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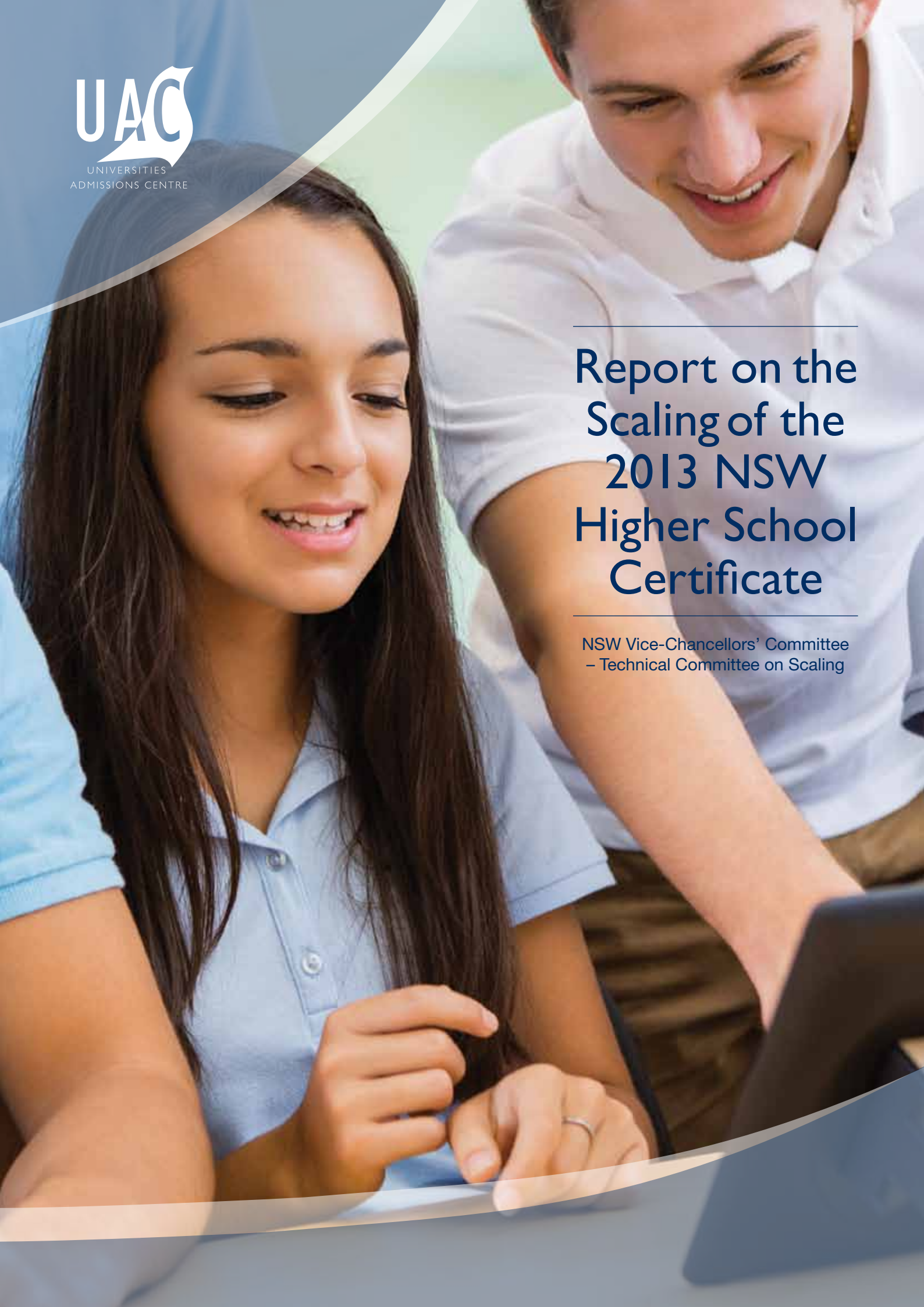

# Report on the Scaling of the 2013 NSW Higher School Certificate

NSW Vice-Chancellors' Committee
– Technical Committee on Scaling

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# Preface

In New South Wales student achievement in Stage 6 (Years 11 and 12) was 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 ATAR is a numerical measure of a student's overall academic achievement in the Higher School Certificate (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 Board of Studies, Teaching and Educational Standards (BOSTES) provides the HSC data from which the ATARs are calculated and the Universities Admissions Centre (UAC) advises individual students of their ATARs. Because of confidentiality provisions specified in government legislation, ATARs cannot be provided to the BOSTES, to schools or to other agencies.

This report contains information on the calculation of the ATAR in 2013.

**Professor Neville Weber**
Chair, Technical Committee on Scaling
March 2014

# 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 Board of Studies, Teaching and Educational Standards 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

## The Board

The Board refers to the Board of Studies, Teaching and Educational Standards (BOSTES).

## UAC

UAC refers to the Universities Admissions Centre (NSW and ACT) Pty Ltd.

## ABS

The ABS is the Australian Bureau of Statistics.

## Board Developed courses

Board Developed courses are courses whose syllabuses have been developed by the Board of Studies, Teaching and Educational Standards.

## Board Endorsed courses

Board Endorsed courses are courses whose syllabuses have been approved by the Board of Studies, Teaching and Educational Standards but which do not have formal examinations conducted by the Board of Studies, Teaching and Educational Standards.

## ATAR courses

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

## HSC cohort

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

## 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.

## SC cohort

SC cohort refers to students who completed the School Certificate tests in a particular year.

## VET examination courses

The VET Curriculum Frameworks are based on training packages where the assessment is competency based. As competence-based assessment does not yield a mark that can be used in the ATAR calculations, the Board of Studies, Teaching and Educational Standards introduced, for each VET Curriculum Framework, an additional course 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 HSC is an exit certificate awarded and issued by the Board of Studies, Teaching and Educational Standards (the Board). 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:

- six units of Board Developed courses
- two units of a Board Developed course in English (or the non-ATAR course, English Studies)
- three courses of two unit value or greater (either Board Developed or Board Endorsed courses)
- four subjects.

Further details about HSC eligibility and HSC courses can be found in the *Assessment, Certification and Examination Manual*, and in the booklet *Higher School Certificate Rules and Procedures*, which are published annually by the Board, and are available on the Board's website at www.bostes.nsw.edu.au

## 1.2 Reporting student achievement in the HSC

For most ATAR courses, the Board 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. For most Board Developed courses, a Course Report is also provided. Using performance bands, it describes the standard achieved in the course 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 may also vary from year to year if student performance changes.

The range 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 a 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).**

What the aligned mark indicates is 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.

Although school assessments are moderated and then aligned against standards, a school's rank order of 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 the Board'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 the Board's processes can be found on the Board's website at www.bostes.nsw.edu.au.

# 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 adopt a common name for the ranking index used to rank students for university admission. The agreed name was the Australian Tertiary Admissions Rank (ATAR). The name change was to emphasise the common scale used for reporting student ranks. New South Wales (NSW) and the Australian Capital Territory (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 as admissible to any particular university course the same proportion of each state's students.

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.

Since 1998, NSW has used the School Certificate tests as the link that enables 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 has been augmented to more accurately reflect the corresponding Year 7 cohort that is used in other states.

The ATAR is reported 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 their Year 7 cohort. Students who receive an ATAR of 80.00 in 2013, for example, have performed well enough in the HSC to place them 20% from the top of their Year 7 cohort, if all the 2008 Year 7 students completed Year 12 and were eligible for an ATAR in 2013.

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 the Board 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.

The Category B courses in 2013 were:

- Automotive Examination
- Business Services Examination
- Construction Examination
- Electrotechnology Examination
- Entertainment Industry Examination
- Financial Services Examination
- Hospitality Examination
- Human Services Examination
- Information Technology Examination
- Metal and Engineering Examination
- Primary Industries Examination
- Retail Services Examination
- Tourism and Events Examination.

## 2.3 Eligibility for an ATAR in 2013

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

- eight units of Category A courses
- two units of English
- three courses of two 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 two units of English
- the best eight units from the remaining units, which can include up to two units of Category B 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 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 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 in which 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.

**2013 Australian Tertiary Admission Rank Advice**

**Your Australian Tertiary Admission Rank (ATAR):** 74.30 *SEVEN*FOUR***THREE*ZERO

| Course name | Category | Year completed | Unit value | Units included in calculation of ATAR |
|---|---|---|---|---|
| Business Studies | A | 2013 | 2 | 1 |
| English Standard | A | 2013 | 2 | 2 |
| Mathematics | A | 2013 | 2 | 2 |
| Studies of Religion 1 | A | 2013 | 1 | 0 |
| French Continuers | A | 2013 | 2 | 2 |
| French Extension | A | 2013 | 1 | 1 |
| Hospitality Examination | B | 2013 | 2 | 2 |

# 3 Calculating the ATAR in 2013

## 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 2013 there were 27,202 different enrolment patterns for ATAR-eligible students; only 201 of these 27,202 combinations were completed by 20 or more students and 19,576 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.

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 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.

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. Percentiles, which indicate the ranking of students with respect to other ATAR-eligible students, are then determined on the basis of these aggregates. 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 students in their Year 7 cohort completed Year 12 five years later and 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 and the number of students with each ATAR varies, depending in part on how many candidates tie on the same aggregate.

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 marks calculated in the year the courses are completed.

## 3.2 The scaling process in 2013

The scaling procedure used to produce the aggregates in 2013 was unchanged from that used in 2012.

### *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.

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

All marks are provided on a one-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 one-unit basis.

### *3.2.2 Raw HSC marks*

Raw HSC marks, rather than the Board'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 the Board places 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 the Board's reporting practice.

### *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 one-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.

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, 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.

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 possible scaled mark in a course is determined according to the academic quality of the course candidature in such a way that the maximum possible scaled mark for the combined 2-unit English candidature is 50 on a one-unit basis.

In 2013 the maximum possible scaled mark in a course was given by the smaller of 50 and the scaled mean + 2.47 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, 2.47, was determined on the basis that the maximum possible 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 the actual maximum scaled mark in a course is less than the maximum possible scaled mark 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 possible scaled mark. The 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. ATAR-eligible percentiles, which show the position of students relative to their ATAR cohort, are then determined for these aggregates. The ATAR-eligible percentile corresponding to a particular aggregate is the percentage of the ATAR cohort who received an aggregate mark less than or equal to that aggregate.

Table 3.1 shows the ATAR-eligible percentiles corresponding to selected aggregates for the 2013 ATAR cohort. From the table it can be seen that, for example, 76.8% of the 2013 ATAR cohort received an aggregate mark of 350 or less.

***Table 3.1 ATAR-eligible percentiles corresponding to selected aggregates: 2013***

| Aggregate | ATAR-eligible percentile |
|---|---|
| 450.0 | 98.9 |
| 400.0 | 91.0 |
| 350.0 | 76.8 |
| 300.0 | 59.6 |
| 250.0 | 42.6 |
| 200.0 | 26.7 |
| 150.0 | 13.5 |

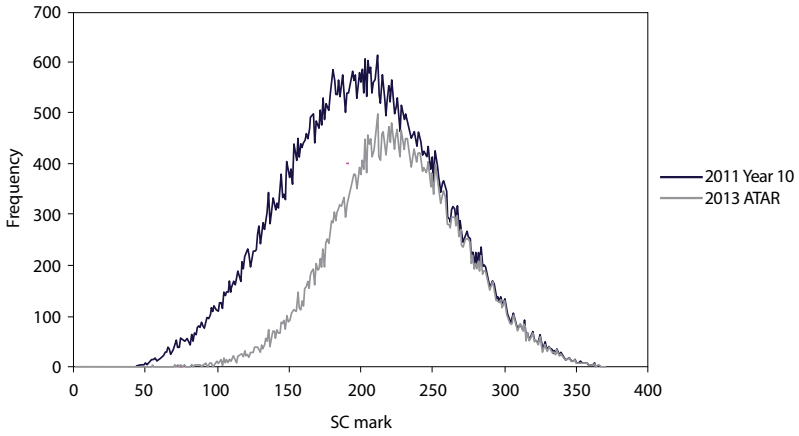
### 3.2.9 Calculating the ATAR – establishing the link

The percentiles that have been calculated show students' positions relative to their 2013 ATAR cohort. The next step is to relate the ATAR-eligible cohort to the 2011 School Certificate (SC) cohort. An observed score equating procedure is employed using the SC test results as the anchor variable.

A total SC mark is first calculated for each student. In 2011 the composite SC mark for each student was based on the student's results in the SC tests in English literacy, Mathematics, Science, and Australian History, Geography, Civics and Citizenship. The maximum possible SC mark was 400. Of the 54,642 students in the 2013 ATAR cohort, 49,687 had completed the SC tests in 2011; 62.1% of the 80,022 students in the 2011 SC cohort.

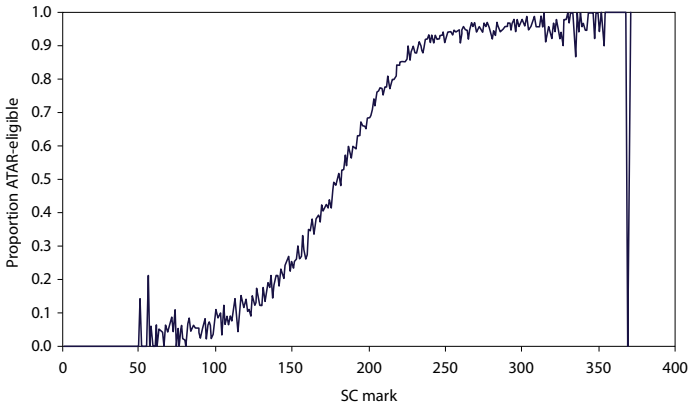
The next step is to calculate frequency distributions of the SC mark for all 2011 Year 10 students and for those who were eligible for an ATAR in 2013. The differences in the two frequency distributions (Figure 3.1) show that the 2011 Year 10 students who were eligible for an ATAR in 2013 were generally academically more able than the total 2011 SC cohort.

***Figure 3.1 Frequency distributions of SC marks for the 2011 Year 10 cohort and for students who were also in the 2013 ATAR cohort***



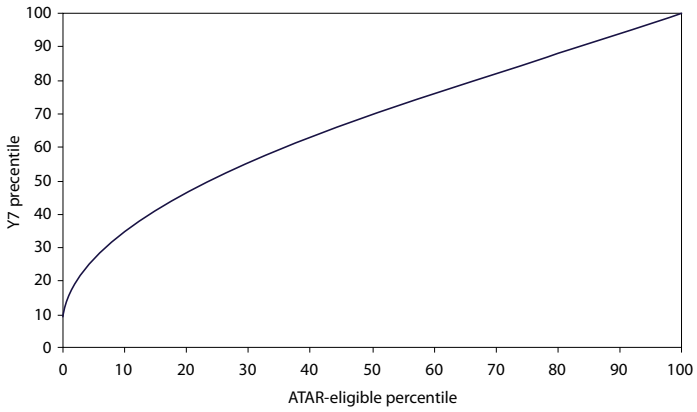

Another way of presenting the data is to calculate the proportion of students on each SC mark in 2011 that subsequently gained an ATAR in 2013 and plot the proportions against corresponding SC marks. The resultant graph (Figure 3.2) shows that the likelihood of 2011 Year 10 students continuing with their schooling and being eligible for an ATAR in 2013 increases with the SC mark. Note the proportions at the extreme aggregates are based on very small numbers of candidates, which produces the larger spikes.

***Figure 3.2 Proportion of the 2011 Year 10 cohort who were also in the 2013 ATAR cohort by SC mark***



The data underlying Figure 3.1 are then used to link a student's position relative to their 2013 ATAR cohort, their ATAR-eligible percentile, with their position relative to their 2008 Year 7 cohort, their Y7 percentile (Figure 3.3). This is done by augmenting the 2011 SC cohort with 6,616 fictitious students allocated an SC mark of 1. The extra 6,616 students bring the size of the cohort into agreement with the size of the 2008 Year 7 population as reported by the ABS. The early-leavers are incorporated into the process by applying the simplifying assumption that, had they completed the School Certificate, their performance would be lower than the performance of the corresponding SC cohort.

***Figure 3.3 Plot showing relationship between ATAR-eligible and Y7 percentiles***




This link is determined by calculating, for each SC mark:

- the percentage of the Y7 cohort who have an SC mark less than or equal to the given SC mark (Y7 percentile), and
- the percentage of those who were also in the 2013 ATAR cohort who had an SC mark less than or equal to the given SC mark (ATAR-eligible percentile).

The relationship between the two sets of percentages is shown in Table 3.2 for a selected set of ATAR-eligible percentiles. In this table, the percentiles have been rounded to one decimal place but for the actual calculations they are not rounded.

***Table 3.2 Relationship between ATAR-eligible percentiles and Y7 percentiles***

| ATAR-eligible percentile | Y7 percentile |
|---|---|
| 99.0 | 99.4 |
| 90.0 | 94.0 |
| 80.0 | 88.0 |
| 70.0 | 81.9 |
| 60.0 | 75.7 |
| 50.0 | 69.2 |
| 40.0 | 62.4 |
| 30.0 | 54.9 |
| 20.0 | 46.1 |
| 15.0 | 41.0 |

These equivalences show, for example, that students who were better than 90.0% of the 2013 ATAR-eligible cohort would have been better than 94.0% of the 2008 Year 7 cohort.

### *3.2.10 Calculating the ATAR – the final step*

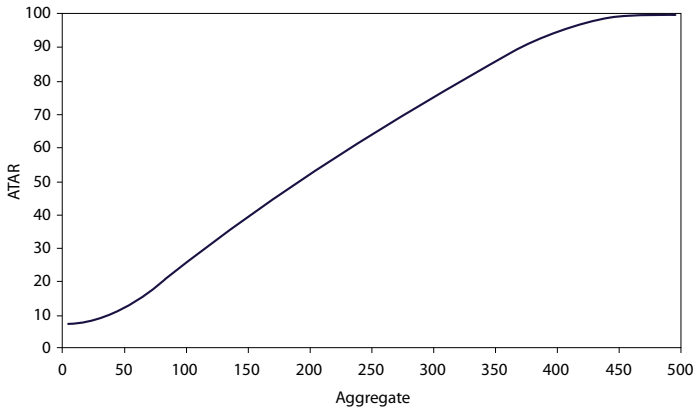
The last step is to determine the relationship between aggregates and Y7 percentiles. This is done by converting the ATAR-eligible percentiles found in section 3.2.8 to Y7 percentiles using the equivalences from section 3.2.9. When truncated to the nearest 0.05, these Y7 percentiles become the ATARs.

The relationship between aggregates and ATARs is shown graphically in Figure 3.4 and, for selected aggregates, in Table 3.3.

***Table 3.3 Relationship between aggregate and ATAR***

| Aggregate | ATAR |
|---|---|
| 450.0 | 99.30 |
| 400.0 | 94.65 |
| 350.0 | 86.00 |
| 300.0 | 75.45 |
| 250.0 | 64.25 |
| 200.0 | 52.20 |
| 150.0 | 39.25 |

***Figure 3.4 Relationship between aggregate and ATAR***




The following example uses data from Tables 3.1 and 3.2 to illustrate the procedure. In the actual ATAR calculations the full data set is used, not just the data presented in these tables. The ATAR estimated from data presented in these tables will only be an estimate of the actual ATAR, which is calculated using the full data set.

Table 3.1 shows that students with an aggregate of 350.0 performed well enough in the HSC to be 23.2% from the top of the 2013 ATAR cohort; a percentile of 76.8. From Table 3.2 we can estimate by linear interpolation that students who are at the 76.8th percentile of the ATAR-eligible cohort are at the 86.048th percentile of the 2008 Year 7 cohort. This means that students with an aggregate of 350.0 have performed well enough in the HSC to be at the 86.048th percentile of their Year 7 cohort. Their percentile is truncated, giving an estimated ATAR of 86.00.

# 4 The HSC and ATAR in 2013 – some results

## 4.1 Overview

In 2013 there was one new VET framework course, Financial Services Examination, and the course Heritage Indonesian was examined for the first time.

A total of 73,909 students completed at least one HSC course, but 3,223 were removed from the data base as they completed no ATAR course in 2013. Of the remaining pool of 70,686 students 91.3% received an HSC and 77.3% received an ATAR. Only 21 students who received an ATAR were not eligible for the HSC. While courses contributing to the underlying aggregate may be accumulated over a five-year period, 95.8% of those receiving an ATAR in 2013 included only 2013 courses in their aggregate.

The percentage of students enrolled in at least one ATAR course who were female (51.8%) was higher than the previous year, as was the percentage of students who received an ATAR who were female (53.5%).

## 4.2 Percentage of students receiving an ATAR

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

1. 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.

2. Those who enrol in a full HSC program that does not satisfy the requirements for an ATAR. These students normally complete six or eight units of Board Developed courses and choose the remaining units from Board Endorsed courses. They receive an HSC but not an ATAR. In 2013 there were 9,888 such students.

***Table 4.1 Proportion of students receiving an ATAR: 2009–2013***

| Year | HSC candidature | Students receiving an ATAR | |
|---|---|---|---|
| | | Number | % |
| 2009 | 66,612 | 52,402 | 78.7 |
| 2010 | 68,536 | 54,221 | 79.1 |
| 2011 | 69,309 | 54,897 | 79.2 |
| 2012 | 69,638 | 54,847 | 78.8 |
| 2013 | 70,686 | 54,642 | 77.3 |

## 4.3 Number of units of ATAR courses completed

The pattern in 2013 was similar to that observed in 2012, with 44.2% completing exactly 10 ATAR units and 33.5% 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: 2010–2013***

| Number of units | 2010 % | 2011 % | 2012 % | 2013 | |
|---|---|---|---|---|---|
| | | | | % | Number |
| 1 | 0.2 | 0.2 | 0.2 | 0.4 | 298 |
| 2 | 4.1 | 4.4 | 5.7 | 6.6 | 4,652 |
| 3 | 0.4 | 0.4 | 0.4 | 0.4 | 306 |
| 4 | 3.4 | 3.5 | 4.3 | 4.6 | 3,284 |
| 5 | 0.1 | 0.2 | 0.1 | 0.1 | 75 |
| 6 | 5.7 | 5.6 | 5.1 | 5.5 | 3,909 |
| 7 | 0.2 | 0.2 | 0.2 | 0.2 | 131 |
| 8 | 5.9 | 5.5 | 4.5 | 4.2 | 2,964 |
| 9 | 0.4 | 0.3 | 0.3 | 0.2 | 169 |
| 10 | 44.3 | 45.2 | 45.1 | 44.2 | 31,219 |
| 11 | 18.8 | 18.3 | 18.2 | 17.9 | 12,665 |
| 12 | 14.3 | 14.1 | 13.9 | 13.7 | 9,656 |
| 13 | 1.8 | 1.7 | 1.6 | 1.5 | 1,066 |
| 14 | 0.4 | 0.4 | 0.3 | 0.3 | 232 |
| 15+ | 0.1 | 0.1 | 0.1 | 0.1 | 60 |
| **HSC cohort** | **68,536** | **69,309** | **69,638** | | **70,686** |

[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 2013, the number who received an ATAR in 2013, 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 2013 as well as those who completed the course in previous years and completed at least one ATAR course in 2013. 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 new 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. It is worth noting that the new VET course Financial Services Examination had a student whose scaled mark for this course was included in their aggregate and the student received an ATAR of 99.95.

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 20,648 students enrolled in at least one VET course, of which 14,675 students enrolled in a VET examination course. The proportion taking a VET examination course (71.1%) is lower than 2012 (72.3%).

Overall, 77.3% of the 2013 HSC cohort received ATARs but the percentage varied across courses, from 51.2% to 100% for Category A courses with candidatures exceeding 100. For students enrolled in any VET courses the overall figure was 54.2% but was higher, 75.4%, 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 2013. 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 are 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 show 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 2012 shows that distribution of HSC marks has 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 are not provided for courses with less than 10 students. 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 one-unit basis) whereas the average scaled mark for the total HSC candidature is approximately 25.

In the table, marks are shown on a one-unit basis, so the range is 0 to 50. The percentiles in a course are based on all students completing that course in 2013 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 indicates a student's position in the course candidature if all students had 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 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.

The Board reports HSC marks rounded to the nearest integer, whereas raw marks are calculated to one decimal place. The Board 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 46.0. Students with a History Extension HSC mark of 46.0 in fact corresponded to the scaled mark percentile range 81.9 to 93.9.

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 41.7 but there was a range of scaled marks achieved by those with an HSC mark of 46.0.

Looking at French Extension in Table A3 we see that the maximum mark and the 99th percentile of the HSC distribution are both 49.0, whereas the scaled marks at the corresponding percentiles are 50.0 and 49.2. 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 75th and 90th percentiles for Geography, Senior Science and Hospitality Exam.

***Table 4.3 Scaled marks for selected percentiles***

| Course | Scaled mean | Scaled mark for | |
|---|---|---|---|
| | | $P_{90}$ | $P_{75}$ |
| Geography | 25.1 | 39.4 | 33.6 |
| Senior Science | 19.0 | 33.5 | 27.1 |
| Hospitality Exam | 19.5 | 33.5 | 27.4 |

Senior Science and Hospitality Exam have similar scaled means and almost the same scaled marks corresponding to the 75th and 90th percentiles. Geography has a higher scaled mean and higher scaled marks at the two percentiles. The table shows that Senior Science and Hospitality Exam students in the top 10% of the candidature have scaled marks comparable to those obtained by students in the top 25% of the Geography candidature.

## 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 2013 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% of the 2008 Year 7 cohort if all those students continued to Year 12 and had been eligible for an ATAR in 2013. From Table 4.4 we see that in 2013 16.7% of the ATAR-eligible students received an ATAR of 90.00 or above and 33.1% gained an ATAR of 80.00 and above.

***Table 4.4 Percentage of ATAR students receiving specific ATARs and above: 2009–2013***

| ATAR | 2009 % | 2010 % | 2011 % | 2012 % | 2013 % |
|---|---|---|---|---|---|
| 99.00 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 |
| 95.00 | 8.9 | 8.6 | 8.5 | 8.5 | 8.4 |
| 90.00 | 17.6 | 17.2 | 16.8 | 17.0 | 16.7 |
| 80.00 | 34.6 | 33.9 | 33.3 | 33.5 | 33.1 |
| 70.00 | 50.4 | 49.7 | 48.9 | 49.3 | 48.9 |
| 60.00 | 64.4 | 64.0 | 63.2 | 63.8 | 63.3 |
| 50.00 | 76.4 | 76.1 | 75.5 | 76.3 | 75.9 |

***Table 4.5 Median ATAR: 2009–2013***

| Year | Median ATAR all students | Median ATAR female | Median ATAR male |
|---|---|---|---|
| 2009 | 70.25 | 72.20 | 67.90 |
| 2010 | 69.80 | 71.80 | 67.40 |
| 2011 | 69.25 | 71.10 | 67.00 |
| 2012 | 69.55 | 71.35 | 67.55 |
| 2013 | 69.20 | 71.00 | 67.00 |

Table 4.5 shows the median ATAR and the median ATAR for male and female candidates for the years 2009–2013. The values in 2013 are similar to those in 2011.

In 2013, 48 students received the top ATAR of 99.95: 32 males and 16 females, from a mix of government and independent schools.

## 4.8 Gender differences

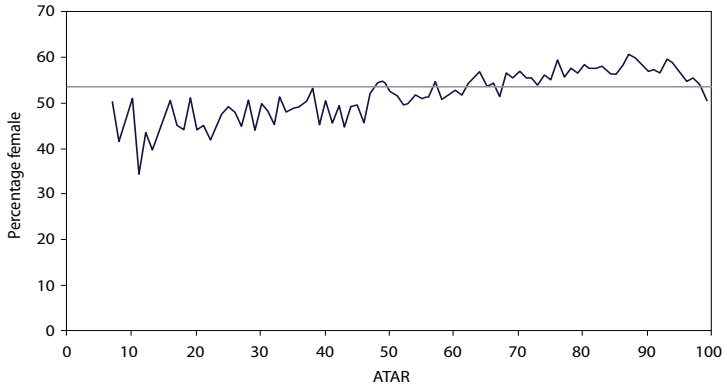
As in previous years, female students outperformed male students in the majority of courses and had a higher median ATAR. The percentages of students receiving ATARs on or above specified values who were female are given in Table 4.6.

***Table 4.6 Percentage of students receiving ATARs on or above specified values who were female: 2009–2013***

| ATAR | 2009 % female | 2010 % female | 2011 % female | 2012 % female | 2013 % female |
|---|---|---|---|---|---|
| 99.00 | 50.2 | 49.7 | 47.1 | 50.1 | 50.3 |
| 98.00 | 50.4 | 51.9 | 50.9 | 52.8 | 52.0 |
| 95.00 | 54.2 | 54.5 | 53.4 | 54.9 | 54.0 |
| 90.00 | 55.9 | 56.0 | 55.9 | 55.7 | 55.8 |
| 80.00 | 57.1 | 56.4 | 56.7 | 56.3 | 56.9 |
| 70.00 | 56.7 | 56.0 | 56.4 | 55.9 | 56.6 |
| 60.00 | 55.9 | 55.5 | 55.9 | 55.2 | 56.0 |
| 50.00 | 55.3 | 54.8 | 55.3 | 54.6 | 55.2 |
| 40.00 | 54.6 | 54.2 | 54.7 | 54.0 | 54.5 |
| 30.00 | 54.2 | 53.6 | 54.2 | 53.6 | 54.1 |
| **Total cohort** | 53.5 | 52.8 | 53.4 | 53.0 | 53.5 |

Figure 4.1 shows the percentage of students on each ATAR who were female. For this graph the ATARs have been truncated, so that an ATAR of 90.00, for example, includes ATARs from 90.00 to 90.95. Overall, 53.5% of the ATAR cohort was female, which is represented by the horizontal line on the graph. The graph shows clearly that there were proportionally more females on ATARs above 70.00 than males. Again, the fluctuations at the lower ATAR scores (less than 20) are due to there being very few students in this range.

***Figure 4.1 Percentage of students on each ATAR who were female***



## 4.9 University offers

UAC makes several rounds of offers from September to the end of February. In this report, 'offer' refers to offers made in any of those rounds. It does not include offers made by UAC in courses that are not bachelor degrees, or do not start in traditional semester 1, or are domestic fee-paying courses.

Of the 54,642 students who received an ATAR in 2013, 80.2% applied through UAC for a university course. Of the domestic (local) applicants, 82.6% were made at least one offer of a place. Tables 4.7 and 4.8 provide a breakdown of applicants and offers by ATAR band.

***Table 4.7 Applicants for university places by ATAR – domestic and international***

| ATAR band | Total number of students | Applicants | |
|---|---|---|---|
| | | Number | Percentage[1] |
| 90.00–99.95 | 9,137 | 8,986 | 98.3 |
| 80.00–89.95 | 8,939 | 8,579 | 96.0 |
| 70.00–79.95 | 8,627 | 7,993 | 92.7 |
| 60.00–69.95 | 7,902 | 6,765 | 85.6 |
| 50.00–59.95 | 6,844 | 5,116 | 74.8 |
| Below 50.00 | 13,193 | 6,404 | 48.5 |
| **Total** | **54,642** | **43,843** | **80.2** |

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

Not all the applicants have been made an offer solely on the basis of their ATARs. For some programs alternative criteria have been used, while for other programs students' ATARs have been supplemented by additional criteria.

***Table 4.8 Offers of university places by ATAR – domestic only***

| ATAR band | Number of applicants | Offers | |
|---|---|---|---|
| | | Number | Percentage[2] |
| 90.00–99.95 | 8,805 | 8,775 | 99.7 |
| 80.00–89.95 | 8,408 | 8,321 | 99.0 |
| 70.00–79.95 | 7,823 | 7,620 | 97.4 |
| 60.00–69.95 | 6,631 | 6,131 | 92.5 |
| 50.00–59.95 | 5,018 | 3,452 | 68.8 |
| Below 50.00 | 6,187 | 1,129 | 18.2 |
| **Total** | **42,872** | **35,428** | **82.6** |

[2] *These are percentages of the number of applicants in the given ATAR band.*

# 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 the Board 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 the Board 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 2013 and 2012. 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 2013 and 2012. Table A5 provides similar information for scaled marks. The data show that while the distributions of HSC marks have changed for some courses, the distributions of scaled marks are generally the same.

Ancient History is an example of a course where the candidature was almost the same as in 2012 but there is a change in the distribution of HSC marks (Table 5.1). However, the distributions of scaled marks in the two years are similar.

***Table 5.1 Distributions of HSC and scaled marks for Ancient History: 2012 and 2013, on a one-unit basis***

| Mark | Year | Enrolment | Percentage of students with mark less than: | | | | |
|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 |
| HSC mark | 2013 | 11,740 | 91.6 | 65.3 | 38.2 | 16.2 | 5.7 |
| | 2012 | 12,100 | 92.7 | 73.0 | 45.6 | 23.8 | 7.1 |
| Scaled mark | 2013 | 11,740 | 98.8 | 93.2 | 82.3 | 67.3 | 50.4 |
| | 2012 | 12,100 | 98.6 | 93.1 | 82.1 | 67.4 | 51.1 |

Taken together, the data indicate that the 2013 candidature in Ancient History performed better than the corresponding cohort in 2012 in terms of Ancient History. However, their overall performance as judged by their scaled marks is very similar.

## 5.2 Distributions of English and Mathematics marks: 2010–2013

Because all students study English, and most study Mathematics, comparative data is shown for English and Mathematics courses for the four years, 2010 to 2013. Table 5.4 shows the distributions of HSC marks and Table 5.5 shows the distributions of scaled marks.

In 2013 there was a small decrease in the number of students completing each of the English and Mathematics courses, except for General Mathematics.

When considering the English marks, recall English Standard and English Advanced are scaled as a single group.

- In 2-unit English all students complete a common paper (Paper 1), which counts for 40% of the total mark. Advanced and Standard students then complete separate papers, which count for 60% of the total mark.
- The Board uses Paper 1 to place the marks of the separate Standard and Advanced papers on the same scale so that a total (raw) examination mark can be calculated for 2-unit English. The marks for Standard and Advanced students are deemed to be on the same scale.
- The Board moderates school assessments using these raw examination marks.
- The raw HSC marks, which are used for scaling, are then calculated.
- The raw HSC marks for the English Standard and Advanced students are combined, and scaled as a single course. A raw HSC mark yields the same scaled mark for Standard and Advanced students.
- The Board aligns the raw examination marks against standards separately for Standard and Advanced students. As a result, Advanced students on a given raw mark may receive a different aligned mark than Standard students on the same raw mark. Consequently, an aligned HSC mark may correspond to a slightly different range of scaled marks for Standard and Advanced students.

By contrast, the courses General Mathematics and Mathematics are distinct 2-unit courses. They have no assessment components in common and so they are scaled as separate courses. Given the recent interest in the performance of 2-unit-only students on the Mathematics course the information in Table A2 is given in Table 5.2 and the information in Table A3 for this group of candidates is provided in Table 5.3.

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

| Course | Number | Median HSC mark | Median band | Percentage of students with HSC mark less than: | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 6 | 5 | 4 | 3 | 2 |
| Mathematics 2 unit only | 10,840 | 75 | 4 | 8 | 25 | 34 | 22 | 8 |

***Table 5.3 Distributions of HSC and scaled marks for Mathematics 2-unit-only candidates***

| Course | Number | Type of mark | Mean | SD | Max. mark | P99 | P90 | P75 | P50 | P25 |
|---|---|---|---|---|---|---|---|---|---|---|
| Mathematics 2 unit only | 10,840 | HSC | 36.8 | 6.1 | 49.5 | 47.5 | 44.0 | 41.0 | 37.5 | 33.5 |
| | | scaled | 28.1 | 8.9 | 49.5 | 44.6 | 38.6 | 34.5 | 29.3 | 22.6 |

***Table 5.4 Distributions of HSC marks for English and Mathematics courses: 2010–2013***

| | Year | Enrolment | Percentage of students with HSC mark less than: | | | | |
|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 |
| English Standard | 2013 | 31,495 | 99.6 | 93.1 | 65.8 | 21.0 | 4.5 |
| | 2012 | 31,803 | 99.5 | 84.2 | 48.3 | 21.5 | 3.1 |
| | 2011 | 34,384 | 99.8 | 91.1 | 60.9 | 27.4 | 6.9 |
| | 2010 | 34,371 | 99.8 | 95.7 | 64.9 | 27.8 | 8.3 |
| English Advanced | 2013 | 27,007 | 88.0 | 46.9 | 13.9 | 1.5 | 0.2 |
| | 2012 | 27,217 | 87.4 | 45.9 | 11.2 | 0.9 | 0.1 |
| | 2011 | 27,108 | 86.7 | 41.8 | 11.7 | 1.7 | 0.2 |
| | 2010 | 27,132 | 86.0 | 42.1 | 7.3 | 0.9 | 0.1 |
| English Extension 1 | 2013 | 5,007 | 75.3 | 34.6 | 11.5 | 3.2 | 0.8 |
| | 2012 | 5,265 | 75.0 | 35.4 | 12.7 | 3.2 | 0.8 |
| | 2011 | 5,327 | 73.2 | 38.4 | 15.8 | 4.5 | 1.1 |
| | 2010 | 5,578 | 75.5 | 37.8 | 14.3 | 3.3 | 0.6 |
| English Extension 2 | 2013 | 1,907 | 77.3 | 47.7 | 22.0 | 7.4 | 2.4 |
| | 2012 | 2,126 | 78.1 | 50.0 | 21.4 | 6.9 | 1.7 |
| | 2011 | 2,187 | 76.5 | 45.5 | 15.9 | 3.9 | 0.8 |
| | 2010 | 2,201 | 71.9 | 44.2 | 18.5 | 6.0 | 1.7 |
| ESL | 2013 | 2,410 | 97.4 | 76.6 | 40.2 | 15.7 | 4.1 |
| | 2012 | 2,513 | 96.8 | 75.1 | 35.0 | 10.6 | 3.5 |
| | 2011 | 2,869 | 94.2 | 67.4 | 30.6 | 7.9 | 1.3 |
| | 2010 | 3,079 | 96.3 | 74.3 | 35.0 | 10.4 | 2.6 |
| General Mathematics | 2013 | 32,376 | 94.0 | 78.8 | 57.4 | 23.7 | 7.9 |
| | 2012 | 31,702 | 94.4 | 77.7 | 48.6 | 19.7 | 5.5 |
| | 2011 | 31,631 | 92.9 | 75.5 | 49.6 | 19.6 | 6.3 |
| | 2010 | 30,992 | 93.4 | 73.7 | 43.0 | 14.0 | 2.8 |
| Mathematics | 2013 | 16,463 | 81.5 | 50.5 | 23.1 | 7.3 | 1.9 |
| | 2012 | 16,700 | 81.8 | 47.4 | 20.7 | 9.2 | 3.3 |
| | 2011 | 16,564 | 81.6 | 48.6 | 21.2 | 9.0 | 4.4 |
| | 2010 | 17,152 | 80.9 | 51.8 | 24.7 | 10.7 | 5.1 |
| Mathematics Extension 1 | 2013 | 8,839 | 67.2 | 36.9 | 16.3 | 6.5 | 2.0 |
| | 2012 | 8,925 | 64.4 | 35.1 | 14.9 | 5.5 | 1.7 |
| | 2011 | 8,823 | 64.0 | 35.5 | 15.4 | 5.8 | 2.2 |
| | 2010 | 9,116 | 63.0 | 36.8 | 17.2 | 7.6 | 2.7 |
| Mathematics Extension 2 | 2013 | 3,198 | 66.0 | 33.8 | 12.8 | 4.3 | 1.6 |
| | 2012 | 3,454 | 61.9 | 30.7 | 11.5 | 4.2 | 1.2 |
| | 2011 | 3,439 | 60.7 | 26.9 | 8.2 | 3.1 | 1.4 |
| | 2010 | 3,469 | 62.5 | 27.6 | 9.8 | 3.3 | 1.0 |

***Table 5.5 Distributions of scaled marks for English and Mathematics courses: 2010–2013***

| | Year | Enrolment | Percentage of students with scaled mark less than: | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 | 20 |
| English Standard | 2013 | 31,495 | 99.9 | 99.3 | 96.5 | 89.6 | 76.0 | 55.8 |
| | 2012 | 31,803 | 99.9 | 99.3 | 96.5 | 89.7 | 77.3 | 57.3 |
| | 2011 | 34,384 | 99.9 | 99.5 | 97.4 | 91.6 | 79.3 | 59.9 |
| | 2010 | 34,371 | 99.9 | 99.7 | 98.4 | 94.0 | 83.4 | 64.4 |
| English Advanced | 2013 | 27,007 | 97.5 | 83.1 | 60.5 | 37.2 | 20.6 | 9.3 |
| | 2012 | 27,217 | 97.8 | 83.3 | 60.8 | 39.2 | 21.8 | 9.2 |
| | 2011 | 27,108 | 96.3 | 80.5 | 60.5 | 40.0 | 21.1 | 8.8 |
| | 2010 | 27,132 | 96.5 | 80.2 | 58.8 | 35.9 | 18.1 | 7.1 |
| English Extension 1 | 2013 | 5,007 | 97.4 | 77.1 | 42.7 | 16.4 | 5.2 | 1.8 |
| | 2012 | 5,265 | 96.9 | 74.6 | 41.1 | 17.8 | 6.6 | 2.4 |
| | 2011 | 5,327 | 94.2 | 69.9 | 37.3 | 16.7 | 6.4 | 2.3 |
| | 2010 | 5,578 | 96.7 | 69.7 | 35.2 | 14.2 | 4.9 | 1.3 |
| English Extension 2 | 2013 | 1,907 | 95.5 | 76.5 | 46.0 | 20.2 | 6.9 | 1.9 |
| | 2012 | 2,126 | 94.7 | 75.0 | 45.3 | 18.3 | 5.4 | 1.0 |
| | 2011 | 2,187 | 92.4 | 71.3 | 44.5 | 18.4 | 5.3 | 1.5 |
| | 2010 | 2,201 | 92.9 | 70.2 | 41.6 | 14.9 | 4.0 | 0.9 |
| ESL | 2013 | 2,410 | 98.8 | 94.4 | 85.0 | 73.7 | 60.0 | 46.1 |
| | 2012 | 2,513 | 98.5 | 93.5 | 85.1 | 72.7 | 59.3 | 44.9 |
| | 2011 | 2,869 | 98.8 | 94.1 | 85.7 | 73.5 | 60.3 | 46.5 |
| | 2010 | 3,079 | 98.5 | 93.2 | 84.9 | 73.5 | 58.8 | 44.5 |
| General Mathematics | 2013 | 32,376 | 99.9 | 97.8 | 89.1 | 76.1 | 61.3 | 46.0 |
| | 2012 | 31,702 | 99.9 | 97.8 | 89.4 | 76.7 | 62.9 | 47.4 |
| | 2011 | 31,631 | 99.9 | 97.4 | 89.1 | 77.4 | 63.6 | 47.8 |
| | 2010 | 30,992 | 99.9 | 98.3 | 90.0 | 77.6 | 63.0 | 47.4 |
| Mathematics | 2013 | 16,463 | 98.3 | 84.4 | 60.5 | 38.6 | 22.7 | 12.6 |
| | 2012 | 16,700 | 96.3 | 81.3 | 61.6 | 41.7 | 25.8 | 14.7 |
| | 2011 | 16,564 | 96.8 | 81.9 | 61.5 | 41.5 | 25.1 | 13.6 |
| | 2010 | 17,152 | 97.3 | 82.6 | 62.9 | 42.2 | 25.4 | 14.3 |
| Mathematics Extension 1 | 2013 | 8,839 | 78.2 | 43.4 | 21.6 | 10.4 | 4.7 | 1.9 |
| | 2012 | 8,925 | 81.3 | 48.8 | 24.4 | 10.4 | 4.0 | 1.3 |
| | 2011 | 8,823 | 79.5 | 43.8 | 20.3 | 8.8 | 4.0 | 1.8 |
| | 2010 | 9,116 | 76.9 | 41.9 | 19.3 | 9.3 | 4.2 | 1.8 |
| Mathematics Extension 2 | 2013 | 3,198 | 54.3 | 15.7 | 4.8 | 1.9 | 0.9 | 0.3 |
| | 2012 | 3,454 | 64.8 | 19.5 | 5.8 | 2.1 | 0.7 | 0.2 |
| | 2011 | 3,439 | 58.4 | 16.4 | 5.1 | 2.4 | 1.2 | 0.5 |
| | 2010 | 3,469 | 52.6 | 14.1 | 4.6 | 1.8 | 0.7 | 0.4 |

## 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 one unit will be omitted. In 2013, 30,993 students out of the 54,642 ATAR-eligible students (56.7%) 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 2013.
- 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 108 courses listed in Table A6, 68 have 70% or more of their students counting the course. The data also show 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.

## 5.4 ATAR percentiles and relationship between ATARs and aggregates – Tables A8, A9

A question that is frequently raised concerns the relationship between the ATAR and the aggregate of scaled marks from which it is derived.

Table A8 in the Appendix shows the ATAR corresponding to selected ATAR-eligible percentiles. For example, 5% of the ATAR cohort in 2013 received an ATAR of 97.00 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.

# 6 Frequently asked questions

Most of the enquiries from students received by the ATAR Enquiry Centre at UAC in 2013 concerned the relationship between their HSC marks and their ATARs, and the reason why one course contributed to their ATAR and not another. In this report, these two major enquiries will be discussed. Following that, there is 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 middle ATAR is 69.20, 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 do not necessarily 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, Mary and Kathryn, 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 similar, 38.5 and 38.8 respectively, but their ATARs are quite different, 59.70 and 79.60 respectively.

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

| Mary | | | |
|---|---|---|---|
| ATAR | Course | HSC mark per course | HSC mark per unit |
| 59.70 | English Advanced | 80 | 40.0 |
| | General Mathematics | 67 | 33.5 |
| | Music 1 | 82 | 41.0 |
| | Senior Science | 76 | 38.0 |
| | Visual Arts | 80 | 40.0 |

| Kathryn | | | |
|---|---|---|---|
| ATAR | Course | HSC mark per course | HSC mark per unit |
| 79.60 | Biology | 75 | 37.5 |
| | Chemistry | 77 | 38.5 |
| | Economics | 77 | 38.5 |
| | English Advanced | 80 | 40.0 |
| | Mathematics | 79 | 39.5 |

Both Mary and Kathryn 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 Mary's courses was 23.2, whereas the average scaled mean for Kathryn's courses was 30.6. Kathryn has competed against students who have demonstrated higher academic achievement.

**Example 2**

Consider the following two students, Joshua and Daniel, whose HSC marks are shown in Table 6.2. Their average HSC marks per unit are similar, 38.7 and 37.7 respectively, 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***

| Joshua | | | |
|---|---|---|---|
| ATAR | Course | HSC mark per course | HSC mark per unit |
| 65.00 | Agriculture | 78 | 39.0 |
| | English Standard | 66 | 33.0 |
| | Industrial Technology | 92 | 46.0 |
| | PDH&PE | 76 | 38.0 |
| | Automotive Exam | 75 | 37.5 |

| Daniel | | | |
|---|---|---|---|
| ATAR | Course | HSC mark per course | HSC mark per unit |
| 75.00 | Chemistry | 67 | 33.5 |
| | English Advanced | 79 | 39.5 |
| | Geography | 85 | 42.5 |
| | Mathematics | 72 | 36.0 |
| | Physics | 74 | 37.0 |

Daniel has an ATAR that is almost the same as his average HSC course score (75.4), whereas Joshua's ATAR is much lower than his average HSC course score (77.4). In fact his average HSC score is higher than Daniel's. If we look at Table A3 the average of the scaled means of the courses taken by Joshua is 18.5, whereas for the courses taken by Daniel the average of the scaled means is 29.9.

**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 | 35 | 40.0 | 70 |
| Business Studies | 35.0 | 37 | 40.0 | 68 |
| English Advanced | 35.0 | 16 | 40.0 | 51 |
| Mathematics | 35.0 | 26 | 40.0 | 54 |
| Modern History | 35.0 | 25 | 40.0 | 56 |
| Visual Arts | 35.0 | 13 | 40.0 | 53 |
| **ATAR** | **57.55** | | **80.00** | |

Their HSC marks per unit in each course differ by only 5, yet their ATARs differ by 22.45. 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 2012. 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 2009 to 2013.

***Table 6.4 ATARs for Fred and Laura: 2009–2013***

| Year | Fred | Laura |
|---|---|---|
| 2009 | 57.80 | 81.20 |
| 2010 | 57.05 | 80.15 |
| 2011 | 58.20 | 79.80 |
| 2012 | 57.45 | 79.65 |
| 2013 | 57.55 | 80.00 |

*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, for which I received a higher mark, does not count?

As in previous years, this question arose after the results were released because each student's ATAR Advice Notice shows 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 | $P_{90}$ | |
|---|---|---|---|---|---|
| | | | | HSC mark per unit | Scaled mark |
| Ancient History | 11,740 | 24.4 | 10.6 | 44.5 | 38.3 |
| Biology | 16,852 | 26.7 | 10.2 | 44.0 | 39.4 |
| Business Studies | 15,740 | 24.0 | 10.8 | 44.5 | 38.5 |
| Music 1 | 5,010 | 21.6 | 10.4 | 45.5 | 36.2 |
| Physics | 9,562 | 30.2 | 9.8 | 44.5 | 42.0 |

These HSC marks are similar and each is at the 90th percentile of a large course with comparable standard deviations (SDs). 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 Physics, which has the highest scaled mean.

A student in Biology with an HSC mark of 44.0 can receive a higher scaled mark than a student in Ancient History or Business Studies with an HSC mark of 44.5 due to the differences in the strength of the competition reflected in the scaled means.

Notice also that the course with the highest HSC mark, Music 1, has the lowest scaled mark.

The HSC mark on its own does not give a clear indication of the contribution a course makes towards a student's aggregate when ATARs are calculated.

**Example 2 – position**

Consider students with HSC marks of 47.0 per unit in Geography and English Extension 2. The student in Geography is at the 99th percentile and gains a scaled mark of 45.6, whereas the student in English Extension 2 is at the 90th percentile and gets a scaled mark of 43.0. Therefore, even though the scaled mean for English Extension 2, 35.2, is much higher than the scaled mean for Geography, 25.1, the difference in position compensates for this and the Geography 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 |
|---|---|---|---|---|---|
| English Extension 2 | 35.2 | 6.5 | $P_{90}$ | 47.0 | 43.0 |
| Geography | 25.1 | 10.8 | $P_{99}$ | 47.0 | 45.6 |

**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***

| Course | Scaled mean | Scaled SD | $P_{90}$ | |
|---|---|---|---|---|
| | | | HSC mark per unit | Scaled mark |
| Dance | 22.1 | 10.5 | 45.0 | 37.7 |
| Spanish Extension | 31.5 | 4.8 | 45.0 | 36.8 |

Consider students at the 90th percentile of Dance, with an HSC mark of 45.0 per unit and a scaled mark of 37.7 per unit, and at the 90th percentile of Spanish Extension, with an HSC mark of 45.0 and a scaled mark of 36.8. Spanish Extension has a scaled mean of 31.5, whereas Dance has a scaled mean of 22.1.

The course with the lower scaled mean has the higher scaled mark corresponding to the HSC mark of 45.0 even though the position is the same in both courses. The scaled marks differ due to the spread in the distribution as measured by the standard deviation (SD). Spanish Extension has an SD of 4.8 but Dance has an SD of 10.5. Dance has a candidature with more varied academic ability than Spanish Extension.

**Example 4 – raw vs 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 and 90th percentiles, we see that candidates receiving the top HSC mark of 50 in Music Extension received scaled marks from 50.0 to 48.0. The top HSC mark in a course does not necessarily reflect the top raw mark in a course and so a candidate with an HSC mark of 50 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 the Board; 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. First, 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 course 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 an 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 and your previous marks. 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.

***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. It may increase or stay the same but it will not go down. Since you are being compared with a different cohort your ATAR may increase, remain the same or decrease.

***If I'm eligible to get bonus points, does my ATAR change?***

No. Bonus points do not change your ATAR. They change your selection rank for a particular preference or course.

***If bonus points don't increase my ATAR, then how do they work?***

Universities allocate bonus points to students for different reasons; for example, in recognition of performance in specific HSC courses, because students live in or attend school in an area defined by the university, or because students are eligible for consideration through Educational Access Schemes.

As the bonus points schemes for each university, and often each course at the same university, are different, then your selection rank can be different for each course you list in your course preferences. For most Year 12 applicants, their selection rank for each preference is their ATAR. However, if a university allocates bonus points to you for a particular course then your selection rank for that preference is your ATAR + bonus points.

# 7 Appendix

The following courses are not included in Tables A2–A5 in the Appendix as they had less than 10 students in 2013:

- Arabic Beginners
- Dutch
- Hungarian
- Heritage Indonesian
- Korean Continuers
- Malay Background Speakers
- Maltese
- Swedish
- Ukrainian.

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 Gender, ATAR eligibility and maximum ATAR by course
*Excludes courses with less than 10 students.*

Table A2 Distributions of 2013 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 or less than 4 ATAR-eligible students and no percentile data are given for courses with less than 40 students.*

Table A4 Distributions of HSC marks by course: 2012–2013
*Excludes courses with less than 40 students in either year.*

Table A5 Distributions of scaled marks by course: 2012–2013
*Excludes courses with less than 40 students in either year.*

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

Table A7 ATAR distribution

Table A8 ATAR percentiles: 2009–2013

Table A9 Relationship between the ATAR and aggregates: 2009–2013

## Table A1 Gender, ATAR eligibility and maximum ATAR by course

Notes: (i) The **Number All** column includes students who completed the course in 2013 or in a previous year (and who have done at least one ATAR course in 2013).

(ii) The **Number HSC** column shows the number of students who completed the course in 2013 or in a previous year and who received an HSC award in 2013.

(iii) The **Number ATAR** column shows the number of students who completed the course in 2013 or in a previous year and who were eligible for an ATAR in 2013.

(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 2013.

(vi) The **% ATAR eligible** column shows the percentage of students in the course who were eligible for an ATAR in 2013.

(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 | Maximun ATAR |
|---|---|---|---|---|---|---|---|
| Aboriginal Studies | 381 | 329 | 195 | 71.9 | 86.4 | 51.2 | 99.05 |
| Agriculture | 1,464 | 1,374 | 1,045 | 52.4 | 93.9 | 71.4 | 99.95 |
| Ancient History | 11,871 | 11,545 | 10,708 | 59.0 | 97.3 | 90.2 | 99.95 |
| Biology | 17,077 | 16,673 | 16,243 | 61.2 | 97.6 | 95.1 | 99.95 |
| Business Studies | 15,988 | 15,545 | 14,419 | 48.7 | 97.2 | 90.2 | 99.90 |
| Chemistry | 11,186 | 10,917 | 10,877 | 45.5 | 97.6 | 97.2 | 99.95 |
| Community & Family Studies | 7,181 | 7,018 | 5,582 | 93.0 | 97.7 | 77.7 | 99.05 |
| Dance | 930 | 889 | 754 | 94.4 | 95.6 | 81.1 | 99.75 |
| Design & Technology | 3,228 | 3,157 | 2,793 | 42.9 | 97.8 | 86.5 | 99.35 |
| Drama | 4,476 | 4,362 | 3,965 | 69.6 | 97.5 | 88.6 | 99.95 |
| Earth & Environmental Science | 1,419 | 1,392 | 1,302 | 49.7 | 98.1 | 91.8 | 99.65 |
| Economics | 5,337 | 5,267 | 5,249 | 36.7 | 98.7 | 98.4 | 99.95 |
| Engineering Studies | 2,058 | 2,015 | 1,951 | 4.2 | 97.9 | 94.8 | 99.95 |
| English Standard | 31,816 | 30,743 | 25,929 | 49.5 | 96.6 | 81.5 | 99.35 |
| English Advanced | 27,201 | 26,832 | 26,599 | 57.9 | 98.6 | 97.8 | 99.95 |
| English Extension 1 | 5,039 | 5,000 | 4,986 | 66.6 | 99.2 | 98.9 | 99.95 |
| English Extension 2 | 1,919 | 1,911 | 1,904 | 70.3 | 99.6 | 99.2 | 99.95 |
| ESL | 2,420 | 2,290 | 2,114 | 50.2 | 94.6 | 87.4 | 99.95 |
| Food Technology | 3,677 | 3,602 | 2,913 | 74.1 | 98.0 | 79.2 | 99.35 |
| Geography | 4,171 | 4,068 | 3,755 | 45.8 | 97.5 | 90.0 | 99.90 |
| Industrial Technology | 5,398 | 5,188 | 3,495 | 11.3 | 96.1 | 64.7 | 97.40 |
| Information Processes & Technology | 3,240 | 2,926 | 2,676 | 23.5 | 90.3 | 82.6 | 99.95 |
| Legal Studies | 9,937 | 9,717 | 9,237 | 61.7 | 97.8 | 93.0 | 99.95 |
| General Mathematics | 32,673 | 31,847 | 27,640 | 51.0 | 97.5 | 84.6 | 99.70 |
| Mathematics | 16,829 | 15,467 | 15,408 | 45.7 | 91.9 | 91.6 | 99.95 |
| Mathematics Extension 1 | 9,100 | 8,745 | 8,742 | 41.2 | 96.1 | 96.1 | 99.95 |
| Mathematics Extension 2 | 3,267 | 3,225 | 3,226 | 36.4 | 98.7 | 98.7 | 99.95 |
| Modern History | 10,526 | 10,285 | 9,735 | 53.2 | 97.7 | 92.5 | 99.95 |
| History Extension | 1,993 | 1,988 | 1,980 | 61.2 | 99.7 | 99.3 | 99.95 |
| Music 1 | 5,060 | 4,850 | 4,176 | 47.7 | 95.8 | 82.5 | 99.50 |
| Music 2 | 871 | 829 | 826 | 55.8 | 95.2 | 94.8 | 99.95 |
| Music Extension | 507 | 501 | 499 | 57.2 | 98.8 | 98.4 | 99.95 |
| PDH&PE | 13,972 | 13,580 | 12,348 | 52.6 | 97.2 | 88.4 | 99.95 |
| Physics | 9,629 | 9,426 | 9,361 | 22.3 | 97.9 | 97.2 | 99.95 |

*Table A1 Gender, ATAR eligibility and maximum ATAR by course (continued)*

| Course | Number All | Number HSC | Number ATAR | % Female | % HSC | % ATAR eligible | Maximun ATAR |
|---|---|---|---|---|---|---|---|
| Senior Science | 5,486 | 5,347 | 4,343 | 46.6 | 97.5 | 79.2 | 99.70 |
| Society & Culture | 4,006 | 3,876 | 3,579 | 80.8 | 96.8 | 89.3 | 99.95 |
| Software Design & Development | 1,663 | 1,598 | 1,521 | 7.4 | 96.1 | 91.5 | 99.95 |
| Studies of Religion I | 9,561 | 9,195 | 8,945 | 53.4 | 96.2 | 93.6 | 99.95 |
| Studies of Religion II | 5,178 | 5,102 | 4,982 | 66.3 | 98.5 | 96.2 | 99.90 |
| Textiles & Design | 2,138 | 2,092 | 1,785 | 98.3 | 97.8 | 83.5 | 99.85 |
| Visual Arts | 9,325 | 9,014 | 7,701 | 71.5 | 96.7 | 82.6 | 99.90 |
| Arabic Continuers | 201 | 188 | 162 | 63.7 | 93.5 | 80.6 | 98.20 |
| Arabic Extension | 50 | 46 | 43 | 66.0 | 92.0 | 86.0 | 96.80 |
| Armenian | 34 | 21 | 20 | 79.4 | 61.8 | 58.8 | 92.80 |
| Chinese Beginners | 53 | 52 | 49 | 41.5 | 98.1 | 92.5 | 99.00 |
| Chinese Continuers | 66 | 65 | 65 | 39.4 | 98.5 | 98.5 | 99.95 |
| Chinese Extension | 18 | 17 | 17 | 44.4 | 94.4 | 94.4 | 99.80 |
| Chinese Background Speakers | 679 | 637 | 623 | 57.6 | 93.8 | 91.8 | 99.95 |
| Heritage Chinese (Mandarin) | 96 | 95 | 95 | 77.1 | 99.0 | 99.0 | 99.85 |
| Classical Greek Continuers | 14 | 14 | 14 | 35.7 | 100.0 | 100.0 | 99.95 |
| Classical Greek Extension | 13 | 13 | 13 | 38.5 | 100.0 | 100.0 | 99.95 |
| Classical Hebrew Continuers | 29 | 29 | 29 | 55.2 | 100.0 | 100.0 | 99.95 |
| Classical Hebrew Extension | 16 | 16 | 16 | 50.0 | 100.0 | 100.0 | 99.55 |
| Croatian | 16 | 15 | 15 | 75.0 | 93.8 | 93.8 | 99.25 |
| Filipino | 38 | 31 | 28 | 73.7 | 81.6 | 73.7 | 93.85 |
| French Beginners | 656 | 638 | 583 | 81.4 | 97.3 | 88.9 | 99.40 |
| French Continuers | 859 | 825 | 821 | 74.2 | 96.0 | 95.6 | 99.95 |
| French Extension | 181 | 177 | 177 | 68.0 | 97.8 | 97.8 | 99.95 |
| German Beginners | 100 | 99 | 96 | 69.0 | 99.0 | 96.0 | 99.75 |
| German Continuers | 287 | 260 | 259 | 59.9 | 90.6 | 90.2 | 99.95 |
| German Extension | 80 | 77 | 77 | 63.8 | 96.3 | 96.3 | 99.90 |
| Hindi | 23 | 18 | 18 | 78.3 | 78.3 | 78.3 | 99.80 |
| Hungarian | 11 | 11 | 11 | 54.5 | 100.0 | 100.0 | 90.40 |
| Indonesian Beginners | 30 | 30 | 26 | 83.3 | 100.0 | 86.7 | 96.35 |
| Indonesian Continuers | 73 | 73 | 73 | 52.1 | 100.0 | 100.0 | 99.65 |
| Indonesian Extension | 23 | 23 | 23 | 43.5 | 100.0 | 100.0 | 99.10 |
| Indonesian Background Speakers | 68 | 68 | 68 | 58.8 | 100.0 | 100.0 | 97.35 |
| Italian Beginners | 346 | 342 | 311 | 78.0 | 98.8 | 89.9 | 99.95 |
| Italian Continuers | 299 | 278 | 270 | 66.2 | 93.0 | 90.3 | 99.95 |
| Italian Extension | 52 | 52 | 52 | 65.4 | 100.0 | 100.0 | 99.45 |
| Japanese Beginners | 630 | 610 | 589 | 58.6 | 96.8 | 93.5 | 99.55 |
| Japanese Continuers | 688 | 668 | 666 | 66.7 | 97.1 | 96.8 | 99.95 |
| Japanese Extension | 205 | 202 | 202 | 71.2 | 98.5 | 98.5 | 99.95 |
| Japanese Background Speakers | 28 | 26 | 24 | 64.3 | 92.9 | 85.7 | 94.70 |
| Heritage Japanese | 18 | 17 | 17 | 83.3 | 94.4 | 94.4 | 99.70 |
| Khmer | 21 | 21 | 19 | 47.6 | 100.0 | 90.5 | 98.25 |
| Korean Background Speakers | 64 | 61 | 61 | 57.8 | 95.3 | 95.3 | 99.05 |
| Heritage Korean | 52 | 48 | 47 | 80.8 | 92.3 | 90.4 | 99.00 |

*Table A1 Gender, ATAR eligibility and maximum ATAR by course (continued)*

| Course | Number All | Number HSC | Number ATAR | % Female | % HSC | % ATAR eligible | Maximun ATAR |
|---|---|---|---|---|---|---|---|
| Latin Continuers | 169 | 169 | 169 | 47.9 | 100.0 | 100.0 | 99.95 |
| Latin Extension | 107 | 107 | 107 | 44.9 | 100.0 | 100.0 | 99.95 |
| Macedonian | 21 | 20 | 20 | 66.7 | 95.2 | 95.2 | 96.40 |
| Modern Greek Beginners | 50 | 50 | 44 | 58.0 | 100.0 | 88.0 | 97.80 |
| Modern Greek Continuers | 101 | 92 | 87 | 56.4 | 91.1 | 86.1 | 99.15 |
| Modern Greek Extension | 31 | 28 | 27 | 67.7 | 90.3 | 87.1 | 99.15 |
| Modern Hebrew | 60 | 54 | 54 | 60.0 | 90.0 | 90.0 | 99.90 |
| Persian | 39 | 35 | 26 | 51.3 | 89.7 | 66.7 | 98.90 |
| Polish | 34 | 33 | 32 | 50.0 | 97.1 | 94.1 | 99.30 |
| Portuguese | 20 | 19 | 19 | 55.0 | 95.0 | 95.0 | 96.25 |
| Russian | 16 | 16 | 16 | 50.0 | 100.0 | 100.0 | 98.10 |
| Serbian | 15 | 15 | 15 | 86.7 | 100.0 | 100.0 | 87.65 |
| Spanish Beginners | 175 | 172 | 150 | 87.4 | 98.3 | 85.7 | 99.95 |
| Spanish Continuers | 167 | 165 | 155 | 70.7 | 98.8 | 92.8 | 98.15 |
| Spanish Extension | 57 | 55 | 55 | 64.9 | 96.5 | 96.5 | 98.15 |
| Swedish | 22 | 15 | 15 | 45.5 | 68.2 | 68.2 | 98.25 |
| Tamil | 77 | 34 | 32 | 66.2 | 44.2 | 41.6 | 99.00 |
| Turkish | 41 | 23 | 22 | 61.0 | 56.1 | 53.7 | 92.45 |
| Vietnamese | 139 | 132 | 123 | 61.9 | 95.0 | 88.5 | 98.75 |
| Automotive Exam | 395 | 353 | 165 | 8.4 | 89.4 | 41.8 | 84.70 |
| Business Services Exam | 1,369 | 1,288 | 995 | 77.4 | 94.1 | 72.7 | 96.85 |
| Construction Exam | 1,851 | 1,698 | 1,091 | 1.9 | 91.7 | 58.9 | 98.25 |
| Electrotechnology Exam | 328 | 296 | 202 | 2.7 | 90.2 | 61.6 | 96.45 |
| Entertainment Industry Exam | 983 | 963 | 857 | 57.6 | 98.0 | 87.2 | 97.30 |
| Financial Services Exam | 257 | 250 | 237 | 51.8 | 97.3 | 92.2 | 99.95 |
| Hospitality Exam | 5,843 | 5,441 | 4,647 | 72.1 | 93.1 | 79.5 | 99.70 |
| Human Sevices Exam | 494 | 478 | 411 | 94.1 | 96.8 | 83.2 | 98.20 |
| Information Technology Exam | 1,225 | 1,082 | 889 | 16.7 | 88.3 | 72.6 | 99.25 |
| Metal & Engineering Exam | 884 | 778 | 454 | 2.3 | 88.0 | 51.4 | 91.60 |
| Primary Industries Exam | 630 | 585 | 401 | 45.4 | 92.9 | 63.7 | 93.60 |
| Retail Services Exam | 1,044 | 939 | 705 | 72.7 | 89.9 | 67.5 | 98.10 |
| Tourism & Events Exam | 380 | 377 | 315 | 92.6 | 99.2 | 82.9 | 95.70 |
| | | | | | | | |
| **Total** | **70,686** | **64,509** | **54,642** | **51.8** | **91.3** | **77.3** | **99.95** |

## Table A2 Distributions of 2013 HSC marks by course

Notes: (i) The **Median HSC mark** column shows the median HSC mark per course.

(ii) The **Median band** column indicates the performance band in which the median HSC mark lies.

(iii) 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.

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

| Course | Number | Median HSC mark | Median band | Percentage of students in performance band | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 6 | 5 | 4 | 3 | 2 |
| Aboriginal Studies | 357 | 68 | 3 | 7 | 10 | 29 | 27 | 15 |
| Agriculture | 1,382 | 72 | 4 | 9 | 18 | 29 | 25 | 15 |
| Ancient History | 11,740 | 74 | 4 | 8 | 26 | 27 | 22 | 10 |
| Biology | 16,852 | 75 | 4 | 7 | 26 | 35 | 24 | 7 |
| Business Studies | 15,740 | 75 | 4 | 8 | 27 | 31 | 22 | 10 |
| Chemistry | 11,032 | 77 | 4 | 12 | 30 | 32 | 18 | 6 |
| Community & Family Studies | 7,132 | 75 | 4 | 6 | 28 | 33 | 23 | 8 |
| Dance | 898 | 76 | 4 | 11 | 27 | 33 | 23 | 5 |
| Design & Technology | 3,165 | 77 | 4 | 8 | 29 | 41 | 19 | 3 |
| Drama | 4,409 | 78 | 4 | 14 | 30 | 41 | 14 | 2 |
| Earth & Environmental Science | 1,399 | 76 | 4 | 8 | 30 | 35 | 20 | 5 |
| Economics | 5,286 | 77 | 4 | 12 | 31 | 25 | 18 | 9 |
| Engineering Studies | 2,049 | 74 | 4 | 8 | 23 | 37 | 25 | 6 |
| English Standard | 31,495 | 66 | 3 | <1 | 6 | 27 | 45 | 16 |
| English Advanced | 27,007 | 80 | 5 | 12 | 41 | 33 | 12 | 1 |
| English Extension 1 | 5,007 | 42 | E3 | | | 25 | 64 | 11 |
| English Extension 2 | 1,907 | 40 | E3 | | | 23 | 55 | 20 |
| ESL | 2,410 | 72 | 4 | 3 | 21 | 36 | 25 | 12 |
| Food Technology | 3,640 | 72 | 4 | 7 | 22 | 28 | 23 | 17 |
| Geography | 4,109 | 76 | 4 | 9 | 31 | 25 | 19 | 10 |
| Industrial Technology | 5,365 | 73 | 4 | 8 | 22 | 31 | 24 | 11 |
| Information Processes & Technology | 2,984 | 76 | 4 | 11 | 26 | 31 | 21 | 7 |
| Legal Studies | 9,851 | 77 | 4 | 12 | 31 | 28 | 18 | 8 |
| General Mathematics | 32,376 | 67 | 3 | 6 | 15 | 21 | 34 | 16 |
| Mathematics | 16,463 | 79 | 4 | 18 | 31 | 27 | 16 | 5 |
| Mathematics Extension 1 | 8,839 | 42 | E3 | | | 33 | 51 | 14 |
| Mathematics Extension 2 | 3,198 | 85 | E3 | | | 34 | 53 | 11 |
| Modern History | 10,447 | 79 | 4 | 11 | 37 | 30 | 14 | 5 |
| History Extension | 1,988 | 39 | E3 | | | 22 | 52 | 25 |
| Music 1 | 5,010 | 82 | 5 | 15 | 44 | 30 | 9 | 2 |
| Music 2 | 850 | 87 | 5 | 36 | 49 | 14 | <1 | |
| Music Extension | 504 | 47 | E4 | | | 71 | 28 | 2 |
| PDH&PE | 13,886 | 73 | 4 | 5 | 23 | 31 | 23 | 12 |
| Physics | 9,562 | 75 | 4 | 9 | 24 | 32 | 23 | 9 |
| Senior Science | 5,441 | 76 | 4 | 9 | 30 | 29 | 19 | 9 |
| Society & Culture | 3,939 | 79 | 4 | 15 | 32 | 31 | 16 | 4 |
| Software Design & Development | 1,608 | 74 | 4 | 7 | 23 | 36 | 26 | 7 |

*Table A2 Distributions of HSC marks by course (continued)*

| Course | Number | Median HSC mark | Median band | Percentage of students in performance band | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 6 | 5 | 4 | 3 | 2 |
| Studies of Religion I | 9,374 | 39 | 4 | 12 | 37 | 29 | 17 | 5 |
| Studies of Religion II | 5,111 | 78 | 4 | 9 | 37 | 29 | 16 | 6 |
| Textiles & Design | 2,133 | 75 | 4 | 10 | 25 | 32 | 24 | 7 |
| Visual Arts | 9,236 | 80 | 5 | 12 | 39 | 37 | 10 | 1 |
| Arabic Continuers | 198 | 80 | 5 | 8 | 43 | 35 | 10 | 4 |
| Arabic Extension | 50 | 39 | E3 | | | 12 | 62 | 26 |
| Armenian | 22 | 82 | 5 | 5 | 59 | 18 | 18 | |
| Chinese Beginners | 52 | 86 | 5 | 33 | 37 | 17 | 8 | 6 |
| Chinese Continuers | 66 | 91 | 6 | 53 | 27 | 14 | 6 | |
| Chinese Extension | 18 | 47 | E4 | | | 94 | 6 | |
| Chinese Background Speakers | 667 | 83 | 5 | 16 | 53 | 25 | 5 | <1 |
| Heritage Chinese (Mandarin) | 94 | 88 | 5 | 39 | 39 | 17 | 2 | 2 |
| Classical Greek Continuers | 14 | 96 | 6 | 100 | | | | |
| Classical Greek Extension | 13 | 49 | E4 | | | 100 | | |
| Classical Hebrew Continuers | 27 | 81 | 5 | 33 | 19 | 30 | 15 | 4 |
| Classical Hebrew Extension | 16 | 42 | E3 | | | 44 | 56 | |
| Croatian | 16 | 88 | 5 | 31 | 25 | 38 | 6 | |
| Filipino | 38 | 83 | 5 | 24 | 42 | 18 | 16 | |
| French Beginners | 654 | 79 | 4 | 16 | 30 | 29 | 15 | 6 |
| French Continuers | 822 | 84 | 5 | 31 | 36 | 23 | 8 | 2 |
| French Extension | 174 | 45 | E4 | | | 53 | 44 | 3 |
| German Beginners | 98 | 84 | 5 | 32 | 26 | 14 | 14 | 11 |
| German Continuers | 265 | 84 | 5 | 25 | 37 | 19 | 17 | 2 |
| German Extension | 78 | 41 | E3 | | | 21 | 69 | 10 |
| Hindi | 18 | 89 | 5 | 33 | 67 | | | |
| Indonesian Beginners | 29 | 80 | 5 | 17 | 34 | 31 | 10 | 7 |
| Indonesian Continuers | 73 | 81 | 5 | 30 | 21 | 29 | 18 | 1 |
| Indonesian Extension | 23 | 44 | E3 | | | 43 | 48 | 9 |
| Indonesian Background Speakers | 68 | 76 | 4 | | 29 | 56 | 15 | |
| Italian Beginners | 345 | 71 | 4 | 13 | 17 | 24 | 30 | 12 |
| Italian Continuers | 283 | 83 | 5 | 24 | 37 | 20 | 12 | 4 |
| Italian Extension | 51 | 42 | E3 | | | 39 | 57 | 4 |
| Japanese Beginners | 625 | 74 | 4 | 16 | 23 | 20 | 20 | 15 |
| Japanese Continuers | 677 | 81 | 5 | 14 | 41 | 23 | 17 | 6 |
| Japanese Extension | 203 | 41 | E3 | | | 33 | 58 | 9 |
| Japanese Background Speakers | 28 | 83 | 5 | 14 | 61 | 25 | | |
| Heritage Japanese | 18 | 81 | 5 | 11 | 44 | 39 | 6 | |
| Khmer | 21 | 83 | 5 | 10 | 57 | 29 | | 5 |
| Korean Background Speakers | 63 | 85 | 5 | 25 | 41 | 22 | 10 | 2 |
| Heritage Korean | 51 | 86 | 5 | 22 | 59 | 16 | 2 | 2 |
| Latin Continuers | 166 | 88 | 5 | 41 | 41 | 12 | 4 | 2 |
| Latin Extension | 106 | 46 | E4 | | | 64 | 33 | 3 |
| Macedonian | 21 | 81 | 5 | 43 | 19 | 19 | 14 | 5 |
| Modern Greek Beginners | 50 | 83 | 5 | 26 | 34 | 12 | 20 | 4 |

*Table A2 Distributions of HSC marks by course (continued)*

| Course | Number | Median HSC mark | Median band | Percentage of students in performance band | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 6 | 5 | 4 | 3 | 2 |
| Modern Greek Continuers | 86 | 81 | 5 | 24 | 28 | 28 | 13 | 7 |
| Modern Greek Extension | 29 | 44 | E3 | | | 48 | 52 | |
| Modern Hebrew | 52 | 90 | 6 | 54 | 46 | | | |
| Persian | 34 | 84 | 5 | 24 | 44 | 21 | 9 | 3 |
| Polish | 30 | 90 | 6 | 53 | 47 | | | |
| Portuguese | 20 | 70 | 4 | | 5 | 50 | 40 | 5 |
| Russian | 15 | 86 | 5 | 33 | 67 | | | |
| Serbian | 15 | 89 | 5 | 40 | 60 | | | |
| Spanish Beginners | 174 | 75 | 4 | 15 | 20 | 30 | 16 | 17 |
| Spanish Continuers | 164 | 82 | 5 | 15 | 39 | 26 | 11 | 5 |
| Spanish Extension | 55 | 40 | E3 | | | 11 | 76 | 13 |
| Tamil | 42 | 83 | 5 | 5 | 67 | 19 | 7 | 2 |
| Turkish | 41 | 85 | 5 | 20 | 44 | 20 | 12 | 5 |
| Vietnamese | 138 | 77 | 4 | 4 | 32 | 51 | 14 | |
| Automotive Exam | 370 | 68 | 3 | 1 | 12 | 30 | 49 | 8 |
| Business Services Exam | 1,323 | 70 | 4 | 1 | 17 | 37 | 29 | 14 |
| Construction Exam | 1,795 | 71 | 4 | <1 | 16 | 38 | 33 | 9 |
| Electrotechnology Exam | 303 | 72 | 4 | 1 | 11 | 49 | 31 | 5 |
| Entertainment Industry Exam | 969 | 70 | 4 | 1 | 13 | 40 | 36 | 11 |
| Financial Services Exam | 257 | 76 | 4 | 7 | 30 | 37 | 18 | 7 |
| Hospitality Exam | 5,660 | 76 | 4 | 4 | 31 | 41 | 20 | 3 |
| Human Sevices Exam | 487 | 73 | 4 | 1 | 14 | 51 | 28 | 4 |
| Information Technology Exam | 1,157 | 75 | 4 | 2 | 26 | 42 | 18 | 8 |
| Metal & Engineering Exam | 854 | 69 | 3 | <1 | 8 | 41 | 31 | 10 |
| Primary Industries Exam | 581 | 75 | 4 | 3 | 27 | 40 | 23 | 6 |
| Retail Services Exam | 1,018 | 74 | 4 | 3 | 26 | 42 | 22 | 5 |
| Tourism & Events Exam | 378 | 74 | 4 | 3 | 28 | 36 | 30 | 4 |

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

Notes: (i) The **$P_{99}$, $P_{90}$, $P_{75}$, $P_{50}$, $P_{25}$ columns** refer to the 99th, 90th, 75th, 50th and 25th percentiles respectively.
(ii) The table excludes courses with less than 10 students and no percentile data are given for courses with less than 40 students.
(iii) 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 | P99 | P90 | P75 | P50 | P25 |
|---|---|---|---|---|---|---|---|---|---|---|
| Aboriginal Studies | 357 | HSC | 33.4 | 7.5 | 48.5 | 48.0 | 43.0 | 38.0 | 34.0 | 29.0 |
| | | scaled | 12.5 | 12.0 | 41.9 | 41.6 | 34.2 | 19.1 | 8.1 | 2.6 |
| Agriculture | 1,382 | HSC | 35.6 | 6.5 | 49.5 | 48.0 | 44.5 | 40.0 | 36.0 | 31.0 |
| | | scaled | 19.9 | 11.5 | 46.8 | 44.3 | 37.0 | 28.6 | 18.9 | 10.3 |
| Ancient History | 11,740 | HSC | 36.2 | 7.0 | 49.5 | 47.5 | 44.5 | 41.5 | 37.0 | 32.0 |
| | | scaled | 24.4 | 10.6 | 49.6 | 45.4 | 38.3 | 32.4 | 24.9 | 16.7 |
| Biology | 16,852 | HSC | 37.2 | 5.3 | 49.5 | 47.0 | 44.0 | 41.0 | 37.5 | 33.5 |
| | | scaled | 26.7 | 10.2 | 50.0 | 44.8 | 39.4 | 35.0 | 27.8 | 19.2 |
| Business Studies | 15,740 | HSC | 37.0 | 5.8 | 49.0 | 47.0 | 44.5 | 41.5 | 37.5 | 33.0 |
| | | scaled | 24.0 | 10.8 | 49.1 | 44.4 | 38.5 | 32.6 | 24.1 | 15.3 |
| Chemistry | 11,032 | HSC | 38.1 | 5.8 | 49.0 | 47.5 | 45.0 | 42.5 | 38.5 | 34.5 |
| | | scaled | 31.5 | 9.3 | 50.0 | 47.0 | 42.6 | 38.8 | 33.0 | 25.4 |
| Community & Family Studies | 7,132 | HSC | 37.0 | 5.7 | 49.5 | 47.0 | 44.0 | 41.0 | 37.5 | 33.5 |
| | | scaled | 19.3 | 10.4 | 44.5 | 40.5 | 33.9 | 27.5 | 19.0 | 10.7 |
| Dance | 898 | HSC | 37.9 | 5.4 | 50.0 | 48.0 | 45.0 | 42.0 | 38.0 | 34.0 |
| | | scaled | 22.1 | 10.5 | 46.3 | 43.7 | 37.7 | 29.6 | 21.0 | 13.6 |
| Design & Technology | 3,165 | HSC | 38.3 | 4.5 | 49.0 | 47.5 | 44.5 | 41.5 | 38.5 | 35.5 |
| | | scaled | 22.5 | 10.2 | 47.2 | 43.5 | 36.9 | 30.3 | 21.8 | 14.3 |
| Drama | 4,409 | HSC | 39.2 | 4.5 | 49.5 | 48.0 | 45.5 | 42.5 | 39.0 | 36.0 |
| | | scaled | 24.3 | 10.5 | 49.7 | 46.1 | 39.0 | 32.0 | 24.2 | 16.3 |
| Earth & Environmental Science | 1,399 | HSC | 37.6 | 5.3 | 48.0 | 47.0 | 44.0 | 41.5 | 38.0 | 34.5 |
| | | scaled | 24.8 | 10.3 | 49.1 | 46.6 | 38.7 | 32.5 | 24.9 | 17.2 |
| Economics | 5,286 | HSC | 37.4 | 6.8 | 49.0 | 47.5 | 45.0 | 42.5 | 38.5 | 33.0 |
| | | scaled | 31.7 | 9.4 | 50.0 | 47.2 | 42.7 | 38.8 | 33.4 | 25.8 |
| Engineering Studies | 2,049 | HSC | 37.0 | 5.2 | 48.5 | 47.0 | 44.0 | 40.5 | 37.0 | 33.5 |
| | | scaled | 25.2 | 9.1 | 47.1 | 43.6 | 37.4 | 32.1 | 25.2 | 18.4 |
| English Standard | 31,495 | HSC | 33.0 | 4.9 | 48.5 | 43.5 | 39.0 | 36.0 | 33.0 | 30.5 |
| | | scaled | 18.9 | 8.5 | 48.7 | 39.2 | 30.3 | 24.7 | 18.7 | 12.8 |
| English Advanced | 27,007 | HSC | 39.7 | 4.3 | 49.0 | 47.5 | 45.0 | 43.0 | 40.0 | 37.0 |
| | | scaled | 31.8 | 8.2 | 50.0 | 46.3 | 41.8 | 38.1 | 32.8 | 26.5 |
| English Extension 1 | 5,007 | HSC | 40.7 | 5.0 | 50.0 | 48.0 | 46.0 | 44.0 | 42.0 | 38.0 |
| | | scaled | 35.4 | 5.9 | 50.0 | 46.4 | 42.3 | 39.6 | 36.1 | 32.0 |
| English Extension 2 | 1,907 | HSC | 39.1 | 6.3 | 50.0 | 49.0 | 47.0 | 44.0 | 40.0 | 35.0 |
| | | scaled | 35.2 | 6.5 | 50.0 | 47.6 | 43.0 | 39.9 | 35.7 | 31.1 |
| ESL | 2,410 | HSC | 35.4 | 6.0 | 48.0 | 46.0 | 42.5 | 39.5 | 36.0 | 32.0 |
| | | scaled | 21.7 | 11.4 | 49.5 | 45.6 | 37.5 | 30.4 | 21.2 | 12.7 |
| Food Technology | 3,640 | HSC | 35.5 | 6.5 | 49.0 | 47.5 | 44.0 | 40.5 | 36.0 | 30.5 |
| | | scaled | 20.1 | 11.1 | 46.6 | 43.4 | 36.1 | 28.8 | 19.5 | 10.6 |
| Geography | 4,109 | HSC | 36.6 | 7.1 | 49.0 | 47.0 | 44.5 | 42.0 | 38.0 | 32.5 |
| | | scaled | 25.1 | 10.8 | 50.0 | 45.6 | 39.4 | 33.6 | 25.6 | 17.0 |

*Table A3 Descriptive statistics and selected percentiles for HSC marks and scaled marks by course (continued)*

| Course | Number | Type of mark | Mean | SD | Max. mark | P99 | P90 | P75 | P50 | P25 |
|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Technology | 5,365 | HSC | 36.2 | 6.4 | 50.0 | 48.0 | 44.0 | 40.5 | 36.5 | 32.0 |
| | | scaled | 16.9 | 9.7 | 40.6 | 38.0 | 31.0 | 24.0 | 15.8 | 8.9 |
| Information Processes & Technology | 2,984 | HSC | 37.3 | 6.3 | 49.0 | 47.5 | 45.0 | 42.0 | 38.0 | 33.5 |
| | | scaled | 21.8 | 11.0 | 48.2 | 44.8 | 36.6 | 30.1 | 21.7 | 12.9 |
| Legal Studies | 9,851 | HSC | 37.7 | 6.3 | 49.0 | 47.5 | 45.0 | 42.5 | 38.5 | 33.5 |
| | | scaled | 25.5 | 10.8 | 50.0 | 46.1 | 39.6 | 33.8 | 26.0 | 17.2 |
| General Mathematics | 32,376 | HSC | 33.9 | 6.9 | 49.5 | 47.0 | 43.0 | 38.5 | 33.5 | 30.0 |
| | | scaled | 21.5 | 10.1 | 45.7 | 41.4 | 35.4 | 29.6 | 21.3 | 13.2 |
| Mathematics | 16,463 | HSC | 38.9 | 6.2 | 50.0 | 48.0 | 46.0 | 43.5 | 39.5 | 35.0 |
| | | scaled | 31.1 | 9.1 | 50.0 | 45.8 | 41.4 | 37.9 | 32.7 | 25.8 |
| Mathematics Extension 1 | 8,839 | HSC | 40.5 | 6.4 | 50.0 | 49.0 | 47.0 | 45.5 | 42.0 | 37.0 |
| | | scaled | 39.5 | 7.0 | 50.0 | 48.8 | 46.7 | 44.6 | 41.1 | 36.0 |
| Mathematics Extension 2 | 3,198 | HSC | 41.2 | 5.9 | 50.0 | 49.0 | 47.0 | 45.5 | 42.5 | 38.0 |
| | | scaled | 43.6 | 4.5 | 50.0 | 49.4 | 48.0 | 46.6 | 44.6 | 41.9 |
| Modern History | 10,447 | HSC | 38.3 | 6.2 | 49.5 | 47.5 | 45.0 | 42.5 | 39.5 | 35.5 |
| | | scaled | 26.8 | 10.9 | 50.0 | 45.2 | 39.7 | 35.2 | 28.6 | 19.2 |
| History Extension | 1,988 | HSC | 38.8 | 5.9 | 50.0 | 48.0 | 46.0 | 44.0 | 39.0 | 34.0 |
| | | scaled | 34.1 | 6.3 | 49.0 | 46.2 | 41.7 | 38.7 | 34.7 | 30.4 |
| Music 1 | 5,010 | HSC | 40.3 | 4.4 | 50.0 | 48.5 | 45.5 | 43.5 | 41.0 | 37.5 |
| | | scaled | 21.6 | 10.4 | 47.1 | 44.0 | 36.2 | 29.3 | 21.2 | 13.5 |
| Music 2 | 850 | HSC | 43.4 | 3.1 | 49.5 | 49.0 | 47.5 | 46.0 | 43.5 | 41.5 |
| | | scaled | 33.9 | 7.8 | 50.0 | 48.8 | 44.2 | 40.1 | 34.5 | 28.3 |
| Music Extension | 504 | HSC | 45.7 | 4.0 | 50.0 | 50.0 | 50.0 | 49.0 | 47.0 | 44.0 |
| | | scaled | 35.3 | 9.0 | 50.0 | 50.0 | 48.0 | 41.5 | 35.3 | 29.1 |
| PDH&PE | 13,886 | HSC | 35.7 | 6.4 | 49.0 | 47.0 | 43.5 | 40.5 | 36.5 | 31.5 |
| | | scaled | 23.0 | 10.6 | 48.3 | 44.0 | 37.5 | 31.4 | 23.0 | 14.5 |
| Physics | 9,562 | HSC | 37.0 | 5.8 | 49.5 | 47.5 | 44.5 | 41.0 | 37.5 | 33.0 |
| | | scaled | 30.2 | 9.8 | 50.0 | 46.8 | 42.0 | 37.9 | 31.6 | 23.4 |
| Senior Science | 5,441 | HSC | 37.3 | 6.2 | 49.5 | 48.0 | 44.5 | 42.0 | 38.0 | 33.5 |
| | | scaled | 19.0 | 10.4 | 43.9 | 41.0 | 33.5 | 27.1 | 18.6 | 10.5 |
| Society & Culture | 3,939 | HSC | 39.0 | 5.5 | 49.5 | 48.5 | 46.0 | 43.0 | 39.5 | 35.5 |
| | | scaled | 23.6 | 10.8 | 49.0 | 46.1 | 38.8 | 31.6 | 23.0 | 15.2 |
| Software Design & Development | 1,608 | HSC | 37.0 | 5.2 | 49.5 | 47.5 | 44.0 | 40.5 | 37.0 | 33.5 |
| | | scaled | 24.0 | 10.1 | 47.6 | 43.6 | 37.6 | 32.1 | 24.1 | 16.2 |
| Studies of Religion I | 9,374 | HSC | 38.5 | 5.4 | 49.0 | 48.0 | 45.0 | 43.0 | 39.0 | 35.0 |
| | | scaled | 27.7 | 8.8 | 48.3 | 44.9 | 39.1 | 34.4 | 27.9 | 21.5 |
| Studies of Religion II | 5,111 | HSC | 38.0 | 5.9 | 49.0 | 47.0 | 44.5 | 42.5 | 39.0 | 35.0 |
| | | scaled | 27.1 | 9.9 | 50.0 | 45.5 | 39.9 | 34.9 | 27.7 | 20.3 |
| Textiles & Design | 2,133 | HSC | 37.1 | 5.8 | 49.5 | 48.0 | 44.5 | 41.5 | 37.5 | 33.5 |
| | | scaled | 22.3 | 10.4 | 47.1 | 44.4 | 36.9 | 30.5 | 22.0 | 14.1 |
| Visual Arts | 9,236 | HSC | 39.8 | 4.2 | 50.0 | 48.0 | 45.0 | 43.0 | 40.0 | 37.0 |
| | | scaled | 22.3 | 10.9 | 49.0 | 45.6 | 37.6 | 30.5 | 21.6 | 13.4 |
| Arabic Continuers | 198 | HSC | 39.2 | 4.6 | 49.0 | 47.0 | 44.0 | 42.5 | 40.0 | 36.0 |
| | | scaled | 18.3 | 11.3 | 45.8 | 43.6 | 34.8 | 26.0 | 15.7 | 8.4 |

*Table A3 Descriptive statistics and selected percentiles for HSC marks and scaled marks by course (continued)*

| Course | Number | Type of mark | Mean | SD | Max. mark | P99 | P90 | P75 | P50 | P25 |
|---|---|---|---|---|---|---|---|---|---|---|
| Arabic Extension | 50 | HSC | 38.3 | 5.0 | 47.0 | 47.0 | 45.0 | 43.0 | 39.0 | 34.0 |
| | | scaled | 28.0 | 8.0 | 44.8 | 44.8 | 37.5 | 34.6 | 28.8 | 21.5 |
| Armenian | 22 | HSC | 40.1 | 4.3 | 45.5 | | | | | |
| | | scaled | 26.4 | 14.1 | 50.0 | | | | | |
| Chinese Beginners | 52 | HSC | 41.3 | 5.8 | 49.5 | 49.5 | 47.5 | 46.0 | 42.5 | 38.0 |
| | | scaled | 26.1 | 12.4 | 50.0 | 50.0 | 42.1 | 36.7 | 26.9 | 16.3 |
| Chinese Continuers | 66 | HSC | 43.4 | 4.5 | 49.0 | 49.0 | 47.5 | 46.5 | 45.5 | 42.0 |
| | | scaled | 34.0 | 9.7 | 50.0 | 50.0 | 44.0 | 40.4 | 37.4 | 29.5 |
| Chinese Extension | 18 | HSC | 46.6 | 1.5 | 49.0 | | | | | |
| | | scaled | 39.1 | 4.9 | 50.0 | | | | | |
| Chinese Background Speakers | 667 | HSC | 41.2 | 3.6 | 47.5 | 47.0 | 45.5 | 44.0 | 41.5 | 39.0 |
| | | scaled | 22.6 | 10.3 | 47.4 | 45.2 | 36.7 | 29.7 | 22.3 | 14.2 |
| Heritage Chinese (Mandarin) | 94 | HSC | 42.8 | 4.1 | 48.0 | 48.0 | 47.0 | 45.5 | 44.0 | 40.0 |
| | | scaled | 31.5 | 9.7 | 50.0 | 50.0 | 45.2 | 37.9 | 32.9 | 24.0 |
| Classical Greek Continuers | 14 | HSC | 47.8 | 1.2 | 49.0 | | | | | |
| | | scaled | 42.7 | 7.5 | 50.0 | | | | | |
| Classical Greek Extension | 13 | HSC | 48.6 | 0.6 | 49.0 | | | | | |
| | | scaled | 43.2 | 6.8 | 50.0 | | | | | |
| Classical Hebrew Continuers | 27 | HSC | 40.1 | 5.5 | 47.5 | | | | | |
| | | scaled | 36.3 | 7.8 | 50.0 | | | | | |
| Classical Hebrew Extension | 16 | HSC | 43.1 | 4.0 | 48.0 | | | | | |
| | | scaled | 38.5 | 6.6 | 50.0 | | | | | |
| Croatian | 16 | HSC | 42.1 | 5.1 | 50.0 | | | | | |
| | | scaled | 28.6 | 9.9 | 49.3 | | | | | |
| Filipino | 38 | HSC | 41.1 | 4.6 | 48.5 | | | | | |
| | | scaled | 18.3 | 10.7 | 41.6 | | | | | |
| French Beginners | 654 | HSC | 38.2 | 7.2 | 50.0 | 49.5 | 46.0 | 43.0 | 39.5 | 35.0 |
| | | scaled | 24.1 | 11.1 | 49.9 | 48.4 | 39.2 | 32.3 | 24.1 | 15.4 |
| French Continuers | 822 | HSC | 41.4 | 5.2 | 49.5 | 49.5 | 47.0 | 45.5 | 42.0 | 38.5 |
| | | scaled | 34.6 | 8.4 | 50.0 | 49.2 | 44.6 | 40.9 | 35.6 | 29.3 |
| French Extension | 174 | HSC | 43.5 | 4.6 | 49.0 | 49.0 | 48.0 | 47.0 | 45.0 | 41.0 |
| | | scaled | 40.2 | 5.0 | 50.0 | 49.2 | 46.6 | 43.9 | 40.2 | 37.0 |
| German Beginners | 98 | HSC | 39.5 | 7.5 | 50.0 | 50.0 | 48.0 | 46.0 | 41.5 | 33.5 |
| | | scaled | 27.5 | 11.7 | 50.0 | 50.0 | 41.7 | 37.3 | 29.6 | 17.5 |
| German Continuers | 265 | HSC | 40.7 | 5.3 | 49.5 | 49.5 | 47.0 | 45.0 | 42.0 | 35.5 |
| | | scaled | 34.4 | 8.7 | 50.0 | 49.4 | 44.8 | 41.0 | 36.2 | 28.0 |
| German Extension | 78 | HSC | 40.2 | 4.9 | 49.0 | 49.0 | 46.0 | 44.0 | 41.0 | 37.0 |
| | | scaled | 39.0 | 4.7 | 50.0 | 50.0 | 45.2 | 42.3 | 39.0 | 35.6 |
| Hindi | 18 | HSC | 44.2 | 1.9 | 48.0 | | | | | |
| | | scaled | 27.6 | 9.1 | 47.8 | | | | | |
| Indonesian Beginners | 29 | HSC | 39.9 | 5.5 | 49.0 | | | | | |
| | | scaled | 22.4 | 9.7 | 44.1 | | | | | |
| Indonesian Continuers | 73 | HSC | 40.3 | 5.8 | 49.5 | 49.5 | 47.5 | 45.5 | 40.5 | 36.5 |
| | | scaled | 31.9 | 9.0 | 50.0 | 50.0 | 44.3 | 39.1 | 31.3 | 26.1 |

*Table A3 Descriptive statistics and selected percentiles for HSC marks and scaled marks by course (continued)*

| Course | Number | Type of mark | Mean | SD | Max. mark | P99 | P90 | P75 | P50 | P25 |
|---|---|---|---|---|---|---|---|---|---|---|
| Indonesian Extension | 23 | HSC | 41.9 | 4.6 | 47.0 | | | | | |
| | | scaled | 34.9 | 8.3 | 49.8 | | | | | |
| Indonesian Background Speakers | 68 | HSC | 38.0 | 3.0 | 44.5 | 44.5 | 42.0 | 40.5 | 38.0 | 36.0 |
| | | scaled | 31.5 | 6.7 | 47.0 | 47.0 | 40.6 | 37.0 | 30.9 | 26.7 |
| Italian Beginners | 345 | HSC | 35.9 | 6.9 | 49.0 | 48.5 | 45.5 | 41.0 | 35.5 | 31.5 |
| | | scaled | 26.3 | 10.7 | 50.0 | 48.5 | 41.2 | 34.3 | 26.1 | 18.6 |
| Italian Continuers | 283 | HSC | 39.8 | 6.5 | 49.5 | 48.5 | 46.5 | 44.5 | 41.5 | 36.5 |
| | | scaled | 30.9 | 9.4 | 50.0 | 47.1 | 41.8 | 37.9 | 32.3 | 25.1 |
| Italian Extension | 51 | HSC | 41.6 | 4.7 | 48.0 | 48.0 | 47.0 | 46.0 | 42.0 | 37.0 |
| | | scaled | 37.0 | 5.4 | 50.0 | 50.0 | 44.3 | 41.3 | 36.8 | 32.3 |
| Japanese Beginners | 625 | HSC | 36.3 | 8.4 | 50.0 | 49.0 | 46.5 | 43.0 | 37.0 | 31.0 |
| | | scaled | 23.8 | 11.3 | 48.4 | 45.3 | 39.3 | 32.8 | 24.1 | 15.1 |
| Japanese Continuers | 677 | HSC | 39.2 | 5.5 | 49.0 | 48.0 | 45.5 | 43.5 | 40.5 | 35.5 |
| | | scaled | 32.0 | 9.0 | 50.0 | 48.2 | 42.8 | 38.9 | 33.4 | 26.1 |
| Japanese Extension | 203 | HSC | 41.1 | 4.9 | 49.0 | 49.0 | 47.0 | 45.0 | 41.0 | 38.0 |
| | | scaled | 37.2 | 5.5 | 50.0 | 50.0 | 44.2 | 41.0 | 36.7 | 33.3 |
| Japanese Background Speakers | 28 | HSC | 41.3 | 2.8 | 47.0 | | | | | |
| | | scaled | 21.8 | 10.8 | 47.4 | | | | | |
| Heritage Japanese | 18 | HSC | 40.4 | 3.5 | 47.0 | | | | | |
| | | scaled | 27.4 | 10.3 | 50.0 | | | | | |
| Khmer | 21 | HSC | 40.9 | 3.8 | 47.5 | | | | | |
| | | scaled | 18.0 | 10.4 | 43.6 | | | | | |
| Korean Background Speakers | 63 | HSC | 41.1 | 4.6 | 47.5 | 47.5 | 46.0 | 45.0 | 42.5 | 37.5 |
| | | scaled | 23.4 | 12.1 | 49.5 | 49.5 | 37.8 | 32.7 | 23.2 | 12.4 |
| Heritage Korean | 51 | HSC | 42.4 | 3.9 | 49.5 | 49.5 | 46.5 | 44.5 | 43.0 | 40.5 |
| | | scaled | 27.9 | 10.9 | 50.0 | 50.0 | 42.0 | 35.4 | 28.2 | 19.6 |
| Latin Continuers | 166 | HSC | 42.8 | 4.2 | 49.0 | 48.5 | 47.0 | 46.0 | 44.0 | 40.5 |
| | | scaled | 40.3 | 6.5 | 50.0 | 49.8 | 46.9 | 44.6 | 41.8 | 37.4 |
| Latin Extension | 106 | HSC | 44.6 | 4.2 | 50.0 | 50.0 | 49.0 | 48.0 | 46.0 | 43.0 |
| | | scaled | 42.1 | 5.1 | 50.0 | 49.6 | 47.9 | 46.3 | 43.1 | 39.8 |
| Macedonian | 21 | HSC | 41.2 | 6.1 | 48.5 | | | | | |
| | | scaled | 24.4 | 12.6 | 45.2 | | | | | |
| Modern Greek Beginners | 50 | HSC | 39.7 | 6.6 | 48.5 | 48.5 | 47.5 | 45.0 | 41.0 | 34.5 |
| | | scaled | 25.0 | 13.2 | 49.7 | 49.7 | 43.8 | 35.4 | 25.0 | 13.0 |
| Modern Greek Continuers | 86 | HSC | 39.8 | 5.8 | 49.0 | 49.0 | 47.0 | 44.5 | 40.5 | 36.0 |
| | | scaled | 25.7 | 11.0 | 48.9 | 48.9 | 40.1 | 33.5 | 24.4 | 17.6 |
| Modern Greek Extension | 29 | HSC | 43.8 | 4.1 | 50.0 | | | | | |
| | | scaled | 32.3 | 7.9 | 47.1 | | | | | |
| Modern Hebrew | 52 | HSC | 44.9 | 2.2 | 49.0 | 49.0 | 48.0 | 46.5 | 45.0 | 43.0 |
| | | scaled | 35.6 | 6.9 | 50.0 | 50.0 | 45.8 | 40.1 | 35.3 | 29.4 |
| Persian | 34 | HSC | 41.1 | 4.8 | 48.5 | | | | | |
| | | scaled | 14.6 | 11.3 | 41.3 | | | | | |
| Polish | 30 | HSC | 45.0 | 2.3 | 48.5 | | | | | |
| | | scaled | 29.2 | 10.6 | 49.6 | | | | | |

*Table A3 Descriptive statistics and selected percentiles for HSC marks and scaled marks by course (continued)*

| Course | Number | Type of mark | Mean | SD | Max. mark | P99 | P90 | P75 | P50 | P25 |
|---|---|---|---|---|---|---|---|---|---|---|
| Portuguese | 20 | HSC | 35.0 | 2.9 | 40.0 | | | | | |
| | | scaled | 25.3 | 10.5 | 47.0 | | | | | |
| Russian | 15 | HSC | 44.1 | 1.6 | 47.0 | | | | | |
| | | scaled | 28.3 | 9.3 | 46.1 | | | | | |
| Serbian | 15 | HSC | 44.3 | 2.3 | 48.0 | | | | | |
| | | scaled | 21.8 | 9.9 | 42.6 | | | | | |
| Spanish Beginners | 174 | HSC | 36.7 | 7.4 | 49.0 | 49.0 | 45.5 | 42.5 | 37.5 | 31.0 |
| | | scaled | 22.7 | 11.6 | 48.9 | 48.9 | 37.9 | 32.0 | 22.2 | 13.3 |
| Spanish Continuers | 164 | HSC | 38.7 | 7.6 | 48.0 | 48.0 | 45.5 | 43.5 | 40.5 | 36.0 |
| | | scaled | 24.1 | 11.3 | 48.9 | 48.6 | 38.4 | 32.4 | 25.1 | 16.0 |
| Spanish Extension | 55 | HSC | 39.5 | 4.6 | 49.0 | 49.0 | 45.0 | 42.0 | 40.0 | 37.0 |
| | | scaled | 31.5 | 4.8 | 46.3 | 46.3 | 36.8 | 34.1 | 31.9 | 29.4 |
| Turkish | 41 | HSC | 40.6 | 5.1 | 48.0 | 48.0 | 46.0 | 44.5 | 42.5 | 37.5 |
| | | scaled | 20.9 | 12.1 | 49.1 | 49.1 | 35.5 | 29.9 | 23.4 | 10.0 |
| Vietnamese | 138 | HSC | 38.4 | 3.4 | 48.5 | 47.5 | 43.0 | 40.5 | 38.5 | 35.5 |
| | | scaled | 20.6 | 10.5 | 46.3 | 45.7 | 34.8 | 28.0 | 20.7 | 10.8 |
| Automotive Exam | 370 | HSC | 34.7 | 4.0 | 46.5 | 45.0 | 40.5 | 37.5 | 34.0 | 32.0 |
| | | scaled | 13.8 | 8.9 | 35.6 | 34.4 | 27.7 | 20.2 | 11.6 | 6.4 |
| Business Services Exam | 1,323 | HSC | 34.8 | 5.4 | 47.0 | 45.0 | 41.5 | 38.5 | 35.0 | 31.5 |
| | | scaled | 17.9 | 10.0 | 42.4 | 40.3 | 32.2 | 24.9 | 17.1 | 9.5 |
| Construction Exam | 1,795 | HSC | 34.9 | 5.0 | 46.5 | 43.5 | 40.5 | 38.5 | 35.5 | 32.0 |
| | | scaled | 15.2 | 9.7 | 39.1 | 36.3 | 29.4 | 22.3 | 14.1 | 6.5 |
| Electrotechnology Exam | 303 | HSC | 35.3 | 4.4 | 46.5 | 45.0 | 40.0 | 38.0 | 36.0 | 33.5 |
| | | scaled | 17.4 | 8.6 | 38.4 | 37.2 | 29.2 | 23.0 | 17.7 | 11.5 |
| Entertainment Industry Exam | 969 | HSC | 35.2 | 4.3 | 47.0 | 44.5 | 40.5 | 38.5 | 35.0 | 32.5 |
| | | scaled | 21.5 | 9.3 | 44.1 | 41.2 | 34.1 | 28.6 | 21.1 | 14.4 |
| Financial Services Exam | 257 | HSC | 37.6 | 5.7 | 49.0 | 47.5 | 44.0 | 41.5 | 38.0 | 34.5 |
| | | scaled | 29.0 | 10.1 | 50.0 | 47.2 | 41.7 | 36.9 | 29.7 | 22.1 |
| Hospitality Exam | 5,660 | HSC | 37.9 | 4.5 | 48.5 | 46.5 | 43.5 | 41.5 | 38.0 | 35.0 |
| | | scaled | 19.5 | 9.9 | 44.0 | 41.3 | 33.5 | 27.4 | 19.0 | 11.7 |
| Human Sevices Exam | 487 | HSC | 36.1 | 4.2 | 48.0 | 45.0 | 41.0 | 38.5 | 36.5 | 34.0 |
| | | scaled | 18.7 | 9.3 | 41.6 | 39.5 | 31.8 | 25.5 | 18.0 | 11.5 |
| Information Technology Exam | 1,157 | HSC | 36.4 | 5.8 | 47.5 | 46.0 | 42.5 | 40.5 | 37.5 | 34.0 |
| | | scaled | 17.1 | 10.1 | 42.0 | 39.7 | 31.4 | 25.1 | 16.8 | 9.3 |
| Metal & Engineering Exam | 854 | HSC | 33.3 | 6.3 | 47.5 | 43.5 | 39.5 | 37.5 | 34.5 | 30.5 |
| | | scaled | 15.6 | 9.4 | 38.7 | 35.6 | 29.4 | 23.2 | 14.5 | 7.6 |
| Primary Industries Exam | 581 | HSC | 37.1 | 4.7 | 48.0 | 46.0 | 42.5 | 40.5 | 37.5 | 34.0 |
| | | scaled | 16.7 | 9.2 | 39.5 | 37.7 | 29.2 | 23.4 | 16.2 | 9.1 |
| Retail Services Exam | 1,018 | HSC | 37.1 | 4.8 | 49.0 | 46.5 | 43.0 | 40.0 | 37.0 | 34.5 |
| | | scaled | 16.1 | 10.4 | 41.6 | 39.1 | 31.6 | 23.3 | 13.9 | 7.7 |
| Tourism & Events Exam | 378 | HSC | 37.1 | 4.3 | 47.5 | 45.5 | 43.0 | 40.5 | 37.0 | 34.0 |
| | | scaled | 20.9 | 8.7 | 42.2 | 39.7 | 33.8 | 27.1 | 20.2 | 13.9 |

## Table A4 Distributions of HSC marks by course: 2012–2013

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

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

| Course | Year | Number | Percentage of students with HSC mark less than: | | | | |
|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 |
| Aboriginal Studies | 2013 | 357 | 93.3 | 82.9 | 53.5 | 26.3 | 11.8 |
| | 2012 | 361 | 91.4 | 69.5 | 41.6 | 21.1 | 9.4 |
| Agriculture | 2013 | 1,382 | 90.7 | 73.0 | 44.1 | 19.3 | 3.9 |
| | 2012 | 1,362 | 91.9 | 76.0 | 53.4 | 25.3 | 8.1 |
| Ancient History | 2013 | 11,740 | 91.6 | 65.3 | 38.2 | 16.2 | 5.7 |
| | 2012 | 12,100 | 92.7 | 73.0 | 45.6 | 23.8 | 7.1 |
| Biology | 2013 | 16,852 | 93.3 | 66.9 | 31.8 | 8.1 | 1.2 |
| | 2012 | 16,570 | 93.7 | 73.1 | 36.9 | 10.1 | 2.1 |
| Business Studies | 2013 | 15,740 | 92.0 | 64.8 | 33.8 | 11.4 | 1.8 |
| | 2012 | 15,221 | 91.5 | 61.6 | 32.1 | 11.2 | 3.1 |
| Chemistry | 2013 | 11,032 | 87.9 | 58.2 | 26.2 | 7.8 | 1.8 |
| | 2012 | 10,838 | 86.9 | 57.2 | 28.9 | 9.9 | 1.9 |
| Community & Family Studies | 2013 | 7,132 | 93.5 | 65.9 | 33.2 | 10.4 | 2.2 |
| | 2012 | 6,601 | 91.6 | 63.6 | 31.6 | 9.4 | 2.1 |
| Dance | 2013 | 898 | 89.0 | 61.6 | 28.7 | 5.9 | 0.8 |
| | 2012 | 842 | 89.8 | 62.5 | 29.5 | 6.5 | 2.3 |
| Design & Technology | 2013 | 3,165 | 91.7 | 62.8 | 21.5 | 2.9 | 0.3 |
| | 2012 | 3,198 | 90.1 | 60.1 | 22.1 | 6.7 | 1.0 |
| Drama | 2013 | 4,409 | 86.1 | 56.3 | 15.6 | 1.9 | 0.1 |
| | 2012 | 4,732 | 87.8 | 56.1 | 17.4 | 1.9 | 0.2 |
| Earth & Environmental Science | 2013 | 1,399 | 92.4 | 62.4 | 27.3 | 6.9 | 1.4 |
| | 2012 | 1,497 | 92.7 | 60.7 | 26.6 | 7.5 | 2.4 |
| Economics | 2013 | 5,286 | 87.6 | 56.8 | 31.6 | 13.3 | 4.2 |
| | 2012 | 5,247 | 87.4 | 52.7 | 28.0 | 12.9 | 4.3 |
| Engineering Studies | 2013 | 2,049 | 92.1 | 69.6 | 32.5 | 7.3 | 1.7 |
| | 2012 | 2,051 | 91.7 | 64.5 | 25.9 | 6.6 | 1.7 |
| English Standard | 2013 | 31,495 | 99.6 | 93.1 | 65.8 | 21.0 | 4.5 |
| | 2012 | 31,803 | 99.5 | 84.2 | 48.3 | 21.5 | 3.1 |
| English Advanced | 2013 | 27,007 | 88.0 | 46.9 | 13.9 | 1.5 | 0.2 |
| | 2012 | 27,217 | 87.4 | 45.9 | 11.2 | 0.9 | 0.1 |
| English Extension 1 | 2013 | 5,007 | 75.3 | 34.6 | 11.5 | 3.2 | 0.8 |
| | 2012 | 5,265 | 75.0 | 35.4 | 12.7 | 3.2 | 0.8 |
| English Extension 2 | 2013 | 1,907 | 77.3 | 47.7 | 22.0 | 7.4 | 2.4 |
| | 2012 | 2,126 | 78.1 | 50.0 | 21.4 | 6.9 | 1.7 |
| ESL | 2013 | 2,410 | 97.4 | 76.6 | 40.2 | 15.7 | 4.1 |
| | 2012 | 2,513 | 96.8 | 75.1 | 35.0 | 10.6 | 3.5 |
| Food Technology | 2013 | 3,640 | 93.4 | 71.5 | 43.5 | 20.9 | 3.7 |
| | 2012 | 3,612 | 93.2 | 68.6 | 31.7 | 9.2 | 1.9 |
| Geography | 2013 | 4,109 | 91.3 | 60.0 | 34.9 | 16.1 | 6.6 |
| | 2012 | 4,297 | 91.6 | 59.5 | 33.4 | 12.5 | 4.3 |

*Table A4 Distributions of HSC marks by course: 2012–2013 (continued)*

| Course | Year | Number | Percentage of students with HSC mark less than: | | | | |
|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 |
| Industrial Technology | 2013 | 5,365 | 91.8 | 69.8 | 39.2 | 14.9 | 3.7 |
| | 2012 | 5,099 | 91.4 | 69.4 | 38.0 | 14.9 | 4.8 |
| Information Processes & Technology | 2013 | 2,984 | 88.6 | 62.7 | 31.4 | 10.7 | 3.4 |
| | 2012 | 3,239 | 91.3 | 68.4 | 38.6 | 19.0 | 7.2 |
| Legal Studies | 2013 | 9,851 | 88.0 | 57.1 | 29.5 | 11.1 | 3.0 |
| | 2012 | 9,489 | 89.4 | 59.4 | 30.5 | 12.0 | 3.6 |
| General Mathematics | 2013 | 32,376 | 94.0 | 78.8 | 57.4 | 23.7 | 7.9 |
| | 2012 | 31,702 | 94.4 | 77.7 | 48.6 | 19.7 | 5.5 |
| Mathematics | 2013 | 16,463 | 81.5 | 50.5 | 23.1 | 7.3 | 1.9 |
| | 2012 | 16,700 | 81.8 | 47.4 | 20.7 | 9.2 | 3.3 |
| Mathematics Extension 1 | 2013 | 8,839 | 67.2 | 36.9 | 16.3 | 6.5 | 2.0 |
| | 2012 | 8,925 | 64.4 | 35.1 | 14.9 | 5.5 | 1.7 |
| Mathematics Extension 2 | 2013 | 3,198 | 66.0 | 33.8 | 12.8 | 4.3 | 1.6 |
| | 2012 | 3,454 | 61.9 | 30.7 | 11.5 | 4.2 | 1.2 |
| Modern History | 2013 | 10,447 | 89.2 | 52.6 | 23.0 | 8.9 | 3.5 |
| | 2012 | 10,476 | 88.4 | 53.8 | 25.1 | 10.1 | 3.7 |
| History Extension | 2013 | 1,988 | 77.8 | 52.7 | 25.9 | 5.0 | 1.3 |
| | 2012 | 2,042 | 81.8 | 59.7 | 33.9 | 14.0 | 5.0 |
| Music 1 | 2013 | 5,010 | 84.9 | 40.8 | 10.6 | 2.1 | 0.3 |
| | 2012 | 5,126 | 86.1 | 41.3 | 9.5 | 1.9 | 0.4 |
| Music 2 | 2013 | 850 | 63.6 | 14.6 | 0.5 | 0.0 | |
| | 2012 | 708 | 66.2 | 15.0 | 0.4 | 0.0 | |
| Music Extension | 2013 | 504 | 29.4 | 8.9 | 1.6 | 0.2 | 0.0 |
| | 2012 | 432 | 36.8 | 10.6 | 0.9 | 0.2 | 0.0 |
| PDH&PE | 2013 | 13,886 | 94.6 | 71.4 | 40.6 | 17.1 | 4.8 |
| | 2012 | 13,307 | 93.0 | 66.9 | 36.3 | 14.0 | 3.1 |
| Physics | 2013 | 9,562 | 90.7 | 66.5 | 34.1 | 10.9 | 1.7 |
| | 2012 | 9,469 | 92.0 | 65.8 | 32.6 | 9.1 | 2.2 |
| Senior Science | 2013 | 5,441 | 90.7 | 60.7 | 31.3 | 12.0 | 2.9 |
| | 2012 | 5,235 | 91.7 | 59.3 | 28.4 | 7.9 | 1.8 |
| Society & Culture | 2013 | 3,939 | 84.7 | 52.3 | 20.9 | 5.1 | 1.2 |
| | 2012 | 3,924 | 86.1 | 55.8 | 24.7 | 8.1 | 1.9 |
| Software Design & Development | 2013 | 1,608 | 92.8 | 70.0 | 34.0 | 7.8 | 0.7 |
| | 2012 | 1,471 | 94.0 | 76.4 | 41.9 | 10.6 | 2.1 |
| Studies of Religion I | 2013 | 9,374 | 88.3 | 51.4 | 22.5 | 5.9 | 1.2 |
| | 2012 | 9,330 | 88.5 | 58.0 | 27.6 | 9.4 | 3.3 |
| Studies of Religion II | 2013 | 5,111 | 91.5 | 54.1 | 24.8 | 9.3 | 3.0 |
| | 2012 | 5,129 | 92.7 | 58.8 | 28.2 | 11.0 | 4.1 |
| Textiles & Design | 2013 | 2,133 | 90.5 | 65.5 | 33.7 | 9.3 | 2.4 |
| | 2012 | 2,374 | 87.0 | 53.7 | 21.4 | 5.9 | 1.0 |
| Visual Arts | 2013 | 9,236 | 87.7 | 48.3 | 11.2 | 1.4 | 0.1 |
| | 2012 | 9,520 | 88.8 | 45.8 | 10.7 | 1.4 | 0.1 |
| Arabic Continuers | 2013 | 198 | 91.9 | 49.0 | 13.6 | 4.0 | 0.5 |
| | 2012 | 208 | 94.2 | 47.6 | 17.3 | 5.3 | 1.4 |

*Table A4 Distributions of HSC marks by course: 2012–2013 (continued)*

| Course | Year | Number | Percentage of students with HSC mark less than: | | | | |
|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 |
| Arabic Extension | 2013 | 50 | 88.0 | 54.0 | 26.0 | 4.0 | 0.0 |
| | 2012 | 69 | 89.9 | 72.5 | 30.4 | 8.7 | 1.4 |
| Chinese Beginners | 2013 | 52 | 67.3 | 30.8 | 13.5 | 5.8 | 0.0 |
| | 2012 | 41 | 70.7 | 56.1 | 34.1 | 12.2 | 4.9 |
| Chinese Continuers | 2013 | 66 | 47.0 | 19.7 | 6.1 | 0.0 | |
| | 2012 | 62 | 50.0 | 11.3 | 3.2 | 0.0 | |
| Chinese Background Speakers | 2013 | 667 | 83.5 | 30.3 | 5.4 | 0.5 | 0.2 |
| | 2012 | 744 | 85.9 | 34.1 | 5.2 | 0.8 | 0.1 |
| Heritage Chinese (Mandarin) | 2013 | 94 | 60.6 | 21.3 | 4.3 | 2.1 | 0.0 |
| | 2012 | 87 | 59.8 | 19.5 | 4.6 | 2.3 | 1.1 |
| French Beginners | 2013 | 654 | 83.6 | 53.4 | 24.8 | 9.6 | 3.4 |
| | 2012 | 698 | 82.1 | 52.7 | 23.8 | 9.9 | 2.9 |
| French Continuers | 2013 | 822 | 69.5 | 33.0 | 10.1 | 2.3 | 0.6 |
| | 2012 | 886 | 71.8 | 35.3 | 12.1 | 3.5 | 1.1 |
| French Extension | 2013 | 174 | 46.6 | 20.1 | 2.9 | 1.7 | 0.0 |
| | 2012 | 204 | 56.4 | 32.4 | 9.3 | 2.0 | 0.0 |
| German Beginners | 2013 | 98 | 68.4 | 42.9 | 28.6 | 14.3 | 3.1 |
| | 2012 | 129 | 78.3 | 54.3 | 26.4 | 9.3 | 3.9 |
| German Continuers | 2013 | 265 | 74.7 | 37.7 | 18.5 | 1.9 | 0.0 |
| | 2012 | 291 | 77.3 | 41.2 | 19.6 | 3.4 | 0.7 |
| German Extension | 2013 | 78 | 79.5 | 41.0 | 10.3 | 3.8 | 0.0 |
| | 2012 | 87 | 74.7 | 41.4 | 10.3 | 3.4 | 0.0 |
| Indonesian Continuers | 2013 | 73 | 69.9 | 49.3 | 20.5 | 2.7 | 1.4 |
| | 2012 | 65 | 72.3 | 44.6 | 20.0 | 6.2 | 0.0 |
| Indonesian Background Speakers | 2013 | 68 | 100.0 | 70.6 | 14.7 | 0.0 | |
| | 2012 | 95 | 98.9 | 76.8 | 18.9 | 2.1 | 0.0 |
| Italian Beginners | 2013 | 345 | 87.2 | 70.4 | 46.1 | 15.9 | 3.8 |
| | 2012 | 369 | 85.1 | 66.7 | 45.8 | 18.4 | 4.9 |
| Italian Continuers | 2013 | 283 | 76.3 | 38.9 | 18.4 | 6.4 | 2.8 |
| | 2012 | 298 | 79.9 | 48.3 | 24.5 | 7.7 | 3.0 |
| Italian Extension | 2013 | 51 | 60.8 | 31.4 | 3.9 | 2.0 | 0.0 |
| | 2012 | 70 | 58.6 | 27.1 | 7.1 | 0.0 | |
| Japanese Beginners | 2013 | 625 | 83.8 | 61.1 | 40.6 | 21.0 | 5.8 |
| | 2012 | 619 | 83.7 | 60.1 | 34.7 | 19.4 | 4.8 |
| Japanese Continuers | 2013 | 677 | 86.4 | 45.2 | 22.6 | 6.1 | 0.4 |
| | 2012 | 692 | 80.1 | 53.3 | 31.5 | 10.1 | 2.9 |
| Japanese Extension | 2013 | 203 | 67.0 | 37.9 | 9.4 | 1.0 | 0.5 |
| | 2012 | 191 | 71.7 | 37.2 | 15.2 | 3.7 | 1.6 |
| Korean Background Speakers | 2013 | 63 | 74.6 | 33.3 | 11.1 | 1.6 | 0.0 |
| | 2012 | 71 | 77.5 | 35.2 | 14.1 | 2.8 | 0.0 |
| Latin Continuers | 2013 | 166 | 59.0 | 18.1 | 6.0 | 1.8 | 0.0 |
| | 2012 | 173 | 51.4 | 17.3 | 1.7 | 0.0 | |
| Latin Extension | 2013 | 106 | 35.8 | 13.2 | 2.8 | 0.0 | |
| | 2012 | 99 | 22.2 | 5.1 | 3.0 | 0.0 | |

*Table A4 Distributions of HSC marks by course: 2012–2013 (continued)*

| Course | Year | Number | Percentage of students with HSC mark less than: | | | | |
|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 |
| Modern Greek Beginners | 2013 | 50 | 74.0 | 40.0 | 28.0 | 8.0 | 4.0 |
| | 2012 | 60 | 60.0 | 28.3 | 16.7 | 3.3 | 0.0 |
| Modern Greek Continuers | 2013 | 86 | 75.6 | 47.7 | 19.8 | 7.0 | 0.0 |
| | 2012 | 91 | 73.6 | 41.8 | 12.1 | 1.1 | 0.0 |
| Modern Hebrew | 2013 | 52 | 46.2 | 0.0 | | | |
| | 2012 | 53 | 45.3 | 5.7 | 0.0 | | |
| Spanish Beginners | 2013 | 174 | 85.1 | 64.9 | 35.1 | 19.5 | 2.3 |
| | 2012 | 188 | 83.5 | 58.0 | 35.1 | 18.6 | 4.3 |
| Spanish Continuers | 2013 | 164 | 84.8 | 45.7 | 20.1 | 9.1 | 3.7 |
| | 2012 | 198 | 92.4 | 47.0 | 12.6 | 4.0 | 1.0 |
| Spanish Extension | 2013 | 55 | 89.1 | 47.3 | 12.7 | 5.5 | 0.0 |
| | 2012 | 68 | 94.1 | 69.1 | 20.6 | 1.5 | 0.0 |
| Tamil | 2013 | 42 | 95.2 | 28.6 | 9.5 | 2.4 | 0.0 |
| | 2012 | 42 | 85.7 | 35.7 | 11.9 | 7.1 | 0.0 |
| Vietnamese | 2013 | 138 | 96.4 | 64.5 | 13.8 | 0.0 | |
| | 2012 | 155 | 99.4 | 71.6 | 21.3 | 3.9 | 1.3 |
| Automotive Exam | 2013 | 370 | 98.6 | 87.0 | 56.8 | 7.8 | 0.0 |
| | 2012 | 363 | 97.5 | 76.3 | 37.2 | 7.2 | 1.1 |
| Business Services Exam | 2013 | 1,323 | 98.7 | 82.0 | 45.4 | 16.8 | 3.0 |
| | 2012 | 1,354 | 96.5 | 75.3 | 40.8 | 17.0 | 4.9 |
| Construction Exam | 2013 | 1,795 | 99.8 | 83.4 | 45.1 | 12.1 | 2.7 |
| | 2012 | 1,794 | 99.9 | 92.3 | 56.7 | 18.7 | 1.0 |
| Electrotechnology Exam | 2013 | 303 | 98.7 | 87.8 | 38.9 | 7.9 | 3.0 |
| | 2012 | 234 | 99.1 | 91.9 | 43.6 | 3.4 | 0.0 |
| Entertainment Industry Exam | 2013 | 969 | 99.2 | 86.6 | 46.6 | 11.1 | 0.5 |
| | 2012 | 916 | 98.3 | 83.0 | 51.2 | 14.4 | 1.6 |
| Hospitality Exam | 2013 | 5,660 | 95.5 | 65.0 | 23.5 | 3.3 | 0.4 |
| | 2012 | 5,838 | 94.2 | 68.0 | 25.3 | 2.9 | 0.2 |
| Human Sevices Exam | 2013 | 487 | 98.6 | 85.0 | 33.7 | 5.7 | 1.6 |
| | 2012 | 447 | 98.0 | 81.0 | 31.8 | 4.3 | 0.0 |
| Information Technology Exam | 2013 | 1,157 | 97.7 | 71.4 | 29.5 | 11.2 | 2.9 |
| | 2012 | 1,294 | 98.1 | 74.0 | 35.2 | 9.4 | 2.6 |
| Metal & Engineering Exam | 2013 | 854 | 99.5 | 91.7 | 50.6 | 19.4 | 9.7 |
| | 2012 | 769 | 99.1 | 90.6 | 55.1 | 22.8 | 7.3 |
| Primary Industries Exam | 2013 | 581 | 96.7 | 69.4 | 29.3 | 6.5 | 0.7 |
| | 2012 | 616 | 96.8 | 61.2 | 20.8 | 1.8 | 0.3 |
| Retail Services Exam | 2013 | 1,018 | 96.9 | 71.3 | 29.1 | 6.7 | 1.4 |
| | 2012 | 862 | 99.4 | 82.3 | 30.9 | 8.2 | 0.7 |
| Tourism & Events Exam | 2013 | 378 | 97.4 | 69.8 | 33.9 | 4.0 | 0.3 |
| | 2012 | 366 | 96.7 | 66.7 | 24.3 | 3.6 | 0.0 |

## Table A5 Distributions of scaled marks by course: 2012–2013

Notes: (i) 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.

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

| Course | Year | Number | Percentage of students with scaled mark less than: | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 | 20 | 15 |
| Aboriginal Studies | 2013 | 357 | 100.0 | 97.2 | 91.0 | 87.1 | 82.4 | 76.5 | 68.1 |
| | 2012 | 361 | 99.2 | 93.9 | 89.8 | 83.7 | 75.9 | 65.1 | 55.7 |
| Agriculture | 2013 | 1,382 | 99.3 | 94.5 | 87.8 | 79.7 | 66.8 | 53.5 | 39.1 |
| | 2012 | 1,362 | 98.4 | 93.6 | 85.1 | 77.9 | 66.2 | 51.4 | 35.7 |
| Ancient History | 2013 | 11,740 | 98.8 | 93.2 | 82.3 | 67.3 | 50.4 | 34.5 | 21.3 |
| | 2012 | 12,100 | 98.6 | 93.1 | 82.1 | 67.4 | 51.1 | 34.4 | 20.7 |
| Biology | 2013 | 16,852 | 99.2 | 91.7 | 75.1 | 57.6 | 40.9 | 26.8 | 15.3 |
| | 2012 | 16,570 | 98.7 | 91.5 | 78.6 | 61.6 | 43.0 | 26.6 | 13.9 |
| Business Studies | 2013 | 15,740 | 99.4 | 92.9 | 81.6 | 67.4 | 52.7 | 38.0 | 24.1 |
| | 2012 | 15,221 | 99.8 | 95.0 | 82.9 | 67.7 | 52.1 | 37.0 | 23.8 |
| Chemistry | 2013 | 11,032 | 96.3 | 79.9 | 58.8 | 39.3 | 24.2 | 13.3 | 6.0 |
| | 2012 | 10,838 | 96.0 | 79.4 | 58.2 | 38.9 | 24.0 | 12.8 | 5.8 |
| Community & Family Studies | 2013 | 7,132 | 100.0 | 98.5 | 92.3 | 81.1 | 68.7 | 53.6 | 38.1 |
| | 2012 | 6,601 | 100.0 | 98.6 | 92.3 | 82.2 | 69.7 | 54.6 | 39.3 |
| Dance | 2013 | 898 | 99.6 | 93.8 | 84.4 | 75.5 | 62.4 | 46.0 | 29.7 |
| | 2012 | 842 | 99.1 | 92.6 | 83.6 | 75.3 | 61.0 | 45.6 | 27.6 |
| Design & Technology | 2013 | 3,165 | 99.5 | 95.7 | 85.5 | 73.9 | 59.7 | 43.8 | 27.1 |
| | 2012 | 3,198 | 99.6 | 96.0 | 87.5 | 75.3 | 60.8 | 44.4 | 27.5 |
| Drama | 2013 | 4,409 | 98.0 | 91.8 | 82.9 | 69.6 | 52.8 | 35.9 | 21.1 |
| | 2012 | 4,732 | 98.3 | 92.3 | 82.1 | 69.0 | 53.7 | 36.1 | 20.9 |
| Earth & Environmental Science | 2013 | 1,399 | 98.5 | 92.6 | 81.9 | 67.9 | 50.3 | 32.0 | 19.7 |
| | 2012 | 1,497 | 99.3 | 95.9 | 84.6 | 69.0 | 51.4 | 35.4 | 21.6 |
| Economics | 2013 | 5,286 | 96.3 | 79.8 | 57.1 | 37.9 | 23.0 | 12.3 | 6.2 |
| | 2012 | 5,247 | 96.6 | 79.2 | 55.8 | 35.9 | 22.7 | 13.3 | 6.6 |
| Engineering Studies | 2013 | 2,049 | 99.6 | 95.6 | 84.2 | 67.4 | 49.2 | 30.8 | 14.6 |
| | 2012 | 2,051 | 99.2 | 95.1 | 83.1 | 65.9 | 48.2 | 27.7 | 13.2 |
| English Standard | 2013 | 31,495 | 99.9 | 99.3 | 96.5 | 89.6 | 76.0 | 55.8 | 33.9 |
| | 2012 | 31,803 | 99.9 | 99.3 | 96.5 | 89.7 | 77.3 | 57.3 | 34.8 |
| English Advanced | 2013 | 27,007 | 97.5 | 83.1 | 60.5 | 37.2 | 20.6 | 9.3 | 3.3 |
| | 2012 | 27,217 | 97.8 | 83.3 | 60.8 | 39.2 | 21.8 | 9.2 | 3.1 |
| English Extension 1 | 2013 | 5,007 | 97.4 | 77.1 | 42.7 | 16.4 | 5.2 | 1.8 | 0.3 |
| | 2012 | 5,265 | 96.9 | 74.6 | 41.1 | 17.8 | 6.6 | 2.4 | 0.7 |
| English Extension 2 | 2013 | 1,907 | 95.5 | 76.5 | 46.0 | 20.2 | 6.9 | 1.9 | 0.5 |
| | 2012 | 2,126 | 94.7 | 75.0 | 45.3 | 18.3 | 5.4 | 1.0 | 0.3 |
| ESL | 2013 | 2,410 | 98.8 | 94.4 | 85.0 | 73.7 | 60.0 | 46.1 | 31.2 |
| | 2012 | 2,513 | 98.5 | 93.5 | 85.1 | 72.7 | 59.3 | 44.9 | 31.8 |
| Food Technology | 2013 | 3,640 | 99.8 | 96.2 | 88.3 | 77.5 | 66.1 | 51.8 | 37.9 |
| | 2012 | 3,612 | 99.9 | 96.2 | 89.4 | 79.4 | 66.8 | 52.9 | 37.2 |

*Table A5 Distributions of scaled marks by course: 2012–2013 (continued)*

| Course | Year | Number | Percentage of students with scaled mark less than: | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 | 20 | 15 |
| Geography | 2013 | 4,109 | 98.6 | 91.3 | 79.0 | 63.9 | 48.2 | 33.8 | 20.6 |
| | 2012 | 4,297 | 98.5 | 91.3 | 79.6 | 63.3 | 46.3 | 31.6 | 18.3 |
| Industrial Technology | 2013 | 5,365 | 100.0 | 99.9 | 96.1 | 87.9 | 77.3 | 63.2 | 47.6 |
| | 2012 | 5,099 | 100.0 | 99.9 | 95.7 | 88.1 | 77.6 | 63.9 | 46.7 |
| Information Processes & Technology | 2013 | 2,984 | 99.3 | 94.7 | 87.0 | 74.3 | 60.5 | 45.2 | 29.9 |
| | 2012 | 3,239 | 99.2 | 95.1 | 88.3 | 75.8 | 60.9 | 46.6 | 31.7 |
| Legal Studies | 2013 | 9,851 | 98.1 | 91.0 | 78.5 | 62.7 | 46.8 | 31.9 | 19.5 |
| | 2012 | 9,489 | 98.9 | 92.4 | 77.6 | 61.4 | 45.7 | 32.2 | 20.9 |
| General Mathematics | 2013 | 32,376 | 99.9 | 97.8 | 89.1 | 76.1 | 61.3 | 46.0 | 30.5 |
| | 2012 | 31,702 | 99.9 | 97.8 | 89.4 | 76.7 | 62.9 | 47.4 | 31.8 |
| Mathematics | 2013 | 16,463 | 98.3 | 84.4 | 60.5 | 38.6 | 22.7 | 12.6 | 6.4 |
| | 2012 | 16,700 | 96.3 | 81.3 | 61.6 | 41.7 | 25.8 | 14.7 | 7.7 |
| Mathematics Extension 1 | 2013 | 8,839 | 78.2 | 43.4 | 21.6 | 10.4 | 4.7 | 1.9 | 0.6 |
| | 2012 | 8,925 | 81.3 | 48.8 | 24.4 | 10.4 | 4.0 | 1.3 | 0.4 |
| Mathematics Extension 2 | 2013 | 3,198 | 54.3 | 15.7 | 4.8 | 1.9 | 0.9 | 0.3 | 0.1 |
| | 2012 | 3,454 | 64.8 | 19.5 | 5.8 | 2.1 | 0.7 | 0.2 | 0.1 |
| Modern History | 2013 | 10,447 | 98.8 | 90.6 | 74.1 | 55.1 | 39.1 | 26.7 | 17.1 |
| | 2012 | 10,476 | 98.4 | 89.7 | 74.1 | 56.1 | 39.0 | 25.6 | 16.0 |
| History Extension | 2013 | 1,988 | 98.3 | 82.2 | 51.3 | 23.8 | 7.9 | 2.6 | 0.8 |
| | 2012 | 2,042 | 96.2 | 76.8 | 50.6 | 22.6 | 9.0 | 2.9 | 1.0 |
| Music 1 | 2013 | 5,010 | 99.6 | 95.3 | 87.7 | 76.7 | 62.6 | 45.7 | 29.9 |
| | 2012 | 5,126 | 99.3 | 94.6 | 87.1 | 75.9 | 60.4 | 43.7 | 27.5 |
| Music 2 | 2013 | 850 | 92.7 | 74.5 | 53.3 | 31.5 | 15.5 | 4.2 | 0.7 |
| | 2012 | 708 | 93.4 | 76.8 | 56.2 | 31.1 | 15.4 | 5.1 | 0.7 |
| Music Extension | 2013 | 504 | 80.8 | 70.4 | 48.8 | 29.8 | 14.5 | 4.0 | 1.0 |
| | 2012 | 432 | 83.3 | 70.1 | 51.9 | 31.7 | 12.7 | 0.9 | 0.2 |
| PDH&PE | 2013 | 13,886 | 99.6 | 94.6 | 84.4 | 71.1 | 56.1 | 41.0 | 26.2 |
| | 2012 | 13,307 | 99.5 | 95.2 | 84.9 | 71.8 | 56.4 | 40.7 | 25.6 |
| Physics | 2013 | 9,562 | 97.1 | 83.1 | 62.9 | 44.0 | 29.2 | 17.5 | 8.6 |
| | 2012 | 9,469 | 97.3 | 84.3 | 62.9 | 42.8 | 26.7 | 15.1 | 6.9 |
| Senior Science | 2013 | 5,441 | 100.0 | 98.2 | 92.7 | 82.6 | 69.3 | 54.4 | 39.2 |
| | 2012 | 5,235 | 100.0 | 97.8 | 92.1 | 81.9 | 70.2 | 55.6 | 38.3 |
| Society & Culture | 2013 | 3,939 | 98.3 | 91.8 | 82.7 | 70.7 | 56.1 | 40.1 | 24.1 |
| | 2012 | 3,924 | 98.8 | 93.1 | 82.4 | 70.0 | 54.5 | 39.0 | 23.8 |
| Software Design & Development | 2013 | 1,608 | 99.7 | 95.2 | 83.1 | 68.2 | 52.7 | 36.6 | 21.5 |
| | 2012 | 1,471 | 99.3 | 94.4 | 84.8 | 70.5 | 52.8 | 34.5 | 20.0 |
| Studies of Religion I | 2013 | 9,374 | 99.1 | 92.2 | 76.9 | 58.2 | 38.1 | 20.7 | 8.5 |
| | 2012 | 9,330 | 99.4 | 93.1 | 77.4 | 56.0 | 36.8 | 20.7 | 9.7 |
| Studies of Religion II | 2013 | 5,111 | 98.6 | 90.0 | 75.3 | 58.6 | 40.1 | 24.0 | 13.0 |
| | 2012 | 5,129 | 99.2 | 92.3 | 75.9 | 55.8 | 37.4 | 23.5 | 13.6 |
| Textiles & Design | 2013 | 2,133 | 99.5 | 95.7 | 86.5 | 73.9 | 59.4 | 44.4 | 27.4 |
| | 2012 | 2,374 | 99.4 | 95.0 | 85.7 | 73.0 | 58.9 | 43.9 | 29.1 |
| Visual Arts | 2013 | 9,236 | 98.7 | 93.5 | 84.7 | 73.5 | 60.2 | 44.8 | 29.7 |
| | 2012 | 9,520 | 98.7 | 93.1 | 84.3 | 73.1 | 59.1 | 43.4 | 27.4 |

*Table A5 Distributions of scaled marks by course: 2012–2013 (continued)*

| Course | Year | Number | Percentage of students with scaled mark less than: | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 | 20 | 15 |
| Arabic Continuers | 2013 | 198 | 99.5 | 94.9 | 90.4 | 82.3 | 71.7 | 58.6 | 49.0 |
| | 2012 | 208 | 100.0 | 96.6 | 92.3 | 86.5 | 74.0 | 59.6 | 46.2 |
| Arabic Extension | 2013 | 50 | 100.0 | 94.0 | 76.0 | 56.0 | 44.0 | 14.0 | 4.0 |
| | 2012 | 69 | 100.0 | 98.6 | 88.4 | 78.3 | 44.9 | 27.5 | 8.7 |
| Chinese Beginners | 2013 | 52 | 94.2 | 88.5 | 71.2 | 61.5 | 46.2 | 30.8 | 15.4 |
| | 2012 | 41 | 95.1 | 85.4 | 75.6 | 70.7 | 58.5 | 46.3 | 31.7 |
| Chinese Continuers | 2013 | 66 | 92.4 | 71.2 | 43.9 | 25.8 | 19.7 | 16.7 | 4.5 |
| | 2012 | 62 | 93.5 | 80.6 | 50.0 | 37.1 | 22.6 | 14.5 | 9.7 |
| Chinese Background Speakers | 2013 | 667 | 98.2 | 95.1 | 85.8 | 75.7 | 59.8 | 41.5 | 27.0 |
| | 2012 | 744 | 97.6 | 92.5 | 84.5 | 71.9 | 57.5 | 40.6 | 25.4 |
| Heritage Chinese (Mandarin) | 2013 | 94 | 89.4 | 84.0 | 60.6 | 42.6 | 25.5 | 13.8 | 4.3 |
| | 2012 | 87 | 95.4 | 74.7 | 56.3 | 35.6 | 26.4 | 9.2 | 4.6 |
| French Beginners | 2013 | 654 | 97.4 | 91.3 | 81.7 | 69.9 | 53.8 | 37.9 | 22.5 |
| | 2012 | 698 | 98.1 | 91.0 | 81.5 | 68.2 | 53.6 | 34.5 | 19.8 |
| French Continuers | 2013 | 822 | 92.3 | 69.8 | 46.7 | 27.1 | 13.6 | 5.1 | 2.2 |
| | 2012 | 886 | 92.4 | 70.0 | 46.1 | 26.4 | 16.7 | 8.2 | 3.5 |
| French Extension | 2013 | 174 | 83.9 | 48.3 | 14.9 | 2.3 | 0.6 | 0.0 | |
| | 2012 | 204 | 82.8 | 40.7 | 10.8 | 2.9 | 1.5 | 0.0 | |
| German Beginners | 2013 | 98 | 94.9 | 88.8 | 69.4 | 50.0 | 41.8 | 29.6 | 18.4 |
| | 2012 | 129 | 95.3 | 84.5 | 68.2 | 53.5 | 35.7 | 21.7 | 10.9 |
| German Continuers | 2013 | 265 | 90.9 | 71.3 | 46.0 | 29.8 | 15.1 | 7.9 | 1.9 |
| | 2012 | 291 | 91.4 | 72.5 | 47.4 | 27.8 | 15.8 | 8.9 | 4.1 |
| German Extension | 2013 | 78 | 89.7 | 55.1 | 20.5 | 3.8 | 0.0 | | |
| | 2012 | 87 | 89.7 | 48.3 | 20.7 | 6.9 | 0.0 | | |
| Indonesian Continuers | 2013 | 73 | 93.2 | 76.7 | 61.6 | 46.6 | 23.3 | 11.0 | 2.7 |
| | 2012 | 65 | 93.8 | 81.5 | 72.3 | 55.4 | 40.0 | 23.1 | 15.4 |
| Indonesian Background Speakers | 2013 | 68 | 98.5 | 89.7 | 69.1 | 41.2 | 16.2 | 2.9 | 0.0 |
| | 2012 | 95 | 92.6 | 88.4 | 69.5 | 51.6 | 21.1 | 8.4 | 2.1 |
| Italian Beginners | 2013 | 345 | 95.4 | 87.8 | 77.1 | 62.9 | 47.2 | 32.2 | 15.7 |
| | 2012 | 369 | 96.5 | 90.0 | 78.0 | 65.3 | 48.2 | 31.2 | 16.0 |
| Italian Continuers | 2013 | 283 | 97.2 | 85.2 | 61.5 | 39.2 | 24.7 | 14.8 | 6.4 |
| | 2012 | 298 | 98.0 | 83.2 | 58.1 | 42.6 | 25.5 | 15.1 | 6.7 |
| Italian Extension | 2013 | 51 | 94.1 | 66.7 | 35.3 | 3.9 | 2.0 | 0.0 | |
| | 2012 | 70 | 94.3 | 61.4 | 30.0 | 7.1 | 2.9 | 0.0 | |
| Japanese Beginners | 2013 | 625 | 98.7 | 91.2 | 81.4 | 67.0 | 53.8 | 37.9 | 24.8 |
| | 2012 | 619 | 98.9 | 92.1 | 80.6 | 65.4 | 51.1 | 35.7 | 24.2 |
| Japanese Continuers | 2013 | 677 | 96.0 | 79.8 | 59.4 | 35.9 | 22.6 | 12.6 | 4.4 |
| | 2012 | 692 | 95.8 | 77.2 | 57.4 | 39.5 | 26.2 | 12.9 | 5.9 |
| Japanese Extension | 2013 | 203 | 93.1 | 67.5 | 37.4 | 7.9 | 1.5 | 0.5 | 0.0 |
| | 2012 | 191 | 91.6 | 62.8 | 21.5 | 3.7 | 1.6 | 0.5 | 0.0 |
| Korean Background Speakers | 2013 | 63 | 93.7 | 90.5 | 82.5 | 68.3 | 52.4 | 44.4 | 30.2 |
| | 2012 | 71 | 97.2 | 91.5 | 80.3 | 76.1 | 62.0 | 42.3 | 31.0 |
| Latin Continuers | 2013 | 166 | 79.5 | 37.3 | 16.9 | 7.2 | 3.6 | 1.8 | 0.0 |
| | 2012 | 173 | 75.1 | 44.5 | 20.8 | 9.2 | 2.9 | 0.0 | |

*Table A5 Distributions of scaled marks by course: 2012–2013 (continued)*

| Course | Year | Number | Percentage of students with scaled mark less than: | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 45 | 40 | 35 | 30 | 25 | 20 | 15 |
| Latin Extension | 2013 | 106 | 68.9 | 26.4 | 13.2 | 2.8 | 0.0 | | |
| | 2012 | 99 | 67.7 | 29.3 | 10.1 | 4.0 | 3.0 | 1.0 | 0.0 |
| Modern Greek Beginners | 2013 | 50 | 90.0 | 88.0 | 74.0 | 60.0 | 50.0 | 38.0 | 30.0 |
| | 2012 | 60 | 96.7 | 91.7 | 85.0 | 61.7 | 45.0 | 31.7 | 21.7 |
| Modern Greek Continuers | 2013 | 86 | 94.2 | 88.4 | 75.6 | 68.6 | 52.3 | 29.1 | 19.8 |
| | 2012 | 91 | 97.8 | 92.3 | 76.9 | 64.8 | 49.5 | 27.5 | 13.2 |
| Modern Hebrew | 2013 | 52 | 86.5 | 73.1 | 48.1 | 26.9 | 3.8 | 0.0 | |
| | 2012 | 53 | 84.9 | 60.4 | 41.5 | 24.5 | 5.7 | 0.0 | |
| Spanish Beginners | 2013 | 174 | 97.1 | 92.0 | 82.8 | 71.3 | 58.6 | 42.5 | 28.7 |
| | 2012 | 188 | 96.8 | 91.5 | 81.4 | 65.4 | 54.3 | 42.0 | 26.6 |
| Spanish Continuers | 2013 | 164 | 97.0 | 94.5 | 83.5 | 65.9 | 49.4 | 36.6 | 22.6 |
| | 2012 | 198 | 99.5 | 98.0 | 90.9 | 68.7 | 52.5 | 36.9 | 20.2 |
| Spanish Extension | 2013 | 55 | 98.2 | 98.2 | 80.0 | 36.4 | 9.1 | 1.8 | 0.0 |
| | 2012 | 68 | 100.0 | 95.6 | 83.8 | 69.1 | 23.5 | 1.5 | 0.0 |
| Tamil | 2013 | 42 | 97.6 | 90.5 | 83.3 | 76.2 | 61.9 | 57.1 | 40.5 |
| | 2012 | 42 | 100.0 | 92.9 | 92.9 | 85.7 | 83.3 | 71.4 | 59.5 |
| Vietnamese | 2013 | 138 | 98.6 | 96.4 | 90.6 | 79.7 | 62.3 | 49.3 | 34.1 |
| | 2012 | 155 | 98.7 | 94.8 | 87.1 | 79.4 | 70.3 | 57.4 | 41.9 |
| Automotive Exam | 2013 | 370 | | 100.0 | 99.5 | 93.2 | 85.9 | 74.9 | 59.7 |
| | 2012 | 363 | | 100.0 | 99.7 | 95.3 | 85.1 | 76.3 | 62.3 |
| Business Services Exam | 2013 | 1,323 | 100.0 | 98.7 | 94.3 | 86.7 | 75.7 | 59.0 | 42.4 |
| | 2012 | 1354 | 100.0 | 98.6 | 93.9 | 86.0 | 75.3 | 64.6 | 46.9 |
| Construction Exam | 2013 | 1,795 | | 100.0 | 97.3 | 90.7 | 81.1 | 66.0 | 54.2 |
| | 2012 | 1,794 | | 100.0 | 97.2 | 91.0 | 81.4 | 67.8 | 51.1 |
| Electrotechnology Exam | 2013 | 303 | | 100.0 | 98.0 | 90.1 | 80.2 | 64.4 | 38.9 |
| | 2012 | 234 | | 100.0 | 96.6 | 89.3 | 78.6 | 60.3 | 40.2 |
| Entertainment Industry Exam | 2013 | 969 | 100.0 | 98.0 | 91.3 | 80.8 | 63.2 | 46.6 | 26.1 |
| | 2012 | 916 | 100.0 | 98.3 | 91.9 | 80.8 | 65.6 | 47.8 | 29.3 |
| Hospitality Exam | 2013 | 5,660 | 100.0 | 98.3 | 92.7 | 82.3 | 68.7 | 55.1 | 34.8 |
| | 2012 | 5,838 | 100.0 | 98.3 | 92.8 | 83.6 | 71.3 | 51.7 | 35.6 |
| Human Sevices Exam | 2013 | 487 | 100.0 | 99.6 | 95.1 | 86.4 | 73.5 | 56.5 | 36.8 |
| | 2012 | 447 | 100.0 | 99.1 | 94.4 | 86.6 | 71.4 | 57.5 | 38.3 |
| Information Technology Exam | 2013 | 1,157 | 100.0 | 99.4 | 94.6 | 87.0 | 74.0 | 64.0 | 46.7 |
| | 2012 | 1,294 | 100.0 | 99.3 | 96.1 | 86.6 | 74.0 | 60.0 | 42.3 |
| Metal & Engineering Exam | 2013 | 854 | | 100.0 | 98.2 | 91.7 | 82.1 | 64.9 | 50.6 |
| | 2012 | 769 | | 100.0 | 97.9 | 93.1 | 82.8 | 69.7 | 51.5 |
| Primary Industries Exam | 2013 | 581 | | 100.0 | 96.7 | 90.4 | 79.3 | 64.0 | 43.5 |
| | 2012 | 616 | 100.0 | 99.8 | 96.8 | 88.1 | 79.1 | 64.6 | 53.4 |
| Retail Services Exam | 2013 | 1,018 | 100.0 | 99.4 | 94.8 | 85.7 | 78.3 | 66.0 | 53.7 |
| | 2012 | 862 | 100.0 | 99.2 | 95.0 | 87.0 | 76.1 | 64.4 | 45.5 |
| Tourism & Events Exam | 2013 | 378 | 100.0 | 99.2 | 93.1 | 82.3 | 66.1 | 47.1 | 29.9 |
| | 2012 | 366 | 100.0 | 96.7 | 91.5 | 83.3 | 66.7 | 53.3 | 31.7 |

## Table A6 Courses that contribute to the ATAR

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 completed the course in 2013 or in a previous year and who received an ATAR in 2013.

(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 ATAR students who completed more than 10 units of ATAR courses and 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 | | Percentage who counted course | Maximum ATAR including the course |
|---|---|---|---|---|---|
| | | Number | Percentage | | |
| Aboriginal Studies | 195 | 52 | 27 | 90 | 99.05 |
| Agriculture | 1,045 | 541 | 52 | 78 | 99.75 |
| Ancient History | 10,708 | 4,730 | 44 | 85 | 99.95 |
| Biology | 16,243 | 8,040 | 49 | 81 | 99.90 |
| Business Studies | 14,419 | 5,934 | 41 | 86 | 99.90 |
| Chemistry | 10,877 | 7,054 | 65 | 75 | 99.95 |
| Community & Family Studies | 5,582 | 1,977 | 35 | 87 | 99.05 |
| Dance | 754 | 236 | 31 | 67 | 98.60 |
| Design & Technology | 2,793 | 1,148 | 41 | 74 | 99.15 |
| Drama | 3,965 | 1,588 | 40 | 73 | 99.95 |
| Earth & Environmental Science | 1,302 | 589 | 45 | 82 | 99.65 |
| Economics | 5,249 | 3,042 | 58 | 76 | 99.95 |
| Engineering Studies | 1,951 | 1,032 | 53 | 71 | 99.45 |
| English Standard | 25,929 | 8,361 | 32 | 100 | 99.35 |
| English Advanced | 26,599 | 14,546 | 55 | 99 | 99.95 |
| English Extension 1 | 4,986 | 3,601 | 72 | 81 | 99.95 |
| English Extension 2 | 1,904 | 1,241 | 65 | 79 | 99.95 |
| ESL | 2,114 | 742 | 35 | 100 | 99.95 |
| Food Technology | 2,913 | 1,030 | 35 | 89 | 99.35 |
| Geography | 3,755 | 1,776 | 47 | 84 | 99.90 |
| Industrial Technology | 3,495 | 1,234 | 35 | 70 | 97.40 |
| Information Processes & Technology | 2,676 | 1299 | 49 | 74 | 99.40 |
| Legal Studies | 9,237 | 4,113 | 45 | 84 | 99.95 |
| General Mathematics | 27,640 | 9,827 | 36 | 72 | 99.70 |
| Mathematics | 15,408 | 9,530 | 62 | 71 | 99.95 |
| Mathematics Extension 1 | 8,742 | 6,661 | 76 | 90 | 99.95 |
| Mathematics Extension 2 | 3,226 | 1,889 | 59 | 98 | 99.95 |
| Modern History | 9,735 | 4,671 | 48 | 85 | 99.95 |
| History Extension | 1,980 | 1,604 | 81 | 83 | 99.95 |
| Music 1 | 4,176 | 1,678 | 40 | 62 | 99.45 |
| Music 2 | 826 | 634 | 77 | 67 | 99.90 |
| Music Extension | 499 | 413 | 83 | 67 | 99.95 |

*Table A6 Courses that contribute to the ATAR (continued)*

| Course | Number receiving ATAR | ATAR students with > 10 units | | Percentage who counted course | Maximum ATAR including the course |
|---|---|---|---|---|---|
| | | Number | Percentage | | |
| PDH&PE | 12,348 | 4,859 | 39 | 86 | 99.90 |
| Physics | 9,361 | 5,680 | 61 | 77 | 99.95 |
| Senior Science | 4,343 | 1,508 | 35 | 86 | 99.05 |
| Society & Culture | 3,579 | 1,298 | 36 | 88 | 99.95 |
| Software Design & Development | 1,521 | 795 | 52 | 72 | 99.85 |
| Studies of Religion I | 8,945 | 8,016 | 90 | 80 | 99.95 |
| Studies of Religion II | 4,982 | 1,896 | 38 | 84 | 99.90 |
| Textiles & Design | 1,785 | 635 | 36 | 79 | 99.85 |
| Visual Arts | 7,701 | 2,860 | 37 | 75 | 99.90 |
| Arabic Continuers | 162 | 84 | 52 | 81 | 96.80 |
| Arabic Extension | 43 | 40 | 93 | 88 | 96.80 |
| Armenian | 20 | 15 | 75 | 73 | 92.80 |
| Chinese Beginners | 49 | 18 | 37 | 50 | 98.75 |
| Chinese Continuers | 65 | 45 | 69 | 73 | 99.95 |
| Chinese Extension | 17 | 16 | 94 | 81 | 99.80 |
| Chinese Background Speakers | 623 | 198 | 32 | 66 | 99.70 |
| Heritage Chinese (Mandarin) | 95 | 57 | 60 | 65 | 99.85 |
| Classical Greek Continuers | 14 | 14 | 100 | 86 | 99.95 |
| Classical Greek Extension | 13 | 13 | 100 | 69 | 99.95 |
| Classical Hebrew Continuers | 29 | 22 | 76 | 68 | 99.95 |
| Classical Hebrew Extension | 16 | 14 | 88 | 79 | 99.55 |
| Croatian | 15 | 8 | 53 | 38 | 99.25 |
| Filipino | 28 | 11 | 39 | 45 | 84.20 |
| French Beginners | 583 | 237 | 41 | 71 | 99.40 |
| French Continuers | 821 | 616 | 75 | 69 | 99.95 |
| French Extension | 177 | 162 | 92 | 85 | 99.95 |
| German Beginners | 96 | 49 | 51 | 69 | 99.75 |
| German Continuers | 259 | 179 | 69 | 62 | 99.90 |
| German Extension | 77 | 65 | 84 | 82 | 99.90 |
| Hindi | 18 | 14 | 78 | 43 | 83.80 |
| Indonesian Beginners | 26 | 9 | 35 | 78 | 96.35 |
| Indonesian Continuers | 73 | 51 | 70 | 67 | 99.30 |
| Indonesian Extension | 23 | 22 | 96 | 77 | 99.10 |
| Indonesian Background Speakers | 68 | 30 | 44 | 67 | 97.35 |
| Italian Beginners | 311 | 163 | 52 | 82 | 99.95 |
| Italian Continuers | 270 | 170 | 63 | 71 | 99.95 |
| Italian Extension | 52 | 43 | 83 | 81 | 99.40 |
| Japanese Beginners | 589 | 211 | 36 | 69 | 99.55 |

*Table A6 Courses that contribute to the ATAR (continued)*

| Course | Number receiving ATAR | ATAR students with > 10 units | | Percentage who counted course | Maximum ATAR including the course |
|---|---|---|---|---|---|
| | | Number | Percentage | | |
| Japanese Continuers | 666 | 413 | 62 | 62 | 99.80 |
| Japanese Extension | 202 | 154 | 76 | 81 | 99.95 |
| Japanese Background Speakers | 24 | 8 | 33 | 38 | 94.70 |
| Heritage Japanese | 17 | 8 | 47 | 63 | 99.70 |
| Khmer | 19 | 5 | 26 | 60 | 98.25 |
| Korean Background Speakers | 61 | 15 | 25 | 73 | 99.05 |
| Heritage Korean | 47 | 14 | 30 | 71 | 99.00 |
| Latin Continuers | 169 | 152 | 90 | 66 | 99.95 |
| Latin Extension | 107 | 101 | 94 | 71 | 99.95 |
| Macedonian | 20 | 15 | 75 | 47 | 85.15 |
| Modern Greek Beginners | 44 | 20 | 45 | 65 | 97.80 |
| Modern Greek Continuers | 87 | 58 | 67 | 60 | 99.15 |
| Modern Greek Extension | 27 | 27 | 100 | 78 | 99.15 |
| Modern Hebrew | 54 | 35 | 65 | 66 | 99.60 |
| Persian | 26 | 10 | 38 | 60 | 97.10 |
| Polish | 32 | 22 | 69 | 68 | 99.30 |
| Portuguese | 19 | 11 | 58 | 55 | 96.25 |
| Russian | 16 | 11 | 69 | 55 | 90.90 |
| Serbian | 15 | 5 | 33 | 80 | 87.65 |
| Spanish Beginners | 150 | 54 | 36 | 78 | 99.95 |
| Spanish Continuers | 155 | 90 | 58 | 67 | 96.85 |
| Spanish Extension | 55 | 43 | 78 | 91 | 98.15 |
| Tamil | 32 | 26 | 81 | 50 | 98.15 |
| Turkish | 22 | 12 | 55 | 58 | 84.90 |
| Vietnamese | 123 | 51 | 41 | 65 | 98.75 |
| Automotive Exam | 165 | 71 | 43 | 52 | 78.85 |
| Business Services Exam | 995 | 354 | 36 | 80 | 96.35 |
| Construction Exam | 1,091 | 343 | 31 | 78 | 96.50 |
| Electrotechnology Exam | 202 | 83 | 41 | 69 | 91.15 |
| Entertainment Industry Exam | 857 | 317 | 37 | 77 | 97.30 |
| Financial Services Exam | 237 | 125 | 53 | 74 | 99.95 |
| Hospitality Exam | 4,647 | 1,718 | 37 | 79 | 97.65 |
| Human Sevices Exam | 411 | 158 | 38 | 69 | 98.20 |
| Information Technology Exam | 889 | 371 | 42 | 71 | 97.20 |
| Metal & Engineering Exam | 454 | 215 | 47 | 58 | 91.60 |
| Primary Industries Exam | 401 | 179 | 45 | 71 | 93.60 |
| Retail Services Exam | 705 | 267 | 38 | 70 | 98.10 |
| Tourism & Events Exam | 315 | 86 | 27 | 69 | 95.70 |

## 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 2013 was 69.20.

| ATAR | Number | Number on or above | Percentage on or above |
|---|---|---|---|
| 99.95 | 48 | 48 | 0.1 |
| 99.90 | 46 | 94 | 0.2 |
| 99.85 | 46 | 140 | 0.3 |
| 99.80 | 48 | 188 | 0.3 |
| 99.75 | 47 | 235 | 0.4 |
| 99.70 | 46 | 281 | 0.5 |
| 99.65 | 44 | 325 | 0.6 |
| 99.60 | 51 | 376 | 0.7 |
| 99.55 | 44 | 420 | 0.8 |
| 99.50 | 41 | 461 | 0.8 |
| 99.45 | 47 | 508 | 0.9 |
| 99.40 | 48 | 556 | 1.0 |
| 99.35 | 50 | 606 | 1.1 |
| 99.30 | 46 | 652 | 1.2 |
| 99.25 | 44 | 696 | 1.3 |
| 99.20 | 46 | 742 | 1.4 |
| 99.15 | 44 | 786 | 1.4 |
| 99.10 | 51 | 837 | 1.5 |
| 99.05 | 38 | 875 | 1.6 |
| 99.00 | 50 | 925 | 1.7 |
| | | | |
| 99.00–99.95 | 925 | 925 | 1.7 |
| 98.00–98.95 | 913 | 1,838 | 3.4 |
| 97.00–97.95 | 917 | 2,755 | 5.0 |
| 96.00–96.95 | 930 | 3,685 | 6.7 |
| 95.00–95.95 | 916 | 4,601 | 8.4 |
| 94.00–94.95 | 904 | 5,505 | 10.1 |
| 93.00–93.95 | 900 | 6,405 | 11.7 |
| 92.00–92.95 | 902 | 7,307 | 13.4 |
| 91.00–91.95 | 925 | 8,232 | 15.1 |
| 90.00–90.95 | 905 | 9,137 | 16.7 |
| 89.00–89.95 | 922 | 10,059 | 18.4 |
| 88.00–88.95 | 892 | 10,951 | 20.0 |
| 87.00–87.95 | 909 | 11,860 | 21.7 |
| 86.00–86.95 | 877 | 12,737 | 23.3 |
| 85.00–85.95 | 897 | 13,634 | 25.0 |
| 84.00–84.95 | 893 | 14,527 | 26.6 |
| 83.00–83.95 | 911 | 15,438 | 28.3 |
| 82.00–82.95 | 880 | 16,318 | 29.9 |
| 81.00–81.95 | 886 | 17,204 | 31.5 |
| 80.00–80.95 | 872 | 18,076 | 33.1 |
| 79.00–79.95 | 879 | 18,955 | 34.7 |
| 78.00–78.95 | 884 | 19,839 | 36.3 |
| 77.00–77.95 | 876 | 20,715 | 37.9 |

| ATAR | Number | Number on or above | Percentage on or above |
|---|---|---|---|
| 76.00–76.95 | 885 | 21,600 | 39.5 |
| 75.00–75.95 | 864 | 22,464 | 41.1 |
| 74.00–74.95 | 846 | 23,310 | 42.7 |
| 73.00–73.95 | 874 | 24,184 | 44.3 |
| 72.00–72.95 | 821 | 25,005 | 45.8 |
| 71.00–71.95 | 866 | 25,871 | 47.3 |
| 70.00–70.95 | 832 | 26,703 | 48.9 |
| 69.00–69.95 | 837 | 27,540 | 50.4 |
| 68.00–68.95 | 824 | 28,364 | 51.9 |
| 67.00–67.95 | 809 | 29,173 | 53.4 |
| 66.00–66.95 | 813 | 29,986 | 54.9 |
| 65.00–65.95 | 814 | 30,800 | 56.4 |
| 64.00–64.95 | 781 | 31,581 | 57.8 |
| 63.00–63.95 | 768 | 32,349 | 59.2 |
| 62.00–62.95 | 746 | 33,095 | 60.6 |
| 61.00–61.95 | 761 | 33,856 | 62.0 |
| 60.00–60.95 | 749 | 34,605 | 63.3 |
| 59.00–59.95 | 728 | 35,333 | 64.7 |
| 58.00–58.95 | 732 | 36,065 | 66.0 |
| 57.00–57.95 | 718 | 36,783 | 67.3 |
| 56.00–56.95 | 734 | 37,517 | 68.7 |
| 55.00–55.95 | 683 | 38,200 | 69.9 |
| 54.00–54.95 | 692 | 38,892 | 71.2 |
| 53.00–53.95 | 657 | 39,549 | 72.4 |
| 52.00–52.95 | 635 | 40,184 | 73.5 |
| 51.00–51.95 | 638 | 40,822 | 74.7 |
| 50.00–50.95 | 627 | 41,449 | 75.9 |
| 49.00–49.95 | 621 | 42,070 | 77.0 |
| 48.00–48.95 | 590 | 42,660 | 78.1 |
| 47.00–47.95 | 575 | 43,235 | 79.1 |
| 46.00–46.95 | 561 | 43,796 | 80.2 |
| 45.00–45.95 | 549 | 44,345 | 81.2 |
| 44.00–44.95 | 554 | 44,899 | 82.2 |
| 43.00–43.95 | 530 | 45,429 | 83.1 |
| 42.00–42.95 | 528 | 45,957 | 84.1 |
| 41.00–41.95 | 493 | 46,450 | 85.0 |
| 40.00–40.95 | 472 | 46,922 | 85.9 |
| 39.00–39.95 | 457 | 47,379 | 86.7 |
| 38.00–38.95 | 470 | 47,849 | 87.6 |
| 37.00–37.95 | 418 | 48,267 | 88.3 |
| 36.00–36.95 | 405 | 48,672 | 89.1 |
| 35.00–35.95 | 403 | 49,075 | 89.8 |
| 34.00–34.95 | 387 | 49,462 | 90.5 |
| 33.00–33.95 | 367 | 49,829 | 91.2 |
| 32.00–32.95 | 367 | 50,196 | 91.9 |
| 31.00–31.95 | 341 | 50,537 | 92.5 |
| 30.00–30.95 | 343 | 50,880 | 93.1 |

## Table A8 ATAR percentiles: 2009–2013

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

| Percentile | ATAR 2009 | ATAR 2010 | ATAR 2011 | ATAR 2012 | ATAR 2013 |
|---|---|---|---|---|---|
| 100 | 99.95 | 99.95 | 99.95 | 99.95 | 99.95 |
| 99 | 99.40 | 99.40 | 99.40 | 99.40 | 99.40 |
| 98 | 98.85 | 98.80 | 98.80 | 98.80 | 98.80 |
| 95 | 97.15 | 97.10 | 97.00 | 97.05 | 97.00 |
| 90 | 94.35 | 94.20 | 94.05 | 94.10 | 94.00 |
| 85 | 91.50 | 91.30 | 91.05 | 91.15 | 91.00 |
| 80 | 88.60 | 88.30 | 88.05 | 88.15 | 88.00 |
| 75 | 85.70 | 85.35 | 85.05 | 85.15 | 84.95 |
| 70 | 82.75 | 82.35 | 82.00 | 82.10 | 81.90 |
| 60 | 76.70 | 76.20 | 75.80 | 75.95 | 75.70 |
| 50 | 70.25 | 69.80 | 69.25 | 69.55 | 69.20 |
| 40 | 63.30 | 62.85 | 62.30 | 62.75 | 62.40 |
| 30 | 55.50 | 55.25 | 54.70 | 55.30 | 54.90 |

## Table A9 Relationship between the ATAR and aggregates: 2009–2013

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

| ATAR | Lowest aggregate | | | | |
|---|---|---|---|---|---|
| | 2009 | 2010 | 2011 | 2012 | 2013 |
| 99.95 | 478.9 | 476.2 | 476.5 | 475.2 | 477.9 |
| 99.50 | 457.7 | 455.2 | 456.2 | 454.2 | 455.0 |
| 99.00 | 446.6 | 444.8 | 445.6 | 443.9 | 443.8 |
| 98.00 | 431.3 | 430.0 | 432.2 | 429.7 | 429.5 |
| 95.00 | 401.5 | 403.0 | 403.7 | 401.6 | 402.6 |
| 90.00 | 367.4 | 369.6 | 371.2 | 369.4 | 371.3 |
| 85.00 | 340.0 | 341.5 | 343.7 | 343.0 | 344.8 |
| 80.00 | 315.1 | 317.6 | 318.9 | 318.4 | 321.3 |
| 75.00 | 292.4 | 295.5 | 295.7 | 295.3 | 297.9 |
| 70.00 | 271.0 | 273.4 | 274.1 | 272.8 | 276.1 |
| 65.00 | 250.4 | 252.5 | 252.9 | 251.1 | 253.5 |
| 60.00 | 231.1 | 231.7 | 233.1 | 229.9 | 232.2 |
| 55.00 | 212.1 | 211.6 | 213.0 | 209.5 | 211.3 |
| 50.00 | 193.1 | 192.4 | 193.5 | 190.5 | 191.3 |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