

Report on the Scaling of the 2008 NSW HSC



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) is reported in two ways: through the Higher School Certificate Record of Achievement and through the Universities Admission Index (UAI).

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 UAI is a numerical measure of a student's overall academic achievement in the HSC in relation to that of other students. This measure allows the comparison of students who have completed different combinations of HSC courses and indicates the position of a student in relation to other students. The UAI 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 UAI is the responsibility of the Technical Committee on Scaling on behalf of the NSW Vice-Chancellors' Committee. The NSW Board of Studies provides the HSC data from which the UAIs are calculated and the Universities Admissions Centre (UAC) advises individual students of their UAIs. Because of confidentiality provisions specified in Government legislation, UAIs cannot be provided to the Board of Studies, to schools or to other agencies.

This report, which follows the general pattern of previous reports, contains information on the calculation of the UAI in 2008.

Professor Neville Weber
Chair, Technical Committee on Scaling

March 2009

Acknowledgements

Calculating 51 978 individual UAIs and distributing them to the students who requested them is a considerable task. It requires a high degree of expertise, commitment and co-operation between the staff of several agencies during a period in the year when resources are stretched and time is very limited.

- Staff of the NSW Board of Studies who supply the HSC data from which the UAIs are calculated.
- Staff of UAC who distribute the UAIs to individual students, handle enquiries from students following the release of the results, and distribute information about the UAI 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 UAIs.
- Those members of the Technical Committee on Scaling who work closely with the Chair of the Committee when the UAIs are calculated, and at other times during the year.

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

Definitions

The Board

The Board refers to the NSW Board of Studies.

UAC

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

Board Developed courses

Board Developed courses are courses whose syllabuses have been developed by the NSW Board of Studies.

UAI courses

UAI courses are Board Developed courses for which there are examinations conducted by the NSW Board of Studies that yield graded assessments. VET courses for which there are no written examinations and Life Skills courses are not UAI courses.

HSC cohort

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

UAI cohort

UAI cohort is used to refer to those students who received a UAI 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 Examination 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 UAI calculations the NSW Board of Studies introduced, for each VET Curriculum Framework, an additional course that includes an examination. If students wish to have a VET course contribute to their UAI, 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 UAIs are not required to complete these optional examinations.

I The Higher School Certificate

The Higher School Certificate (HSC) is an exit certificate awarded and issued by the NSW Board of Studies. 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
- 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 *Rules and Procedures for Higher School Certificate Candidates*, which are published annually by the Board, and are available on the Board's website, www.boardofstudies.nsw.edu.au.

1.2 Reporting student achievement in the HSC

For most UAI 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 which describes, using Performance Bands, 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 Performance 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 reported using four Performance 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 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 in Board Bulletins, in *The Media Guide 2008* and on the Board's website, www.boardofstudies.nsw.edu.au.

2 The Universities Admission Index (UAI) - an overview

2.1 Background

The Universities Admission Index (UAI) 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 UAI 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 UAI is the responsibility of the Technical Committee on Scaling on behalf of the NSW Vice-Chancellors' Committee.

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

The UAI is reported as a **number** between 0 and 100 with increments of 0.05. The UAI is not a mark. Specifically, a student's UAI indicates the position of that student relative to their SC cohort. Students who receive a UAI of 80.00 in 2008, for example, have performed well enough in the HSC to place them 20% from the top of their SC cohort, if all the 2006 Year 10 students completed Year 12 and were eligible for a UAI in 2008.

2.2 Categorisation of UAI courses

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

UAI 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 UAI calculations. Category B courses are those whose level of cognitive and performance demands are not regarded as satisfactory in themselves, but their contribution to a selection index is regarded as adequate if the other courses included in the aggregate are more academically demanding.

In 2008 the Category B courses were:

- Accounting¹
- Business Services Examination
- Construction Examination
- Entertainment Examination
- Hospitality Examination
- Industrial Technology
- Information Technology Examination
- Metal and Engineering Examination
- Primary Industries Examination
- Retail Operations Examination
- Tourism Examination.

¹ A Board Developed course delivered by TAFE.

2.3 Eligibility for a UAI in 2008

To be eligible for a UAI a student must have satisfactorily completed at least 10 units of UAI 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 UAI

The UAI is based on an aggregate of scaled marks in 10 units of UAI 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 UAI 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 UAI.

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

2.5 The scale on which the UAI is reported

Before 1998, the ranking of students was based only on those HSC students who were eligible for a Tertiary Entrance Rank (TER), as it was called, in that year. Consequently it was difficult to compare TERs across years if the nature of the HSC cohort changed, either because of changes in the retention rate or in the quality of the group completing Year 12. As retention rates were not the same in different states, TERs could not be compared across Australia, making the processing of out-of-state university applications difficult.

A procedure providing a fair and equitable method of ranking out-of-state applicants was developed by a taskforce set up by the Ministerial Council on Education, Employment, Training and Youth Affairs. The procedure was based on the assumption that age cohorts from which the states' HSC 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 is a number which represents the position of a student in the appropriate age cohort, based on their overall academic achievement in the HSC.

In New South Wales, as few students leave school before completing Year 10, the age cohort for an HSC group is taken as the group of students who completed the School Certificate examination two years earlier. The School Certificate examination provides the link that allows the positions of students relative to their Year 10 group to be estimated from their positions relative to their Year 12 group.

Reporting the positions of students using this measure allows UAIs to be compared across years in New South Wales and makes out-of-state applications easier to process.

2.6 The UAI Advice Notice

The UAI Advice Notice includes:

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

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

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

An example of a UAI Advice Notice is given below.

2008 Universities Admission Index Advice				
Your Universities Admission Index (UAI): 73:00 *SEVEN*THREE***ZERO*ZERO				
Course name	Category	Year completed	Unit value	Units included in calculation of UAI
Economics	A	2008	2	1
English Standard	A	2008	2	2
Legal Studies	A	2008	2	2
Mathematics	A	2008	2	2
Studies of Religion I	A	2008	1	0
French Continuers	A	2008	2	2
French Extension	A	2008	1	1

2.7 The UAI – an endangered species?

At different times it has been argued that the UAI is a blunt instrument and that different indices should be used for selection for different university courses. Despite the apparent attractiveness of this view there is little empirical evidence in its favour. The choice of a university course, with all other factors being equal, is likely to be determined by a student's knowledge, interests and skills, so that applicants for a particular course will have their UAIs based on HSC courses that provide a suitable academic background required for that course. Students with UAIs based on different patterns of HSC courses are likely to apply for different university courses.

A UAI will obviously have greatest predictive validity when there is congruence between the outcomes a student achieves and the knowledge and skills required for the chosen university course. Consequently, students should be advised to choose HSC courses that provide a suitable background for their proposed university study.

Advising students in terms of which courses are likely to result in a high UAI, while ignoring the nature of the courses they wish to study, is to trivialise education. If students choose courses in which they are interested and which will provide a suitable background for their future career, they are likely to work harder. Consequently, they are more likely to succeed.

3 Calculating the UAI in 2008

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 2008 there were 27 432 different enrolment patterns for UAI-eligible students; only 197 of these 27 432 combinations were completed by 18 or more students and 20 073 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 UAI is 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 UAI 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 UAI-eligible students. Percentiles, which indicate the ranking of students with respect to other UAI-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 SC cohort completed Year 12 and were eligible for a UAI two years later. The last step is to round these percentiles to the nearest 0.05. These are the UAIs.

Each UAI corresponds to a range of aggregates and the number of students with each UAI varies, depending in part on how many candidates tie on the same aggregate.

The scaling process, which does not assume that one course is intrinsically more difficult than another or that the quality of the course candidature is always the same, is carried out afresh each year.

All students who complete at least one UAI 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 2008

The scaling procedure used in 2008 was unchanged from that used in 2007.

3.2.1 Marks used in the UAI calculations

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

- a raw examination mark
- a raw moderated school assessment¹
- an examination mark, which has been aligned to course standards
- a 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 Standard and Advanced English 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. The three Distinction courses are also combined and scaled and reported as a single course.

3.2.4 Initial standardisation

Before the scaling algorithm is implemented, a linear transformation is applied to the raw HSC marks in each course to set the top mark to a common value. The marks in each course are then standardised to a mean of 25 and standard deviation of 12 on a 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 2008 the maximum possible scaled mark in a course was given by the smaller of 50 and the scaled mean + 2.49 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, 2.49, 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 that, while the scaled mean for a course is not changed, the standard deviation is modified so that the actual maximum scaled mark in the course is the same as the maximum possible scaled mark. 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 UAI-eligible percentiles

Aggregates of scaled marks are calculated to one decimal place according to the rules described in section 2.4. UAI-eligible percentiles, which show the position of students relative to their UAI cohort, are then determined for these aggregates. The UAI-eligible percentile corresponding to a particular aggregate is the percentage of the UAI cohort who received an aggregate mark less than or equal to that aggregate.

Table 3.1 shows the UAI-percentiles corresponding to selected aggregates for the 2008 UAI cohort. From the table it can be seen that, for example, 77.1% of the 2008 UAI cohort received an aggregate mark of 350 or less.

Table 3.1 UAI-eligible percentiles¹ corresponding to selected aggregates: 2008

Aggregate	Percentile*
450.0	98.6
400.0	90.8
350.0	77.1
300.0	59.9
250.0	42.0
200.0	25.6
150.0	12.3

¹ In earlier years these percentiles, rounded to the nearest 0.05, were called the Tertiary Entrance Ranks (TERs).

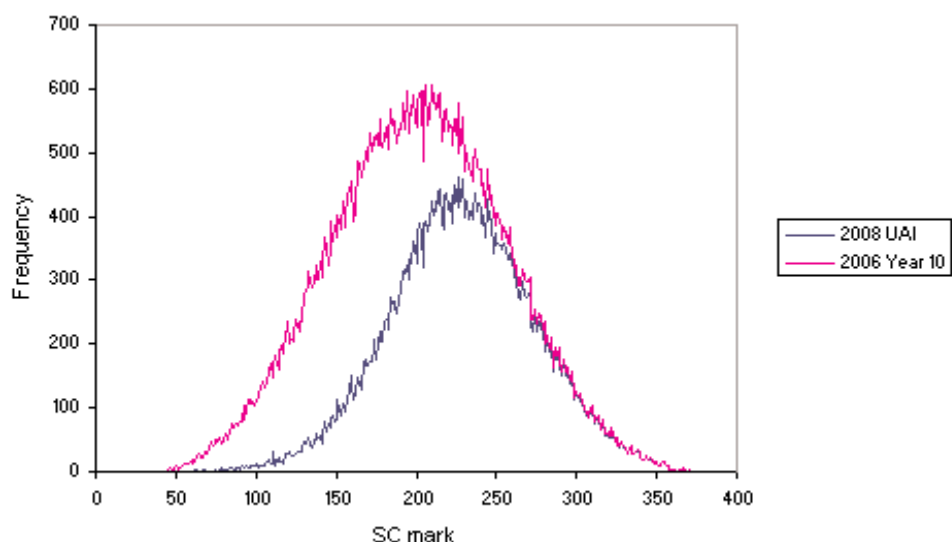
3.2.9 Calculating the UAI – establishing the link

The percentiles which have been calculated show students' positions relative to their 2008 UAI cohort. The next step is to calculate what their positions would have been in relation to their 2006 SC cohort if all students in this cohort had been eligible for a UAI in 2008. These positions, represented by SC percentiles rounded to the nearest 0.05, are their UAIs. An observed score equating procedure is employed using the SC examination as the anchor variable.

A total School Certificate mark (SC mark) is first calculated for each student. In 2006 the School Certificate Examination had four papers (English, Mathematics, Science, and Australian History and Geography), so the maximum possible SC mark was 400. Of the 51 978 students in the 2008 UAI cohort, 47 356 had completed the School Certificate Examination in 2006; 58.5% of the 80996 students in the 2006 SC cohort.

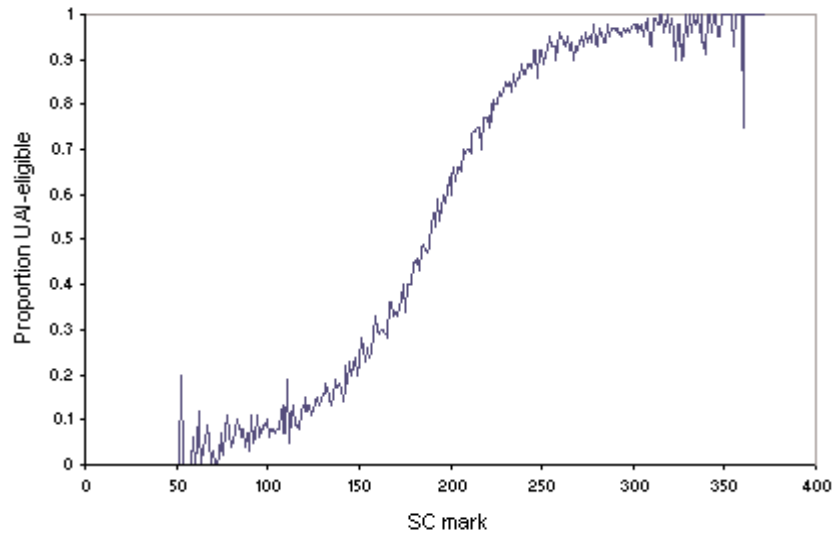
The next step is to calculate frequency distributions of the SC mark for all 2006 Year 10 students and for those who were eligible for a UAI in 2008. The differences in the two frequency distributions (Figure 3.1) show that the 2006 Year 10 students who were eligible for a UAI in 2008 were generally academically more able than the total 2006 SC cohort.

Figure 3.1 Frequency distributions of SC marks for the 2006 SC cohort and for those students who were also in the 2008 UAI cohort



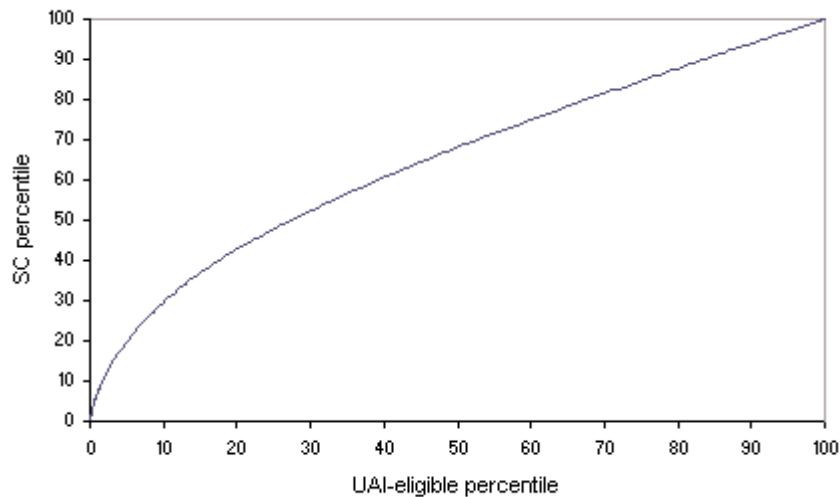
Another way of presenting the data is to calculate the proportion of students on each SC mark in 2006 who subsequently gained a UAI in 2008 and plot the proportions against corresponding SC marks. The resultant graph (Figure 3.2) shows that the likelihood of 2006 Year 10 students continuing with their schooling and being eligible for a UAI in 2008 increases with SC mark.

Figure 3.2 Proportion of the 2006 SC cohort who were also in the 2008 UAI cohort by SC mark



The data underlying Figure 3.1 are then used to link a student's position relative to their 2008 UAI cohort, their UAI-eligible percentile, with their position relative to their 2006 SC cohort, their SC percentile (Figure 3.3).

Figure 3.3 Plot showing relationship between UAI-eligible percentiles and SC percentiles



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

- the percentage of the SC cohort who have a SC mark less than or equal to the given SC mark (SC percentile), and
- the percentage of those who were also in the 2008 UAI cohort who had a SC mark less than or equal to the given SC mark (UAI-eligible percentile).

The relationship between the two sets of percentages are shown in Table 3.2 for a selected set of UAI-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 UAI-eligible percentiles and SC percentiles

UAI-eligible percentile	SC percentile
99.0	99.4
90.0	94.0
80.0	87.8
70.0	81.5
60.0	75.0
50.0	68.1
40.0	60.7
30.0	52.4
20.0	42.8
15.0	36.9

These equivalences show, for example, that students who were better than 90.0% of the 2008 UAI-eligible cohort would have been better than 94.0% of the 2006 SC cohort .

3.2.10 Calculating the UAI – the final step

The last step is to determine the relationship between aggregate and SC percentile. This is done by converting the UAI-eligible percentiles found in section 3.2.8 to SC percentiles using the equivalences from section 3.2.9. When rounded to 0.05, these SC percentiles become the UAIs.

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

Figure 3.4 Relationship between aggregate and UAI

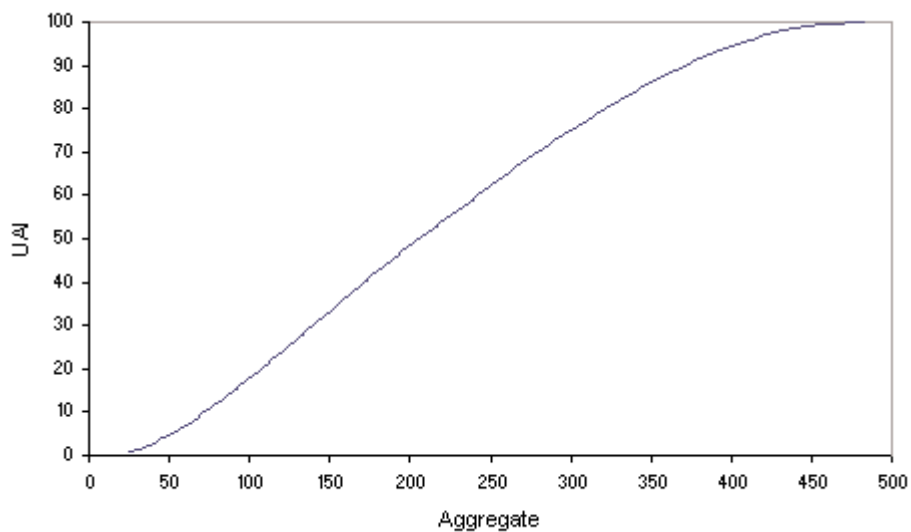


Table 3.3 Relationship between aggregate and UAI

Aggregate	UAI
450.0	99.15
400.0	94.45
350.0	85.95
300.0	74.90
250.0	62.15
200.0	48.45
150.0	33.15

The following example uses data from Tables 3.1 and 3.2 to illustrate the procedure. In the actual UAI calculations the full data set is used, not just the data presented in these tables. The UAI estimated from data presented in these tables will only be an estimate of the actual UAI 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 22.9% from the top of the 2008 UAI cohort; a percentile of 77.1. From Table 3.2 we can estimate by linear interpolation that students who are at the 77.1th percentile of the UAI-eligible percentile are at the 85.97th percentile of the 2006 SC cohort. This means that students with an aggregate of 350.0 have performed well enough in the HSC to be at the 85.97th percentile of their SC cohort. Their percentile is rounded, giving an estimated UAI of 85.95.

4 The HSC and UAI in 2008 – some results

4.1 Overview

In 2008 a total of 67 153 students completed at least one HSC course, but 1 396 were removed from the data base as they completed no UAI course in 2008. Of the remaining pool of 65 757 students 94.2% received an HSC and 79% received a UAI. Only 21 students who received a UAI were not eligible for the HSC. While courses contributing to the underlying aggregate may be accumulated over a five year period, 96.4% of those receiving a UAI in 2008 included only 2008 courses in their aggregate.

The percentage of students enrolled in at least one UAI course who were female was 52.3%, which was similar to that of previous years. The percentage of students who received a UAI who were female was 53.6%.

4.2 Percentage of students receiving a UAI

One feature of the HSC in recent years has been the change in the percentage of students in the HSC cohort who receive a UAI. The percentage has dropped steadily from 2001 until 2007 and then increased slightly in 2008.

Students who do not receive a UAI 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, students who are accumulating their HSC over two or more years, and students who are sitting for one or more HSC courses ahead of their cohort.
2. Those who enrol in a full HSC program which does not satisfy the requirements for a UAI. 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 a UAI. In 2008 there were 9 969 such students.

Table 4.1 Proportion of students receiving a UAI: 2001 – 2008

Year	HSC candidature	Students receiving a TER/UAI	
		Number	%
2001	60 788	49 782	81.9
2002	63 120	51 648	81.8
2003	63 387	51 736	81.6
2004	64 267	51 999	80.9
2005	63 867	51 461	80.6
2006	64 274	50 744	78.9
2007	65 005	51 036	78.5
2008	65 757	51 978	79.0

4.3 Number of units of UAI courses completed

The pattern in 2008 was similar to that observed in 2007, with 42.9% completing exactly 10 UAI units and 37.2% completing more than the required minimum number of UAI units (Table 4.2).

Table 4.2 Percentage of students completing specified numbers of units¹ of UAI courses: 2005 – 2008

Number of units	2005	2006	2007	2008	
	%	%	%	%	Number
1	0.04	0.03	0.05	0.1	79
2	3.2	3.2	3.4	3.3	2 138
3	0.2	0.3	0.3	0.3	228
4	2.8	2.9	3.0	2.9	1 910
5	0.1	0.1	0.2	0.1	76
6	5.2	5.6	6.0	5.8	3 806
7	0.2	0.2	0.2	0.2	137
8	7.0	7.1	6.8	6.7	4 396
9	0.5	0.5	0.5	0.4	292
10	42.2	41.8	41.5	42.9	28 222
11	19.9	20.0	20.1	19.6	12 874
12	15.6	15.6	15.2	15.0	9 873
13	2.3	2.1	2.2	2.1	1 401
14	0.4	0.4	0.4	0.4	232
15+	0.2	0.1	0.1	0.1	93
HSC cohort	63 867	64 274	65 005	-	65 757

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 the size of the candidature, the percentage of females and the maximum UAI gained by a student enrolled in each course. The table excludes courses where there were less than 10 students and small courses with less than 50% UAI-eligible.

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

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 16 770 students enrolled in at least one VET course, of whom 12 741 students enrolled in a VET examination course. These figures are similar to the corresponding numbers for 2007 (16 800 and 12 714 respectively).

Overall, 79% of the 2008 HSC cohort received UAIs but the percentage varied across courses, from 63% to 100% for Category A courses with candidatures exceeding 100. For students enrolled in any VET courses the overall figure was 58.6% but was higher, 76.1%, 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 2008. 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 medians lie in Band 4.

Comparison of Table A2 with the corresponding table in 2007 shows that distribution of HSC marks has changed for some courses. This is not surprising, and will be discussed in 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 2008 irrespective of whether they were eligible for a UAI 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.

The Board reports HSC marks rounded to the nearest integer whereas raw marks are calculated to one decimal place. Because of the rounding, for each HSC mark there will be a range of raw marks and hence a range of scaled marks. There is therefore no unique scaled mark for an HSC mark so the scaled marks reported in Table A3 are the scaled marks at the specified percentiles.

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 Economics, Ancient History and Legal Studies.

Table 4.3 Scaled marks for selected percentiles

Course	Scaled mean	Scaled mark for	
		P90	P75
Economics	30.7	42.6	38.9
Ancient History	24.9	38.9	33.3
Legal Studies	25.1	38.8	33.1

Legal Studies and Ancient History have similar scaled means and similar scaled marks corresponding to the 75th and 90th percentiles. Economics has a higher scaled mean and higher scaled marks at the two percentiles. The table also shows that Ancient History and Legal Studies students have to be in the top 10% of their candidatures to obtain scaled marks comparable to those obtained by the top 25% of the Economics candidature.

4.7 Distribution of UAIs

A UAI of 99.00 does not represent the top 1% of the UAI cohort; 1.7% of the 2008 UAI cohort actually gained a UAI of 99.00 or above. It does, however, represent the level of achievement necessary to be in the top 1% of the 2006 SC cohort if all those students continued to Year 12 and been eligible for a UAI in 2008.

In 2008, 23 students received a UAI of 100, 16 males and 7 females, from a mix of government and independent schools.

Over the period 2004 to 2008 the median UAI increased from 66.85 to 68.10 (Table 4.4).

Table 4.4 Median UAI: 2004 – 2008

	Median UAI
2004	66.85
2005	66.90
2006	67.65
2007	68.05
2008	68.10

UAIs are **not** evenly distributed (see Table A7 in the Appendix). For most UAIs the number of students on that UAI lies between 20 and 50. The number of students is less for lower UAIs.

In 2008 the distribution of UAIs was similar to those of previous years (Table 4.5) with 16.5% of the UAI-eligible students receiving a UAI of 90.00 or above and 32.4% gaining a UAI of 80.00 and above.

Table 4.5 Percentage of UAI students receiving specific UAIs and above: 2005 – 2008

UAI	2005 %	2006 %	2007 %	2008 %
99.00	1.7	1.7	1.7	1.7
95.00	8.1	8.2	8.4	8.3
90.00	15.9	16.3	16.5	16.5
80.00	31.3	32.0	32.4	32.4
70.00	45.7	46.8	47.3	47.3
60.00	59.0	60.2	60.7	60.8
50.00	70.9	71.9	72.3	72.7

4.8 Gender differences

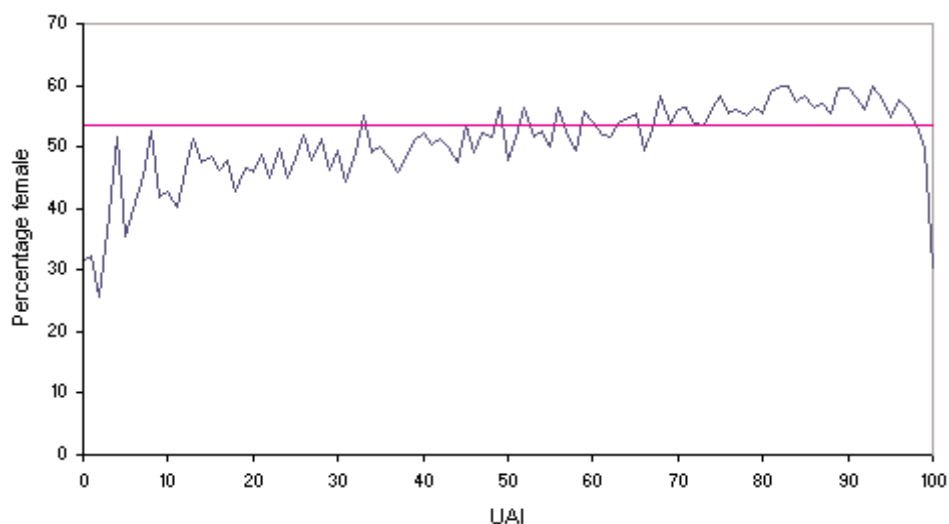
As in previous years, female students outperformed male students in the majority of courses and had a higher average UAI. The percentages of students receiving UAIs on or above specified values who were female are given in Table 4.6

Table 4.6 Percentage of students receiving UAIs on or above specified values who were female: 2005 – 2008

UAI	2005 %	2006 %	2007 %	2008 %
99.00	54.0	52.8	52.0	49.3
98.00	55.3	55.7	54.4	51.4
95.00	56.3	56.6	56.1	54.3
90.00	58.1	57.7	57.2	56.3
80.00	58.7	57.6	56.9	57.0
70.00	58.1	57.1	56.7	56.6
60.00	57.3	56.5	56.2	56.0
50.00	56.4	55.6	55.6	55.4
40.00	55.6	55.0	55.0	54.9
30.00	54.9	54.4	54.5	54.4
Total	53.2	53.3	53.5	53.6

Figure 4.1 shows the percentage of students on each UAI who were female. For this graph the UAIs have been truncated, so that a UAI of 90, for example, includes UAIs from 90.00 to 90.95. Overall 53.6% of the UAI cohort were female, which is represented by the horizontal line on the graph. The graph shows clearly that there were proportionally more females on UAIs above 60.00 than males.

Figure 4.1 Percentage of students on each UAI who were female



4.9 University offers

UAC makes several rounds of offers: firstly the Early and Preliminary Rounds, then the Main Round, which is followed by the Late and Final Rounds. In this report offer refers to offers made in any of the rounds.

Of the 51 978 students who received a UAI in 2008, 73.3% applied through UAC for a university course. Of these applicants 82.4% were made at least one offer of a place. Table 4.7 provides a breakdown of applicants by UAI band.

Table 4.7 Applicants for university places by UAI

UAI band	Total number of students	Applicants		Offers	
		Number	Percentage ¹	Number	Percentage ²
90.00 – 100.00	8 568	8 127	94.9	8 113	99.8
80.00 – 89.95	8 264	7 636	92.4	7 619	99.8
70.00 – 79.95	7 772	6 887	88.6	6 780	98.4
60.00 – 69.95	7 022	5 589	79.6	5 206	93.1
50.00 – 59.95	6 174	4 172	67.6	2 735	65.6
Below 50.00	14 178	5 675	40.0	918	16.2
Total	51 978	38 086	73.3	31 371	82.4

¹ These are percentages of the number of students in the given UAI band.

² These are percentages of the number of applicants in the given UAI band.

Not all the applicants have been made offers solely on the basis of their UAIs. For some programs alternate criteria have been used, while for other programs students' UAIs have been supplemented by additional criteria.

Table 4.7 above shows an obvious relationship between the UAI and the probability of an offer. While the number of applicants with UAIs less than 70.00 has not changed substantially in recent years, the percentage of offers made to this group has increased steadily. This may be a consequence of universities having additional places available in some courses or of alternative selection procedures being used in some areas.

5 Trends and other issues

5.1 Variation in patterns of HSC marks – Tables A4, A5

A concern frequently raised in the media, and by parents and students, is that the observed variation in the patterns of HSC marks across different courses affects scaling and hence the UAI calculation. 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 does not affect the UAI calculation at all.

A related 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 UAIs. For the reason given above, the answer is also 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 2008 and 2007. The marks are on a per-unit basis (0-50) and courses with less than 40 students 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 2008 and 2007. Table A5 provides similar information for scaled marks. The data show clearly that while the distributions of HSC marks have changed for some courses, the distributions of scaled marks were generally the same.

Information Processes and Technology is an example of a course where there was virtually no change in candidature from 2007 but there is a change in the distribution of HSC marks (Table 5.1). The distributions of scaled marks in the two years were, however, similar.

Table 5.1 Distributions of HSC and scaled marks for Information Processes and Technology: 2007 and 2008, on a one-unit basis

Mark	Year	Enrolment	Percentage of students with marks less than:				
			45	40	35	30	25
HSC mark	2008	5 108	93.5	68.5	37.3	16.0	7.3
	2007	5 129	92.8	62.2	31.1	11.9	5.1
Scaled mark	2008	5 108	99.8	97.1	87.9	75.0	59.4
	2007	5 129	99.9	97.6	88.5	75.9	59.7

Taken together, the data indicate that the 2008 candidature in Information Processes and Technology performed worse than the corresponding cohort in 2007 in terms of Information Processes and Technology, but not in terms of their overall performance as judged by their scaled marks.

5.2 Distributions of English and Mathematics marks: 2005 – 2008

Because all students study English, and most study Mathematics, comparative data is shown for English and Mathematics courses for the four years, 2005 to 2008. Table 5.2 shows the changes in the distributions of HSC marks and Table 5.3 shows the changes in the distributions of scaled marks.

Table 5.2 Distribution of HSC marks for English and Mathematics courses: 2005 – 2008

Course	Year	Enrolment	Percentage of students with HSC marks less than:				
			45	40	35	30	25
English Standard	2008	32 191	99.8	94.0	61.9	20.6	5.8
	2007	31 015	99.9	96.6	61.2	22.0	5.7
	2006	30 470	99.9	96.7	66.1	19.4	4.8
	2005	30 140	99.9	97.6	66.2	20.6	3.7
English Advanced	2008	27 438	89.2	50.6	10.8	0.9	0.1
	2007	28 086	90.8	53.1	10.5	0.9	0.1
	2006	27 734	94.0	61.2	17.6	1.7	0.1
	2005	27 542	92.0	54.1	10.0	1.1	0.1
English Extension 1	2008	5 694	74.2	40.9	16.0	3.5	0.7
	2007	6 153	78.0	45.7	19.4	5.4	1.7
	2006	6 207	83.1	47.2	16.3	4.2	1.2
	2005	6 282	76.1	40.1	14.5	3.9	1.2
English Extension 2	2008	2 209	69.5	41.1	17.9	4.7	1.3
	2007	2 500	67.8	41.2	20.6	7.0	2.2
	2006	2 559	68.7	41.7	20.6	8.1	3.2
	2005	2 608	67.7	41.8	19.4	6.0	2.3
English as a Second Language	2008	2 837	96.7	71.8	40.1	14.1	4.2
	2007	2 603	98.0	72.3	36.0	11.8	4.6
	2006	2 763	98.8	78.1	38.2	14.9	5.2
	2005	2 920	98.0	79.2	45.4	21.2	7.6
General Mathematics	2008	29 977	95.2	74.1	43.7	17.2	6.1
	2007	29 437	95.9	77.4	40.5	15.8	3.5
	2006	29 248	96.9	82.1	50.1	23.0	7.5
	2005	28 673	95.6	76.5	42.1	14.2	4.8
Mathematics	2008	17 247	83.2	55.0	27.8	12.1	3.2
	2007	17 758	84.5	60.4	29.9	11.7	3.6
	2006	18 124	85.4	61.1	34.8	16.5	7.5
	2005	19 006	84.9	61.0	35.9	16.8	6.2
Mathematics Extension 1	2008	8 548	66.6	39.9	18.2	8.5	3.9
	2007	8 614	67.7	45.4	25.2	10.4	3.9
	2006	9 017	69.6	46.8	28.2	15.4	8.7
	2005	9 359	68.7	45.4	25.8	12.8	6.2
Mathematics Extension 2	2008	3 089	62.9	30.1	9.5	3.6	1.6
	2007	3 009	67.0	38.7	16.9	4.9	1.3
	2006	3 146	71.2	40.3	17.9	9.2	4.6
	2005	3 240	69.0	35.8	13.4	4.9	2.0

Table 5.3 Distribution of scaled marks for English and Mathematics courses: 2005 – 2008

Course	Year	Enrolment	Percentage of students with scaled marks less than:					
			45	40	35	30	25	20
English Standard	2008	32 191	99.9	99.5	97.7	91.9	80.1	61.0
	2007	31 015	99.9	99.6	97.9	93.2	82.8	63.7
	2006	30 470	99.9	99.7	98.0	93.2	82.1	62.3
	2005	30 140	99.9	99.6	97.9	92.8	81.2	62.1
English Advanced	2008	27 438	97.0	83.5	63.5	42.3	23.4	10.2
	2007	28 086	96.1	82.6	64.1	44.2	25.1	9.9
	2006	27 734	97.1	84.6	64.5	42.9	23.3	10.0
	2005	27 542	97.7	85.2	64.6	42.8	23.0	9.3
English Extension 1	2008	5 694	95.2	68.0	36.1	15.4	5.6	2.1
	2007	6 153	94.4	68.2	36.6	14.9	5.6	2.2
	2006	6 207	94.1	68.1	36.1	15.5	5.8	2.2
	2005	6 282	95.3	69.6	37.5	14.6	4.9	1.7
English Extension 2	2008	2 209	89.3	67.0	39.0	16.5	5.7	1.7
	2007	2 500	89.9	66.0	37.3	16.9	6.0	2.0
	2006	2 559	89.5	64.4	37.9	17.4	5.6	2.1
	2005	2 608	90.8	67.2	37.3	15.8	5.0	1.8
English as a Second Language	2008	2 837	98.6	93.2	85.0	73.3	59.4	45.7
	2007	2 603	98.9	94.7	86.1	74.3	60.8	47.2
	2006	2 763	98.7	94.3	85.3	74.9	61.2	46.9
	2005	2 920	97.9	93.6	86.1	74.1	60.2	46.3
General Mathematics	2008	29 977	99.9	98.1	90.3	77.9	62.5	46.4
	2007	29 437	99.9	98.7	91.3	78.7	63.9	47.0
	2006	29 248	99.9	98.3	91.1	79.6	64.6	47.8
	2005	28 673	99.9	98.0	90.1	78.4	64.3	49.2
Mathematics	2008	17 247	95.9	82.0	64.4	45.7	28.0	15.3
	2007	17 758	97.6	84.2	64.1	43.6	26.4	14.6
	2006	18 124	97.7	84.1	64.1	44.2	28.0	16.1
	2005	19 006	97.6	84.9	65.9	45.8	28.9	16.3
Mathematics Extension 1	2008	8 548	74.1	41.0	18.8	9.2	4.4	2.1
	2007	8 614	76.6	43.1	20.5	9.4	4.4	1.9
	2006	9 017	80.3	42.6	19.6	9.5	4.9	2.4
	2005	9 359	74.4	40.7	20.9	10.3	5.5	2.9
Mathematics Extension 2	2008	3 089	43.4	11.5	3.6	1.7	0.7	0.3
	2007	3 009	53.8	16.2	4.2	1.4	0.7	0.3
	2006	3 146	57.2	15.5	5.1	2.3	1.1	0.5
	2005	3 240	48.2	14.0	5.3	2.7	1.5	0.8

5.3 Courses that contribute to the UAI – Table A6

There are three related questions regarding which courses contribute towards the UAI.

- “Which courses will contribute to my UAI?” which is normally asked in either Year 10 or Year 11 when students are choosing courses to study.
- “Why has this course contributed towards my UAI rather than this other course?” which is asked when students receive their UAI Advice Notices.
- “Do some groups of courses contribute to the UAI less often than other groups of courses?”

The first two questions are addressed in the next chapter of this report and in the *You and Your UAI* booklet which is distributed to HSC students in December of each year and is available to download from UAC’s website at www.uac.edu.au.

The third question, whether some courses or groups of courses contribute towards the UAI less often than other courses, is usually asked by teachers. This is not an easy question to answer, because not all students complete the same number of units. If students complete only 10 units, all courses must be counted; whereas if students complete more than 10 units at least one unit will be omitted.

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 received a UAI in 2008
- the second column shows the number of students who completed more than 10 units
- the third column expresses this number as a percentage
- the final column gives the percentage of students who counted *all* units of that course towards their UAI. The percentage is based on the number of students who had completed more than 10 units in courses.

Of the 101 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 UAIs, there is no evidence of systematic differences across Key Learning Areas.

A further analysis has been completed of students who completed only 10 units of UAI courses. For these students all their courses must contribute towards their UAI so for each course, the percentage of students for whom the scaled mark in that course was their best scaled mark was calculated. The proportions of students for whom their scaled mark in that course was their second best, third best, fourth best and fifth best scaled mark were also calculated. The patterns of percentages were compared across individual courses and groups of courses, and while there were differences between individual courses there was no evidence of systematic differences across Key Learning Areas.

5.4 UAI and number of units completed – Table A7

A question that is often posed concerns the relationship between the number of units studied and the UAI: “Do students gain a better UAI if they study more units?” The data in Table A7 in the Appendix show that students with high UAIs tend to have studied more than 10 units, but determining causality is difficult. It is likely that the more academically able students complete more units, so it is not surprising that they gain higher UAIs. On the other hand, if students only study 10 units of UAI courses and do badly in one course, their UAIs will be depressed.

To address this question, HSC students were grouped according to their achievement in the School Certificate Examination. What the data show is that the stronger students did, indeed, tend to study more units and within each group there was a tendency for students who studied more units to obtain higher UAIs.

This does not, however, completely answer the question of causality. The relationship between number of units studied and UAI within each group might result from personal attributes including interest, motivation, effort and time management. One cannot assume that simply by studying more units one's UAI will be increased.

5.5 Relationship between UAI and aggregate – Table A8

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

Table A8 in the Appendix shows, for the years 2004 to 2008, both the aggregate and UAI-eligible percentile corresponding to selected UAIs. The *percentile* in this table is the percentage of the UAI cohort whose UAIs are *less than or equal* to the particular UAI, a UAI of 99.00 in 2008 corresponds to a UAI-eligible percentile of 98.4, which means that 1.6% of the UAI cohort received a UAI *above* 99.00. Each UAI corresponds to a range of aggregates and the figure provided in the table is the minimum aggregate corresponding to the UAI.

The data in Table A8 show that the relationship between UAI, aggregate and percentile has been reasonably stable from year to year.

6 Frequently asked questions

There were relatively few enquiries and little media attention following release of the UAIs in 2008. Most of the enquiries from students received by the UAI Enquiry Centre at UAC concerned the relationship between their HSC marks and their UAIs, and the reason why one course contributed to their UAI and not another. In this report, these two major enquiries will be discussed, along with the scaling of English. Following that, there is a summary of some of the other frequently asked questions.

In contrast to the previous section where the marks were given on a *per unit basis*, in this section the marks are given on a per course basis.

6.1 Why is my UAI low in comparison to my HSC marks?

Before 2001 there was some correspondence between average HSC marks and the middle UAI, since students who received HSC marks in the 60s (around the course average) were also in the middle of the UAI cohort (a UAI around 66). This correspondence no longer applies. Since 2001, students who are in the middle group of students enrolled in their courses are likely to gain HSC marks in the 70s but their UAIs are still likely to be in the 60s.

There is, however, no general rule as courses do not necessarily have the same scaled means 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 UAIs.

Example 1

Consider the following two students, Michael and Sue, whose HSC marks are shown in Table 6.1. These students are middle students (the 50th percentile) in all of their subjects. Their average HSC marks are similar, 76.2 and 77.2 respectively, but their UAIs are quite different, 62.25 and 77.90 respectively.

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

Michael			Sue		
UAI	Course	HSC mark	UAI	Course	HSC mark
62.25	Drama	79	77.90	Biology	74
	English Advanced	79		Chemistry	76
	Information Processes and Technology	74		Economics	79
	Legal Studies	77		English Advanced	79
	General Mathematics	72		Mathematics	78

Both Michael and Sue are at the 50th percentile in all of their courses so the reason for the difference in their UAIs is the differences in the strengths of the competition in the courses they have chosen. The average scaled mean for Michael's courses was 49.5 whereas the average scaled mean for Sue's courses was 60.4. Sue has done better overall as she has competed against students of higher academic quality than Michael. Consequently her UAI is higher.

Example 2

Consider the following two students, Amy and Blake, whose HSC marks are shown in Table 6.2. Again their average HSC marks are similar, 77.6 and 75.8 respectively, but their UAIs 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

Amy			Blake		
UAI	Course	HSC mark	UAI	Course	HSC mark
65.00	Business Studies	71	75.00	Chemistry	76
	English Standard	74		English Standard	77
	Information Processes and Technology	83		Mathematics	72
	General Mathematics	75		Modern History	76
	Visual Arts	85		Physics	78

Blake has a UAI that is close to his average HSC score whereas Amy's UAI is much lower than her average HSC score. In fact her average HSC score is higher than Blake's. If we look at Table A3 and find the average of the scaled means of the courses taken by Amy, we get 43.1, whereas for the courses taken by Blake the average of the scaled means is 55.0. This means that Blake has been competing against students of higher academic quality than Amy. The difference in the quality of the competition in the courses more than compensates for the slightly lower marks Blake has achieved.

Example 3

Consider the following two students who completed the same courses. The first student, Fred, receives an HSC mark of 70 in each course, while the second student, Laura, receives an HSC mark of 80 in each course (Table 6.3).

Table 6.3 Two examples of student achievement: Fred and Laura

Course	Fred		Laura	
	HSC mark	Percentile	HSC mark	Percentile
Biology	70	38	80	71
Business Studies	70	42	80	71
English Advanced	70	13	80	55
Mathematics	70	30	80	58
Modern History	70	25	80	62
Visual Arts	70	10	80	44
UAI	55.25		80.60	

Their HSC marks in each course differ by only 10, yet their UAIs differ by 25.35. Laura's UAI is similar to her HSC marks while Fred's UAI is much lower than his HSC marks.

The reason for the large difference in the UAIs can be found in the differences in the percentiles shown in Table 6.3 (which can be estimated from Table A3 in the Appendix). The percentiles are much higher for Laura than for Fred. Given these large differences, it is not surprising that their UAIs are very different.

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

The courses and HSC marks shown for Laura and Fred are the same as used in previous reports and *You and Your UAI* booklets. While the HSC marks have been the same for all examples, the percentiles (their positions in their courses) have varied because of changes in the distributions of HSC marks, so their UAIs were different. Table 6.4 presents a summary of the results.

Table 6.4 UAIs for Fred and Laura: 2001–2008

Year	Fred	Laura
2001	57.90	85.30
2002	55.90	83.35
2003	57.15	81.90
2004	56.95	80.80
2005	56.05	81.25
2006	59.90	82.50
2007	58.45	81.75
2008	55.25	80.60

Further examples can be found in the *Report on the Scaling of the 2007 NSW Higher School Certificate*.

6.2 Why does this course contribute to my UAI when another course where I received a higher mark does not count?

As in previous years, this question arose after the results were released because each student's UAI Advice Notice shows which units contribute to their UAI. 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 only be answered by reference to data on the distributions of HSC marks (Table A2 in the Appendix) in addition to data on the distributions of scaled marks (Table A3 in the Appendix). Some examples are presented to illustrate the principles involved. All marks shown in these examples can be found in Table A3 in the Appendix.

Example 1

The first example (Table 6.5) shows a student's set of HSC marks

Table 6.5 HSC and scaled marks - example 1

Course	Scaled mean	P90	
		HSC mark	Scaled mark
Business Studies	47.6	88	75.4
English Standard	35.8	77	57.8
Information Processes and Technology	43.6	88	71.8
Modern History	54.4	89	79.4
Visual Arts	46.0	91	76.0

Although these marks are different, each is the 90th percentile of the course. Since the student's position 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 Modern History, which has the highest scaled mean.

Example 2

Table 6.6 shows a student's marks in four courses.

Table 6.6 HSC and scaled marks - example 2

Course	Scaled mean	HSC mark	Percentile	Scaled mark
Information Processes and Technology	43.6	93	P ₉₉	85.2
PDH&PE	46.8	95	P ₉₉	87.2
Physics	60.8	94	P ₉₉	92.8
French Continuers	68.6	94	P ₉₀	88.8

French Continuers attracts high achieving students and has a scaled mean of 68.6. Although the student's HSC mark of 94 is high, it is the 90th percentile for that course, and the corresponding scaled mark is 88.8. In contrast, PDH&PE does not attract students of the same overall academic calibre and its scaled mean is 46.8. An HSC mark of 95, however, is the 99th percentile, and the corresponding scaled mark is 87.2, close to the scaled French mark. The difference in the position of the student in the two courses almost compensates for the difference in the scaled course means.

The HSC marks in Physics and Information Processes and Technology are similar, 94 and 93 respectively, and both correspond to the 99th percentile. The scaled marks in the two courses, 92.8 and 85.2, reflect the differences in the scaled means of the two courses.

Example 3

Table 6.7 shows an example of a performance corresponding to a UAI of 75.00. James has completed 11 units as Studies of Religion 1 is a 1 unit course. The results for Studies in Religion 1 are given as marks out of 50 whereas the other courses have marks out of 100.

Table 6.7 HSC and scaled marks example 3

James

UAI	Course	HSC mark	Course scaled mean
75.00	Business Studies	79	47.6
	English Advanced	76	62.6
	Legal Studies	82	50.2
	General Mathematics	80	42.4
	Studies of Religion 1	42	27.1
	Hospitality Exam	85	39.8

English Advanced is James' lowest HSC mark and it also corresponds to his lowest course percentile, however this course must be included in his UAI calculation. Which unit is not included in the UAI calculation?

Hospitality Exam has the lowest scaled mean but James' mark puts him close to the 90th percentile in that course and a scaled mark over 31 per unit. The next lowest scaled mean in the list is for General Mathematics. James' score of 80 corresponds to the 75th percentile and a scaled mark of 29.0 per unit. Thus both units of Hospitality Exam count towards the UAI but only 1 unit of General Mathematics is counted.

Example 4

Another example is of a student whose HSC marks for Latin Continuers and Geography were 95. The student had completed 11 units and found that, despite the fact that the scaled mean for Geography was much lower than the scaled mean for Latin Continuers, her Latin mark did not count towards her UAI.

The entries from Table A3 (Table 6.8) show that the student's HSC mark of 95 for Latin places her at the 75th percentile for that course so that her scaled mark is 89. However, her HSC mark of 95 for Geography places her on the 99th percentile for that course and gives her a scaled mark of 90.6 (Table 6.8).

Consequently Geography was included before Latin Continuers.

Table 6.8 Entries for Geography and Latin Continuers from Table A3*

Course	Number	Mark	Mean	S.D.	Max	P99	P90	P75	P50	P25
Geography	4 299	HSC	38.4	6.4	49.5	47.5	45.5	43.5	39.5	34.5
		Scaled	26.0	10.3	50.0	45.3	39.0	34.2	26.7	18.6
Latin Continuers	217	HSC	45.1	3.6	49.5	49.5	48.5	47.5	46.0	43.5
		Scaled	39.4	7.1	50.0	49.4	47.7	44.5	40.7	35.6

* The marks in this table are on a one-unit basis

The student's higher position in Geography, compared with her position in Latin Continuers, was enough to compensate for the lower scaled mean in Geography.

These examples illustrate the general principle that a *student's position in their courses and the scaled means of their courses are both important in determining which of their courses contribute towards their UAI.*

6.3 If English Advanced and English Standard are scaled as a single group, why does the same HSC mark give different scaled marks in English Standard and English Advanced?

HSC marks and scaled marks are different marks. HSC marks are the marks released by the Board to students and are the result of the standards-setting exercise. Scaled marks are, however, based on raw HSC marks.

- 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 that count for 60% of the total mark.
- The Board then 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 mark which is used for scaling is then calculated.
- The raw HSC marks for the English Standard and English 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 receive a higher aligned mark than Standard students on the same raw mark. Consequently an aligned HSC mark corresponds to different scaled marks for Standard and Advanced students. This gives the appearance that Advanced students have been disadvantaged, but this is not true.

If Table A3 in the Appendix showed the correspondence between raw HSC marks and scaled marks rather than between HSC marks and scaled marks, it would be clear that Advanced students are not disadvantaged in the scaling process.

6.4 Other frequently asked questions

Does the school I attend matter?

No. The school attended does not feature in the UAI calculation. The UAI 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 UAI?

No. As Table A1 in the Appendix shows, there are students in every course who achieve high UAIs.

What impact did the variation in patterns of HSC marks have on the UAI 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 UAI.

Why can’t I use my HSC marks to check the calculation of my UAI?

There are two reasons. The first is that scaled marks are used in the calculation of the UAI, and secondly the UAI is not an average mark. It is a rank that indicates your position in relation to other students.

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 UAI calculation.

I have similar HSC marks to my friend, but we don’t have similar UAIs. Why not?

Your UAIs would be similar if your courses were the same. If your courses were different your UAIs would not be the same if the courses had different scaled means.

Which course should I study?

Do not choose courses on the basis of what you believe is the likely effect 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 UAI if I study more units?

This is a common question. While the data show that students who study more units tend to gain higher UAIs, determining causality is difficult. The relationship between number of units studied and UAI might result from personal attributes including interest, motivation, effort and time management. You cannot assume that simply by studying more units your UAI 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 UAI. 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 UAI 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 a UAI and add a new UAI 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 UAI may increase, remain the same or decrease.

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

No. If universities allocate bonus points, they are not added to your UAI. Bonus points are not UAI points, they are just that – bonus points. Bonus points don't change your UAI; bonus points change your selection rank for a particular preference or course.

Does my UAI ever change?

Not usually. However, there are some instances where your UAI might change:

- 1 if the Board of Studies provides amended HSC results to UAC
- 2 if you complete additional courses and
- 3 if you repeat courses you have already completed.

If it does change, you will receive a new UAI Advice Notice. Otherwise, your UAI never changes.

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

Universities allocate bonus points for different circumstances. Examples include students with strong performance in HSC subjects, students who live or attend school in an area defined by the university and students who have applied for consideration through Educational Access Schemes.

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

7 Appendix

The following courses are not included in any of the Tables A1 – A6 in the Appendix as they have less than 10 students:

- Arabic Beginners
- Croatian
- Dutch
- Hungarian
- Korean Continuers
- Malay Background Speakers
- Maltese
- Swedish
- Tamil
- Ukrainian.

Table A1 Gender, UAI eligibility and maximum UAI by course

Table A2 Distributions of HSC marks by course

Table A3 Descriptive statistics and selected percentiles for HSC marks and scaled marks by course
No percentile data are given for courses with less than 40 students.

Table A4 Distributions of HSC marks by course: 2007 – 2008
Courses with less than 40 students in either year are also excluded from this table.

Table A5 Distributions of scaled marks by course: 2007 – 2008
Courses with less than 40 students in either year are also excluded from this table.

Table A6 Courses that contribute to the UAI

Table A7 Number of units students completed, by UAI

Table A8 Relationship between UAI, percentile and aggregate: 2004 – 2008

Table A1 Gender, UAI eligibility and maximum UAI by course

- Notes: (i) The **Number** column includes students who have completed the course in 2008 and in previous years.
(ii) The **% Female** column shows the gender split.
(iii) The **% UAI eligible** column shows the percentage of students in the course who were eligible for a UAI.
(iv) The table excludes courses with less than 10 students and courses with less than 50% UAI-eligible students.

Course	Number	% Female	% UAI eligible	Maximum UAI
Aboriginal Studies	283	67.8	63.3	98.20
Agriculture	1 350	46.1	73.4	100.00
Ancient History	11 322	58.2	90.3	99.95
Biology	15 463	61.9	95.2	100.00
Business Studies	16 336	50.2	89.8	99.90
Chemistry	10 358	45.2	98.0	100.00
Community and Family Studies	5 100	94.0	76.9	99.10
Dance	722	94.9	81.6	99.45
Design and Technology	3 772	43.8	82.2	99.00
Drama	5 033	69.8	86.1	100.00
Earth and Environmental Science	1 273	45.5	89.9	99.55
Economics	5 457	37.6	98.4	100.00
Engineering Studies	1 760	3.9	93.8	99.90
English Standard	32 487	47.9	69.6	99.60
English Advanced	27 670	58.4	97.2	100.00
English Extension 1	5 728	65.0	99.2	100.00
English Extension 2	2 219	66.4	99.4	100.00
English as a Second Language (ESL)	2 852	52.0	86.7	99.95
Food Technology	3 475	75.6	76.5	99.85
Geography	4 400	46.1	91.4	100.00
Industrial Technology	3 669	9.2	54.6	96.65
Information Processes and Technology	5 411	28.5	84.9	100.00
Legal Studies	8 431	60.0	93.5	99.95
General Mathematics	30 240	51.4	82.1	99.65
Mathematics	17 500	46.2	93.9	100.00
Mathematics Extension 1	8 744	41.9	96.7	100.00
Mathematics Extension 2	3 122	36.8	97.6	100.00
Modern History	9 825	54.9	93.5	100.00
History Extension	2 129	61.0	99.8	100.00
Music 1	4 949	43.1	83.0	99.90
Music 2	774	53.0	95.1	100.00
Music Extension	455	54.1	96.5	100.00
PDH&PE	13 025	53.4	88.2	99.95
Physics	9 116	23.8	98.0	100.00
Senior Science	4 642	45.1	81.7	99.40
Society and Culture	4 188	81.8	89.6	100.00
Software Design and Development	1 876	9.3	90.6	100.00
Studies of Religion I	10 031	54.0	94.2	99.90
Studies of Religion II	3 587	68.1	96.0	99.90
Textiles and Design	2 209	98.6	81.1	99.70
Visual Arts	9 795	71.1	83.1	99.90

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

Course	Number	% Female	% UAI eligible	Maximum UAI
Arabic Continuers	266	63.2	78.9	97.85
Arabic Extension	82	64.6	93.9	97.85
Armenian	30	63.3	96.7	94.30
Chinese Beginners	32	43.8	100.0	97.00
Chinese Continuers	86	48.8	96.5	99.95
Chinese Extension	31	51.6	96.8	99.75
Chinese Background Speakers	1 079	54.9	91.1	99.55
Classical Greek Continuers	15	13.3	100.0	100.00
Classical Greek Extension	11	18.2	100.0	100.00
Classical Hebrew Continuers	34	52.9	100.0	100.00
Classical Hebrew Extension	21	47.6	100.0	100.00
Filipino	23	69.6	73.9	75.20
French Beginners	625	81.3	86.6	99.40
French Continuers	892	73.2	95.2	100.00
French Extension	217	67.3	99.1	99.95
German Beginners	138	60.9	89.9	99.90
German Continuers	390	62.1	92.3	100.00
German Extension	114	57.9	93.0	100.00
Hindi	44	52.3	50.0	99.50
Indonesian Beginners	28	50.0	78.6	96.70
Indonesian Continuers	69	79.7	95.7	99.95
Indonesian Extension	17	82.4	100.0	99.95
Indonesian Background Speakers	69	50.7	100.0	99.85
Italian Beginners	321	78.8	90.0	99.90
Italian Continuers	366	68.6	91.0	99.95
Italian Extension	58	63.8	100.0	99.95
Japanese Beginners	778	65.0	92.7	99.95
Japanese Continuers	732	65.0	95.6	100.00
Japanese Extension	273	64.5	96.7	100.00
Japanese Background Speakers	60	63.3	85.0	95.35
Khmer	17	47.1	64.7	98.95
Korean Background Speakers	106	46.2	97.2	99.80
Latin Continuers	217	37.3	94.5	100.00
Latin Extension	122	36.9	98.4	100.00
Macedonian	29	69.0	89.7	96.40
Modern Greek Beginners	33	54.5	93.9	97.65
Modern Greek Continuers	130	67.7	89.2	98.35
Modern Greek Extension	49	71.4	89.8	97.20
Modern Hebrew	48	50.0	75.0	100.00
Persian	66	51.5	54.5	99.80
Polish	31	45.2	77.4	98.20
Portuguese	21	66.7	85.7	97.55
Russian	27	66.7	100.0	99.75
Serbian	36	61.1	88.9	99.20
Spanish Beginners	166	72.3	84.9	99.75
Spanish Continuers	169	62.1	87.0	99.45
Spanish Extension	57	70.2	89.5	99.45
Tamil	24	62.5	66.7	99.35
Turkish	60.0	70.0	80.0	99.0
Vietnamese	150	63.3	89.3	99.40

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

Course	Number	% Female	% UAI eligible	Maximum UAI
Accounting	527	48.0	87.1	99.95
Business Services Exam	1 401	82.3	75.7	99.50
Construction Exam	1 324	1.6	49.2	92.10
Entertainment Exam	833	53.7	80.3	96.55
Hospitality Exam	5 475	72.0	80.0	98.35
Information Technology Exam	1 885	22.7	79.0	99.15
Metal and Engineering Exam	570	1.8	49.3	90.90
Primary Industries Exam	537	38.4	56.6	96.10
Retail Operations Exam	1 241	73.1	63.8	93.30
Tourism Exam	368	90.5	77.4	96.15
Distinction Courses	100	34.0	91.0	100.00

Table A2 Distributions of HSC marks by course

- Notes: (i) The **Median HSC mark** column shows the median HSC mark.
(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 shows 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	277	72	4	8	23	28	29	10
Agriculture	1 278	74	4	9	23	31	24	9
Ancient History	11 180	75	4	11	26	24	19	13
Biology	15 254	74	4	8	24	34	24	8
Business Studies	16 181	73	4	6	26	29	25	11
Chemistry	10 154	76	4	13	26	32	19	8
Community and Family Studies	5 053	77	4	10	30	33	19	6
Dance	675	75	4	8	23	41	24	4
Design and Technology	3 739	75	4	7	28	36	23	5
Drama	4 961	79	4	11	37	35	14	2
Earth and Environmental Science	1 258	78	4	13	33	28	18	6
Economics	5 410	79	4	16	31	25	15	8
Engineering Studies	1 748	74	4	8	24	35	24	6
English Standard	32 191	67	3	<1	6	32	41	15
English Advanced	27 438	79	4	11	39	40	10	1
English Extension 1	5 694	41	E3			26	58	15
English Extension 2	2 209	41	E3			30	52	17
English as a Second Language (ESL)	2 837	73	4	3	25	32	26	10
Food Technology	3 445	75	4	7	22	40	22	7
Geography	4 299	79	4	15	33	26	17	6
Industrial Technology	3 648	74	4	9	23	31	23	9
Information Processes and Technology	5 108	74	4	6	25	31	21	9
Legal Studies	8 355	77	4	10	32	30	19	7
General Mathematics	29 977	72	4	5	21	30	26	11
Mathematics	17 247	78	4	17	28	27	16	9
Mathematics Extension 1	8 548	42	E3			33	48	14
Mathematics Extension 2	3 089	86	E3			37	53	8
Modern History	9 637	78	4	10	32	36	15	5
History Extension	2 114	39	E3			20	53	22
Music 1	4 886	80	5	15	39	31	12	2
Music 2	748	86	5	30	48	19	3	
Music Extension	441	45	E4			52	42	6
PDH&PE	12 871	74	4	8	24	32	22	10
Physics	9 029	75	4	8	25	33	23	7
Senior Science	4 592	76	4	10	29	32	22	5
Society and Culture	4 150	75	4	7	30	29	21	10
Software Design and Development	1 785	77	4	10	30	30	22	7
Studies of Religion I	9 950	39	4	10	33	34	17	4
Studies of Religion II	3 554	79	4	11	37	31	14	5
Textiles and Design	2 205	81	5	13	41	26	16	4
Visual Arts	9 691	82	5	14	47	31	7	1

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
Arabic Continuers	249	77	4	6	36	26	25	4
Arabic Extension	78	36	E3			5	54	35
Armenian	29	90	6	55	17	21	7	
Chinese Beginners	32	80	5	19	31	22	16	13
Chinese Continuers	85	87	5	35	46	13	5	1
Chinese Extension	31	46	E4			84	16	
Chinese Background Speakers	1 064	81	5	11	46	36	6	1
Classical Greek Continuers	14	94	6	71	29			
Classical Greek Extension	11	48	E4			100		
Classical Hebrew Continuers	26	86	5	35	35	31		
Classical Hebrew Extension	19	41	E3			32	58	11
Filipino	23	74	4		30	35	30	4
French Beginners	622	76	4	19	24	19	19	13
French Continuers	851	82	5	31	30	27	9	2
French Extension	212	45	E4			51	41	8
German Beginners	137	76	4	17	25	32	13	4
German Continuers	376	81	5	25	26	24	17	5
German Extension	107	44	E3			48	49	3
Hindi	26	94	6	92	8			
Indonesian Beginners	28	82	5	25	29	21	21	4
Indonesian Continuers	65	80	5	31	22	25	20	2
Indonesian Extension	17	43	E3			41	47	12
Indonesian Background Speakers	69	76	4	4	29	51	16	
Italian Beginners	318	77	4	16	26	25	16	13
Italian Continuers	346	80	5	14	37	32	13	3
Italian Extension	56	40	E3			23	54	18
Japanese Beginners	770	75	4	16	23	27	20	11
Japanese Continuers	708	81	5	21	33	23	15	5
Japanese Extension	267	38	E3			17	57	22
Japanese Background Speakers	59	75	4	5	31	37	25	2
Khmer	16	85	5	13	75		13	
Korean Background Speakers	102	85	5	25	42	27	3	2
Latin Continuers	217	92	6	66	24	8	1	
Latin Extension	122	48	E4			89	10	2
Macedonian	29	88	5	45	17	31	7	
Modern Greek Beginners	33	85	5	30	30	24	9	6
Modern Greek Continuers	125	81	5	15	41	26	10	5
Modern Greek Extension	47	41	E3			28	57	15
Modern Hebrew	38	93	6	71	21	8		
Persian	46	83	5	26	37	20	9	7
Polish	29	86	5	41	38	14	7	
Portuguese	15	87	5	33	53	7	7	
Russian	22	91	6	73	27			
Serbian	36	81	5	8	56	31	6	
Spanish Beginners	162	74	4	17	20	27	17	10
Spanish Continuers	163	82	5	8	56	27	9	1

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
Spanish Extension	57	40	E3			12	70	16
Turkish	48	85	5	19	56	19	4	
Vietnamese	145	78	4	2	39	52	6	1
Accounting	518	78	4	15	27	24	19	9
Business Services Exam	1 393	73	4	2	15	45	32	5
Construction Exam	1 310	72	4	1	19	39	33	8
Entertainment Exam	826	76	4	5	29	35	22	8
Hospitality Exam	5 434	74	4	5	21	42	23	8
Information Technology Exam	1 833	73	4	2	17	46	26	8
Metal and Engineering Exam	560	70	4	1	18	33	33	13
Primary Industries Exam	534	74	4	5	23	40	26	6
Retail Operations Exam	1 231	76	4	3	29	44	16	7
Tourism Exam	364	74	4	2	20	50	24	4
Distinction Courses	92	83	5	20	39	35	5	1

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

Notes: (i) *The P99, P90, P75, P50, P25 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.*

Course	Number	Type of mark	Mean	SD	Max	P99	P90	P75	P50	P25
Aboriginal Studies	277	HSC	36.2	5.8	47.0	47.0	44.0	41.0	36.0	32.0
		scaled	15.6	11.4	43.5	42.9	33.5	23.9	12.4	6.4
Agriculture	1 278	HSC	36.4	6.5	49.0	47.0	44.5	41.0	37.0	32.5
		scaled	21.7	11.1	48.1	44.1	37.7	29.6	20.9	13.0
Ancient History	11 180	HSC	36.4	7.2	50.0	48.5	45.0	42.0	37.5	31.5
		scaled	24.9	10.8	49.8	45.7	38.9	33.3	25.7	16.7
Biology	15 254	HSC	36.8	5.7	49.5	47.0	44.0	41.0	37.0	33.0
		scaled	26.9	9.9	50.0	45.2	39.7	34.6	27.6	19.7
Business Studies	16 181	HSC	36.3	6.1	49.5	47.0	44.0	41.0	36.5	32.5
		scaled	23.8	10.4	48.7	43.7	37.7	32.1	23.9	15.7
Chemistry	10 154	HSC	37.5	6.2	50.0	48.0	45.5	42.0	38.0	33.5
		scaled	31.6	9.2	50.0	46.5	42.4	38.7	33.1	25.6
Community and Family Studies	5 053	HSC	37.8	5.7	50.0	47.5	44.5	42.0	38.5	34.5
		scaled	19.7	10.0	44.3	40.4	34.0	27.5	19.0	11.5
Dance	675	HSC	37.5	4.8	48.5	48.0	44.0	40.5	37.5	34.5
		scaled	23.5	9.3	45.7	44.6	36.6	29.1	22.9	17.0
Design and Technology	3 739	HSC	37.7	4.9	49.0	47.5	44.0	41.5	37.5	34.0
		scaled	21.6	9.8	45.5	43.2	35.3	28.7	21.0	13.9
Drama	4 961	HSC	39.3	4.4	49.5	47.5	45.0	42.5	39.5	36.5
		scaled	24.4	10.1	49.1	45.2	37.8	31.9	24.6	17.1
Earth and Environmental Science	1 258	HSC	38.3	6.0	49.0	47.5	45.0	43.0	39.0	34.5
		scaled	24.6	9.9	47.7	43.6	37.8	32.4	25.1	17.1
Economics	5 410	HSC	37.9	7.3	49.5	48.0	46.0	43.5	39.5	34.0
		scaled	30.7	10.4	50.0	46.9	42.6	38.9	32.8	24.1
Engineering Studies	1 748	HSC	36.7	5.9	50.0	47.5	44.0	40.5	37.0	33.5
		scaled	25.4	9.3	47.8	43.3	37.6	32.6	25.7	18.8
English Standard	32 191	HSC	33.0	5.2	48.0	43.0	38.5	36.5	33.5	30.5
		scaled	17.9	8.2	47.9	38.0	28.9	23.5	17.6	11.9
English Advanced	27 438	HSC	39.7	4.0	49.5	47.5	45.0	42.5	39.5	37.0
		scaled	31.3	8.4	50.0	46.7	41.8	37.8	31.8	25.5
English Extension 1	5 694	HSC	40.1	5.4	50.0	48.0	46.0	45.0	41.0	36.0
		scaled	36.3	6.5	50.0	46.9	43.8	41.0	37.3	32.6
English Extension 2	2 209	HSC	40.4	6.2	50.0	50.0	48.0	46.0	41.0	36.0
		scaled	36.5	6.8	50.0	48.9	45.3	41.5	37.1	32.1
English as a Second Language (ESL)	2 837	HSC	35.7	6.2	48.5	46.0	43.0	40.5	36.5	32.5
		scaled	21.8	11.7	50.0	45.6	38.1	30.7	21.5	12.5
Food Technology	3 445	HSC	36.8	5.7	49.0	47.5	44.0	40.5	37.5	34.0
		scaled	20.6	10.7	46.2	43.1	35.5	28.7	19.9	12.2
Geography	4 299	HSC	38.4	6.4	49.5	47.5	45.5	43.5	39.5	34.5
		scaled	26.0	10.3	50.0	45.3	39.0	34.2	26.7	18.6
Industrial Technology	3 648	HSC	36.4	6.5	49.0	48.0	44.5	41.0	37.0	32.5
		scaled	17.0	9.4	40.0	37.9	30.2	23.9	16.1	9.4

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

Course	Number	Type of mark	Mean	SD	Max	P99	P90	P75	P50	P25
Information Processes and Technology	5 108	HSC	35.8	7.2	48.5	46.5	44.0	41.0	37.0	32.5
		scaled	21.8	10.5	47.1	42.6	35.9	29.9	22.2	13.8
Legal Studies	8 355	HSC	37.9	5.7	49.0	47.5	45.0	42.5	38.5	34.0
		scaled	25.1	10.4	50.0	45.5	38.8	33.1	25.5	17.2
General Mathematics	29 977	HSC	35.2	6.6	49.5	47.0	43.0	40.0	36.0	31.5
		scaled	21.2	10.0	45.5	41.2	34.8	29.0	21.1	13.2
Mathematics	17 247	HSC	38.0	6.9	50.0	49.0	46.0	43.0	39.0	34.0
		scaled	30.4	9.7	50.0	47.1	42.6	37.8	31.1	24.0
Mathematics Extension 1	8 548	HSC	40.0	7.4	50.0	49.5	47.5	46.0	41.5	36.5
		scaled	40.0	7.2	50.0	49.5	47.4	45.2	41.5	36.8
Mathematics Extension 2	3 089	HSC	41.8	5.6	50.0	49.0	47.5	46.0	43.0	39.0
		scaled	44.5	4.4	50.0	49.7	48.6	47.4	45.6	42.9
Modern History	9 637	HSC	38.1	5.7	49.5	47.0	44.5	42.0	39.0	35.5
		scaled	27.2	10.3	50.0	45.3	39.7	35.0	28.7	20.5
History Extension	2 114	HSC	38.1	7.0	49.0	48.0	46.0	43.0	39.0	34.0
		scaled	33.9	6.4	48.4	46.0	41.5	38.3	34.4	29.9
Music 1	4 886	HSC	39.8	4.8	49.5	48.5	45.5	43.0	40.0	37.0
		scaled	22.1	10.1	47.0	44.7	36.4	29.2	21.4	14.5
Music 2	748	HSC	42.6	3.6	49.5	49.0	47.0	45.0	43.0	40.5
		scaled	32.3	7.9	50.0	49.0	43.2	37.9	32.5	26.9
Music Extension	441	HSC	43.6	5.1	50.0	50.0	49.0	47.0	45.0	41.0
		scaled	34.2	7.9	50.0	50.0	46.2	39.3	32.9	28.7
PDH&PE	12 871	HSC	36.5	6.2	49.5	47.5	44.5	41.0	37.0	32.5
		scaled	23.4	10.1	47.8	43.6	37.1	31.2	23.5	15.5
Physics	9 029	HSC	36.7	6.1	49.0	47.0	44.5	41.0	37.5	33.5
		scaled	30.4	9.5	50.0	46.4	42.0	37.8	31.6	23.9
Senior Science	4 592	HSC	37.8	5.6	49.5	48.0	44.5	42.0	38.0	34.0
		scaled	19.6	9.8	43.5	40.5	33.3	27.0	19.2	11.9
Society and Culture	4 150	HSC	36.7	6.3	50.0	48.0	44.0	41.5	37.5	32.5
		scaled	24.1	10.6	49.2	45.9	38.1	31.9	24.4	16.1
Software Design and Development	1 785	HSC	37.9	5.4	49.5	47.5	45.0	42.0	38.5	34.0
		scaled	24.3	10.0	47.7	43.5	37.4	32.1	25.0	16.1
Studies of Religion I	9 950	HSC	38.2	5.3	50.0	48.0	45.0	42.0	39.0	35.0
		scaled	27.1	8.6	47.7	44.5	38.6	33.4	27.3	21.0
Studies of Religion II	3 554	HSC	38.9	5.2	49.0	47.5	45.0	42.5	39.5	36.0
		scaled	27.8	9.6	50.0	46.3	40.3	34.7	28.3	21.1
Textiles and Design	2 205	HSC	39.3	5.2	49.0	48.5	45.0	43.5	40.5	36.0
		scaled	22.5	10.5	47.1	45.0	37.0	30.7	21.9	14.1
Visual Arts	9 691	HSC	40.6	4.0	49.5	48.0	45.5	43.5	41.0	38.0
		scaled	23.0	10.6	48.8	45.8	38.0	30.9	22.3	14.6
Arabic Continuers	249	HSC	37.4	5.6	47.0	46.0	44.0	41.5	38.5	33.5
		scaled	16.5	10.5	42.1	39.7	32.2	23.4	15.8	7.2
Arabic Extension	78	HSC	34.7	6.7	48.0	48.0	43.0	39.0	35.0	31.0
		scaled	24.3	7.0	41.1	41.1	33.5	28.8	25.1	19.8
Armenian	29	HSC	43.3	4.6	48.5					
		scaled	22.1	13.7	49.5					
Chinese Beginners	32	HSC	38.8	6.2	48.0					
		scaled	26.8	9.5	44.9					

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

Course	Number	Type of mark	Mean	SD	Max	P99	P90	P75	P50	P25
Chinese Continuers	85	HSC	42.6	4.0	47.5	47.5	46.5	46.0	43.5	40.5
		scaled	33.7	10.0	50.0	50.0	44.4	42.5	35.5	27.7
Chinese Extension	31	HSC	45.6	2.3	48.0					
		scaled	37.8	5.0	46.3					
Chinese Background Speakers	1 064	HSC	40.2	3.7	47.5	46.5	45.0	43.0	40.5	38.0
		scaled	21.5	10.9	48.3	44.4	36.7	29.9	21.0	13.1
Classical Greek Continuers	14	HSC	46.5	2.3	49.0					
		scaled	43.2	6.8	50.0					
Classical Greek Extension	11	HSC	48.0	0.9	49.0					
		scaled	45.2	4.9	50.0					
Classical Hebrew Continuers	26	HSC	42.5	3.9	48.5					
		scaled	38.5	7.8	50.0					
Classical Hebrew Extension	19	HSC	40.8	5.2	48.0					
		scaled	41.3	5.5	50.0					
Filipino	23	HSC	36.8	4.1	43.0					
		scaled	15.9	9.0	33.8					
French Beginners	622	HSC	36.9	8.2	50.0	49.0	46.5	43.5	38.0	31.0
		scaled	24.2	11.0	49.5	46.8	39.2	32.8	24.3	15.3
French Continuers	851	HSC	40.9	5.5	49.5	49.0	47.0	45.5	41.0	38.0
		scaled	34.3	8.5	50.0	48.0	44.4	41.0	35.0	29.2
French Extension	212	HSC	42.7	5.1	49.0	49.0	47.0	46.0	45.0	40.0
		scaled	40.2	5.8	50.0	48.7	46.3	44.6	41.3	37.4
German Beginners	137	HSC	37.5	8.1	50.0	49.5	46.5	43.5	38.0	34.5
		scaled	26.1	11.5	50.0	48.8	40.3	35.1	26.1	19.3
German Continuers	376	HSC	39.3	6.6	50.0	49.5	47.0	44.5	40.5	35.0
		scaled	32.5	9.2	50.0	49.1	43.9	39.8	33.7	26.5
German Extension	107	HSC	42.9	4.8	49.0	49.0	48.0	46.0	44.0	40.0
		scaled	40.0	4.1	48.9	47.7	45.1	42.7	40.1	37.4
Hindi	26	HSC	46.7	1.3	48.5					
		scaled	24.3	13.1	50.0					
Indonesian Beginners	28	HSC	40.0	5.8	48.5					
		scaled	22.4	10.7	44.9					
Indonesian Continuers	65	HSC	40.1	5.9	48.5	48.5	47.0	45.5	40.0	35.5
		scaled	31.7	10.0	50.0	50.0	44.5	40.6	30.6	23.8
Indonesian Extension	17	HSC	41.6	5.3	48.0					
		scaled	39.0	6.0	50.0					
Indonesian Background Speakers	69	HSC	38.4	3.4	46.5	46.5	43.5	41.0	38.0	36.0
		scaled	32.0	7.7	50.0	50.0	43.0	37.8	30.6	26.4
Italian Beginners	318	HSC	37.4	7.1	50.0	49.5	45.5	42.5	38.5	33.0
		scaled	25.4	10.8	50.0	48.2	38.8	33.4	26.0	17.4
Italian Continuers	346	HSC	39.3	5.5	49.5	48.5	45.5	43.5	40.0	36.0
		scaled	29.2	9.5	50.0	47.6	40.8	36.7	29.8	22.3
Italian Extension	56	HSC	38.6	7.7	49.0	49.0	47.0	44.0	39.0	35.0
		scaled	37.4	7.1	50.0	50.0	44.5	41.3	38.1	34.4
Japanese Beginners	770	HSC	37.0	7.3	50.0	49.0	46.0	42.5	37.5	32.5
		scaled	24.1	10.2	47.6	44.0	37.7	32.1	24.4	16.9

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

Course	Number	Type of mark	Mean	SD	Max	P99	P90	P75	P50	P25
Japanese Continuers	708	HSC	39.5	5.9	49.5	48.5	46.5	44.0	40.5	35.5
		scaled	31.9	9.2	50.0	47.2	43.1	39.1	33.4	25.2
Japanese Extension	267	HSC	37.8	7.0	48.0	48.0	46.0	43.0	38.0	34.0
		scaled	37.9	5.9	50.0	49.9	45.5	41.8	37.9	34.5
Japanese Background Speakers	59	HSC	37.8	4.2	47.5	47.5	43.5	41.0	37.5	34.5
		scaled	22.5	10.4	47.7	47.7	36.9	30.8	20.4	14.2
Khmer	16	HSC	41.9	4.0	46.5					
		scaled	16.8	11.0	43.3					
Korean Background Speakers	102	HSC	41.6	4.1	49.0	48.5	46.5	45.0	42.5	38.0
		scaled	24.6	11.3	50.0	47.2	39.1	33.5	25.4	13.7
Latin Continuers	217	HSC	45.1	3.6	49.5	49.5	48.5	47.5	46.0	43.5
		scaled	39.4	7.1	50.0	49.4	47.7	44.5	40.7	35.6
Latin Extension	122	HSC	46.8	2.7	50.0	50.0	49.0	49.0	48.0	46.0
		scaled	41.0	6.6	50.0	49.7	48.6	46.4	42.5	36.3
Macedonian	29	HSC	42.6	4.8	49.0					
		scaled	23.5	10.5	43.3					
Modern Greek Beginners	33	HSC	41.0	6.1	49.5					
		scaled	24.1	12.5	47.0					
Modern Greek Continuers	125	HSC	39.4	5.7	48.5	48.5	45.5	43.5	40.5	37.0
		scaled	24.5	11.0	49.4	49.4	38.7	32.4	24.5	16.9
Modern Greek Extension	47	HSC	40.9	5.4	50.0	50.0	48.0	45.0	41.0	37.0
		scaled	30.2	6.9	45.7	45.7	40.8	35.0	30.0	24.6
Modern Hebrew	38	HSC	45.7	2.9	49.5					
		scaled	38.6	7.1	50.0					
Persian	46	HSC	39.8	7.2	47.5	47.5	46.5	45.0	41.5	38.5
		scaled	20.2	12.7	47.8	47.8	41.1	29.5	19.0	12.6
Polish	29	HSC	42.8	4.1	47.5					
		scaled	26.9	12.2	50.0					
Portuguese	15	HSC	43.0	3.9	47.5					
		scaled	26.7	11.5	46.4					
Russian	22	HSC	45.4	2.1	49.0					
		scaled	26.1	10.5	46.9					
Serbian	36	HSC	40.5	3.5	46.0					
		scaled	23.6	11.1	47.5					
Spanish Beginners	162	HSC	36.6	8.1	49.0	49.0	46.0	43.0	37.0	32.0
		scaled	23.2	12.3	50.0	50.0	40.2	33.0	21.7	13.5
Spanish Continuers	163	HSC	40.3	3.7	48.0	46.5	44.5	43.0	41.0	37.5
		scaled	22.8	10.0	47.1	42.2	35.4	30.1	23.2	14.8
Spanish Extension	57	HSC	39.1	4.9	46.0	46.0	45.0	42.0	40.0	36.0
		scaled	28.6	7.8	44.9	44.9	38.9	32.8	29.1	23.4
Turkish	48	HSC	41.4	4.7	49.5	49.5	46.0	44.0	42.0	39.0
		scaled	18.1	11.3	45.7	45.7	34.9	26.3	15.6	7.3
Vietnamese	145	HSC	39.1	3.1	46.0	45.5	43.0	41.0	39.0	37.5
		scaled	22.0	10.4	47.6	47.1	38.1	27.8	20.0	14.1

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

Course	Number	Type of mark	Mean	SD	Max	P99	P90	P75	P50	P25
Accounting	518	HSC	37.3	7.8	50.0	50.0	46.0	43.0	38.5	33.0
		scaled	27.4	12.1	50.0	50.0	42.8	36.7	28.1	18.7
Business Services Exam	1 393	HSC	36.0	4.3	47.5	45.5	41.0	39.0	36.5	33.5
		scaled	18.3	9.5	42.0	39.6	31.4	25.3	18.1	10.8
Construction Exam	1 310	HSC	35.9	4.2	46.0	44.5	41.5	39.0	36.0	33.0
		scaled	16.1	9.1	38.6	36.4	29.2	23.0	15.1	8.5
Entertainment Exam	826	HSC	37.0	5.2	47.5	46.5	43.5	40.5	38.0	34.0
		scaled	21.3	8.9	43.1	41.0	33.3	27.2	21.4	14.6
Hospitality Exam	5 434	HSC	36.8	5.0	49.0	47.0	43.5	40.0	37.0	33.5
		scaled	19.9	9.6	43.5	40.2	33.1	27.2	19.7	12.6
Information Technology Exam	1 833	HSC	35.8	4.6	47.0	45.0	41.5	39.0	36.5	33.5
		scaled	18.6	9.4	41.8	38.4	31.3	26.0	18.7	11.6
Metal and Engineering Exam	560	HSC	35.1	5.2	47.0	45.0	41.0	39.0	35.0	32.0
		scaled	15.6	8.6	37.0	34.0	27.4	22.9	14.4	8.8
Primary Industries Exam	534	HSC	36.9	4.8	47.5	46.5	43.0	40.0	37.0	33.5
		scaled	16.9	9.5	40.1	38.0	30.4	23.3	15.9	8.9
Retail Operations Exam	1 231	HSC	37.4	4.6	47.5	46.0	43.0	40.5	38.0	35.0
		scaled	16.4	9.8	40.7	38.6	30.8	23.9	15.4	8.5
Tourism Exam	364	HSC	37.0	4.0	48.0	45.5	42.5	39.5	37.0	34.5
		scaled	21.3	8.7	42.7	39.6	34.3	26.9	20.3	15.1
Distinction Courses	92	HSC	41.1	4.5	50.0	50.0	47.0	44.0	41.5	38.0
		scaled	40.7	7.0	50.0	50.0	48.8	46.0	42.5	36.4

Table A4 Distributions of HSC marks by course: 2007 – 2008

- Notes: (i) *Columns 45, 40, 35, 30 and 25 show the percentages of a 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 marks less than:				
			45	40	35	30	25
Aboriginal Studies	2008	277	92.4	69.3	41.2	12.6	2.2
	2007	313	92.7	71.2	43.1	19.8	5.1
Agriculture	2008	1 278	91.2	68.2	37.1	13.4	4.4
	2007	1 254	91.5	69.4	33.5	11.3	1.5
Ancient History	2008	11 180	88.7	62.5	38.1	18.6	5.2
	2007	11 348	88.7	63.9	38.6	18.0	5.6
Biology	2008	15 254	92.5	68.3	34.7	10.6	2.3
	2007	14 447	92.3	67.3	33.2	10.7	3.0
Business Studies	2008	16 181	93.8	68.1	39.0	13.9	3.3
	2007	15 713	93.7	74.9	48.0	19.3	4.7
Chemistry	2008	10 154	87.2	61.6	29.7	11.0	2.6
	2007	10 287	89.2	60.7	30.8	8.5	2.3
Community and Family Studies	2008	5 053	90.4	60.1	26.7	7.6	2.0
	2007	4 729	92.7	64.6	30.0	8.8	2.5
Dance	2008	675	92.0	69.5	28.7	4.7	0.7
	2007	713	93.7	73.5	38.0	8.1	1.1
Design and Technology	2008	3 739	92.6	64.7	28.5	5.2	0.5
	2007	3 904	94.4	76.1	36.7	7.1	0.5
Drama	2008	4 961	88.9	51.5	16.2	2.2	0.1
	2007	5 096	89.9	58.7	23.5	5.9	0.7
Earth and Environmental Science	2008	1 258	87.0	54.1	26.1	8.0	2.4
	2007	1 244	88.2	49.9	19.9	5.9	0.8
Economics	2008	5 410	83.6	52.6	28.0	12.6	5.1
	2007	5 678	85.3	53.2	27.1	11.3	3.7
Engineering Studies	2008	1 748	92.4	68.8	33.5	9.2	2.9
	2007	1 547	93.6	71.2	35.9	11.4	2.8
English Standard	2008	32 191	99.8	94.0	61.9	20.6	5.8
	2007	31 015	99.9	96.6	61.2	22.0	5.7
English Advanced	2008	27 438	89.2	50.6	10.8	0.9	0.1
	2007	28 086	90.8	53.1	10.5	0.9	0.1
English Extension 1	2008	5 694	74.2	40.9	16.0	3.5	0.7
	2007	6 153	78.0	45.7	19.4	5.4	1.7
English Extension 2	2008	2 209	69.5	41.1	17.9	4.7	1.3
	2007	2 500	67.8	41.2	20.6	7.0	2.2
English as a Second Language (ESL)	2008	2 837	96.7	71.8	40.1	14.1	4.2
	2007	2 603	98.0	72.3	36.0	11.8	4.6
Food Technology	2008	3 445	92.8	71.0	31.1	9.4	2.7
	2007	3 314	93.6	72.8	45.6	20.5	8.1
Geography	2008	4 299	85.0	51.9	25.8	9.0	2.8
	2007	4 528	88.7	50.8	22.5	6.3	1.6
Industrial Technology	2008	3 648	90.8	68.2	36.9	13.5	4.1
	2007	3 561	89.8	66.4	36.3	13.1	3.3

Table A4 Distributions of HSC marks by course: 2007 – 2008 (continued)

Course	Year	Number	Percentage of students with HSC marks less than:				
			45	40	35	30	25
Information Processes and Technology	2008	5 108	93.5	68.5	37.3	16.0	7.3
	2007	5 129	92.8	62.2	31.1	11.9	5.1
Legal Studies	2008	8 355	89.8	57.8	27.6	8.5	1.7
	2007	8 644	90.6	59.0	34.0	13.2	4.1
General Mathematics	2008	29 977	95.2	74.1	43.7	17.2	6.1
	2007	29 437	95.9	77.4	40.5	15.8	3.5
Mathematics	2008	17 247	83.2	55.0	27.8	12.1	3.2
	2007	17 758	84.5	60.4	29.9	11.7	3.6
Mathematics Extension 1	2008	8 548	66.6	39.9	18.2	8.5	3.9
	2007	8 614	67.7	45.4	25.2	10.4	3.9
Mathematics Extension 2	2008	3 089	62.9	30.1	9.5	3.6	1.6
	2007	3 009	67.0	38.7	16.9	4.9	1.3
Modern History	2008	9 637	90.3	58.2	22.6	7.5	2.6
	2007	9 636	91.2	56.1	27.5	11.2	4.5
History Extension	2008	2 114	80.0	51.3	26.7	13.1	4.4
	2007	2 159	81.7	50.2	27.2	13.1	6.0
Music 1	2008	4 886	85.2	45.9	14.6	2.6	0.7
	2007	4 795	84.8	47.9	14.5	2.8	0.7
Music 2	2008	748	69.7	21.4	2.8	0.0	
	2007	687	70.7	23.4	4.7	0.3	0.0
Music Extension	2008	441	48.1	20.4	6.3	1.1	0.2
	2007	401	54.4	21.9	7.5	0.7	0.2
PDH&PE	2008	12 871	91.7	67.6	36.1	14.0	3.5
	2007	12 409	90.6	64.3	36.3	13.4	3.9
Physics	2008	9 029	92.0	67.0	33.8	10.7	3.5
	2007	9 126	91.9	65.8	32.4	10.4	3.8
Senior Science	2008	4 592	90.3	60.9	28.8	6.5	1.9
	2007	4 210	92.1	62.3	28.4	5.7	1.9
Society and Culture	2008	4 150	93.1	63.4	34.7	13.8	3.6
	2007	3 697	92.0	67.3	37.8	10.8	2.0
Software Design and Development	2008	1 785	89.9	60.1	29.9	7.8	0.7
	2007	1 840	90.7	59.9	32.7	12.5	3.7
Studies of Religion I	2008	9 950	89.5	56.3	22.5	5.7	1.4
	2007	10 062	90.6	61.8	23.1	1.5	0.2
Studies of Religion II	2008	3 554	88.5	51.2	19.8	5.9	1.1
	2007	3 041	90.4	56.4	22.1	3.4	0.6
Textiles and Design	2008	2 205	87.2	46.5	20.6	4.2	0.4
	2007	2 084	86.9	49.2	21.0	3.7	0.2
Visual Arts	2008	9 691	85.5	38.8	8.3	1.0	0.1
	2007	9 348	88.6	47.9	9.5	0.5	0.1
Arabic Continuers	2008	249	94.4	58.2	32.1	7.2	3.2
	2007	232	92.7	63.8	34.5	14.2	6.9
Arabic Extension	2008	78	94.9	78.2	41.0	17.9	6.4
	2007	74	91.9	71.6	37.8	17.6	5.4
Chinese Continuers	2008	85	64.7	18.8	5.9	1.2	0.0
	2007	130	57.7	21.5	6.2	0.8	0.0
Chinese Background Speakers	2008	1 064	89.5	43.3	7.0	1.0	0.1
	2007	922	89.9	46.1	10.5	2.6	0.5
French Beginners	2008	622	81.2	57.4	38.1	19.1	5.8
	2007	544	81.1	58.5	37.9	16.7	6.3

Table A4 Distributions of HSC marks by course: 2007 – 2008 (continued)

Course	Year	Number	Percentage of students with HSC marks less than:				
			45	40	35	30	25
French Continuers	2008	851	69.1	39.1	11.9	2.6	0.8
	2007	842	71.3	42.5	19.7	6.3	1.4
French Extension	2008	212	49.1	22.6	8.0	2.4	0.5
	2007	222	58.1	30.2	10.4	3.2	0.9
German Beginners	2008	137	83.2	58.4	26.3	13.1	8.8
	2007	136	83.8	58.8	43.4	24.3	7.4
German Continuers	2008	376	75.0	48.7	24.2	7.2	1.9
	2007	422	71.6	41.5	15.4	3.3	1.4
German Extension	2008	107	52.3	20.6	3.7	1.9	0.9
	2007	125	56.0	30.4	11.2	2.4	0.8
Indonesian Continuers	2008	65	69.2	47.7	23.1	3.1	1.5
	2007	86	81.4	46.5	23.3	4.7	1.2
Indonesian Background Speakers	2008	69	95.7	66.7	15.9	0.0	
	2007	87	94.3	54.0	4.6	0.0	
Italian Beginners	2008	318	84.0	57.5	32.4	16.4	3.8
	2007	339	83.2	58.4	29.2	11.5	3.0
Italian Continuers	2008	346	85.5	48.6	17.1	3.8	1.2
	2007	365	85.2	43.0	15.1	3.3	1.6
Italian Extension	2008	56	76.8	50.0	23.2	8.9	5.4
	2007	52	71.2	50.0	25.0	3.8	0.0
Japanese Beginners	2008	770	84.4	61.8	34.8	15.1	4.2
	2007	597	82.7	59.1	34.2	18.3	6.4
Japanese Continuers	2008	708	78.8	45.3	21.9	6.5	1.3
	2007	669	74.3	43.9	24.5	9.7	1.5
Japanese Extension	2008	267	82.8	55.8	26.2	12.7	4.1
	2007	233	72.5	45.5	14.6	2.6	0.4
Japanese Background Speakers	2008	59	94.9	64.4	27.1	1.7	0.0
	2007	52	92.3	53.8	15.4	0.0	
Korean Background Speakers	2008	102	74.5	32.4	4.9	2.0	0.0
	2007	112	84.8	42.0	12.5	0.9	0.0
Latin Continuers	2008	217	33.6	9.2	0.9	0.0	
	2007	180	25.6	3.9	1.1	0.0	
Latin Extension	2008	122	11.5	2.5	1.6	0.0	
	2007	100	17.0	9.0	1.0	0.0	
Modern Greek Continuers	2008	125	84.8	44.0	17.6	8.0	3.2
	2007	127	76.4	47.2	19.7	2.4	0.0
Modern Greek Extension	2008	47	72.3	38.3	14.9	0.0	
	2007	51	78.4	31.4	19.6	5.9	2.0
Persian	2008	46	73.9	37.0	17.4	8.7	2.2
	2007	41	68.3	36.6	7.3	7.3	0.0
Spanish Beginners	2008	162	82.7	62.3	35.2	17.9	7.4
	2007	168	90.5	66.1	45.2	18.5	7.1
Spanish Continuers	2008	163	92.0	36.2	9.2	0.6	0.0
	2007	208	91.3	38.0	8.2	1.4	0.0
Spanish Extension	2008	57	87.7	42.1	17.5	5.3	1.8
	2007	76	92.1	71.1	34.2	2.6	0.0
Turkish	2008	48	81.3	25.0	6.3	2.1	2.1
	2007	61	90.2	55.7	11.5	1.6	0.0

Table A4 Distributions of HSC marks by course: 2007 – 2008 (continued)

Course	Year	Number	Percentage of students with HSC marks less than:				
			45	40	35	30	25
Vietnamese	2008	145	97.9	58.6	6.2	0.7	0.0
	2007	125	97.6	66.4	32.8	5.6	0.0
Accounting	2008	518	85.1	58.1	34.6	15.8	6.4
	2007	464	86.2	60.3	35.3	18.3	6.7
Business Services Exam	2008	1 393	97.9	82.7	37.7	5.6	0.6
	2007	1 272	98.7	80.5	48.9	17.2	3.9
Construction Exam	2008	1 310	99.1	80.2	41.1	8.0	0.2
	2007	1 355	97.9	78.5	41.3	6.9	0.4
Entertainment Exam	2008	826	95.0	65.7	31.0	9.3	1.7
	2007	691	96.8	66.6	27.6	4.9	0.6
Hospitality Exam	2008	5 434	94.7	73.9	32.1	8.7	0.6
	2007	5 566	96.6	79.6	43.4	10.2	1.3
Information Technology Exam	2008	1 833	98.4	81.4	35.4	9.6	1.3
	2007	2 007	98.0	86.2	43.4	17.9	4.5
Metal and Engineering Exam	2008	560	98.8	80.9	48.0	15.0	2.3
	2007	504	96.6	82.1	42.3	18.5	4.0
Primary Industries Exam	2008	534	94.8	72.1	32.6	6.6	0.4
	2007	459	99.1	79.1	37.5	7.0	0.4
Retail Operations Exam	2008	1 231	97.0	67.5	23.4	7.3	0.6
	2007	1 249	93.9	65.7	28.8	5.5	0.4
Tourism Exam	2008	364	97.5	78.0	28.0	4.1	0.0
	2007	332	97.6	79.2	35.5	8.4	1.5
Distinction Courses	2008	92	80.4	41.3	6.5	1.1	0.0
	2007	90	76.7	31.1	3.3	2.2	1.1

Table A5 Distributions of scaled marks by course: 2007 – 2008

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 marks less than:						
			45	40	35	30	25	20	15
Aboriginal Studies	2008	277	100.0	96.4	91.7	86.3	76.5	69.3	60.3
	2007	313	100.0	96.8	92.7	85.9	77.3	68.4	55.3
Agriculture	2008	1 278	99.5	93.2	85.2	75.9	61.8	46.6	30.8
	2007	1 254	99.0	94.0	88.0	76.4	61.1	44.8	28.8
Ancient History	2008	11 180	98.4	92.1	80.1	64.8	47.8	33.3	21.0
	2007	11 348	98.7	92.2	79.8	65.3	49.0	33.6	20.4
Biology	2008	15 254	98.8	90.6	76.1	58.8	41.5	25.7	13.6
	2007	14 447	98.6	92.2	78.1	59.6	40.6	24.3	12.2
Business Studies	2008	16 181	99.7	94.7	83.4	68.5	53.4	38.0	23.0
	2007	15 713	99.6	94.4	83.1	69.6	55.0	39.7	24.4
Chemistry	2008	10 154	97.1	80.8	58.4	38.0	23.3	12.9	5.8
	2007	10 287	96.6	81.1	60.2	40.4	24.5	13.7	6.5
Community and Family Studies	2008	5 053	100.0	98.7	91.8	81.5	68.1	53.1	36.1
	2007	4 729	100.0	97.9	91.8	81.9	68.3	51.7	34.2
Dance	2008	675	99.1	94.7	86.4	76.9	59.3	38.7	17.9
	2007	713	98.9	94.3	87.0	74.9	59.0	39.4	19.4
Design and Technology	2008	3 739	99.9	96.4	89.2	78.1	63.7	47.2	29.1
	2007	3 904	99.9	97.1	90.0	78.7	64.5	46.7	28.8
Drama	2008	4 961	98.9	93.6	83.6	69.6	52.2	34.5	19.7
	2007	5 096	99.1	93.9	83.5	68.9	51.0	34.4	20.0
Earth and Environmental Science	2008	1 258	99.4	94.8	83.2	66.7	49.8	33.2	19.2
	2007	1 244	99.0	95.7	83.8	68.9	50.3	33.3	19.1
Economics	2008	5 410	96.4	80.5	58.4	40.4	27.4	17.0	10.0
	2007	5 678	96.8	81.2	58.2	38.0	24.2	14.5	8.0
Engineering Studies	2008	1 748	99.8	95.0	83.7	65.1	47.7	29.3	14.6
	2007	1 547	99.6	95.0	84.6	67.6	48.9	31.3	15.6
English Standard	2008	32 191	99.9	99.5	97.7	91.9	80.1	61.0	38.0
	2007	31 015	99.9	99.6	97.9	93.2	82.8	63.7	38.6
English Advanced	2008	27 438	97.0	83.5	63.5	42.3	23.4	10.2	3.2
	2007	28 086	96.1	82.6	64.1	44.2	25.1	9.9	2.8
English Extension 1	2008	5 694	95.2	68.0	36.1	15.4	5.6	2.1	0.5
	2007	6 153	94.4	68.2	36.6	14.9	5.6	2.2	1.1
English Extension 2	2008	2 209	89.3	67.0	39.0	16.5	5.7	1.7	0.5
	2007	2 500	89.9	66.0	37.3	16.9	6.0	2.0	0.6
English as a Second Language (ESL)	2008	2 837	98.6	93.2	85.0	73.3	59.4	45.7	32.5
	2007	2 603	98.9	94.7	86.1	74.3	60.8	47.2	32.7
Food Technology	2008	3 445	99.8	96.2	88.7	77.6	65.8	50.3	33.6
	2007	3 314	99.9	97.4	90.6	80.7	67.4	53.3	37.0
Geography	2008	4 299	98.9	91.9	77.7	61.3	44.2	29.2	16.9
	2007	4 528	98.6	92.0	80.2	63.5	45.8	30.1	17.0
Industrial Technology	2008	3 648	100.0	99.9	96.5	89.6	77.7	63.5	46.3
	2007	3 561		100.0	96.7	89.9	79.3	66.4	48.9
Information Processes and Technology	2008	5 108	99.8	97.1	87.9	75.0	59.4	43.7	27.8
	2007	5 129	99.9	97.6	88.5	75.9	59.7	42.8	27.4

Table A5 Distributions of scaled marks by course: 2007 – 2008 (continued)

Course	Year	Number	Percentage of students with scaled marks less than:						
			45	40	35	30	25	20	15
Legal Studies	2008	8 355	98.7	92.4	80.5	65.0	48.2	32.6	19.6
	2007	8 644	98.8	91.8	79.1	62.8	47.0	32.1	19.7
General Mathematics	2008	29 977	99.9	98.1	90.3	77.9	62.5	46.4	30.5
	2007	29 473	99.9	98.7	91.3	78.7	63.9	47.0	30.3
Mathematics	2008	17 247	95.9	82.0	64.4	45.7	28.0	15.3	7.4
	2007	17 758	97.6	84.2	64.1	43.6	26.4	14.6	7.2
Mathematics Extension 1	2008	8 548	74.1	41.0	18.8	9.2	4.4	2.1	0.9
	2007	8 614	76.6	43.1	20.5	9.4	4.4	1.9	1.0
Mathematics Extension 2	2008	3 089	43.4	11.5	3.6	1.7	0.7	0.3	0.2
	2007	3 009	53.8	16.2	4.2	1.4	0.7	0.3	0.1
Modern History	2008	9 637	98.7	90.8	75.1	55.2	37.3	23.8	14.5
	2007	9 636	97.8	89.5	73.8	55.2	37.6	23.7	14.0
History Extension	2008	2 114	98.2	82.2	53.3	25.4	9.3	2.9	0.7
	2007	2 159	97.5	82.4	50.6	23.5	8.8	3.6	1.5
Music 1	2008	4 886	99.3	94.9	87.5	77.0	62.2	44.6	26.7
	2007	4 795	99.5	95.2	87.5	77.4	63.2	45.9	26.3
Music 2	2008	748	95.6	82.2	61.9	38.9	20.2	6.4	1.3
	2007	687	95.2	79.3	60.0	35.8	15.7	5.5	1.0
Music Extension	2008	441	86.4	77.1	58.5	28.8	11.1	2.3	0.5
	2007	401	85.8	73.8	58.9	27.2	10.0	4.2	0.7
PDH&PE	2008	12 871	99.6	95.1	85.3	71.0	55.0	38.5	23.7
	2007	12 409	99.9	95.7	85.5	70.7	55.5	39.3	23.6
Physics	2008	9 029	97.3	83.6	63.2	44.1	28.0	16.0	7.8
	2007	9 126	97.8	84.0	64.1	43.8	28.5	16.7	8.1
Senior Science	2008	4 592	100.0	98.7	93.1	82.4	69.6	53.6	35.5
	2007	4 210	100.0	99.0	93.6	82.6	67.6	49.6	32.8
Society and Culture	2008	4 150	98.4	93.4	83.3	68.7	51.7	35.9	22.2
	2007	3 697	98.6	93.1	83.0	71.1	54.6	38.1	22.4
Software Design and Development	2008	1 785	99.8	94.9	84.2	68.9	50.1	34.6	21.1
	2007	1 840	99.0	94.0	82.8	66.3	49.5	34.7	20.1
Studies of Religion I	2008	9 950	99.4	93.4	80.6	61.6	39.7	21.3	8.9
	2007	10 062	99.2	93.0	80.5	62.2	41.0	22.5	9.6
Studies of Religion II	2008	3 554	97.7	89.5	76.0	56.6	38.0	21.9	10.4
	2007	3 041	97.8	89.3	74.4	56.2	37.1	22.1	12.6
Textiles and Design	2008	2 205	99.0	94.5	85.7	73.2	59.9	44.4	27.8
	2007	2 084	99.6	95.6	86.9	75.1	61.9	44.8	28.0
Visual Arts	2008	9 691	98.7	93.1	84.3	72.4	58.4	42.8	26.2
	2007	9 348	98.2	92.6	83.7	72.9	59.8	44.3	27.2
Arabic Continuers	2008	249	100.0	99.6	93.6	86.3	77.5	63.9	48.2
	2007	232	100.0	99.1	93.1	86.6	75.4	58.2	44.4
Arabic Extension	2008	78	100.0	98.7	94.9	79.5	46.2	26.9	12.8
	2007	74	100.0	98.6	94.6	79.7	55.4	27.0	8.1
Chinese Continuers	2008	85	90.6	68.2	48.2	30.6	18.8	8.2	5.9
	2007	130	91.5	73.1	56.9	36.9	23.8	15.4	7.7
Chinese Background Speakers	2008	1 064	99.4	94.8	86.9	75.0	62.2	46.9	31.3
	2007	922	99.2	95.6	89.3	78.1	64.8	48.7	32.1
French Beginners	2008	622	97.6	91.2	81.7	67.7	51.6	38.3	23.5
	2007	544	97.2	91.4	81.1	67.8	51.5	36.2	19.5

Table A5 Distributions of scaled marks by course: 2007 – 2008 (continued)

Course	Year	Number	Percentage of students with scaled marks less than:						
			45	40	35	30	25	20	15
French Continuers	2008	851	92.5	70.6	50.3	27.0	13.7	7.2	2.1
	2007	842	87.8	67.9	48.0	30.2	17.5	6.7	2.5
French Extension	2008	212	78.3	41.5	18.4	5.7	1.9	0.5	0.5
	2007	222	74.8	35.6	10.8	4.5	1.4	0.5	0.0
German Beginners	2008	137	96.4	89.8	73.7	59.9	46.7	28.5	16.1
	2007	136	94.9	89.0	79.4	63.2	50.0	38.2	24.3
German Continuers	2008	376	93.6	76.3	54.0	38.6	21.3	10.4	4.3
	2007	422	91.9	76.3	53.8	37.2	19.9	10.0	3.8
German Extension	2008	107	88.8	47.7	8.4	1.9	0.9	0.0	
	2007	125	88.0	56.0	26.4	5.6	0.8	0.0	
Indonesian Continuers	2008	65	93.8	73.8	58.5	47.7	27.7	10.8	3.1
	2007	86	95.3	83.7	61.6	44.2	29.1	12.8	4.7
Indonesian Background Speakers	2008	69	94.2	84.1	65.2	46.4	18.8	2.9	0.0
	2007	87	94.3	89.7	75.9	55.2	32.2	11.5	2.3
Italian Beginners	2008	318	97.5	92.1	79.9	61.6	46.5	32.7	19.5
	2007	339	95.9	89.1	75.8	59.3	42.8	28.6	16.2
Italian Continuers	2008	346	96.0	87.0	69.7	51.2	34.4	17.3	7.5
	2007	365	98.9	89.3	71.2	53.2	32.3	17.3	8.8
Italian Extension	2008	56	91.1	64.3	30.4	10.7	5.4	3.6	1.8
	2007	52	86.5	69.2	36.5	11.5	3.8	0.0	
Japanese Beginners	2008	770	99.4	94.4	84.3	68.7	51.0	35.5	21.2
	2007	597	99.3	94.1	84.9	68.7	51.4	34.8	22.6
Japanese Continuers	2008	708	95.6	78.8	56.4	38.3	24.7	12.1	4.4
	2007	669	93.9	77.3	56.4	39.2	25.7	14.9	7.3
Japanese Extension	2008	267	88.4	61.4	26.2	10.1	3.0	1.1	0.0
	2007	233	90.6	60.1	23.2	5.6	0.4	0.4	0.0
Japanese Background Speakers	2008	59	98.3	93.2	86.4	72.9	59.3	47.5	28.8
	2007	52	100.0	98.1	90.4	80.8	75.0	63.5	42.3
Korean Background Speakers	2008	102	98.0	90.2	81.4	66.7	49.0	35.3	27.5
	2007	112	100.0	99.1	91.1	79.5	57.1	45.5	25.0
Latin Continuers	2008	217	76.0	43.8	24.0	10.6	4.1	0.9	0.0
	2007	180	78.3	40.6	20.0	7.8	4.4	2.8	1.1
Latin Extension	2008	122	70.5	37.7	15.6	4.9	2.5	1.6	0.0
	2007	100	74.0	35.0	15.0	8.0	2.0	0.0	
Modern Greek Continuers	2008	125	97.6	93.6	80.0	69.6	52.0	36.0	21.6
	2007	127	93.7	81.9	66.9	55.9	48.8	27.6	9.4
Modern Greek Extension	2008	47	97.9	89.4	78.7	53.2	25.5	8.5	0.0
	2007	51	96.1	86.3	74.5	39.2	21.6	9.8	3.9
Persian	2008	46	95.7	89.1	89.1	76.1	65.2	52.2	34.8
	2007	41	97.6	95.1	90.2	73.2	65.9	53.7	41.5
Spanish Beginners	2008	162	96.3	89.5	80.9	66.7	60.5	43.2	29.0
	2007	168	95.8	88.7	78.0	67.9	52.4	39.3	21.4
Spanish Continuers	2008	163	99.4	95.7	89.6	74.2	55.8	35.0	26.4
	2007	208	100.0	99.0	94.2	76.9	65.4	45.2	29.8
Spanish Extension	2008	57	100.0	94.7	80.7	57.9	29.8	12.3	5.3
	2007	76	100.0	97.4	89.5	75.0	46.1	23.7	2.6

Table A5 Distributions of scaled marks by course: 2007 – 2008 (continued)

Course	Year	Number	Percentage of students with scaled marks less than:						
			45	40	35	30	25	20	15
Turkish	2008	48	97.9	97.9	91.7	81.3	70.8	62.5	45.8
	2007	61	95.1	88.5	86.9	85.2	70.5	59.0	44.3
Vietnamese	2008	145	97.9	94.5	86.2	77.2	64.1	49.0	28.3
	2007	125	98.4	92.0	87.2	75.2	66.4	48.0	37.6
Accounting	2008	518	94.0	80.9	69.5	56.8	40.5	29.9	18.1
	2007	464	95.7	87.9	70.7	57.5	41.8	27.2	16.6
Business Services Exam	2008	1 393	100.0	99.3	94.8	87.0	73.9	59.2	41.3
	2007	1 272	100.0	99.5	95.2	87.3	72.2	56.1	40.1
Construction Exam	2008	1 310		100.0	98.2	91.1	80.2	65.3	48.1
	2007	1 355		100.0	98.5	91.4	83.5	71.5	52.6
Entertainment Exam	2008	826	100.0	98.1	93.6	82.3	65.5	45.5	27.1
	2007	691	100.0	98.6	92.9	82.8	66.6	43.3	27.6
Hospitality Exam	2008	5 434	100.0	98.6	93.1	83.7	70.6	52.1	35.0
	2007	5 566	100.0	98.6	92.9	82.7	70.7	53.5	33.5
Information Technology Exam	2008	1 833	100.0	99.6	95.0	86.0	75.0	55.5	38.5
	2007	2 007	100.0	99.9	96.9	88.2	73.3	52.6	36.0
Metal and Engineering Exam	2008	560		100.0	99.6	95.7	80.9	65.7	50.5
	2007	504		100.0	98.8	91.3	79.4	65.1	44.8
Primary Industries Exam	2008	534	100.0	99.6	95.7	87.8	80.5	63.5	47.6
	2007	459		100.0	98.9	90.4	75.2	61.4	44.9
Retail Operations Exam	2008	1 231	100.0	99.5	96.1	89.8	79.9	63.4	48.3
	2007	1 249		100.0	97.0	90.5	79.0	62.6	46.0
Tourism Exam	2008	364	100.0	99.2	92.3	81.9	64.6	46.4	23.1
	2007	332	100.0	97.6	93.1	81.9	67.5	50.9	28.0
Distinction Courses	2008	92	70.7	41.3	16.3	6.5	3.3	1.1	1.1
	2007	90	76.7	41.1	13.3	2.2	2.2	1.1	0.0

Table A6 Courses that contribute to the UAI

- Notes: (i) This table shows the percentage of the course candidature who completed more than 10 units of UAI courses for whom **all** units of that course contributed to their UAI.
- (ii) The **Number receiving UAI** column shows the number of students who did the course in 2008 or an earlier year, and received a UAI in 2008.
- (iii) The **UAI students with > 10 units** columns show the number and percentage of UAI students who completed more than 10 units of UAI courses.
- (iv) The **Percentage who counted course** column shows the percentage of UAI students who completed more than 10 units of UAI courses for whom all units of that course contributed towards their UAI.
- (v) The table excludes courses with less than 10 students.

Course	Number receiving UAI	UAI students with > 10 units		Percentage who counted course
		Number	Percentage	
Aboriginal Studies	179	36	20	81
Agriculture	991	461	47	77
Ancient History	10 224	4 782	47	85
Biology	14 722	7 703	52	81
Business Studies	14 666	6 704	46	85
Chemistry	10 150	6 920	68	74
Community and Family Studies	3 922	1 456	37	89
Dance	589	245	42	62
Design and Technology	3 099	1 306	42	76
Drama	4 335	1 833	42	75
Earth and Environmental Science	1 144	528	46	80
Economics	5 370	3 378	63	78
Engineering Studies	1 650	931	56	72
English Standard	22 614	8 093	36	100
English Advanced	26 890	15 331	57	98
English Extension 1	5 680	4 237	75	85
English Extension 2	2 205	1 506	68	84
English as a Second Language (ESL)	2 474	954	39	100
Food Technology	2 658	1 042	39	87
Geography	4 022	2 051	51	84
Industrial Technology	2 005	815	41	62
Information Processes and Technology	4 596	2 248	49	76
Legal Studies	7 887	3 865	49	85
General Mathematics	24 836	9 554	38	71
Mathematics	16 424	10 434	64	69
Mathematics Extension 1	8 454	6 702	79	91
Mathematics Extension 2	3 048	1 911	63	99
Modern History	9 189	4 811	52	83
History Extension	2 124	1 751	82	81
Music 1	4 107	1 699	41	67
Music 2	736	560	76	68
Music Extension	439	373	85	74
PDH&PE	11 489	4 908	43	86
Physics	8 931	5 816	65	75
Senior Science	3 791	1 529	40	84
Society and Culture	3 752	1 450	39	89
Software Design and Development	1 700	928	55	74
Studies of Religion I	9 445	8 741	93	80
Studies of Religion II	3 442	1 627	47	84

Table A6 Courses that contribute to the UAI (continued)

Course	Number receiving UAI	UAI students with > 10 units		Percentage who counted course
		Number	Percentage	
Textiles and Design	1 792	643	36	80
Visual Arts	8 135	3 310	41	74
Arabic Continuers	210	122	58	66
Arabic Extension	77	69	90	83
Armenian	29	15	52	47
Chinese Beginners	32	15	47	60
Chinese Continuers	83	63	76	65
Chinese Extension	30	26	87	85
Chinese Background Speakers	983	371	38	71
Classical Greek Continuers	15	15	100	73
Classical Greek Extension	11	11	100	55
Classical Hebrew Continuers	34	27	79	56
Classical Hebrew Extension	21	19	90	95
Filipino	17	11	65	64
French Beginners	541	198	37	78
French Continuers	849	608	72	69
French Extension	215	189	88	84
German Beginners	124	64	52	84
German Continuers	360	242	67	68
German Extension	106	94	89	80
Hindi	22	20	91	40
Indonesian Beginners	22	7	32	86
Indonesian Continuers	66	48	73	67
Indonesian Extension	17	12	71	92
Indonesian Background Speakers	69	42	61	74
Italian Beginners	289	140	48	78
Italian Continuers	333	230	69	70
Italian Extension	58	46	79	91
Japanese Beginners	721	265	37	71
Japanese Continuers	700	459	66	64
Japanese Extension	264	208	79	77
Japanese Background Speakers	51	22	43	59
Khmer	11	5	45	80
Korean Background Speakers	103	40	39	68
Latin Continuers	205	172	84	68
Latin Extension	120	103	86	73
Macedonian	26	14	54	43
Modern Greek Beginners	31	15	48	73
Modern Greek Continuers	116	79	68	73
Modern Greek Extension	44	41	93	93
Modern Hebrew	36	26	72	73
Persian	36	15	42	60
Polish	24	21	88	57
Portuguese	18	10	56	80
Russian	27	17	63	65
Serbian	32	19	59	74

Table A6 Courses that contribute to the UAI (continued)

Course	Number receiving UAI	UAI students with > 10 units		Percentage who counted course
		Number	Percentage	
Spanish Beginners	141	68	48	65
Spanish Continuers	147	90	61	69
Spanish Extension	51	44	86	77
Turkish	48	24	50	46
Vietnamese	134	63	47	67
Accounting	459	261	57	70
Business Services Exam	1 061	454	43	76
Construction Exam	651	293	45	72
Entertainment Exam	669	262	39	79
Hospitality Exam	4 382	1 705	39	78
Information Technology Exam	1 489	652	44	67
Metal and Engineering Exam	281	137	49	61
Primary Industries Exam	304	138	45	77
Retail Operations Exam	792	271	34	69
Tourism Exam	285	99	35	69
Distinction Courses	91	91	100	49

Table A7 Number of units students completed, by UAI

- Notes: (i) UAIs are truncated so that, for example, a UAI of 90 includes all UAIs from 90.00 to 90.95.
(ii) The **Number** column shows the number of students with each truncated UAI.
(iii) The **Percentage of students who completed** columns show the percentage of students who completed 10, 11, 12, 13, 14, >14 and >10 units.

UAI	Number	Percentage of students who completed						
		10 units	11 units	12 units	13 units	14 units	>14 units	>10 units
100	23	13	9	13	22	22	22	87
99	866	17	23	38	14	6	3	83
98	868	22	31	35	8	3	1	78
97	858	24	32	33	8	2	1	76
96	866	24	34	34	6	2	<1	76
95	853	24	34	33	8	1	<1	76
94	867	26	34	33	6	1	<1	74
93	843	29	35	30	5	1	<1	71
92	834	29	38	27	5	<1	1	71
91	855	30	33	30	6	1	<1	70
90	835	33	36	26	5	<1	<1	67
89	841	31	34	29	5	<1	<1	69
88	812	35	35	25	4	<1	<1	65
87	821	33	35	26	5	<1		67
86	839	39	34	23	4	<1		61
85	844	40	32	25	4	<1		60
84	827	37	35	25	3	1	<1	63
83	816	40	31	25	3	<1		60
82	841	40	33	23	4	<1		60
81	801	38	34	23	4	<1	<1	62
80	822	41	32	23	4	<1		59
79	773	43	31	23	3	<1		57
78	824	42	31	23	4			58
77	776	45	31	20	3	<1	<1	55
76	796	48	29	21	3	<1		52
75	769	47	27	23	2	<1		53
74	791	48	28	21	3	<1	<1	52
73	750	51	28	19	2	<1		49
72	766	52	28	17	3	<1		48
71	762	48	29	20	2	<1	<1	52
70	765	51	29	19	1	<1	<1	49
69	752	52	27	19	2	<1		48
68	731	50	29	18	2	<1		50
67	720	55	23	20	2	<1		45
66	711	57	24	18	2			43
65	725	57	23	17	2	<1		43
64	691	58	24	17	1	<1		42
63	683	54	29	15	2		<1	46
62	680	58	24	16	1	<1	<1	42
61	686	58	25	15	1			42
60	643	58	26	15	1	<1		42

**Table A8 Relationship between UAI, percentile and aggregate:
2004 – 2008**

Note: The percentile shown in this table is the percentage of the UAI cohort for that year with a UAI less than or equal to the selected value. Since there is a range of aggregates corresponding to each UAI the aggregates given in this table are the lowest aggregates for the selected UAIs.

UAI	Percentile					Aggregate				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
100.00	100.0	100.0	100.0	100.0	100.0	483.0	482.4	482.5	485.0	483.5
99.50	99.2	99.2	99.2	99.2	99.2	454.9	456.7	454.2	458.1	457.7
99.00	98.4	98.4	98.4	98.4	98.4	444.8	446.5	444.1	447.3	447.1
98.00	96.8	96.8	96.7	96.7	96.7	430.4	431.6	430.7	432.3	432.9
95.00	92.0	92.0	91.8	91.7	91.7	403.5	404.1	403.9	403.2	404.1
90.00	84.1	84.1	83.8	83.5	83.6	371.7	371.9	372.8	370.9	371.5
85.00	76.4	76.3	75.9	75.5	75.6	346.0	346.6	346.4	345.0	345.2
80.00	68.8	68.8	68.1	67.7	67.7	322.6	323.7	322.5	321.2	322.1
75.00	61.5	61.4	60.7	60.1	60.1	301.5	303.3	301.6	300.0	300.4
70.00	54.3	54.3	53.3	52.8	52.7	281.5	283.2	281.5	279.3	279.2
65.00	47.5	47.5	46.3	45.8	45.7	262.1	264.0	262.2	260.3	260.1
60.00	41.0	41.0	39.8	39.4	39.2	243.7	244.9	243.9	241.4	242.5
55.00	34.9	34.9	33.7	33.3	33.0	225.9	227.5	226.2	224.4	224.0
50.00	29.3	29.2	28.2	27.7	27.3	207.9	209.2	209.1	207.2	205.6