Committee of Chairs of Academic Boards/Senates of Universities in NSW and the ACT

ITEM 5.1 REPORT OF THE TECHNICAL COMMITTEE ON SCALING 2006

RECOMMENDATION

that it be recommended to the NSW VCC: that the highest UAI be 99.95 rather than 100.00

Technical Committee on Scaling Report of UAI calculations 2006

1. Overview

A copy of the Annual Report on the Scaling of the NSW Higher School Certificate is attached. The process went smoothly and there were fewer enquiries than usual. As the report notes there were fewer students eligible for a UAI in 2006 because of the change in eligibility rules but I had only one special consideration request.

2. UAIs of 100

2.1 Background

When the decision was taken to move from an aggregate of scaled marks to a ranking, the method adopted was to calculate the percentile corresponding to each aggregate and round the percentiles to the nearest 0.05. This was designated the Tertiary Entrance Rank (TER).

For each TER there was a range of percentiles: a TER of 80.00, for example, included percentiles greater than 79.95 and less than or equal to 80.05. A consequence of this decision was that percentiles greater than 99.975 were rounded to 100.00 and those less that 0.025 were rounded to 0.00, so that TERs were a set of numbers running from 0.00 to 100.00 with increments of 0.05.

In most documents a student's TER has been said to indicate the percentage of Year 12 students ranked below that student. Thus, a student who gained a TER of 95.00 was said to have done well enough in the HSC to be ranked above 95.00% of those Year 12 students who were eligible for a TER. This is true if the TERs are percentiles rounded to the nearest 0.05.

In 1998 the reference cohort was changed from the Year 12 students who were eligible for a TER to the Year 10 cohort two years previous, and the named changed to the Universities Admission Index (UAI). This was in response to a national initiative to make the selection indices from the states and territories equivalent so that a UAI of 80.00 in New South Wales was regarded as the same as an ENTER score of 80.00 from Victoria.

New South Wales maintained its approach to calculating the UAIs by rounding the percentiles to the nearest 0.05 so that the highest achieving students in New South Wales received a UAI of 100.00. In the other states, which used a slightly different methodology, the highest students receive a TER/ENTER of 99.95. This has, in the past, not been an issue as if New South Wales applicants with a UAI of 100.00 applied, for example, for a Victorian university, they were regarded as having the same rank as Victorian students with an ENTER of 99.95.

In recent years, several states have argued that New South Wales should modify its procedure to make its results consistent with those of other states, so that the highest achieving students in all states and territories received a TER/UAI/ENTER of 99.95. Consistency has emerged as an issue with the granting of scholarships to applicants with the highest selection indices. Because there are proportionally more New South Wales students with UAIs of 99.95 or 100.00 than, for example, Victorian students with ENTERS of 99.95, New South Wales applicants are perceived to be advantaged if they apply for a place at a Victorian university.

2.2 Recommendation

Given the national initiatives for greater consistency between states and territories, I recommend that we modify our methodology so that the highest UAI is 99.95 rather than 100.00. The technical changes are minimal and the change to the distribution of UAIs is also minimal except at the top, where the number of students with the highest ranking would increase from 21 to 41 (based on 2006 data). The frequencies at subsequent UAIs will, however, remain approximately the same.

Such a change would make the meaning of a UAI clearer. Students in the top group will no longer be seen as having a "perfect score", but will be seen as having achieved at a standard which ranks them above 99.95% of their cohort.

The recommended change can be justified by appeal to the need to achieve greater consistency between states and territories in the way the student achievement is reported at the end of schooling.

2.3 Implications for universities

There are no implications for selection into courses *per se*, but adjustments would need to be made by universities who offer scholarships on the basis of UAIs of 100.00.

3. Use of the UAI for selection

In January the methods that universities used to select school leavers received some attention in the media. What follows is an article that will appear in the March issue of Macquarie's *University News*.

"University entry system close to collapse Don't feel silly, even the man in charge says it's confusing"

These were two provocative headlines in the Sydney Morning Herald early in the year (19th and 20th January, 2007). "Close to collapse" is an obvious over statement and designed to attract readers, I am sure that all NSW Vice-Chancellors would disagree with the proposition that I am in charge but "confusing" is appropriate. What are the facts?

Despite the rhetoric the UAI remains, for the majority of university courses, the sole selection index for school leaver applicants. There are, however, some applicants who are admitted with UAIs below the published cut-off marks. This is not an issue with full-fee paying students, as these students will always qualify with lower HSC scores than those offered a Commonwealth Supported Place – why would it be otherwise? The only point of issue for these applicants is the size of the difference between the two cut-offs, and that is determined by the number of full-fee paying students to be admitted to a course and the number of such applicants.

A glance through the *UAC 2007 Guide* reveals the growth in other selection indices, some of which supplement the UAI and others which are alternative pathways. Among the latter are principals' recommendations, the Educational Access Scheme (EAS) administered by the UAC, flexible/special entry schemes administered by different universities and regional bonuses. The broad details of these alternative pathways are often found, for each university, in a paragraph headed *Offers made to applicants who have a UAI below the published cut-off*, but specific details are not, however, always found in subsequent pages.

It is easy to understand the desire to have alternative admission schemes for school leavers in order to overcome aspects of disadvantage not included in the EAS or to strengthen links between a university and its community, and I am not opposed to such schemes provided they work. Two-stage selection procedures where performance in particular HSC courses is considered for students whose UAIs are below specified values are, on the surface, attractive. However, their predictive validity, and that of other selection methods, needs to be tested.

I am concerned about the lack of published specific information on some of these alternative pathways and the resulting impact on applicants. Despite the entry in the *UAC 2007 Guide*, most school leaver applicants assume that the published cut-offs for the 2006 Main Round are the minimum UAIs of applicants who were admitted to the courses on offer. Knowing that there are alternative pathways does not really assist them in formulating their preferences unless specific details are provided about how many applicants are admitted through alternative schemes, how decisions are made and, in the case of two-stage procedures, what particular HSC courses are considered.

Another concern I have is with community perceptions of quality, which can then affect student preferences. Despite advice to the contrary, the quality of a university course is often judged by the quality of its intake as measured by its published cut-off. This is not surprising as it is difficult to compare the quality of graduates from different universities except anecdotally. Where there are alternative pathways the published information is only relevant, however, for those selected on the basis of their UAI, and the proportion of these students in the total group of those selected is unknown.

To sum up, to say that university entrance is close to collapse is an overstatement: the UAI is still widely used and all universities use procedures they can justify. On the other hand, many of the current procedures are confusing to applicants and to the broader community because of the lack of specific published information about alternative ways into university for school leavers, the predictive validity of such schemes and the number of applicants admitted through these pathways. It is time that this information is placed in the public domain. It is also time that we had a serious discussion about the nature of the disadvantage these alternative pathways are meant to address.

4. Issues for 2007

4.1 Review of IB/UAI relativities

The revised IB/UAI relativities take effect for the first time in 2007; the effect of which is to lower the UAI equivalent of the students who just pass the IB. When the research for this re-calibration was carried out three years ago, there was agreement that further research would be carried out in 2007.

4.2 The scaling of General Mathematics and Mathematics

Some mathematics teachers have expressed concern about the scaling of Mathematics and whether the current procedures advantage students who complete General Mathematics. The results of current research will be presented to the next meeting of the Technical Committee on Scaling.

Professor George Cooney Chair, Technical Committee on Scaling

NSW Vice-Chancellors Committee

Technical Committee on Scaling

Report of the Scaling of the NSW Higher School Certificate 2006

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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 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 comparison of students who have completed different combinations of HSC courses. 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 2006. Questions are still asked about the scaling of English, why UAIs are generally lower than the HSC marks reported to students, and why one course contributes to a UAI and not another. These matters are again covered in this report.

The change in the UAI eligibility requirements, which took effect in 2006, resulted in 717 students who would have been eligible for a UAI in 2005 not being eligible in 2006. As most of these students were of lower academic achievement there was a small change in the distribution of UAIs in 2006 as compared with 2005.

Professor George Cooney

School of Education, Macquarie University Chair, Technical Committee on Scaling February 2007

Acknowledgements

Calculating 50744 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

In this report 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

In this report *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

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

UAI cohort

In this report *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

In this report *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.

1 The Higher School Certificate

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

1.1 Eligibility for an HSC

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

These HSC courses must include at least:

- six units of Board Developed courses
- two units of a Board Developed course in English
- 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 web site, <u>www.boardofstudies.nsw.edu.au</u>

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 Bands for 2 unit courses and four for Extension courses.

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

It follows that, although the standards described by the Bands in a course will be the same from year to year, **standards in different courses will be not be the same as they are based on different criteria**. It is likely that the percentage of students in each Band will vary across courses, and may vary from year to year.

The range of marks for the Bands are as follows:

2 unit courses

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

Extension courses (except Mathematics Extension 2)

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

Mathematics Extension 2

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

Mathematics Extension 2 students have their achievement reported using four Bands but the mark range is out of 100 rather than 50.

1.2.2 Examination marks

The examination mark reported on a student's Record of Achievement indicates the standard a student has attained in that examination. If, for example, a student's performance in the Society and Culture examination is at the standard described for 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 Band. For example, a mark of 62 means that, while the student has performed at a 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 2006* and on the Board's web site, <u>www.boardofstudies.nsw.edu.au</u>

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 UAI will receive a UAI Advice Notice from 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.

Specifically, a UAI indicates the position of a student relative to their Year 10 cohort. That is, students who receive a UAI of 80.00 in 2006, for example, have performed well enough in the HSC to place them 20% from the top of their Year 10 cohort, assuming that all the 2004 Year 10 students completed Year 12 and were eligible for a UAI in 2006.

2.2 Categorisation of UAI courses

UAI courses are assessed by formal examinations conducted by the Board and have sufficient academic rigour to be useful as 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 2006 the Category B courses were:

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

¹A Board Developed course delivered by TAFE.

2.3 Eligibility for a UAI in 2006

To be eligible for a UAI a student must satisfactorily complete at least 10 units of UAI courses. These UAI courses must include 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

Prior to 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 very 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 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 cases 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.

2006 Universities Admission Index Advice Your Universities Admission Index (UAI): 73:00 *SEVEN*THREE***ZERO*ZERO							
CourseCategoryYearUnitUnits included innamecompletedvaluecalculation of UAI							
Economics	А	2006	2	1			
English Standard	А	2006	2	2			
Legal Studies	А	2006	2	2			
Mathematics	А	2006	2	2			
Studies of Religion I	А	2006	1	0			
French Continuers	А	2006	2	2			
French Extension	А	2006	1	1			

An example of a UAI Advice Notice is given below.

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 the 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 2006

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 2006 there were 26784 different enrolment patterns for UAI-eligible students; only 186 of these 26784 combinations were completed by 18 or more students and 19625 were taken by only one student.

Given the choice available, it follows that a student's ranks 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 and the underlying principle is that a student should neither be advantaged nor disadvantaged by choosing one HSC course over another. The scaling algorithm therefore 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 the course candidature.

Scaling 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. 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. Percentiles, which indicate the ranking of students with respect to other UAI-eligible students, are then determined on the basis of these aggregates.

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. 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. Students who received a UAI of 100.00 in 2006, for example, had aggregates spread across the range 482.5 to 490.5.

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 2006

The scaling procedure used in 2006, which is described in this section, was unchanged from that used in 2005.

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. Mathematics Extension 1 is scaled as a single course and is reported as a single course in this report. The three Distinction courses are 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 deviations for 2 unit courses are the standard deviations of the measure of overall academic achievement of the course candidatures.

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, 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.

A second Extension course exists for both Mathematics and English. Scaled means and standard deviations for their 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 their performance 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 quality of the course candidature in such a way that the maximum possible scaled mark for the combined English 2 unit candidature is 50 on a one-unit basis.

In 2006 the maximum possible scaled mark in a course was given by the smaller of 50 and the scaled mean + 2.51 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 2.51 was calculated 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 standard deviations rather than the original 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 percentiles

Aggregates of scaled marks are calculated to one decimal place according to the rules described in section 2.4. Percentiles, which show the position of students relative to their UAI cohort, are then determined for these aggregates. The 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 percentiles corresponding to selected aggregates for the 2006 UAI cohort. From the table it can be seen that, for example, 77.0% of the 2006 UAI cohort received an aggregate mark of 350 or less.

Aggregate	Percentile
450.0	98.8
400.0	90.9
350.0	77.0
300.0	60.0
250.0	41.9
200.0	25.5
150.0	12.4

Table 3.1Percentiles corresponding to selected aggregates: 2006

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 UAI cohort. The next step is to compare this UAI cohort with the corresponding Year 10 cohort using the School Certificate Examination as the means of comparison. Once this is done, a student's position relative to their SC cohort can be established – this is their UAI.

A total School Certificate mark (SC mark) is calculated for each student and is used as the basis of comparison of the UAI cohort and the corresponding SC cohort. In 2004 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 50744 students in the 2006 UAI cohort, 46181 completed the School Certificate Examination in 2004: 59.0% of the 78214 students in that SC cohort.

The next step is to calculate frequency distributions of the SC mark for all 2004 Year 10 students and for those who were eligible for a UAI in 2006. The differences in the two frequency distributions (Figure 3.1) show that the 2004 Year 10 students who were eligible for a UAI in 2006 were generally academically more able than the total 2004 SC cohort.

Another way of presenting the data is to calculate the proportion of students on each SC mark in 2004 who subsequently gained a UAI in 2006. The result of this calculation is presented graphically in Figure 3.2. The graph shows that the likelihood of a group of 2004 Year 10 students continuing with their schooling and being eligible for a UAI in 2006 increases with SC mark.



Figure 3.1 Frequency distributions of SC marks for the 2004 Year 10 cohort and for students who were also in the 2006 UAI cohort

Figure 3.2 Proportion of the 2004 Year 10 cohort who were also in the 2006 UAI cohort by SC mark



The data from Figure 3.1 are then used to link a UAI cohort position with the position relative to the 2004 SC cohort. For each SC mark two percentages are calculated:

- 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 2006 UAI cohort who had a SC mark less than or equal to the given SC mark (UAI-eligible percentile).

The equivalences 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; for the actual calculations they are not rounded.

UAI-eligible percentile	SC percentile
99.0	99.4
90.0	93.9
80.0	87.6
70.0	81.2
60.0	74.6
50.0	67.6
40.0	60.2
30.0	51.7
20.0	41.8
15.0	35.9

Table 3.2Relationship between SC percentiles and UAI-eligible percentiles

These equivalences show, for example, that students who were in the top 10% of the 2006 UAI-eligible cohort (UAI-eligible percentile of 90.0) were in the top 6.1% of the total 2004 SC cohort (SC percentile of 93.9).



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

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 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 are the UAIs.

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

Aggregate	UAI
450.0	99.25
400.0	94.40
350.0	85.75
300.0	74.60
250.0	61.70
200.0	47.45
150.0	32.20

Table 3.3Relationship between aggregate and UAI

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 23% from the top of the 2006 UAI cohort; a percentile of 77.0. From Table 3.2 we can estimate by linear interpolation that students who are at the 77th percentile of the UAI-eligible percentile are at the 85.68th percentile of the 2004 SC cohort. This means that students with an aggregate of 350.0 have performed well enough in the HSC to be at the 85.68th percentile of their SC cohort. Their percentile is rounded, giving an estimated UAI of 85.70. The actual UAI, from Table 3.3, is 85.75.





4 The HSC and UAI in 2006 – some results

4.1 Overview

In 2006 a total of 65461 students completed at least one HSC course, but 1187 were removed from the data base as they completed no UAI course in 2006. Of the remaining pool of 64274 students 60397 (94.0%) received an HSC and 50744 (78.9%) received a UAI. Only 27 students who received a UAI were not eligible for the HSC. While studies contributing to the underlying aggregate may be accumulated over a five year period, in 2006 96.3% of those receiving a UAI completed their requirements on the basis of their 2006 courses.

The change in the UAI eligibility requirements for 2006, whereby students were required to complete at least eight units of Category A courses, meant that 717 students who would have been eligible for a UAI in 2005 were not eligible in 2006, leading to a decline in the UAI-eligible participation rate.

The percentage of female students (52.2%) enrolled in at least one UAI course was similar to that of previous years, as was the percentage of female students (53.3%) who received a UAI.

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 (or its predecessor, the TER). The percentage increased from 80.5% in 1997 to 82.8% in 2000, was relatively steady from 2001 to 2003, dropped to 80.6% in 2005 and then to 78.9% in 2006.

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.

Year	HSC candidature	Students receiving a TER/UAI	
		Number	%
1997	60631	48785	80.5
1998	62967	49965	79.4
1999	63926	50560	79.1
2000	61768	51172	82.8
2001	60788	49782	81.9
2002	63120	51648	81.8
2003	63387	51736	81.6
2004	64267	51999	80.9
2005	63867	51461	80.6
2006	64274	50744	78.9

Table 4.1Proportion of students receiving a TER/UAI: 1997 – 2006

4.3 Number of units of UAI courses completed

The pattern in 2006 was similar to that observed in 2005, with 41.8% completing exactly 10 UAI units and 38.3% completing more than the required minimum number of UAI units (Table 4.2).

Number of units	2003	2003 2004	2005	2006	
	%	%	%	%	Number
1	0.05	0.05	0.04	0.03	17
2	2.7	3.0	3.2	3.2	2066
3	0.3	0.3	0.2	0.3	194
4	2.4	2.6	2.8	2.9	1848
5	0.1	0.1	0.1	0.1	79
6	5.3	5.4	5.2	5.6	3580
7	0.2	0.2	0.2	0.2	137
8	6.8	6.9	7.0	7.1	4566
9	0.4	0.4	0.5	0.5	325
10	43.2	42.4	42.2	41.8	26877
11	19.5	19.9	19.9	20.0	12859
12	16.0	15.6	15.6	15.6	10004
13	2.3	2.4	2.3	2.1	1370
14	0.4	0.4	0.4	0.4	263
15+	0.2	0.2	0.2	0.1	89
HSC cohort	63387	64267	63867		64274

Table 4.2Percentage of students completing specified numbers of units1 of UAI
courses: 2003 – 2006

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

Since 1995 there has been an increasing number of students choosing to complete a pattern of courses that does not lead to a UAI. In 2006 the number of HSC-eligible students who did not receive a UAI was 9680 (15.1%).

4.4 Course enrolments – Table A1

Table A1 provides, for each course, the size of the candidature, the percentage of females and the maximum UAI gained by a student enrolled in that course. The table includes students who have completed the course in 2006 and in previous years but excludes courses where there were less than 10 students.

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 16960 students enrolled in at least one VET course, of whom 13109 students enrolled in a VET examination course. These figures are slightly lower than the corresponding numbers for 2005 (17509 and 13851 respectively).

Overall, 78.9% of the 2006 HSC cohort received UAIs but the percentage varied across courses, from 62.0% to 100% for Category A courses with candidatures exceeding 100. For students enrolled in any VET courses the overall figure was 59.8% but was higher, 76.4%, for students enrolled in VET examination courses.

4.5 Distributions of HSC marks – Table A2

Table A2 in the Appendix shows the distribution of HSC marks in 2006. 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.

Few students are placed in Band 1 and, for most 2 unit courses, the medians lie in Band 4.

Comparison of Table A2 with the corresponding table in 2005 shows that distribution of HSC marks has changed for some courses. This is not surprising, and will be further 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 and 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 HSC 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 2006 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 and scaled 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. Therefore there is no unique scaled mark for each HSC mark: 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, Geography and Legal Studies. Legal Studies and Geography 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.

Course	Scaled	Scaled n	nark for
	mean	P ₉₀	P ₇₅
Economics	30.8	42.4	38.8
Geography	25.7	39.1	33.6
Legal Studies	25.2	38.6	33.1

Table 4.3Scaled marks for selected percentiles

The table also shows that Geography 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 2006 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 2004 SC cohort had all those students continued to Year 12 and been eligible for a UAI in 2006.

UAIs are **not** evenly distributed (see Table A7 in the Appendix and Figure 4.1). 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 2006 the distribution of UAIs was similar to those of previous years (see Table 4.4) for UAIs greater than 70.00, with 16.3% of the UAI-eligible students receiving a UAI of 90.00 or above and 32.0% gaining a UAI of 80.00 and above. For lower UAIs the percentages were

higher than in previous years because of the reduction of UAI-eligible students in 2006. For the same reason, the median UAI in 2006 is higher than that in previous years (see Table 4.5).

UAI	2003 %	2004 %	2005 %	2006 %
99.00	1.7	1.6	1.7	1.7
95.00	8.1	8.1	8.1	8.2
90.00	15.8	16.0	15.9	16.3
80.00	30.8	31.3	31.3	32.0
70.00	44.8	45.8	45.7	46.8
60.00	57.8	59.1	59.0	60.2
50.00	69.2	70.8	70.9	71.9

Table 4.4Percentage of UAI students receiving specific UAIs and above:2003 - 2006

Table 4.5

Median UAI: 2003 – 2006

	2003	2004	2005	2006
Median UAI	66.10	66.85	66.90	67.65

In 2006, 21 students received a UAI of 100, 11 males and 10 females, from a mix of government and independent schools.

4.8 Gender differences

Although female students outperformed male students in the majority of courses and had a higher average UAI, this result is similar to what has been observed in previous years.

Table 4.6 shows that the percentages of students receiving UAIs on or above specified values who were female have not changed substantially over the past four years.

UAI	2003 %	2004 %	2005 %	2006 %
99.00	53.1	56.7	54.0	52.8
98.00	55.6	56.8	55.3	55.7
95.00	57.9	57.6	56.3	56.6
90.00	58.6	58.1	58.1	57.7
80.00	58.5	57.9	58.7	57.6
70.00	57.8	57.3	58.1	57.1
60.00	57.0	56.9	57.3	56.5
50.00	56.2	56.0	56.4	55.6
40.00	55.2	55.2	55.6	55.0
30.00	54.5	54.3	54.9	54.4
Total	52.7	52.5	53.2	53.3

Table 4.6Percentage of students receiving UAIs on or above specified
values who were female: 2003 – 2006

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Figure 4.2 shows the percentage of students on each UAI who were female. For the graph the UAIs have been truncated, so that a UAI of 90, for example, includes UAIs from 90.00 to 90.95. Overall 53.3% 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.





4..9 University offers

Of the 50744 students who received a UAI in 2006, 36950 (72.8%) applied through UAC for a university course. Of these applicants 29066 (78.7%) were made at least one offer of a place, which was slightly higher than the corresponding figure for the previous year (77.5%) because of additional places available in some areas. Table 4.7 provides a breakdown of applicants by UAI band.

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 on or before the Main Round.

UAI band	Total	Applicants		Total Applicants		Ofj)ffers	
	number of students	Number	% ¹	Number	% ²			
90.00 - 100.00	8271	8075	97.6	8063	99.9			
80.00 - 89.95	7955	7495	94.2	7451	99.4			
70.00 - 79.95	7505	6672	89.9	6450	96.7			
60.00 - 69.95	6839	5472	80.0	4666	85.3			
50.00 - 59.95	5897	3826	64.9	1751	45.8			
Below 50.00	14277	5410	37.9	685	12.7			
Total	50744	36950	72.8	29066	78.7			

Table 4.7Applicants for university places by UAI

¹ These are percentages of the total number of students in the given UAI band. ² These are percentages of the number of applicants in the given UAI band.

The table above shows an obvious relationship between the UAI and the probability of an offer.

Not all the applicants in Table 4.7 were ranked solely on the basis of their UAIs. For some courses other criteria were used, while for other courses their UAI was supplemented by additional criteria.

The percentage of offers made to students with UAIs below 70.00 was considerably higher than the corresponding figure last year, which may be a consequence of universities having additional places available or of alternative selection procedures being used in some areas.

5 Trends and other issues

In this report on the calculation of the UAI in 2006, some additional material is provided to examine 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 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 no. It is to be expected that the patterns of HSC marks will 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, usually as a result of a substantial change in the size of the candidature.

Tables A4 and A5 in the Appendix show the distributions of HSC and scaled marks, respectively, in 2006 and 2005. 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 2006 and 2005. Table A5 provides similar information for scaled marks.

The data show clearly that while the distributions of HSC marks change for some courses, the distributions of scaled marks are generally the same. The exceptions are some small courses and courses which have had very large changes in candidature.

General Mathematics is an example of a course where there was a small (2%) increase in candidature in 2006 accompanied by a small change in the distribution of HSC marks (Table 5.1). In 2006 there were more students with lower HSC marks than in 2005. For example, in 2006 50.1% of the candidature did not achieve Band 4 compared to 42.1% in 2005. The distributions of scaled marks were, however, similar.

Mark	Year	Enrolment	Percentage of students with mark less than:				
			45	40	35	30	25
HSC mark	2006	29248	96.9	82.1	50.1	23.0	7.5
	2005	28673	95.6	76.5	42.1	14.2	4.8
Scaled mark	2005	27734	97.1	84.6	64.5	42.9	23.3
	2005	27542	97.7	85.2	64.6	42.8	23.0

Table 5.1Distributions of HSC and scaled marks for General Mathematics:
2005 and 2006

Taken together, the data indicate that the 2006 candidature in General Mathematics was slightly different to the corresponding course candidature in 2005 in relation to their achievement in Mathematics but not in terms of their overall academic quality. The performance of the 2006 candidature in Mathematics was judged to be slightly lower than that of the 2005 candidature but their overall academic quality was the same, as reflected in their scaled marks.

5.2 Distributions of English and Mathematics marks: 2003 – 2006

Because all students study English, and most study Mathematics, comparative data is shown for English and Mathematics courses for the four years, 2003 to 2006. Table 5.3 shows the changes in the distributions of HSC marks and Table 5.4 shows the changes in the distributions of scaled marks.

Course	Year	Enrolment	t Percentage of students with HSC mark less than:					
			45	40	35	30	25	
English Standard	2006	30470	99.9	96.7	66.1	19.4	4.8	
	2005	30140	99.9	97.6	66.2	20.6	3.7	
	2004	30887	99.9	98.0	67.7	19.9	1.1	
	2003	33097	99.9	98.1	65.8	18.5	0.9	
English Advanced	2006	27734	94.0	61.2	17.6	1.7	0.1	
	2005	27542	92.0	54.1	10.0	1.1	0.1	
	2004	26969	92.4	49.8	9.9	0.8	0.1	
	2003	24582	93.2	58.3	11.7	0.6	0.0	
English Extension 1	2006	6207	83.1	47.2	16.3	4.2	1.2	
	2005	6282	76.1	40.1	14.5	3.9	1.2	
	2004	5972	77.3	43.5	18.6	6.4	1.7	
	2003	5174	83.1	50.7	22.8	5.6	1.5	
English Extension 2	2006	2559	68.7	41.7	20.6	8.1	3.2	
	2005	2608	67.7	41.8	19.4	6.0	2.3	
	2004	2439	60.5	31.3	13.0	6.1	2.3	
	2003	2288	57.0	32.3	15.1	5.5	1.4	
ESL	2006	2763	98.8	78.1	38.2	14.9	5.2	
	2005	2920	98.0	79.2	45.4	21.2	7.6	
	2004	3060	99.0	75.5	44.6	18.6	6.7	
	2003	2598	98.5	75.3	38.0	12.6	3.1	
General Mathematics	2006	29248	96.9	82.1	50.1	23.0	7.5	
	2005	28673	95.6	76.5	42.1	14.2	4.8	
	2004	29375	96.1	80.7	48.6	18.9	6.2	
	2003	29871	97.4	83.6	57.2	27.9	10.4	
Mathematics	2006	18124	85.4	61.1	34.8	16.5	7.5	
	2005	19006	84.9	61.0	35.9	16.8	6.2	
	2004	19749	84.4	57.9	31.2	13.5	4.5	
	2003	19881	85.5	60.2	31.7	13.8	5.3	
Mathematics Extension 1	2006	9017	69.6	46.8	28.2	15.4	8.7	
	2005	9359	68.7	45.4	25.8	12.8	6.2	
	2004	9955	69.2	46.8	30.1	16.9	9.1	
	2003	9299	68.6	45.1	26.5	12.9	5.9	
Mathematics Extension 2	2006	3146	71.2	40.3	17.9	9.2	4.6	
	2005	3240	69.0	35.8	13.4	4.9	2.0	
	2004	3512	72.7	41.7	18.0	7.5	3.6	
	2003	3222	67.2	39.3	19.0	7.7	3.3	

Table 5.3Distributions of HSC marks for English and Mathematics courses:2003 - 2006

Course	Year	Enrolment	Percentage of students with scaled mark less than:					n:
			45	40	35	30	25	20
English Standard	2006	30470	99.9	99.7	98.0	93.2	82.1	62.3
	2005	30140	99.9	99.6	97.9	92.8	81.2	62.1
	2004	30887	99.9	99.7	98.0	92.7	80.1	60.7
	2003	33097	99.9	99.7	98.3	92.9	80.2	58.8
English Advanced	2006	27734	97.1	84.6	64.5	42.9	23.3	10.0
	2005	27542	97.7	85.2	64.6	42.8	23.0	9.3
	2004	26969	97.3	85.1	65.5	43.1	22.1	9.6
	2003	24582	96.8	82.5	59.9	36.9	18.8	7.7
English Extension 1	2006	6207	94.1	68.1	36.1	15.5	5.8	2.2
	2005	6282	95.3	69.6	37.5	14.6	4.9	1.7
	2004	5972	91.7	65.7	37.2	17.0	6.0	1.9
	2003	5174	90.6	61.9	31.8	12.3	4.1	1.2
English Extension 2	2006	2559	89.5	64.4	37.9	17.4	5.6	2.1
	2005	2608	90.8	67.2	37.3	15.8	5.0	1.8
	2004	2439	89.3	62.0	35.1	14.8	6.8	2.4
	2003	2288	84.9	58.9	32.4	13.3	4.8	1.0
ESL	2006	2763	98.7	94.3	85.3	74.9	61.2	46.9
	2005	2920	97.9	93.6	86.1	74.1	60.2	46.3
	2004	3060	98.7	93.0	83.4	70.7	56.8	42.6
	2003	2598	98.5	93.3	84.1	71.0	56.1	40.5
General Mathematics	2006	29248	99.9	98.3	91.1	79.6	64.6	47.8
	2005	28673	99.9	98.0	90.1	78.4	64.3	49.2
	2004	29375	100.0	98.5	91.4	80.2	66.1	50.0
	2003	29871	100.0	98.8	92.6	81.0	66.2	49.7
Mathematics	2006	18124	97.7	84.1	64.1	44.2	28.0	16.1
	2005	19006	97.6	84.9	65.9	45.8	28.9	16.3
	2004	19749	98.1	84.5	65.1	45.8	29.6	17.6
	2003	19881	97.9	85.9	66.9	46.1	28.5	16.3
Mathematics Extension 1	2006	9017	80.3	42.6	19.6	9.5	4.9	2.4
	2005	9359	74.4	40.7	20.9	10.3	5.5	2.9
	2004	9955	78.7	42.7	22.2	11.2	5.3	2.5
	2003	9299	74.1	39.2	20.3	10.5	5.5	2.8
Mathematics Extension 2	2006	3146	57.2	15.5	5.1	2.3	1.1	0.5
	2005	3240	48.2	14.0	5.3	2.7	1.5	0.8
	2004	3512	60.5	17.0	5.8	2.9	1.6	0.8
	2003	3222	47.3	12.8	4.7	2.0	1.1	0.7

Table 5.4Distributions of scaled marks for English and Mathematics courses:2003 - 2006

5.3 Courses that contribute to the UAI – Table A6

There are three related questions regarding which courses contribute towards the UAI. The first two are at an individual level:

- "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 web site at <u>www.uac.edu.au</u>

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 (done in any year):

- The first column shows the total number of students who received a UAI in 2006.
- The second column shows the number of students who completed more than 10 units.
- The third column expresses this number as a percentage. This percentage varies across courses with a figure of 35% for Dance, 76% for English Extension 1, and 39% for Society and Culture.
- 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.

Of the 102 courses listed in Table A6, 74% 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 UAIs 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 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 better 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 2002 to 2006, both the aggregate and 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 2006 corresponds to a 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 while the relationship between UAI, aggregate and percentile is reasonably stable, there are minor differences from year to year. The 2004 and 2005 data were different, for lower aggregates, from those of previous years because of the changes in the distribution of the SC marks in 2002. The marked change from 2005 to 2006 is a consequence of the smaller number of students who were eligible for a UAI in 2006 due to the new eligibility requirements and the fact that the missing students tended to be lower performers as judged by the 2004 School Certificate examinations.

6 Frequently asked questions

There were relatively few enquiries and little media attention following release of the UAIs in 2006. 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 fully 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. What can be said, however, is that if a student is in the middle group of students enrolled in their courses their UAI is likely to be in the mid 60s, but this means gaining HSC marks in the 70s rather than in the 60s.

There is, however, no general rule as the pattern of HSC marks varies across courses so that the same HSC mark does not necessarily indicate similar positions across courses. In addition, courses do not necessarily have the same scaled means. The following examples illustrate this point .

Example 1

UAI	Course	HSC mark
65.00	5.00 English Standard	
	Geography	80
	Physics	69
	Studies of Religion II	82
	Mathematics	59
	French Beginners	70
75.00	Economics	68
	Engineering Studies	80
	English Standard	72
	Mathematics	85
	Mathematics Extension 1	28
	Physics	74

HSC UAI Course mark 65.00 70 **Business Studies** Design & Technology 84 English Advanced 71 General Mathematics 75 Information Processes and 79 Technology 75.00 Ancient History 80 **Business Studies** 84 English Advanced 69 Legal Studies 79 Mathematics 81

Table 6.1 Examples of student achievement for specified UAIs
UAI	Course	HSC mark	UAI	Course	HSC mark
85.00	Business Studies	87	85.00	Biology	89
	English Advanced	76		Chemistry	72
	English Extension 1	36		English Advanced	74
	Geography	87		Mathematics	90
	Mathematics	70		Physics	78
	Hospitality Exam	92		Studies of Religion I	42
95.65	Biology	91	99.00	English Advanced	88
	English Advanced	87		Mathematics	93
	Chemistry	80		Mathematics Extension 1	43
	Mathematics	88		Music 2	97
	Spanish Continuers	96		Music Extension	50
				Italian Continuers	92

Table 6.1 Examples of student achievement for specified UAIs (contd)

Two further examples will be given to demonstrate some of the complexity of trying to estimate UAIs from HSC marks. The first is the case of Elizabeth and the second a comparison of two students, Laura and Fred.

Example 2

Course	Examination mark	Assessment mark	HSC mark	Performance Band
Business Studies	83	77	80	5
English Advanced	77	73	75	4
Mathematics	75	83	79	4
Modern History	84	80	82	5
Visual Arts	80	84	82	5
French Continuers	89	85	87	5

Table 6.2Elizabeth's Record of Achievement

The marks on Elizabeth's Record of Achievement are marks that have been aligned to the Board's standards but the starting point for the UAI is the corresponding set of raw marks, which are not released. However, from Table A3 it is possible to estimate the percentiles corresponding to her HSC marks and estimate the corresponding scaled marks (Table 6.3).

Course	HSC mark	Percentile	Scaled mark		
Business Studies	80	73	62.9		
English Advanced	75	42	59.6		
Mathematics	79	61	68.5		
Modern History	82	69	67.8		
Visual Arts	82	58	49.0		
French Continuers	87	66	77.6		

Table 6.3Elizabeth's HSC marks, percentiles and scaled marks

The order of Elizabeth's scaled marks is different from the order of her HSC marks. French Continuers is in the highest position for both, but Visual Arts which is her second highest HSC mark is her lowest scaled mark. Her scaled mark in English Advanced is also relatively low. The reason for the change in the ranking of English Advanced is because, although the scaled mean of this course is relatively high (62.4), her percentile shows that she was in the lower half of the course candidature. With regard to Visual Arts, she was slightly above average in the course (percentile of 58), but the scaled mean was lower than the scaled means of her other courses (45.6). Visual Arts, having the lowest scaled mark, does not contribute to her UAI.

Elizabeth's aggregate mark is 336.4, which corresponds to a percentile of 72.7 against her UAI-eligible cohort. This ranking is slightly higher than the average ranking in the courses she completed because most of the courses included in her UAI have scaled means above 50. Elizabeth's overall ranking of 72.7 results in a UAI of 82.95.

Elizabeth's UAI is similar to the average of her HSC marks, but this is not always the case. The examples shown in Table 6.1 show that HSC marks in the 70s can result in UAIs in the 60s.

What this example shows is that the order of scaled marks depends on a student's rank within a course and the course mean – both are important.

Example 3

To pursue the issue further, 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.

Course	Fr	red	Laura			
	HSC mark	Percentile	HSC mark	Percentile		
Biology	70	44	80	72		
Business Studies	70	44	80	73		
English Advanced	70	21	80	66		
Mathematics	70	37	80	64		
Modern History	70	27	80	61		
Visual Arts 70		11	80	49		
UAI	59.90		82.50			

 Table 6.4
 Two examples of student achievement: Fred and Laura

Their HSC marks in each course differ by only 10, yet their UAIs differ by 22.60. Laura's UAI is similar to her HSC marks while Fred's UAI is much lower than his HSC marks.

To see the reason you need to look at the percentiles in Table 6.4 (which can be estimated from Table A3 in the Appendix). The percentiles are much higher for Laura than for Fred. Given the differences in their course percentiles, and the high percentage of students in Band 4 in most courses, 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 differed because of changes in the distributions of HSC marks, so their UAIs were different. Table 6.5 presents a summary of the results.

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

 Table 6.5
 UAIs for Fred and Laura: 2001 – 2006

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 6.6) shows a student's set of HSC marks. 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 Economics, which has the highest scaled mean.

Course	Scaled	P ₉₀			
	mean	HSC mark	Scaled mark		
Drama	48.4	89	76.4		
Economics	61.6	91	84.8		
English Standard	35.4	76	56.4		
Information Processes and Technology	43.6	89	71.0		
Modern History	55.2	89	80.8		

Table 6.6HSC and scaled marks - example 1

Example 2

Table 6.7 shows a student's marks in four courses.

Course	Scaled mean	HSC mark	Percentile	Scaled mark
Information Processes and Technology	43.6	95	P ₉₉	86.0
Legal Studies	50.4	94	P ₉₉	89.2
Physics	60.2	94	P ₉₉	91.8
French Continuers	68.4	94	P ₉₀	89.2

Table 6.7HSC and scaled marks - example 2

French Continuers attracts high achieving students and has a scaled mean of 68.4. Although the student's HSC mark of 94 is high, it is the 90th percentile for that course, and the corresponding scaled mark is 89.2. In contrast, Legal Studies does not attract students of the same overall academic calibre and its scaled mean is 50.4. An HSC mark of 94, however, places the student in the top 1% of that course, the 99th percentile, and the corresponding scaled mark is also 89.2. The difference in the position of the student in the two courses compensates for the difference in the scaled course means.

The HSC marks in Physics and Information Processes and Technology are similar, 94 and 95 respectively, and both correspond to the 99th percentile. The scaled marks in the two courses, 91.8 and 86.0, reflect the differences in the scaled means of the two courses.

Example 3

A third example is of a student whose HSC marks for English Extension 2 and Geography were 47 and 94 (47 per unit) respectively. 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 English Extension 2, her English Extension 2 mark did not count towards her UAI.

The entries from Table A3 (Table 6.8) show that the student's mark of 47 for English Extension 2 places her between the 75th and 90th percentiles for that course so that her scaled mark lies between 41.9 and 45.2. However, her mark of 94 for Geography (47 per unit) places her on the 99th percentile for that course and gives her a scaled mark of 45.7 per unit (Table 6.8). Consequently Geography was included before English Extension 2.

Course	Ν	Mark	Mean	S.D.	Max	P ₉₉	P ₉₀	P ₇₅	P ₅₀	P ₂₅
English Extension 2	2559	HSC	39.9	6.9	50.0	50.0	48.0	45.0	41.0	36.0
		scaled	36.6	7.0	50.0	48.4	45.2	41.9	37.3	32.3
Geography	4504	HSC	38.5	5.6	48.5	47.0	44.5	42.5	39.5	35.5
		scaled	25.7	10.3	50.0	45.7	39.1	33.6	26.2	18.3

Table 6.8Entries for English Extension 2 and Geography from Table $A3^1$

Note: The marks in this table are marks per unit

The student's higher position in Geography, compared with her position in English Extension 2, was just 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 Advanced and Standard English are scaled as a single group, why does the same HSC mark give different scaled marks in Standard English and Advanced English?

This issue has been raised since 2001. Since it is likely to be raised again, the explanation will be repeated.

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 Standard and Advanced English 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 are likely to be different as different courses have 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. One cannot assume that simply by studying more units one's 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. Marks are not re-scaled in later years.

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.

Appendix

The following courses are not included in the tables in the Appendix as they as they have less than 10 students.

Arabic Beginners Classical Greek Extension Dutch Hungarian Khmer Korean Beginners Maltese Swedish Ukrainian

- Table A1Gender, UAI eligibility and maximum UAI by courseExcludes courses with less than 10 students
- Table A2Distributions of HSC marks by courseExcludes courses with less than 10 students
- Table A3Descriptive statistics and selected percentiles for HSC marks and scaled
marks by course
Excludes courses with less than 10 students and no percentile data are
given for courses with less than 40 students
- Table A4Distributions of HSC marks by course: 2005 2006Excludes courses with less than 40 students in either year
- Table A5Distributions of scaled marks by course: 2005 2006Excludes courses with less than 40 students in either year
- Table A6Courses that contribute to the UAIExcludes courses with less than 10 students
- Table A7 Number of units completed, by UAI
- Table A8 Relationship between UAI, percentile and aggregate: 2002 2006

Table A1Gender, UAI eligibility and maximum UAI by course

Notes: (i) The Number column includes students who have completed the course in 2006 and in previous years (ii) The Female % column shows the gender split

(iii) The **UAI** % column shows the percentage of students in a course who were eligible for a UAI (iv) The table excludes courses with less than 10 students

Course	Number	Female %	UAI %	Maximum UAI
Aboriginal Studies	271	72.0	62.0	99.15
Agriculture	1492	45.4	72.8	100.00
Ancient History	11409	59.9	90.8	100.00
Biology	14279	62.4	94.8	100.00
Business Studies	16182	48.4	90.3	99.90
Chemistry	10383	46.5	97.6	100.00
Community & Family Studies	4522	93.5	74.7	98.30
Dance	803	95.9	76.6	99.60
Design & Technology	4142	39.3	81.2	99.35
Drama	5318	70.6	85.3	99.90
Earth & Environmental Science	1156	43.3	90.9	99.20
Economics	5476	38.1	98.4	100.00
Engineering Studies	1422	4.1	94.0	99.65
English Standard	30772	46.9	68.9	99.80
English Advanced	28007	59.1	96.9	100.00
English Extension 1	6251	65.0	99.0	100.00
English Extension 2	2575	66.2	99.4	100.00
ESL	2775	49.8	87.1	99.95
Food Technology	3092	77.1	77.3	99.55
Geography	4577	45.8	91.7	100.00
Industrial Technology	3398	9.5	54.0	96.45
Information Processes & Technology	5514	28.6	85.8	100.00
Legal Studies	8640	60.9	93.1	100.00
General Mathematics	29521	51.1	80.6	99.75
Mathematics	18323	47.0	94.2	100.00
Mathematics Extension 1	9140	42.9	97.4	100.00
Mathematics Extension 2	3188	39.0	98.3	100.00
Modern History	9698	52.8	93.3	100.00
History Extension	2371	60.2	99.2	100.00
Music 1	4471	47.5	82.3	99.70
Music 2	646	58.5	94.7	100.00
Music Extension	404	59.7	96.3	100.00
PDH&PE	12050	53.6	88.1	99.90
Physics	9232	24.8	97.7	100.00

Course	Number	Female %	UAI %	Maximum UAI
Senior Science	4068	44.0	79.8	99.15
Society & Culture	3790	82.3	86.9	99.85
Software Design & Development	1980	7.9	92.9	100.00
Studies of Religion I	9340	53.3	94.4	100.00
Studies of Religion II	3058	65.9	95.4	99.90
Textiles & Design	2066	98.3	79.4	99.60
Visual Arts	8851	69.8	82.4	99.95
Arabic Continuers	235	64.7	78.3	99.45
Arabic Extension	83	65.1	80.7	92.75
Armenian	26	65.4	92.3	99.25
Chinese Beginners	25	64.0	96.0	98.90
Chinese Continuers	105	46.7	98.1	99.95
Chinese Extension	37	43.2	100.0	99.80
Chinese Background Speakers	1087	53.4	91.1	99.70
Classical Greek Continuers	15	46.7	100.0	99.95
Classical Hebrew Continuers	51	49.0	96.1	100.00
Classical Hebrew Extension	36	47.2	100.0	100.00
Croatian	10	80.0	100.0	95.65
Filipino	20	55.0	85.0	88.55
French Beginners	620	83.4	83.5	99.60
French Continuers	911	71.0	90.8	100.00
French Extension	198	67.7	94.4	100.00
German Beginners	142	70.4	90.1	99.90
German Continuers	429	65.5	90.9	100.00
German Extension	118	62.7	92.4	99.90
Hindi	37	54.1	62.2	99.05
Indonesian Beginners	37	73.0	86.5	99.35
Indonesian Continuers	106	84.0	95.3	99.95
Indonesian Extension	37	81.1	94.6	99.95
Indonesian Background Speakers	75	54.7	98.7	98.90
Italian Beginners	376	72.9	84.3	99.95
Italian Continuers	378	72.5	85.2	99.70
Italian Extension	78	74.4	89.7	99.00
Japanese Beginners	575	65.0	95.7	99.95
Japanese Continuers	825	62.4	94.3	100.00
Japanese Extension	273	61.5	96.0	100.00
Japanese Background Speakers	52	61.5	82.7	95.55
Khmer	13	53.8	53.8	97.00

Table A1Gender UAI eligibility and maximum UAI by course (contd)

Course	Number	Female %	UAI %	Maximum UAI
Korean Continuers	12	66.7	91.7	96.30
Korean Background Speakers	127	55.1	97.6	99.95
Latin Continuers	182	43.4	96.2	100.00
Latin Extension	101	37.6	100.0	100.00
Macedonian	19	42.1	89.5	91.45
Modern Greek Beginners	32	68.8	71.9	99.60
Modern Greek Continuers	128	59.4	93.0	99.30
Modern Greek Extension	60	66.7	90.0	99.30
Modern Hebrew	37	59.5	86.5	99.85
Persian	56	64.3	53.6	95.90
Polish	31	61.3	100.0	98.35
Portuguese	18	50.0	66.7	96.60
Russian	37	56.8	83.8	98.80
Serbian	43	55.8	90.7	85.65
Spanish Beginners	125	68.8	80.0	98.60
Spanish Continuers	225	59.6	85.8	99.20
Spanish Extension	75	66.7	96.0	95.65
Swedish	15	73.3	60.0	99.35
Tamil	34	52.9	58.8	96.30
Turkish	72	66.7	73.6	99.05
Vietnamese	123	49.6	84.6	98.70
Accounting	355	48.7	91.8	99.85
Business Services Exam	1493	82.0	73.2	97.60
Construction Exam	1262	1.3	48.7	91.30
Entertainment Exam	682	59.8	80.1	97.65
Hospitality Exam	5630	70.4	79.4	98.80
Information Technology Exam	2320	24.4	81.3	99.10
Metal & Engineering Exam	470	1.7	46.6	93.15
Primary Industries Exam	563	38.5	59.9	92.70
Retail Operations Exam	1328	69.1	62.2	97.20
Tourism Exam	321	89.1	77.3	92.20
Distinction Courses	102	29.4	100.0	100.00

Table A1Gender UAI eligibility and maximum UAI by course (contd)

Table A2Distributions 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 lies.

(iii) The Percentage of students in Performance Band column shows the percentage of a course candidature in

each of the Performance Bands 6 to 2. Extension courses have four Bands only; E1 to E4.

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

Course	Number Median	Median	Median Median	Percentage of students in Performance Band				
	HSC mark		Danu	6	5	4	3	2
Aboriginal Studies	267	70	4	5	21	27	32	12
Agriculture	1410	72	4	7	22	27	30	10
Ancient History	11262	77	4	11	30	31	16	9
Biology	14067	73	4	8	22	29	26	12
Business Studies	16020	72	4	5	25	29	25	13
Chemistry	10217	74	4	9	27	27	26	8
Community & Family Studies	4489	75	4	8	29	31	22	8
Dance	750	73	4	7	21	34	29	7
Design & Technology	4094	73	4	6	19	38	30	7
Drama	5243	77	4	9	32	35	18	5
Earth & Environmental Science	1140	77	4	10	31	33	17	7
Economics	5421	79	4	14	33	28	16	6
Engineering Studies	1407	75	4	5	26	38	21	7
English Standard	30470	67	3	<1	3	31	47	15
English Advanced	27734	77	4	6	33	44	16	2
English Extension 1	6207	40	E3			17	67	15
English Extension 2	2559	41	E3			31	48	17
ESL	2763	73	4	1	21	40	23	10
Food Technology	3057	75	4	8	26	32	22	8
Geography	4504	79	4	10	38	30	15	5
Industrial Technology	3374	74	4	10	21	32	25	9
Information Processes & Technology	5190	74	4	8	26	29	22	10
Legal Studies	8535	75	4	8	29	30	22	8
General Mathematics	29248	69	3	3	15	32	27	15
Mathematics	18124	75	4	15	24	26	18	9
Mathematics Extension 1	9017	40	E3			30	41	20
Mathematics Extension 2	3146	83	E3			29	53	13
Modern History	9541	78	4	10	33	33	17	5
History Extension	2352	38	E3			15	51	27
Music 1	4403	79	4	15	32	34	15	3
Music 2	621	86	5	29	51	18	2	
Music Extension	387	45	E4			59	34	7
PDH&PE	11936	76	4	10	29	27	19	9

Percentage of students in Performance Median Band Course Number HSC mark Course Physics Senior Science Society & Culture Software Design & Development Studies of Religion I Studies of Religion II Textiles & Design Visual Arts <1 Arabic Continuers Arabic Extension E3 Armenian Chinese Beginners **Chinese Continuers** Chinese Extension E4 Chinese Background Speakers <1 Classical Greek Continuers Classical Hebrew Continuers Classical Hebrew Extension E3 Croatian Filipino French Beginners French Continuers French Extension E3 German Beginners German Continuers German Extension E3 Hindi Indonesian Beginners Indonesian Continuers Indonesian Extension E3 Indonesian Background Speakers Italian Beginners Italian Continuers Italian Extension E3 Japanese Beginners Japanese Continuers Japanese Extension E3

Table A2Distributions of HSC marks by course (contd)

Table A2Distributions of HSC marks by course (contd)39Report on the Scaling of the 2006 NSW Higher School Certificate

Course	Number	Median HSC mark	Median	Percentage of students in Performance Band						
		IISC mark	Danu	6	5	4	3	2		
Korean Continuers	11	92	6	55	36	9				
Korean Background Speakers	123	83	5	20	46	24	8			
Latin Continuers	182	94	6	74	21	4	1			
Latin Extension	101	47	E4			82	18			
Macedonian	19	84	5	16	53	26	5			
Modern Greek Beginners	31	77	4	6	35	39	10	6		
Modern Greek Continuers	118	82	5	19	42	23	12	4		
Modern Greek Extension	53	38	E3			21	53	25		
Modern Hebrew	31	88	5	26	68	6				
Persian	41	81	5	15	41	34	10			
Polish	30	89	5	47	47	3	3			
Portuguese	17	91	6	53	41	6				
Russian	36	89	5	42	42	17				
Serbian	43	84	5	28	40	26	7			
Spanish Beginners	124	79	4	18	31	23	13	14		
Spanish Continuers	221	83	5	14	50	27	7	2		
Spanish Extension	73	40	E3			14	75	10		
Tamil	19	85	5	5	84	11				
Turkish	59	76	4	3	37	31	27	2		
Vietnamese	116	75	4	3	28	44	17	6		
Accounting	351	77	4	19	22	24	14	12		
Business Services Exam	1482	67	3	1	10	29	39	16		
Construction Exam	1242	71	4	1	14	37	38	8		
Entertainment Exam	674	74	4	3	24	39	24	9		
Hospitality Exam	5597	75	4	3	27	41	22	5		
Information Technology Exam	2263	67	3	1	9	29	37	16		
Metal & Engineering Exam	469	76	4	4	31	36	21	6		
Primary Industries Exam	562	73	4	2	21	45	24	7		
Retail Operations Exam	1314	77	4	7	34	41	14	5		
Tourism Exam	317	76	4	2	27	47	19	4		
Distinction Courses	83	85	5	29	54	13	2	1		

Notes: (i) The **P**₉₉, **P**₉₀, **P**₇₅, **P**₅₀, **P**₂₅ columns refer to the 99th, 90th, 75th, 50th and 25th percentiles respectively. (ii) The table excludes courses with less than 10 students and no percentile data are given for courses with less than 40 students.

Course	Number		Mean	SD	Max	P99	P90	P75	P50	P25
Aboriginal Studies	267	HSC	35.5	5.6	48.5	47.5	43.0	40.0	35.0	31.5
		scaled	16.8	11.3	45.2	44.8	34.2	25.3	14.6	7.4
Agriculture	1410	HSC	35.8	6.5	49.5	47.5	44.0	40.5	36.0	32.5
		scaled	21.2	11.0	47.9	44.5	36.9	28.8	20.5	13.1
Ancient History	11262	HSC	37.5	6.3	50.0	48.5	45.0	42.0	38.5	34.0
		scaled	25.0	10.6	50.0	46.1	39.2	33.2	25.2	17.0
Biology	14067	HSC	36.1	6.3	49.5	47.0	44.0	41.0	36.5	32.0
		scaled	26.9	9.7	50.0	45.0	39.5	34.5	27.4	20.0
Business Studies	16020	HSC	35.8	6.2	49.0	46.5	43.5	40.5	36.0	31.5
		scaled	23.8	10.2	48.7	43.6	37.4	32.0	23.9	15.9
Chemistry	10217	HSC	37.0	6.0	49.0	47.0	44.5	41.5	37.0	33.0
		scaled	31.4	9.3	50.0	46.6	42.3	38.7	32.9	25.4
Community & Family Studies	4489	HSC	37.2	5.7	49.0	47.5	44.0	41.5	37.5	33.5
		scaled	19.7	10.0	43.9	40.3	33.5	27.5	19.4	11.5
Dance	750	HSC	36.4	5.6	49.0	48.0	43.5	40.0	36.5	32.5
		scaled	23.2	9.6	46.6	45.1	36.4	30.1	23.0	15.8
Design & Technology	4094	HSC	36.5	5.0	49.5	47.5	43.5	39.5	36.5	33.0
		scaled	21.2	9.7	45.3	42.5	35.0	28.4	20.5	13.4
Drama	5243	HSC	38.3	5.0	49.0	47.5	44.5	42.0	38.5	35.0
		scaled	24.2	10.1	48.9	45.9	38.2	31.7	23.9	16.6
Earth & Environmental Science	1140	HSC	37.7	6.1	48.5	47.5	45.0	42.0	38.5	34.5
		scaled	24.4	9.9	48.2	44.4	37.4	31.5	24.4	17.5
Economics	5421	HSC	38.4	6.2	49.5	48.0	45.5	43.0	39.5	35.0
		scaled	30.8	10.1	50.0	46.4	42.4	38.8	32.7	24.4
Engineering Studies	1407	HSC	36.8	5.7	48.0	47.0	43.5	40.5	37.5	34.0
		scaled	25.7	9.3	47.8	44.6	37.9	32.5	25.9	19.0
English Standard	30470	HSC	32.8	4.7	46.0	41.5	38.0	35.5	33.5	30.5
		scaled	17.7	7.9	46.1	37.0	28.2	23.0	17.4	12.0
English Advanced	27734	HSC	38.5	4.1	49.5	46.5	44.0	41.5	38.5	36.0
		scaled	31.2	8.2	50.0	46.4	41.8	37.5	31.6	25.5
English Extension 1	6207	HSC	39.4	5.3	49.0	48.0	46.0	43.0	40.0	36.0
		scaled	36.3	6.6	50.0	47.5	43.9	41.1	37.2	32.7
English Extension 2	2559	HSC	39.9	6.9	50.0	50.0	48.0	45.0	41.0	36.0
		scaled	36.6	7.0	50.0	48.4	45.2	41.9	37.3	32.3
ESL	2763	HSC	35.3	5.9	48.0	45.0	41.5	39.0	36.5	32.0
		scaled	21.4	11.6	50.0	45.6	37.6	30.1	21.2	12.0

Course Number Mean SD Max **P99 P90** P75 P50 P25 48.0 Food Technology 3057 HSC 36.8 6.4 49.0 44.5 41.5 37.5 33.0 scaled 20.5 10.6 46.0 43.2 35.5 28.7 19.8 11.9 Geography 4504 HSC 38.5 5.6 48.5 47.0 44.5 42.5 39.5 35.5 25.7 10.3 50.0 45.7 39.1 33.6 26.2 18.3 scaled Industrial Technology 3374 HSC 36.6 6.1 50.0 48.0 45.0 41.0 37.0 32.5 16.7 9.2 39.7 37.1 30.3 23.5 15.9 9.2 scaled Information Processes & HSC 36.3 6.8 49.5 47.5 44.5 41.5 37.0 32.5 5190 Technology 21.8 10.2 46.8 43.0 35.5 29.7 21.7 13.9 scaled Legal Studies 8535 HSC 37.1 49.5 47.0 44.5 41.5 37.5 33.5 6.0 25.2 44.6 25.7 10.2 50.0 38.6 33.1 17.6 scaled General Mathematics 29248 HSC 34.0 6.6 49.5 46.5 42.0 38.5 34.5 30.0 20.9 9.8 41.0 34.4 28.4 20.6 13.0 scaled 45.1 Mathematics 18124 HSC 36.5 8.1 49.5 48.0 45.5 42.5 37.5 32.5 9.7 37.7 31.5 23.8 scaled 30.1 50.0 46.1 41.8 49.0 Mathematics Extension 1 9017 HSC 38.1 9.2 50.0 47.0 45.5 40.0 33.0 48.7 44.3 41.1 scaled 39.4 7.1 50.0 46.4 36.5 Mathematics Extension 2 3146 HSC 39.7 7.4 50.0 48.5 46.5 45.0 41.5 36.5 4.7 49.2 47.5 44.4 scaled 43.3 50.0 46.2 41.9 9541 HSC 50.0 47.5 44.5 42.0 39.0 35.0 Modern History 37.9 6.0 27.6 10.5 50.0 45.5 40.4 35.5 29.1 20.8 scaled History Extension 2352 HSC 36.7 7.6 49.0 48.0 46.0 43.0 38.0 32.0 47.1 42.3 39.1 35.0 30.7 scaled 34.4 6.6 49.6 4403 HSC 48.5 Music 1 39.1 5.2 50.0 45.5 43.0 39.5 36.0 21.9 10.1 47.0 44.1 36.1 29.2 21.4 14.3 scaled Music 2 621 HSC 42.6 3.3 49.5 48.5 47.0 45.0 43.0 40.5 7.7 48.6 43.7 39.3 28.3 scaled 33.5 50.0 33.8 Music Extension 387 HSC 43.8 5.2 50.0 50.0 49.0 48.0 45.0 42.0 35.3 50.0 41.2 34.9 scaled 7.8 50.0 46.2 30.4 PDH&PE 11936 HSC 36.6 7.1 49.5 47.5 44.5 42.0 38.0 32.5 10.1 23.6 15.4 scaled 23.3 47.6 43.4 36.8 31.1 44.0 Physics 9116 HSC 37.5 5.6 49.0 47.0 41.5 38.0 34.0 30.1 45.9 41.3 37.5 31.8 scaled 9.6 50.0 24.1 Senior Science 4019 HSC 37.1 5.9 49.0 47.5 44.0 41.0 37.5 34.0 40.3 19.3 scaled 19.6 9.5 43.2 32.7 26.6 12.3 Society & Culture 3752 HSC 36.4 6.0 49.5 47.5 44.0 40.5 36.5 32.5 45.5 23.5 23.7 10.3 48.5 37.9 31.1 15.8 scaled 1862 HSC 47.0 41.0 37.5 Software Design & Development 36.9 5.3 48.043.5 33.5 9.7 47.7 44.6 37.1 32.4 25.4 17.7 scaled 24.9

Course	Number		Mean	SD	Max	P99	P90	P75	P50	P25
Studies of Religion I	9271	HSC	38.5	5.6	50.0	48.0	45.0	43.0	39.0	35.0
		scaled	27.0	9.0	47.8	43.9	38.4	33.8	27.7	20.7
Studies of Religion II	3041	HSC	38.4	5.7	49.0	47.0	45.0	42.5	39.5	35.0
		scaled	27.3	10.1	50.0	45.4	39.7	34.8	28.3	20.5
Textiles & Design	2052	HSC	38.6	5.6	49.5	48.5	45.0	43.0	39.5	34.5
		scaled	22.2	10.5	47.3	45.2	36.7	30.2	21.6	14.0
Visual Arts	8739	HSC	40.3	4.0	50.0	48.5	45.5	43.0	40.5	37.5
		scaled	22.8	10.7	48.7	45.8	37.9	30.8	21.9	14.4
Arabic Continuers	222	HSC	37.4	5.5	47.0	46.0	43.0	41.0	39.0	34.0
		scaled	18.4	10.3	43.6	41.7	32.1	25.3	19.1	9.7
Arabic Extension	78	HSC	37.1	6.3	48.0	48.0	45.0	42.0	37.0	33.0
		scaled	25.6	5.9	39.5	39.5	33.2	29.3	25.7	22.4
Armenian	26	HSC	39.0	4.1	46.5					
		scaled	25.8	11.1	50.0					
Chinese Beginners	25	HSC	40.8	4.9	46.5					
		scaled	30.0	11.7	47.5					
Chinese Continuers	101	HSC	41.6	4.6	49.0	48.0	46.0	45.0	43.0	39.0
		scaled	31.0	10.0	50.0	46.7	41.4	38.6	33.4	24.5
Chinese Extension	35	HSC	43.3	3.9	48.0					
		scaled	35.4	7.5	49.6					
Chinese Background Speakers	1076	HSC	40.0	3.9	48.0	47.0	45.0	43.0	40.0	38.0
		scaled	21.1	10.8	48.1	45.9	37.0	28.9	19.9	12.5
Classical Greek Continuers	15	HSC	44.0	8.5	49.5					
		scaled	38.7	11.0	50.0					
Classical Hebrew Continuers	51	HSC	42.7	3.4	49.5	49.5	47.0	45.0	43.0	40.0
		scaled	34.5	8.7	50.0	50.0	45.5	41.1	35.3	27.9
Classical Hebrew Extension	36	HSC	41.5	4.6	48.0					
		scaled	36.8	7.4	50.0					
Croatian	10	HSC	38.4	4.7	44.5					
		scaled	30.3	10.6	46.9					
Filipino	20	HSC	38.9	4.0	46.5					
		scaled	18.6	8.8	38.1					
French Beginners	613	HSC	35.8	9.0	49.5	49.0	46.0	42.5	36.5	31.5
		scaled	23.7	11.0	48.8	47.3	38.6	31.9	23.4	15.9
French Continuers	872	HSC	40.5	5.8	50.0	49.0	47.0	45.0	41.0	37.5
		scaled	34.2	8.9	50.0	48.3	44.6	40.9	35.4	28.8
French Extension	193	HSC	41.9	5.2	49.0	49.0	47.0	46.0	44.0	38.0
		scaled	41.3	5.6	50.0	49.9	47.1	45.1	42.8	38.7

Course	Number		Mean	SD	Max	P99	P90	P75	P50	P25
German Beginners	142	HSC	37.7	8.2	49.5	49.5	47.5	45.0	39.0	33.0
		scaled	27.9	10.8	50.0	48.0	42.5	36.1	29.4	20.2
German Continuers	385	HSC	40.7	5.8	50.0	49.5	48.0	45.5	41.5	36.0
		scaled	34.0	9.0	50.0	48.6	45.9	41.0	35.0	27.1
German Extension	106	HSC	40.2	6.6	49.0	48.0	47.0	45.0	42.0	35.0
		scaled	40.2	5.7	50.0	49.1	47.1	44.1	41.5	36.2
Hindi	22	HSC	44.2	2.8	48.0					
		scaled	32.6	9.9	48.5					
Indonesian Beginners	37	HSC	38.9	6.9	49.0					
		scaled	26.9	12.3	50.0					
Indonesian Continuers	102	HSC	38.1	6.1	49.5	48.5	46.5	43.0	37.5	33.5
		scaled	30.4	9.4	50.0	47.0	42.6	37.7	29.5	23.5
Indonesian Extension	35	HSC	42.3	4.3	48.0					
		scaled	35.1	7.7	50.0					
Indonesian Background Speakers	75	HSC	40.1	2.8	46.0	46.0	44.5	41.5	40.0	38.5
		scaled	29.4	8.7	50.0	50.0	44.7	33.5	28.4	24.0
Italian Beginners	373	HSC	36.0	7.9	49.5	49.0	46.0	42.0	36.5	31.5
		scaled	25.1	11.0	50.0	48.1	40.3	33.0	24.8	17.8
Italian Continuers	367	HSC	38.7	6.5	48.5	48.0	45.5	43.0	39.5	36.0
		scaled	29.3	9.9	50.0	49.1	41.8	36.4	30.3	22.7
Italian Extension	74	HSC	39.1	5.2	49.0	49.0	46.0	44.0	39.0	35.0
		scaled	37.0	4.9	48.0	48.0	43.1	40.5	37.1	33.9
Japanese Beginners	568	HSC	38.0	7.8	49.5	49.0	47.0	44.5	38.0	32.5
		scaled	23.6	11.6	48.2	46.7	38.7	33.3	22.8	14.0
Japanese Continuers	789	HSC	38.7	6.9	49.5	48.5	47.0	44.5	39.5	34.0
		scaled	31.9	9.5	50.0	47.9	43.7	39.6	33.0	25.4
Japanese Extension	263	HSC	38.8	5.3	50.0	48.0	46.0	43.0	39.0	35.0
		scaled	38.5	5.2	50.0	47.7	44.9	42.3	38.8	35.1
Japanese Background Speakers	49	HSC	37.7	4.1	45.5	45.5	44.0	41.0	38.0	34.5
		scaled	19.2	11.4	46.7	46.7	38.6	26.4	18.1	10.9
Korean Continuers	11	HSC	45.0	2.6	49.0					
		scaled	29.9	10.4	50.0					
Korean Background Speakers	123	HSC	40.5	5.4	48.0	48.0	46.0	44.5	41.5	38.0
		scaled	24.3	11.5	50.0	49.6	39.4	32.5	23.9	15.0
Latin Continuers	182	HSC	46.1	3.0	50.0	50.0	49.0	48.0	47.0	44.5
		scaled	39.7	6.7	50.0	49.5	46.8	44.8	41.2	35.4
Latin Extension	101	HSC	47.0	2.5	50.0	50.0	50.0	49.0	47.0	46.0
		scaled	41.3	5.9	50.0	49.5	48.0	46.2	42.2	37.9

Course	Number		Mean	SD	Max	P99	P90	P75	P50	P25
Macedonian	19	HSC	41.4	3.5	47.0					
		scaled	22.1	9.6	42.4					
Modern Greek Beginners	31	HSC	38.3	7.3	47.5					
		scaled	23.4	11.3	45.4					
Modern Greek Continuers	118	HSC	39.9	5.3	50.0	48.5	46.0	43.5	40.5	37.0
		scaled	22.1	10.5	47.3	43.6	36.0	29.1	21.8	14.1
Modern Greek Extension	53	HSC	38.2	6.1	50.0	50.0	46.0	43.0	38.0	34.0
		scaled	27.7	7.2	44.3	44.3	37.0	32.9	27.3	22.8
Modern Hebrew	31	HSC	43.8	2.4	48.0					
		scaled	36.7	8.4	50.0					
Persian	41	HSC	40.6	3.9	47.5	47.5	45.5	43.5	40.5	37.5
		scaled	19.9	12.4	49.6	49.6	38.8	27.3	15.3	9.3
Polish	30	HSC	44.1	2.8	47.0					
		scaled	28.5	10.3	46.3					
Portuguese	17	HSC	44.4	2.5	48.0					
		scaled	25.9	10.6	46.6					
Russian	36	HSC	43.8	3.2	48.5					
		scaled	26.9	12.3	50.0					
Serbian	43	HSC	41.2	4.1	47.0	47.0	45.5	45.0	42.0	37.5
		scaled	23.8	9.8	42.9	42.9	36.8	34.8	21.1	14.6
Spanish Beginners	124	HSC	38.5	6.4	48.5	48.5	47.0	43.0	39.5	33.0
		scaled	20.3	12.4	48.3	47.3	40.0	28.6	19.3	8.5
Spanish Continuers	221	HSC	40.7	4.0	48.0	47.5	45.0	43.5	41.5	38.5
		scaled	20.2	10.1	45.0	43.2	33.6	28.1	19.7	12.8
Spanish Extension	73	HSC	39.6	4.5	47.0	47.0	45.0	43.0	40.0	37.0
		scaled	27.2	6.4	42.1	42.1	34.7	31.1	26.8	23.7
Tamil	19	HSC	42.6	2.2	49.0					
		scaled	25.6	11.3	49.9					
Turkish	59	HSC	38.1	4.6	48.0	48.0	44.0	42.0	38.0	34.0
		scaled	17.7	12.3	47.7	47.7	34.8	27.4	14.3	6.4
Vietnamese	116	HSC	37.0	4.7	46.0	45.5	42.0	40.0	37.5	34.5
		scaled	21.0	10.9	47.8	46.7	35.2	28.4	20.6	12.0
Accounting	351	HSC	36.7	8.9	50.0	49.5	47.0	43.5	38.5	32.0
		scaled	26.5	12.0	50.0	48.3	42.8	35.8	27.8	18.2
Business Services Exam	1482	HSC	33.3	5.5	47.5	44.5	40.0	37.0	33.5	30.5
		scaled	18.1	9.5	41.7	39.5	31.2	25.4	16.6	10.6
Construction Exam	1242	HSC	35.2	4.7	47.0	45.5	41.5	38.5	35.5	32.0
		scaled	15.5	9.0	38.0	36.0	28.8	22.0	15.2	8.0

Course	Number		Mean	SD	Max	P99	P90	P75	P50	P25
Entertainment Exam	674	HSC	36.6	4.8	47.5	46.0	42.5	40.0	37.0	33.5
		scaled	21.5	9.1	44.0	41.8	33.3	27.8	21.4	14.9
Hospitality Exam	5597	HSC	37.3	4.5	49.0	46.0	43.0	40.5	37.5	34.0
		scaled	20.1	9.4	43.5	39.9	33.3	26.8	19.4	12.7
Information Technology Exam	2263	HSC	32.8	6.4	47.0	45.0	39.5	37.0	33.5	30.0
		scaled	19.1	9.7	42.6	39.0	31.8	26.5	19.2	11.3
Metal & Engineering Exam	469	HSC	37.3	5.1	49.0	46.5	43.0	41.0	38.0	34.0
		scaled	16.1	8.3	36.6	34.2	26.9	22.6	15.8	9.6
Primary Industries Exam	562	HSC	36.4	4.7	47.5	45.5	42.0	39.5	36.5	33.5
		scaled	17.6	9.1	40.1	37.8	29.7	24.3	16.7	10.2
Retail Operations Exam	1314	HSC	38.4	4.6	48.5	47.5	44.0	41.5	38.5	36.0
		scaled	17.0	9.6	40.9	39.5	31.4	23.8	15.9	9.4
Tourism Exam	317	HSC	37.3	4.4	46.5	45.5	42.5	40.0	38.0	35.0
		scaled	21.1	9.0	43.2	41.6	34.0	27.1	21.3	14.6
Distinction Courses	83	HSC	42.7	4.1	50.0	50.0	47.5	46.0	42.5	40.5
		scaled	40.1	6.2	50.0	50.0	47.4	45.4	40.1	36.8

Table A4 Distributions of HSC marks by course: 2005 – 2006

Notes: (i) Columns 45, 40, 35, 30 and 25 show the percentages of a course candidature with an HSC mark less than the specified marks.(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	2006	267	95.1	74.2	46.8	14.6	2.2			
	2005	238	97.1	75.6	45.0	17.6	2.5			
Agriculture	2006	1410	92.9	70.4	43.8	14.3	4.4			
	2005	1269	95.0	67.5	32.5	12.0	1.9			
Ancient History	2006	11262	89.3	59.7	28.4	12.1	3.2			
	2005	10191	87.9	58.0	30.4	12.7	5.0			
Biology	2006	14067	92.2	69.8	40.7	14.9	3.1			
	2005	13215	91.7	64.0	33.8	10.1	2.0			
Business Studies	2006	16020	95.0	70.4	41.4	16.5	3.8			
	2005	16013	96.3	75.8	46.8	20.6	6.3			
Chemistry	2006	10217	91.1	63.8	36.3	10.4	2.3			
	2005	10119	91.6	67.9	37.1	13.5	3.3			
Community & Family Studies	2006	4489	92.4	63.2	31.9	10.1	1.9			
	2005	4364	96.0	69.7	34.0	9.2	1.9			
Dance	2006	750	92.7	72.1	38.4	9.3	2.3			
	2005	693	94.2	75.8	46.0	15.0	3.8			
Design & Technology	2006	4094	93.9	75.0	37.1	7.3	0.7			
	2005	4159	96.0	79.3	45.2	11.8	1.8			
Drama	2006	5243	90.9	58.5	23.3	5.4	0.8			
	2005	5134	92.1	64.5	29.1	6.8	1.1			
Earth & Environmental Science	2006	1140	89.9	59.3	26.7	9.8	2.7			
	2005	1127	88.2	51.6	22.3	6.4	0.8			
Economics	2006	5421	86.0	53.0	24.7	9.0	2.7			
	2005	5535	85.8	50.7	24.9	10.9	5.1			
Engineering Studies	2006	1407	94.7	68.7	30.6	9.6	2.8			
	2005	1401	91.6	62.1	20.6	4.0	1.1			
English Standard	2006	30470	99.9	96.7	66.1	19.4	4.8			
	2005	30140	99.9	97.6	66.2	20.6	3.7			
English Advanced	2006	27734	94.0	61.2	17.6	1.7	0.1			
	2005	27542	92.0	54.1	10.0	1.1	0.1			
English Extension 1	2006	6207	83.1	47.2	16.3	4.2	1.2			
	2005	6282	76.1	40.1	14.5	3.9	1.2			
English Extension 2	2006	2559	68.7	41.7	20.6	8.1	3.2			
	2005	2608	67.7	41.8	19.4	6.0	2.3			

Course	Year	Number	er Percentage of students with HSC marks less than:							
			45	40	35	30	25			
ESL	2006	2763	98.8	78.1	38.2	14.9	5.2			
	2005	2920	98.0	79.2	45.4	21.2	7.6			
Food Technology	2006	3057	91.6	65.3	33.6	12.1	4.5			
	2005	3025	92.7	73.0	42.9	14.9	4.5			
Geography	2006	4504	90.1	52.2	21.9	6.8	2.0			
	2005	4913	92.3	60.8	26.3	8.1	2.7			
Industrial Technology	2006	3374	89.8	68.5	36.8	11.4	2.5			
	2005	3442	92.1	69.4	38.9	13.2	2.7			
Information Processes & Technology	2006	5190	92.1	65.8	37.2	15.5	5.3			
	2005	5764	93.0	65.5	35.2	14.2	5.5			
Legal Studies	2006	8535	91.8	62.5	32.5	10.7	2.7			
	2005	8986	93.4	65.3	32.7	10.0	1.7			
General Mathematics	2006	29248	96.9	82.1	50.1	23.0	7.5			
	2005	28673	95.6	76.5	42.1	14.2	4.8			
Mathematics	2006	18124	85.4	61.1	34.8	16.5	7.5			
	2005	19006	84.9	61.0	35.9	16.8	6.2			
Mathematics Extension 1	2006	9017	69.6	46.8	28.2	15.4	8.7			
	2005	9359	68.7	45.4	25.8	12.8	6.2			
Mathematics Extension 2	2006	3146	71.2	40.3	17.9	9.2	4.6			
	2005	3240	69.0	35.8	13.4	4.9	2.0			
Modern History	2006	9541	90.4	57.4	24.9	8.2	2.9			
	2005	9843	90.3	57.7	19.6	5.1	1.0			
History Extension	2006	2352	85.0	57.7	33.9	17.0	7.3			
	2005	2368	90.6	72.9	46.5	23.3	8.9			
Music 1	2006	4403	84.6	53.0	18.8	4.0	0.8			
	2005	4284	85.3	46.0	13.8	2.3	0.6			
Music 2	2006	621	71.3	20.0	1.8	0.0				
	2005	637	72.1	19.2	1.7	0.2	0.0			
Music Extension	2006	387	41.3	20.2	7.2	1.3	0.0			
	2005	430	40.7	16.0	2.8	0.5	0.0			
PDH&PE	2006	11936	90.4	61.8	34.5	15.4	6.4			
	2005	10944	94.4	65.5	30.1	7.4	1.7			
Physics	2006	9116	92.3	62.5	29.1	8.5	2.0			
	2005	9315	89.5	63.7	31.9	10.1	2.1			
Senior Science	2006	4019	92.6	66.6	31.2	8.4	2.8			
	2005	3924	94.6	67.6	29.8	6.4	1.0			
Society & Culture	2006	3752	92.8	69.4	38.2	12.0	2.6			
	2005	3486	92.8	71.5	41.1	13.1	3.0			

Course	Year	Number	Percentage of students with HSC marks less than:							
			45	40	35	30	25			
Software Design & Development	2006	1862	93.9	68.0	33.4	10.1	1.0			
	2005	2160	92.5	65.9	30.2	8.1	1.4			
Studies of Religion I	2006	9271	85.8	52.2	22.8	5.7	1.5			
	2005	9154	89.5	59.6	16.1	2.7	0.3			
Studies of Religion II	2006	3041	89.9	53.5	23.0	7.1	1.9			
	2005	2873	91.9	57.4	15.4	3.8	0.8			
Textiles & Design	2006	2052	87.5	51.8	25.2	6.3	0.6			
	2005	1681	91.7	57.6	27.7	7.7	2.0			
Visual Arts	2006	8739	86.7	44.2	8.7	0.5	0.1			
	2005	8527	88.7	48.6	12.6	1.3	0.1			
Arabic Continuers	2006	222	95.9	57.7	27.9	9.0	1.8			
	2005	229	97.4	68.1	37.1	18.3	8.3			
Arabic Extension	2006	78	87.2	59.0	37.2	12.8	2.6			
	2005	90	93.3	75.6	37.8	12.2	3.3			
Chinese Continuers	2006	101	67.3	30.7	7.9	2.0	0.0			
	2005	107	71.0	18.7	4.7	0.0				
Chinese Background Speakers	2006	1076	89.8	44.2	7.3	1.1	0.7			
	2005	1297	96.0	63.5	24.2	4.7	1.3			
Classical Hebrew Continuers	2006	51	74.5	21.6	2.0	0.0				
	2005	40	72.5	37.5	10.0	5.0	0.0			
French Beginners	2006	613	84.7	63.5	40.3	19.3	8.6			
	2005	466	82.8	62.0	38.4	19.1	7.5			
French Continuers	2006	872	72.1	41.1	13.1	5.4	1.5			
	2005	871	79.2	51.6	22.2	4.8	0.7			
French Extension	2006	193	56.5	28.0	11.9	1.6	0.5			
	2005	198	59.1	28.8	12.1	2.0	0.0			
German Beginners	2006	142	74.6	56.3	32.4	15.5	4.2			
	2005	145	83.4	60.0	31.0	18.6	6.2			
German Continuers	2006	385	69.9	41.8	17.9	3.1	0.8			
	2005	459	70.4	40.3	22.0	5.0	1.7			
German Extension	2006	106	63.2	38.7	23.6	6.6	1.9			
	2005	130	70.0	44.6	19.2	4.6	0.0			
Indonesian Continuers	2006	102	81.4	56.9	32.4	9.8	0.0			
	2005	90	70.0	42.2	22.2	2.2	0.0			
Indonesian Background Speakers	2006	75	92.0	42.7	2.7	0.0				
	2005	106	97.2	61.3	6.6	0.9	0.0			
Italian Beginners	2006	373	84.7	67.6	39.7	20.6	6.7			
	2005	315	80.0	63.2	44.8	20.6	7.0			

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Course	Year	Number	r Percentage of students with HSC marks less than:						
			45	40	35	30	25		
Italian Continuers	2006	367	86.1	50.1	18.5	7.4	2.5		
	2005	342	86.6	54.7	24.0	7.6	1.5		
Italian Extension	2006	74	78.4	56.8	20.3	4.1	0.0		
	2005	61	63.9	36.1	9.8	3.3	1.6		
Japanese Beginners	2006	568	76.1	55.6	31.7	15.3	3.0		
	2005	547	82.1	55.9	37.3	20.3	9.5		
Japanese Continuers	2006	789	76.3	51.1	27.4	10.9	2.5		
	2005	803	71.9	46.2	23.7	7.5	1.2		
Japanese Extension	2006	263	80.6	55.1	24.7	3.0	0.4		
	2005	295	53.6	31.9	16.9	6.1	1.4		
Japanese Background Speakers	2006	49	95.9	69.4	34.7	0.0			
	2005	50	84.0	40.0	12.0	2.0	0.0		
Korean Background Speakers	2006	123	80.5	35.0	11.4	3.3	3.3		
	2005	141	85.1	48.9	15.6	0.7	0.0		
Latin Continuers	2006	182	26.4	4.9	0.5	0.0			
	2005	179	26.8	7.3	1.7	0.0			
Latin Extension	2006	101	17.8	2.0	0.0				
	2005	95	22.1	1.1	0.0				
Modern Greek Continuers	2006	118	81.4	39.8	16.9	5.1	0.8		
	2005	134	83.6	43.3	20.9	8.2	2.2		
Modern Greek Extension	2006	53	79.2	60.4	26.4	9.4	1.9		
	2005	65	80.0	56.9	26.2	10.8	3.1		
Persian	2006	41	85.4	43.9	9.8	0.0			
	2005	46	78.3	37.0	15.2	4.3	2.2		
Serbian	2006	43	72.1	32.6	7.0	0.0			
	2005	47	63.8	21.3	0.0				
Spanish Beginners	2006	124	82.3	50.8	27.4	14.5	0.8		
	2005	158	87.3	62.7	40.5	19.0	7.6		
Spanish Continuers	2006	221	85.5	35.7	8.6	1.8	0.0		
	2005	188	88.3	42.6	8.5	3.2	1.1		
Spanish Extension	2006	73	86.3	49.3	11.0	2.7	1.4		
	2005	68	95.6	66.2	22.1	2.9	0.0		
Turkish	2006	59	96.6	59.3	28.8	1.7	0.0		
	2005	74	79.7	33.8	10.8	0.0			
Vietnamese	2006	116	97.4	69.8	25.9	8.6	2.6		
	2005	104	97.1	59.6	13.5	1.9	0.0		
Accounting	2006	351	80.6	59.0	34.8	21.1	9.1		
	2005	318	77.0	52.5	29.9	17.0	8.8		

Course	Year	Number	Percentage of students with HSC marks less than:						
			45	40	35	30	25		
Business Services Exam	2006	1482	99.1	89.0	59.5	20.4	4.6		
	2005	1541	99.0	84.7	42.8	12.3	1.8		
Construction Exam	2006	1242	98.6	84.2	47.2	9.3	1.0		
	2005	1301	99.5	91.5	50.7	9.5	2.7		
Entertainment Exam	2006	674	96.9	72.6	33.7	9.9	0.7		
	2005	641	97.0	73.8	29.6	5.5	0.8		
Hospitality Exam	2006	5597	96.6	69.4	28.3	5.9	0.6		
	2005	5897	97.9	81.3	43.0	11.0	0.8		
Information Technology Exam	2006	2263	98.7	90.1	60.7	23.9	8.2		
	2005	2846	98.6	84.4	55.8	18.3	4.6		
Metal & Engineering Exam	2006	469	96.4	65.2	28.8	7.7	1.5		
	2005	377	98.1	76.7	48.5	19.4	5.3		
Primary Industries Exam	2006	562	98.0	76.9	31.9	8.0	1.2		
	2005	516	98.1	82.0	37.2	11.2	1.7		
Retail Operations Exam	2006	1314	93.4	59.5	18.7	5.1	0.3		
	2005	1242	96.7	74.2	29.5	4.1	0.5		
Tourism Exam	2006	317	98.1	71.3	24.3	5.0	0.9		
	2005	319	97.8	78.1	37.3	5.6	0.6		
Distinction Courses	2006	83	71.1	16.9	3.6	1.2	0.0		
	2005	82	80.5	24.4	7.3	1.2	0.0		

Table A5Distributions of scaled marks by course: 2005 – 2006

Notes: (i) Columns 45, 40, 35, 30, 25, 20 and 15 show the percentages of a course candidature with a scaled mark less than the specified marks.

(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	2006	267	99.6	96.3	90.6	83.9	74.9	67.4	52.1	
	2005	238	99.6	96.6	90.8	82.4	73.1	62.2	49.6	
Agriculture	2006	1410	99.1	93.9	86.2	76.7	63.7	48.7	31.6	
	2005	1269	98.9	93.9	85.1	73.2	60.3	44.7	29.6	
Ancient History	2006	11262	98.3	91.8	80.5	65.3	49.2	33.4	19.9	
	2005	10191	98.3	92.3	80.2	64.9	47.8	32.2	19.4	
Biology	2006	14067	99.0	91.4	76.4	59.1	41.2	25.1	12.8	
	2005	13215	98.7	91.3	78.2	60.6	42.0	26.2	13.4	
Business Studies	2006	16020	99.7	95.1	83.9	68.8	53.7	37.5	22.6	
	2005	16013	99.7	95.6	84.9	69.9	53.7	37.5	22.6	
Chemistry	2006	10217	97.0	80.9	58.7	39.0	23.7	13.0	6.1	
	2005	10119	97.3	81.8	59.0	38.7	24.3	14.5	7.2	
Community & Family Studies	2006	4489	100.0	98.6	92.7	82.2	67.7	52.0	36.4	
	2005	4364	100.0	97.9	91.6	81.1	66.6	50.1	34.7	
Dance	2006	750	98.9	94.8	86.9	74.7	58.9	39.5	21.5	
	2005	693	99.1	94.9	86.3	74.7	55.3	36.7	17.5	
Design & Technology	2006	4094	99.9	96.9	89.9	79.0	64.6	48.4	30.2	
	2005	4159	99.9	96.5	90.0	79.3	64.9	47.4	30.1	
Drama	2006	5243	98.3	93.2	83.8	70.1	53.1	37.0	20.4	
	2005	5134	98.7	92.8	82.3	68.7	51.6	33.3	18.9	
Earth & Environmental Science	2006	1140	99.1	94.0	84.3	69.8	51.8	33.3	18.5	
	2005	1127	99.5	95.0	84.5	67.6	51.1	34.6	18.5	
Economics	2006	5421	97.2	80.6	58.8	39.9	26.1	16.0	9.1	
	2005	5535	97.2	80.2	58.0	39.7	26.5	16.6	9.8	
Engineering Studies	2006	1407	99.1	94.1	83.1	65.5	45.6	29.1	13.2	
	2005	1401	99.6	95.6	84.0	66.8	49.3	29.6	15.8	
English Standard	2006	30470	99.9	99.7	98.0	93.2	82.1	62.3	37.7	
	2005	30140	99.9	99.6	97.9	92.8	81.2	62.1	38.2	
English Advanced	2006	27734	97.1	84.6	64.5	42.9	23.3	10.0	3.2	
	2005	27542	97.7	85.2	64.6	42.8	23.0	9.3	2.8	
English Extension 1	2006	6207	94.1	68.1	36.1	15.5	5.8	2.2	0.9	
	2005	6282	95.3	69.6	37.5	14.6	4.9	1.7	0.6	
English Extension 2	2006	2559	89.5	64.4	37.9	17.4	5.6	2.1	0.5	
	2005	2608	90.8	67.2	37.3	15.8	5.0	1.8	0.5	
ESL	2006	2763	98.7	94.3	85.3	74.9	61.2	46.9	32.8	
	2005	2920	97.9	93.6	86.1	74.1	60.2	46.3	33.0	

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Table A5

Course Year Number Percentage of students with scaled marks less than: 45 40 35 30 25 20 15 Food Technology 2006 3057 99.8 96.3 89.3 78.1 65.5 50.6 35.1 2005 3025 99.8 96.4 88.5 79.2 66.4 51.5 34.0 Geography 2006 4504 98.6 92.1 79.1 62.2 45.8 29.6 17.2 2005 4913 98.3 91.7 80.1 63.5 45.9 30.8 17.1 Industrial Technology 2006 3374 100.0 97.4 89.5 79.5 64.4 47.0 2005 3442 100.0 99.9 97.0 89.4 79.3 64.3 48.1 Information Processes & Technology 2006 5190 99.8 96.8 89.1 75.6 60.4 43.8 28.2 2005 5764 99.6 96.4 88.2 74.7 58.7 42.1 26.2 Legal Studies 2006 8535 99.3 93.0 81.0 64.9 47.6 31.6 18.6 2005 8986 99.0 92.7 81.0 65.2 47.8 33.1 20.0 91.1 47.8 **General Mathematics** 2006 29248 99.9 98.3 79.6 64.6 31.2 2005 28673 99.9 98.0 90.1 78.4 64.3 49.2 33.1 Mathematics 2006 18124 97.7 84.1 64.1 44.2 28.0 16.1 8.6 2005 19006 97.6 84.9 65.9 45.8 28.9 16.3 7.8 2.4 Mathematics Extension 1 2006 9017 80.3 42.6 19.6 9.5 4.9 1.2 2005 9359 74.4 40.7 20.9 10.3 5.5 2.9 1.4 Mathematics Extension 2 2006 3146 57.2 15.5 5.1 2.3 1.1 0.5 0.4 2005 3240 48.2 14.0 5.3 2.7 1.5 0.8 0.6 Modern History 2006 9541 98.5 89.2 73.2 53.2 35.9 23.3 14.0 2005 9843 98.4 90.7 74.0 54.3 36.6 23.7 14.6 History Extension 2006 2352 96.9 80.9 50.2 22.4 8.1 3.0 1.02005 2368 97.8 82.8 50.5 22.3 7.5 2.7 0.8 Music 1 2006 4403 99.5 95.7 88.2 77.4 62.5 45.5 27.6 2005 4284 99.6 95.0 87.6 76.5 61.3 43.9 26.6 Music 2 2006 621 94.0 78.3 55.6 31.7 14.5 5.0 0.8 2005 637 94.7 81.0 61.7 36.4 18.8 7.1 1.9 Music Extension 2006 387 84.8 72.6 50.1 24.0 9.0 2.8 0.3 2005 430 88.4 75.3 56.3 30.9 14.4 3.7 1.4 PDH&PE 2006 11936 99.6 95.6 85.7 71.3 54.9 38.8 23.7 2005 10944 99.8 96.1 86.3 71.4 54.0 38.1 23.2 Physics 2006 9116 98.1 85.3 63.5 42.9 27.2 17.0 8.9 2005 9315 97.5 83.7 64.2 44.2 27.9 16.0 8.2 Senior Science 2006 4019 100.0 98.9 93.9 83.8 70.6 53.0 34.2 2005 3924 100.0 98.9 94.1 83.3 69.3 52.7 34.3 Society & Culture 2006 3752 98.7 93.1 84.3 71.2 55.0 37.7 22.3 2005 3486 98.9 93.6 83.2 69.8 53.6 21.5 36.8 Software Design & Development 2006 1862 99.2 94.6 84.0 67.5 48.6 31.5 17.6 2005 2160 99.8 96.5 84.5 68.4 49.8 31.7 18.5

Distributions of scaled marks by course: 2005 – 2006 (contd)

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Course Year Number Percentage of students with scaled marks less than: 45 40 35 25 20 15 30 99.6 10.9 Studies of Religion I 2006 9271 93.9 79.2 60.3 39.8 22.8 9154 99.7 94.3 80.7 2005 62.0 41.4 24.0 10.7 Studies of Religion II 2006 3041 98.3 90.6 76.1 56.3 38.4 23.7 13.2 2005 2873 98.9 91.9 75.3 55.5 35.8 21.4 11.1 Textiles & Design 2006 2052 99.0 95.2 86.4 74.5 60.7 45.2 28.5 2005 1681 99.7 95.8 86.9 73.6 60.0 43.2 26.8 Visual Arts 2006 8739 98.7 93.1 84.4 72.9 59.4 43.9 27.0 2005 8527 98.2 92.8 83.9 71.7 58.1 41.5 25.4 Arabic Continuers 2006 222 100.0 97.7 93.7 87.8 73.4 53.6 40.5 2005 229 100.0 99.6 95.6 85.6 71.2 53.3 38.9 Arabic Extension 2006 78 100.0 94.9 76.9 48.7 17.9 6.4 2005 90 100.0 98.9 90.0 75.6 44.4 18.9 6.7 Chinese Continuers 2006 101 97.0 82.2 56.4 39.6 25.7 13.9 7.9 2005 107 97.2 77.6 54.2 32.7 16.8 10.3 6.5 Chinese Background Speakers 2006 1076 98.9 94.4 87.8 78.3 64.8 50.2 33.1 2005 1297 98.2 93.2 86.3 75.9 62.1 49.2 34.2 **Classical Hebrew Continuers** 2006 51 86.3 70.6 47.1 29.4 11.8 3.9 2.0 2005 40 82.5 62.5 47.5 37.5 22.5 2.5 5.02006 613 97.4 92.2 84.3 69.8 55.8 37.8 22.5 French Beginners 2005 466 99.1 93.8 83.7 71.5 50.0 36.1 21.0 French Continuers 2006 872 91.3 71.0 48.4 29.8 14.8 7.8 4.1 92.1 51.2 2005 871 73.1 30.9 16.4 6.0 2.2 French Extension 2006 193 74.1 32.6 14.0 3.1 1.6 0.5 0.0 2005 198 72.7 34.3 15.7 5.6 1.0 0.0 German Beginners 2006 142 95.1 85.9 73.2 53.5 36.6 24.6 14.1 97.2 2005 145 86.9 75.9 60.7 44.1 29.0 17.2 German Continuers 2006 385 88.1 70.6 49.4 32.5 17.9 6.5 2.3 2005 459 90.6 70.6 50.5 35.1 22.7 14.4 6.5 German Extension 2006 106 82.1 42.5 20.8 5.7 1.9 0.0 2005 130 82.3 46.2 13.8 2.3 0.0 Indonesian Continuers 2006 102 92.2 82.4 64.7 52.9 30.4 15.7 5.9 2005 92.2 42.2 90 76.7 56.7 25.6 14.4 2.2 Indonesian Background Speakers 2006 75 92.0 86.7 78.7 54.7 33.3 10.7 2.7 106 97.2 41.5 20.8 4.7 2005 85.8 68.9 8.5 373 Italian Beginners 2006 96.0 89.3 79.9 66.5 50.7 33.0 20.1 2005 315 95.2 86.7 76.8 65.4 52.7 37.1 22.5 Italian Continuers 2006 367 96.7 85.8 69.8 49.6 31.9 15.3 9.3 2005 342 95.9 87.4 69.9 50.6 35.1 19.3 9.1

Table A5

Year Number Percentage of students with scaled marks less than: Course 45 35 25 20 15 40 30 94.6 0.0 Italian Extension 2006 74 68.9 36.5 8.1 1.4 2005 61 93.4 65.6 36.1 6.6 1.6 1.6 0.0 2006 568 98.1 91.7 81.3 63.6 55.5 40.8 26.8 Japanese Beginners 2005 547 98.0 91.6 80.6 66.0 52.7 38.0 25.8 Japanese Continuers 2006 789 94.3 76.6 58.3 37.9 22.8 12.9 5.2 2005 803 95.8 77.3 57.4 40.8 26.5 14.6 7.0 Japanese Extension 2006 263 90.1 57.8 24.3 6.1 1.9 0.0 2005 295 90.5 61.0 29.2 12.9 0.3 0.3 2.0 2006 49 95.9 91.8 87.8 81.6 71.4 61.2 42.9 Japanese Background Speakers 2005 98.0 98.0 88.0 78.0 72.0 40.0 50 56.0 Korean Background Speakers 2006 123 96.7 90.2 80.5 65.9 54.5 35.8 24.4 2005 141 98.6 93.6 85.1 77.3 66.7 44.7 29.8 Latin Continuers 2006 182 78.6 40.7 23.1 9.3 3.3 0.5 0.5 2005 179 74.3 46.4 20.7 9.5 5.6 2.2 0.6 Latin Extension 2006 101 67.3 33.7 14.9 4.0 2.0 0.0 2005 95 66.3 34.7 14.7 4.2 0.0 Modern Greek Continuers 2006 118 99.2 94.9 88.1 77.1 60.2 42.4 27.12005 134 96.3 91.0 80.6 68.7 56.7 39.6 29.9 Modern Greek Extension 2006 53 100.0 96.2 81.1 66.0 34.0 15.1 3.8 2005 65 98.5 95.4 78.5 43.1 24.6 10.8 3.1 2006 41 95.1 90.2 85.4 82.9 58.5 51.2 46.3 Persian 2005 46 93.5 91.3 87.0 76.1 63.0 47.8 30.4 Serbian 2006 43 100.0 97.7 76.7 67.4 55.8 46.5 25.6 2005 47 100.0 95.7 91.5 85.1 83.0 68.1 53.2 Spanish Beginners 2006 124 96.8 89.5 83.9 77.4 66.9 54.0 36.3 2005 158 98.1 93.7 82.9 74.7 62.7 51.3 38.0 Spanish Continuers 2006 221 100.0 98.2 93.7 80.1 65.6 50.7 33.0 188 99.5 95.2 89.4 78.7 2005 66.5 50.0 31.9 Spanish Extension 2006 73 100.0 98.6 90.4 67.1 31.5 11.0 4.1 2005 68 100.0 94.1 82.4 63.2 39.7 11.8 2.9 79.7 52.5 Turkish 2006 59 98.3 98.3 91.5 67.8 59.3 2005 74 100.0 94.6 87.8 85.1 79.7 71.6 62.2 79.3 Vietnamese 2006 116 97.4 94.0 89.7 62.9 47.4 31.9 2005 104 97.1 93.3 86.5 78.8 58.7 40.4 29.8 2006 351 93.7 85.8 72.9 59.0 43.0 28.5 20.2 Accounting 2005 318 95.3 85.2 69.8 52.5 36.5 24.8 17.0 **Business Services Exam** 2006 1482 100.0 99.6 96.1 86.6 74.4 59.5 43.1 2005 1541 100.0 98.6 94.2 84.7 73.8 57.4 40.2

Distributions of scaled marks by course: 2005 – 2006 (contd)

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Course	Year	Number	Percentage of students with scaled marks less than:						ın:
			45	40	35	30	25	20	15
Construction Exam	2006	1242		100.0	98.6	93.3	81.6	68.0	49.8
	2005	1301		100.0	97.8	91.5	81.6	69.3	53.6
Entertainment Exam	2006	674	100.0	98.2	92.4	81.2	65.0	44.2	26.6
	2005	641	100.0	98.6	92.8	81.4	64.3	43.5	26.1
Hospitality Exam	2006	5597	100.0	99.0	93.1	82.2	69.4	50.3	31.8
	2005	5897	100.0	99.0	93.2	84.5	67.4	51.1	30.4
Information Technology Exam	2006	2263	100.0	99.1	95.5	85.3	70.1	52.9	36.7
	2005	2846	100.0	99.6	95.3	84.4	68.8	52.5	36.4
Metal & Engineering Exam	2006	469		100.0	99.6	94.5	83.8	67.8	48.6
	2005	377		100.0	98.9	92.0	80.6	64.7	50.9
Primary Industries Exam	2006	562	100.0	99.8	97.0	90.6	76.9	60.5	41.5
	2005	516		100.0	97.3	90.3	78.9	60.5	44.8
Retail Operations Exam	2006	1314	100.0	99.2	96.6	87.9	79.2	62.2	48.4
	2005	1242	100.0	99.9	97.7	88.6	77.8	63.7	44.8
Tourism Exam	2006	317	100.0	98.4	93.4	82.3	66.2	45.1	26.8
	2005	319	100.0	97.8	90.9	82.1	65.8	47.3	31.3
Distinction Courses	2006	83	74.7	44.6	15.7	4.8	2.4	1.2	1.2
	2005	82	81.7	57.3	12.2	2.4	1.2	0.0	

Table A6Courses that contribute to the UAI

- *Notes: (i)* This table shows the percentage of a course candidature for whom **all** units of that course contributed to their UAI of those students who completed more than 10 units of UAI courses.
 - *(ii) The* **Number receiving UAI** *column shows the number of students in a course who received a UAI in 2006. The course may have been completed in 2006 or in an earlier year.*
 - (iii) The UAI students with > 10 UAI units columns show the number and percentage of students who completed more than 10 units of UAI courses
 - (iv) The **Percentage who counted course** column shows the percentage of students who completed more than 10 units of UAI course for whom all units of that course contribute towards their UAIs
 - (v) The table excludes courses with less than 10 students.

Course	Number receiving UAI	UAI students v	Percentage who counted course	
		Number	Percentage	
Aboriginal Studies	168	33	20	88
Agriculture	1086	537	49	74
Ancient History	10355	5012	48	85
Biology	13532	7308	54	81
Business Studies	14618	6868	47	85
Chemistry	10132	7102	70	75
Community & Family Studies	3380	1193	35	87
Dance	615	214	35	68
Design & Technology	3365	1409	42	78
Drama	4538	1822	40	75
Earth & Environmental Science	1051	530	50	78
Economics	5386	3465	64	78
Engineering Studies	1336	734	55	70
English Standard	21196	7670	36	100
English Advanced	27131	15884	59	98
English Extension 1	6191	4701	76	85
English Extension 2	2560	1761	69	83
ESL	2417	927	38	100
Food Technology	2391	941	39	87
Geography	4195	2233	53	82
Industrial Technology	1834	802	44	62
Information Processes & Technology	4733	2345	50	78
Legal Studies	8040	3978	49	84
General Mathematics	23782	9071	38	70
Mathematics	17262	11206	65	70
Mathematics Extension 1	8902	7239	81	92
Mathematics Extension 2	3135	2044	65	99
Modern History	9053	4914	54	83
History Extension	2353	1985	84	82
Music 1	3680	1534	42	66

Course	Number receiving UAI	UAI students	Percentage who counted course	
		Number	Percentage	
Music 2	612	481	79	71
Music Extension	389	332	85	72
PDH&PE	10612	4664	44	85
Physics	9019	6042	67	75
Senior Science	3247	1420	44	85
Society & Culture	3293	1283	39	87
Software Design & Development	1840	1075	58	71
Studies of Religion I	8819	8227	93	80
Studies of Religion II	2916	1475	51	83
Textiles & Design	1641	547	33	76
Visual Arts	7297	3023	41	74
Arabic Continuers	184	118	64	63
Arabic Extension	67	65	97	86
Armenian	24	12	50	75
Chinese Beginners	24	9	38	67
Chinese Continuers	103	69	67	62
Chinese Extension	37	31	84	81
Chinese Background Speakers	990	371	37	67
Classical Greek Continuers	15	15	100	87
Classical Hebrew Continuers	49	35	71	80
Classical Hebrew Extension	36	31	86	77
Croatian	10	3	30	67
Filipino	17	8	47	88
French Beginners	518	230	44	77
French Continuers	827	611	74	68
French Extension	187	162	87	88
German Beginners	128	63	49	67
German Continuers	390	266	68	69
German Extension	109	97	89	86
Hindi	23	19	83	63
Indonesian Beginners	32	12	38	92
Indonesian Continuers	101	80	79	70
Indonesian Extension	35	31	89	74
Indonesian Background Speakers	74	41	55	61
Italian Beginners	317	163	51	72
Italian Continuers	322	227	70	73
Italian Extension	70	58	83	95

Table A6Courses that contribute to the UAI (contd)

Course	Number receiving UAI	UAI students	Percentage who counted course	
		Number	Percentage	
Japanese Beginners	550	210	38	70
Japanese Continuers	778	512	66	66
Japanese Extension	262	203	77	81
Japanese Background Speakers	43	7	16	29
Korean Continuers	11	7	64	57
Korean Background Speakers	124	38	31	71
Latin Continuers	175	155	89	70
Latin Extension	101	95	94	72
Macedonian	17	9	53	56
Modern Greek Beginners	23	9	39	78
Modern Greek Continuers	119	87	73	77
Modern Greek Extension	54	50	93	90
Modern Hebrew	32	22	69	73
Persian	30	15	50	80
Polish	31	19	61	68
Portuguese	12	9	75	67
Russian	31	17	55	59
Serbian	39	17	44	88
Spanish Beginners	100	38	38	74
Spanish Continuers	193	110	57	75
Spanish Extension	72	65	90	88
Tamil	20	17	85	59
Turkish	53	23	43	43
Vietnamese	104	55	53	73
Accounting	326	211	65	65
Business Services Exam	1093	432	40	77
Construction Exam	614	282	46	71
Entertainment Exam	546	212	39	80
Hospitality Exam	4471	1729	39	75
Information Technology Exam	1886	817	43	68
Metal & Engineering Exam	219	104	47	64
Primary Industries Exam	337	158	47	72
Retail Operations Exam	826	333	40	70
Tourism Exam	248	94	38	78
Distinction Courses	102	102	100	42

Table A6Courses that contribute to the UAI (contd)

Table A7 Number of units students completed by UAI

Notes: (i) The **Number** *column shows the number of students with each specified UA.*

(ii) UAIs are truncated so that for example a UAI of 90 includes all UAIs from 90.00 to 90.95.

(iii) The Percentage of students who completed columns show the percentages 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	21		24	29	29	5	14	100		
99	840	13	25	40	11	7	5	87		
98	847	18	31	38	9	3	1	82		
97	830	18	33	38	8	2	1	82		
96	823	22	36	34	7	1	<1	78		
95	812	23	37	32	7	1	<1	77		
94	823	22	36	33	7	2		78		
93	819	24	39	32	4	1	<1	76		
92	822	28	35	31	5	<1	<1	72		
91	814	28	36	31	5	1	<1	72		
90	820	27	37	30	5	<1	<1	73		
89	799	31	35	29	5	1		69		
88	807	33	35	26	6	<1	<1	67		
87	811	29	38	27	5	1		71		
86	789	31	38	27	4	<1		69		
85	786	33	35	27	4	1		67		
84	799	38	36	23	3	1	<1	62		
83	793	37	35	24	4	<1		63		
82	794	35	36	25	4	1	<1	65		
81	793	38	36	21	4	<1	<1	62		
80	784	40	32	25	3	<1		60		
79	757	40	32	24	3	<1		60		
78	754	41	32	24	3	<1		59		
77	774	43	30	23	3	<1	<1	57		
76	747	46	30	21	3	<1		54		
75	758	48	28	20	3	1		52		
74	738	46	28	22	2	1	<1	54		
73	757	45	30	20	4	1		55		
72	745	47	31	20	3	<1		53		
71	758	47	29	21	3	1		53		
70	717	51	27	19	2	<1	<1	49		
69	679	52	28	18	2	<1		48		
68	722	52	27	19	2	<1	<1	48		
67	722	52	28	17	1	1	<1	48		

UAI	Number		Percentage of students who completed:									
		10 units	11 units	12 units	13 units	14 units	> 14 units	>10 units				
66	711	48	30	19	2	<1	<1	52				
65	699	53	30	15	2	1		47				
64	695	55	24	19	2	<1		45				
63	670	55	27	16	1	<1		45				
62	656	55	25	18	2	<1		45				
61	655	60	21	17	2		<1	40				
60	630	59	22	18	1	<1		41				

 Table A7
 Number of units students completed by UAI (contd)

Table A8Relationship between UAI percentile and aggregate: 2002 – 2006

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				
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	
100.00	100.0	100.0	100.0	100.0	100.0	480.8	485.6	483.0	482.4	482.5	
99.50	99.2	99.2	99.2	99.2	99.2	455.1	458.6	454.9	456.7	454.2	
99.00	98.4	98.4	98.4	98.4	98.4	444.8	448.2	444.8	446.5	444.1	
98.00	96.8	96.8	96.8	96.8	96.7	430.5	433.1	430.4	431.6	430.7	
95.00	92.1	92.0	92.0	92.0	91.8	401.9	403.8	403.5	404.1	403.9	
90.00	84.3	84.3	84.1	84.1	83.8	369.9	371.3	371.7	371.9	372.8	
85.00	76.8	76.7	76.4	76.3	75.9	344.8	345.0	346.0	346.6	346.4	
80.00	69.4	69.3	68.8	68.8	68.1	322.9	322.2	322.6	323.7	322.5	
75.00	62.4	62.2	61.5	61.4	60.7	302.4	301.9	301.5	303.3	301.6	
70.00	55.4	55.3	54.3	54.3	53.3	282.5	282.6	281.5	283.2	281.5	
65.00	48.7	48.6	47.5	47.5	46.3	263.9	264.6	262.1	264.0	262.2	
60.00	42.5	42.3	41.0	41.0	39.8	246.7	246.6	243.7	244.9	243.9	
55.00	36.5	36.4	34.9	34.9	33.7	229.7	230.0	225.9	227.5	226.2	
50.00	31.0	30.9	29.3	29.2	28.2	213.0	213.0	207.9	209.2	209.1	