77.9	60.6	43.7	28.5	15.5
Business Studies	2019	17,586	99.3	92.7	81.0	67.2	52.7	38.2	24.1
	2018	17,611	99.2	93.1	81.6	67.5	52.4	37.4	24.0
Chemistry	2019	10,277	95.8	77.9	57.1	39.7	26.4	15.7	7.6
	2018	11,133	96.3	79.6	57.9	38.7	23.5	13.5	6.8
Community & Family Studies	2019	8,406	100.0	98.3	92.1	82.2	69.7	55.4	40.4
	2018	8,029	100.0	98.6	92.0	82.2	69.9	55.3	39.6
Dance	2019	969	99.3	92.8	83.1	70.5	55.4	40.6	24.9
	2018	922	97.1	90.9	80.0	68.4	57.5	43.8	29.2
Design & Technology	2019	3,221	99.3	94.7	86.6	74.1	59.8	43.4	27.2
	2018	3,305	99.1	94.9	86.9	75.0	60.8	44.7	28.0
Drama	2019	4,080	97.7	91.6	82.2	70.2	56.4	40.7	24.9
	2018	4,216	98.0	91.9	82.5	70.3	56.4	40.9	25.0
Earth & Environmental Science	2019	2,033	99.3	95.1	85.1	71.7	55.4	39.7	25.7
	2018	1,574	99.4	94.4	82.6	68.1	51.1	35.2	21.2
Economics	2019	5,100	96.7	78.6	56.0	36.8	22.7	13.5	6.6
	2018	5,190	95.5	78.5	56.4	38.6	24.3	13.1	6.6
Engineering Studies	2019	2,257	98.5	92.9	80.0	65.5	46.8	29.1	14.5
	2018	1,996	98.6	92.7	79.5	62.0	44.0	28.5	15.3
English Studies Exam	2019	993	100.0	100.0	100.0	99.9	99.1	96.2	86.8
	2018	–							
English Standard	2019	30,228	99.9	99.1	95.7	87.5	71.8	50.6	28.7
	2018	30,558	99.9	98.9	95.1	85.9	70.0	50.4	30.7
English Advanced	2019	25,251	97.5	83.6	60.1	37.1	19.4	9.0	3.4
	2018	26,127	98.0	84.2	61.2	38.6	21.3	9.8	3.9
English EAL/D	2019	2,138	98.6	94.0	85.9	74.2	59.3	44.6	29.9
English ESL	2018	2,311	99.0	93.8	84.0	71.6	56.0	42.3	27.5
English Extension 1	2019	3,490	93.6	68.5	37.5	15.2	5.2	1.5	0.5
	2018	4,064	95.2	71.8	39.6	18.5	6.0	2.0	0.6
English Extension 2	2019	1,326	89.7	66.7	42.4	18.3	5.5	1.3	0.2
	2018	1,525	91.2	72.4	48.0	23.7	7.5	2.2	0.5

Course	Year	Number	Percentage of students with scaled mark less than:						
			45	40	35	30	25	20	15
Food Technology	2019	3,068	99.5	95.7	88.0	78.5	66.2	52.6	38.3
	2018	3,144	99.8	96.0	88.5	78.7	68.9	56.6	42.9
Geography	2019	41,88	98.4	91.1	77.7	62.9	47.3	32.8	20.9
	2018	4,427	98.6	91.7	79.2	63.4	47.1	32.7	21.0
Industrial Technology	2019	5,702	100.0	99.7	95.2	87.2	76.0	62.2	45.8
	2018	5,712	100.0	99.6	95.4	87.8	76.5	62.4	47.5
Information Processes & Technology	2019	2,098	99.1	94.7	86.7	75.1	61.6	45.2	31.2
	2018	2,496	99.2	95.1	86.4	73.4	58.5	42.9	28.0
Investigating Science	2019	2,770	100.0	99.6	94.2	84.0	70.8	54.4	39.0
	2018	–							
Legal Studies	2019	10,516	98.7	91.4	78.2	62.6	47.7	33.2	20.7
	2018	10,309	98.8	90.9	78.1	63.3	48.3	34.2	22.0
Mathematics Standard 1 Exam	2019	1,139	100.0	100.0	100.0	96.0	89.6	80.2	68.7
	2018	–							
Mathematics Standard 2	2019	29,656	100.0	97.2	88.1	75.4	60.8	45.1	29.1
Mathematics General	2018	30,824	99.8	95.5	86.6	75.0	61.8	47.2	31.8
Mathematics	2019	17,311	95.9	81.3	61.3	40.7	24.3	13.5	7.2
	2018	17,825	96.4	81.5	60.5	40.5	24.0	13.2	6.8
Mathematics Extension 1	2019	8,830	82.0	45.5	21.7	10.2	4.8	1.9	1.0
	2018	9,021	78.8	45.6	21.4	9.9	3.9	1.5	0.6
Mathematics Extension 2	2019	3,134	64.5	18.6	6.3	2.4	0.8	0.1	0.0
	2018	3,164	52.5	13.7	4.6	1.5	0.7	0.3	0.1
Modern History	2019	11,329	98.3	90.3	77.2	61.5	46.1	31.6	19.9
	2018	11,089	98.1	90.6	76.6	60.7	44.7	31.3	20.6
History Extension	2019	1,825	96.6	81.6	53.3	28.0	11.1	4.0	0.8
	2018	1,788	97.4	82.7	57.2	29.8	9.7	2.6	1.0
Music 1	2019	4,676	99.7	96.0	88.1	76.7	63.0	47.3	32.1
	2018	4,462	99.8	96.1	87.7	76.5	62.8	47.5	31.9
Music 2	2019	730	91.6	74.5	54.8	36.7	18.6	6.7	1.1
	2018	735	94.3	74.8	52.2	31.8	15.8	6.1	1.6
Music Extension	2019	417	78.9	68.3	48.9	30.2	13.4	6.5	1.4
	2018	451	79.2	64.1	47.9	32.4	18.6	8.4	3.1
PDH&PE	2019	15,545	99.7	95.5	85.8	71.8	56.2	40.8	25.6
	2018	15,986	99.4	94.5	84.6	72.0	57.9	43.1	27.0
Physics	2019	8,404	96.9	82.3	62.0	43.2	28.1	16.3	7.7
	2018	9,454	96.9	82.8	62.0	42.8	28.1	16.6	7.8
Science Extension	2019	668	96.0	83.7	56.6	29.8	12.7	4.6	0.3
	2018	–							
Society & Culture	2019	4,769	98.6	93.2	83.2	71.2	57.1	42.0	25.6
	2018	4,520	99.2	94.1	85.2	71.0	55.5	39.4	24.0
Software Design & Development	2019	1,796	98.5	91.6	77.9	61.2	45.2	30.6	19.4
	2018	1,711	98.8	91.9	79.5	66.4	51.3	36.1	20.8
Studies of Religion I	2019	8,475	99.1	91.5	75.9	56.5	37.1	20.5	8.5
	2018	8,299	99.4	91.9	76.2	56.0	35.2	18.4	7.3
Studies of Religion II	2019	6,046	98.5	89.9	74.1	55.9	37.2	22.9	12.5
	2018	6,192	98.7	90.6	75.0	56.5	38.5	23.8	12.8

Course	Year	Number	Percentage of students with scaled mark less than:						
			45	40	35	30	25	20	15
Textiles & Design	2019	1,274	98.4	93.3	83.2	69.6	56.9	42.4	27.6
	2018	1,454	99.1	93.2	84.7	73.7	60.2	46.0	30.5
Visual Arts	2019	8,526	98.5	93.1	84.6	73.0	59.6	45.2	30.2
	2018	8,751	98.9	93.8	85.1	73.8	60.3	45.8	30.2
Arabic Continuers	2019	322	100.0	97.8	91.3	83.5	75.8	64.6	50.6
	2018	241	100.0	98.3	94.2	86.3	78.4	66.8	56.4
Arabic Extension	2019	113	100.0	98.2	92.9	84.1	69.9	52.2	34.5
	2018	97	100.0	99.0	91.8	83.5	59.8	38.1	19.6
Chinese Continuers	2019	178	90.4	73.6	57.3	39.9	17.4	11.2	5.1
	2018	173	93.6	77.5	57.8	36.4	23.1	12.1	1.7
Chinese & Literature	2019	576	96.7	91.5	79.9	67.2	51.6	35.8	20.7
	2018	622	98.2	93.6	85.5	73.6	55.9	38.7	21.9
Chinese in Context	2019	107	96.3	80.4	64.5	47.7	30.8	16.8	10.3
	2018	122	93.4	76.2	61.5	49.2	31.1	19.7	5.7
French Beginners	2019	479	98.1	92.3	82.0	68.9	51.6	38.0	25.9
	2018	472	97.0	89.6	81.4	69.1	54.7	37.9	22.5
French Continuers	2019	648	91.2	72.1	46.5	26.2	14.5	5.9	1.2
	2018	635	90.2	70.1	47.6	28.0	13.2	5.5	1.9
French Extension	2019	177	82.5	41.8	12.4	5.1	1.7	0.0	0.0
	2018	151	70.9	38.4	18.5	8.6	2.6	0.7	0.0
German Beginners	2019	95	95.8	90.5	78.9	62.1	46.3	31.6	16.8
	2018	113	98.2	93.8	78.8	62.8	46.9	31.9	15.9
German Continuers	2019	209	91.9	74.2	49.8	31.1	17.2	6.7	2.4
	2018	183	91.8	76.0	56.8	33.9	18.0	9.8	2.2
German Extension	2019	47	87.2	51.1	21.3	2.1	0.0	0.0	0.0
	2018	41	85.4	58.5	22.0	2.4	2.4	0.0	0.0
Indonesian Continuers	2019	72	93.1	87.5	56.9	48.6	33.3	16.7	4.2
	2018	62	91.9	77.4	54.8	38.7	22.6	14.5	1.6
Italian Beginners	2019	274	97.8	88.3	77.4	65.7	48.2	32.8	19.0
	2018	317	92.7	84.9	74.8	59.3	46.1	34.1	21.5
Italian Continuers	2019	265	95.1	83.0	61.5	44.5	29.1	13.6	6.8
	2018	242	94.6	78.9	62.4	42.1	25.6	13.2	5.4
Italian Extension	2019	52	90.4	61.5	28.8	5.8	0.0	0.0	0.0
	2018	61	90.2	67.2	36.1	11.5	1.6	0.0	0.0
Japanese Beginners	2019	677	99.0	93.8	83.2	68.8	52.7	36.8	22.9
	2018	718	99.3	95.1	82.2	66.3	50.3	34.8	22.0
Japanese Continuers	2019	617	91.7	78.1	60.5	41.8	28.2	15.9	6.8
	2018	679	95.1	80.0	60.8	42.1	25.2	14.3	7.5
Japanese Extension	2019	138	92.8	59.4	26.8	6.5	0.7	0.0	0.0
	2018	153	90.8	62.1	24.2	5.2	1.3	0.0	0.0
Korean Beginners	2019	116	99.1	90.5	75.9	62.9	40.5	23.3	14.7
	2018	97	95.9	90.7	79.4	64.9	40.2	22.7	13.4
Korean in Context	2019	47	93.6	83.0	74.5	55.3	44.7	14.9	4.3
	2018	62	98.4	88.7	69.4	51.6	37.1	29.0	9.7

Course	Year	Number	Percentage of students with scaled mark less than:						
			45	40	35	30	25	20	15
Latin Continuers	2019	131	67.2	37.4	16.8	9.2	3.1	1.5	0.0
	2018	156	66.0	42.3	16.7	7.7	2.6	1.9	1.3
Latin Extension	2019	83	57.8	32.5	14.5	3.6	1.2	1.2	0.0
	2018	94	48.9	14.9	6.4	2.1	1.1	1.1	1.1
Modern Greek Beginners	2019	87	97.7	88.5	72.4	50.6	37.9	26.4	16.1
	2018	79	94.9	89.9	77.2	59.5	45.6	35.4	24.1
Modern Greek Continuers	2019	80	100.0	92.5	83.8	71.3	52.5	33.8	20.0
	2018	100	93.0	84.0	70.0	58.0	46.0	31.0	23.0
Modern Greek Extension	2019	42	100.0	95.2	81.0	64.3	33.3	14.3	2.4
	2018	48	97.9	81.3	58.3	39.6	20.8	2.1	0.0
Spanish Beginners	2019	259	96.9	84.6	74.5	64.5	49.8	35.5	22.8
	2018	204	95.1	87.7	75.0	59.3	46.6	27.9	17.2
Spanish Continuers	2019	172	97.7	89.0	74.4	64.5	46.5	29.7	15.7
	2018	129	96.9	86.8	79.8	65.1	47.3	31.0	18.6
Spanish Extension	2019	48	91.7	85.4	60.4	37.5	12.5	4.2	0.0
	2018	43	95.3	90.7	67.4	46.5	20.9	2.3	0.0
Vietnamese Continuers	2019	175	98.9	96.0	93.1	82.9	70.9	52.0	36.6
	2018	141	97.9	96.5	87.9	70.9	51.8	39.0	27.0
Automotive Exam	2019	259	100.0	100.0	97.7	94.2	84.6	74.1	61.0
	2018	193	100.0	100.0	98.4	94.8	82.4	71.0	56.5
Business Services Exam	2019	1,119	100.0	96.8	92.9	84.1	71.9	55.6	39.6
	2018	1,056	100.0	97.8	91.1	82.6	72.1	55.0	38.3
Construction Exam	2019	1,614	100.0	100.0	97.7	90.7	79.4	64.5	49.1
	2018	1,510	100.0	100.0	97.7	90.5	81.5	70.8	54.8
Electrotechnology Exam	2019	239	100.0	100.0	95.4	90.0	79.9	61.1	44.8
	2018	220	100.0	100.0	98.2	93.2	77.3	63.6	42.3
Entertainment Industry Exam	2019	735	100.0	98.5	94.4	82.4	64.9	47.9	31.3
	2018	813	100.0	99.0	92.1	81.7	65.2	48.8	30.0
Financial Services Exam	2019	62	98.4	93.5	87.1	75.8	59.7	46.8	22.6
	2018	61	100.0	95.1	86.9	72.1	47.5	31.1	14.8
Hospitality Exam	2019	4,518	100.0	98.6	93.0	84.6	70.0	55.5	38.6
	2018	4,715	100.0	98.2	93.1	84.0	71.5	58.5	41.5
Human Services Exam	2019	735	100.0	98.8	92.5	82.4	69.9	57.1	37.7
	2018	667	100.0	99.1	94.8	84.4	71.5	57.9	40.8
Information & Digital Technology Exam	2019	483	100.0	100.0	96.5	88.2	74.3	57.3	40.8
	2018	569	100.0	98.9	93.7	85.6	74.2	56.9	39.4
Metal & Engineering Exam	2019	276	100.0	100.0	96.4	91.3	82.2	68.8	51.8
	2018	324	100.0	100.0	98.1	92.9	85.2	76.5	61.7
Primary Industries Exam	2019	567	100.0	99.5	94.9	88.4	77.2	63.5	47.8
	2018	569	100.0	100.0	97.0	88.8	78.0	63.1	47.5
Retail Services Exam	2019	841	100.0	98.8	94.2	85.4	75.0	62.9	44.9
	2018	811	100.0	98.6	93.3	87.7	79.3	64.4	47.7
Tourism, Travel & Events Exam	2019	188	100.0	98.4	89.4	80.3	68.6	44.7	25.0
	2018	224	100.0	99.6	92.4	82.6	64.7	52.2	28.6


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Table A6 Courses that contribute to the ATAR (more than 10 units)

Notes: (i) This table shows the percentage of the course candidature who completed more than 10 units of ATAR courses and for whom ***all*** units of that course contributed to their ATAR.

(ii) The **Number receiving ATAR** column shows the number of students who did the course in 2019 or a previous year, and received an ATAR in 2019.

(iii) The **ATAR students with > 10 units** columns show the number and percentage of ATAR students who completed more than 10 units of ATAR courses.

(iv) The **Percentage who counted course** column shows the percentage of the ATAR students who completed more than 10 units of ATAR courses for whom all units of that course contributed towards their ATAR.

(v) The **Maximum ATAR including the course** column shows the maximum ATAR of any student doing the course in any year and including all units from that course in their ATAR calculation.

(vi) The table excludes courses with less than 10 students.

Course	Number receiving ATAR	ATAR students with > 10 units			Maximum ATAR including the course
		Number	Percentage	Percentage who counted course	
Aboriginal Studies	405	105	26	73	99.30
Agriculture	1,212	462	38	79	99.05
Ancient History	6,666	2,572	39	86	99.95
Biology	17,980	7,987	44	83	99.95
Business Studies	16,373	5,936	36	85	99.95
Chemistry	10,233	6,220	61	75	99.95
Community & Family Studies	6,882	2,089	30	88	99.45
Dance	852	273	32	63	99.55
Design & Technology	2,849	1,029	36	72	99.35
Drama	3,556	1,249	35	69	99.95
Earth & Environmental Science	1,820	640	35	82	99.55
Economics	5,076	2,661	52	77	99.95
Engineering Studies	2,178	1,054	48	74	99.70
English Studies Exam	457	108	24	100	84.35
English Standard	27,520	7,868	29	100	99.55
English Advanced	25,070	12,512	50	99	99.95
English EAL/D	1,983	683	34	100	99.95
English Extension 1	3,483	2,340	67	88	99.95
English Extension 2	1,321	793	60	83	99.95
Food Technology	2,540	828	33	86	99.75
Geography	3,864	1,549	40	84	99.95
Industrial Technology	4,051	1,213	30	76	98.25
Information Processes & Technology	1,926	830	43	73	99.95
Investigating Science	2,256	831	37	84	98.55
Legal Studies	10,002	3,873	39	84	99.95
Mathematics Standard 1 Exam	651	170	26	49	89.15
Mathematics Standard 2	26,985	8,286	31	71	99.50
Mathematics	16,569	9,321	56	71	99.95
Mathematics Extension 1	8,721	6,300	72	89	99.95
Mathematics Extension 2	3,104	1,633	53	96	99.95
Modern History	10,567	4,525	43	85	99.95
History Extension	1,822	1,460	80	84	99.95

Course	Number receiving ATAR	ATAR students with > 10 units			Maximum ATAR including the course
		Number	Percentage	Percentage who counted course	
Music 1	3,933	1,411	36	65	99.35
Music 2	720	514	71	70	99.95
Music Extension	417	341	82	69	99.95
PDH&PE	14,174	4,819	34	85	99.80
Physics	8,323	4,821	58	75	99.95
Science Extension	666	541	81	80	99.85
Society & Culture	4,388	1,427	33	87	99.95
Software Design & Development	1,695	835	49	73	99.90
Studies of Religion I	8,206	7,089	86	80	99.90
Studies of Religion II	5,968	1,713	29	84	99.85
Textiles & Design	1,117	322	29	82	99.35
Visual Arts	7,263	2,451	34	74	99.95
Arabic Continuers	254	136	54	75	98.20
Arabic Extension	98	94	96	78	94.75
Armenian Continuers	18	13	72	69	90.30
Chinese Beginners	34	13	38	77	99.30
Chinese Continuers	178	109	61	67	99.95
Chinese Extension	27	23	85	78	99.95
Chinese & Literature	574	205	36	62	99.95
Chinese in Context	106	51	48	59	99.25
Classical Greek Continuers	14	13	93	77	99.95
Classical Greek Extension	11	10	91	80	99.95
Classical Hebrew Continuers	20	15	75	80	99.65
Classical Hebrew Extension	13	13	100	77	99.65
Croatian Continuers	12	5	42	60	90.35
French Beginners	426	163	38	74	99.00
French Continuers	642	416	65	67	99.95
French Extension	178	160	90	88	99.95
German Beginners	85	25	29	84	98.60
German Continuers	200	124	62	64	99.95
German Extension	46	39	85	82	99.95
Hindi Continuers	21	16	76	50	98.80
Indonesian Beginners	25	9	36	100	96.80
Indonesian Continuers	71	41	58	63	99.35
Indonesian Extension	13	11	85	100	99.35
Italian Beginners	255	123	48	70	98.75
Italian Continuers	263	150	57	67	99.90
Italian Extension	51	35	69	91	99.90
Japanese Beginners	637	213	33	69	99.40
Japanese Continuers	606	355	59	63	99.95
Japanese Extension	142	109	77	79	99.95
Japanese & Literature	14	3	21	67	95.45
Japanese in Context	26	14	54	57	93.80

Course	Number receiving ATAR	ATAR students with > 10 units			Maximum ATAR including the course
		Number	Percentage	Percentage who counted course	
Khmer Continuers	11	6	55	83	98.80
Korean Beginners	115	38	33	74	97.30
Korean & Literature	22	7	32	86	93.75
Korean in Context	44	21	48	57	99.80
Latin Continuers	130	111	85	69	99.95
Latin Extension	82	76	93	74	99.95
Macedonian Continuers	12	10	83	90	86.15
Modern Greek Beginners	85	40	47	75	97.20
Modern Greek Continuers	83	58	70	60	99.40
Modern Greek Extension	41	39	95	82	95.70
Modern Hebrew Continuers	35	18	51	83	99.65
Persian Continuers	24	7	29	86	95.15
Polish Continuers	17	12	71	83	93.15
Portuguese Continuers	18	8	44	88	97.75
Punjabi Continuers	15	12	80	58	98.05
Russian Continuers	22	10	45	40	94.50
Serbian Continuers	24	11	46	82	97.20
Spanish Beginners	237	90	38	73	99.85
Spanish Continuers	162	85	52	62	99.30
Spanish Extension	48	41	85	90	96.85
Tamil Continuers	28	22	79	73	99.10
Turkish Continuers	35	18	51	61	98.70
Vietnamese Continuers	157	64	41	69	98.90
Automotive Exam	136	58	43	53	86.75
Business Services Exam	932	354	38	75	96.10
Construction Exam	1,181	351	30	72	92.40
Electrotechnology Exam	164	53	32	74	88.05
Entertainment Industry Exam	632	216	34	77	95.45
Financial Services Exam	53	13	25	54	96.25
Hospitality Exam	3,954	1,313	33	76	97.65
Human Services Exam	664	270	41	74	96.55
Information & Digital Technology Exam	431	157	36	73	93.15
Metal & Engineering Exam	168	81	48	52	87.45
Primary Industries Exam	442	180	41	69	93.90
Retail Services Exam	731	261	36	57	95.20
Tourism, Travel & Events Exam	156	50	32	64	94.35

Table A7 ATAR distribution

Note: (i) This table shows the number of students receiving each ATAR from 99.95 to 99.00 and the number corresponding to the stated ATAR ranges down to 30.00–30.95.

(ii) The median ATAR in 2019 was 69.75.

ATAR	Number	Number on or above	Percentage on or above
99.95	46	46	0.1
99.90	43	89	0.2
99.85	47	136	0.2
99.80	48	184	0.3
99.75	42	226	0.4
99.70	46	272	0.5
99.65	50	322	0.6
99.60	43	365	0.7
99.55	50	415	0.8
99.50	45	460	0.8
99.45	42	502	0.9
99.40	51	553	1.0
99.35	43	596	1.1
99.30	49	645	1.2
99.25	42	687	1.2
99.20	46	733	1.3
99.15	51	784	1.4
99.10	45	829	1.5
99.05	49	878	1.6
99.00	45	923	1.7
99.00 - 99.95	923	923	1.7
98.00 - 98.95	919	1,842	3.3
97.00 - 97.95	928	2,770	5.0
96.00 - 96.95	922	3,692	6.7
95.00 - 95.95	923	4,615	8.4
94.00 - 94.95	913	5,528	10.0
93.00 - 93.95	932	6,460	11.7
92.00 - 92.95	920	7,380	13.4
91.00 - 91.95	931	8,311	15.1
90.00 - 90.95	925	9,236	16.8
89.00 - 89.95	914	10,150	18.4
88.00 - 88.95	929	11,079	20.1
87.00 - 87.95	918	11,997	21.8
86.00 - 86.95	916	12,913	23.5
85.00 - 85.95	930	13,843	25.2
84.00 - 84.95	904	14,747	26.8
83.00 - 83.95	914	15,661	28.5
82.00 - 82.95	904	16,565	30.1
81.00 - 81.95	933	17,498	31.8
80.00 - 80.95	904	18,402	33.4
79.00 - 79.95	892	19,294	35.1
78.00 - 78.95	918	20,212	36.7

ATAR	Number	Number on or above	Percentage on or above
77.00 - 77.95	880	21,092	38.3
76.00 - 76.95	899	21,991	40.0
75.00 - 75.95	900	22,891	41.6
74.00 - 74.95	901	23,792	43.2
73.00 - 73.95	889	24,681	44.8
72.00 - 72.95	890	25,571	46.5
71.00 - 71.95	860	26,431	48.0
70.00 - 70.95	888	27,319	49.6
69.00 - 69.95	865	28,184	51.2
68.00 - 68.95	861	29,045	52.8
67.00 - 67.95	840	29,885	54.3
66.00 - 66.95	866	30,751	55.9
65.00 - 65.95	847	31,598	57.4
64.00 - 64.95	825	32,423	58.9
63.00 - 63.95	828	33,251	60.4
62.00 - 62.95	825	34,076	61.9
61.00 - 61.95	801	34,877	63.4
60.00 - 60.95	809	35,686	64.8
59.00 - 59.95	780	36,466	66.3
58.00 - 58.95	788	37,254	67.7
57.00 - 57.95	775	38,029	69.1
56.00 - 56.95	779	38,808	70.5
55.00 - 55.95	753	39,561	71.9
54.00 - 54.95	751	40,312	73.3
53.00 - 53.95	738	41,050	74.6
52.00 - 52.95	735	41,785	75.9
51.00 - 51.95	724	42,509	77.2
50.00 - 50.95	728	43,237	78.6
49.00 - 49.95	700	43,937	79.8
48.00 - 48.95	688	44,625	81.1
47.00 - 47.95	661	45,286	82.3
46.00 - 46.95	662	45,948	83.5
45.00 - 45.95	628	46,576	84.6
44.00 - 44.95	603	47,179	85.7
43.00 - 43.95	591	47,770	86.8
42.00 - 42.95	577	48,347	87.9
41.00 - 41.95	538	48,885	88.8
40.00 - 40.95	523	49,408	89.8
39.00 - 39.95	502	49,910	90.7
38.00 - 38.95	476	50,386	91.6
37.00 - 37.95	441	50,827	92.4
36.00 - 36.95	430	51,257	93.1
35.00 - 35.95	385	51,642	93.8
34.00 - 34.95	375	52,017	94.5
33.00 - 33.95	342	52,359	95.1
32.00 - 32.95	306	52,665	95.7
31.00 - 31.95	283	52,948	96.2
30.00 - 30.95	256	53,204	96.7

Table A8 ATAR percentiles: 2015–2019

Note: This table shows the ATAR at selected percentiles of the ATAR cohort.

Percentile	ATAR 2015	ATAR 2016	ATAR 2017	ATAR 2018	ATAR 2019
100	99.95	99.95	99.95	99.95	99.95
99	99.40	99.40	99.35	99.40	99.40
98	98.75	98.75	98.75	98.80	98.80
95	96.95	96.95	96.90	97.00	97.00
90	93.95	93.95	93.85	94.00	94.00
85	90.90	90.90	90.80	91.00	91.05
80	87.85	87.85	87.75	88.00	88.05
75	84.75	84.75	84.70	85.00	85.05
70	81.65	81.60	81.60	82.00	82.05
60	75.25	75.25	75.40	75.85	75.95
50	68.70	68.65	69.00	69.65	69.75
40	61.70	61.65	62.40	63.15	63.25
30	54.05	53.95	55.35	56.20	56.35

Table A9 Relationship between the ATAR and aggregates: 2015–2019

Note: This table shows the lowest aggregate of scaled marks corresponding to each of the selected ATARs.

ATAR	Lowest aggregate				
	2015	2016	2017	2018	2019
99.95	478.1	476.6	477.1	476.3	476.7
99.50	457.9	455.8	457.1	455.5	454.5
99.00	446.9	446.0	446.6	444.5	443.8
98.00	432.4	431.2	432.2	429.9	429.6
95.00	404.2	403.8	404.1	402.8	402.0
90.00	371.2	371.7	372.4	371.1	370.0
85.00	343.8	345.3	344.8	343.1	342.2
80.00	319.9	320.6	319.9	318.2	316.3
75.00	297.0	297.5	296.2	294.5	291.7
70.00	274.8	275.1	273.3	271.1	268.6
65.00	253.1	253.4	249.4	248.1	245.9
60.00	231.4	231.4	226.6	224.1	223.5
55.00	211.4	210.9	204.2	201.0	200.2
50.00	191.9	191.4	182.0	178.0	176.8

REPORT ON THE SCALING OF THE 2019 NSW HIGHER SCHOOL CERTIFICATE

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This report contains information on the calculation of the Australian Tertiary Admission Rank (ATAR) in 2019. It includes an overview of the HSC and the ATAR, a breakdown of the scaling process, analysis of HSC and ATAR statistics and notes trends for the year.

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