

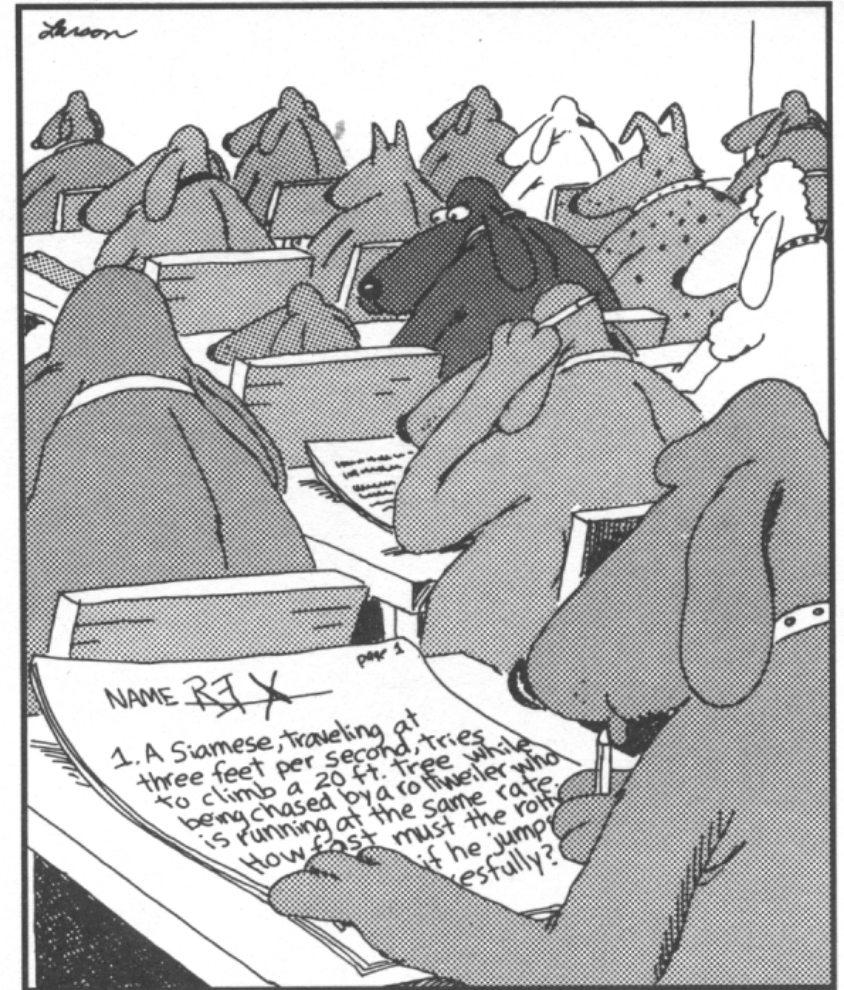


What do you see?

This is school..



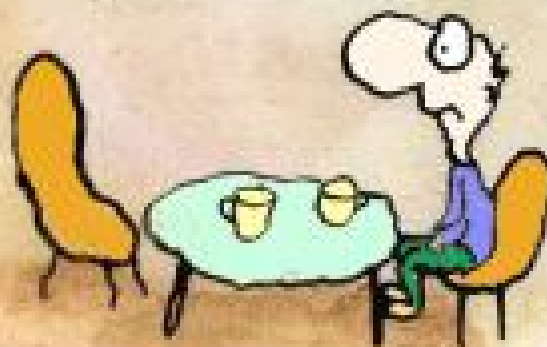
The University of Sydney



Before their admission to any canine university, dogs must first do well on the CATs.

What next???

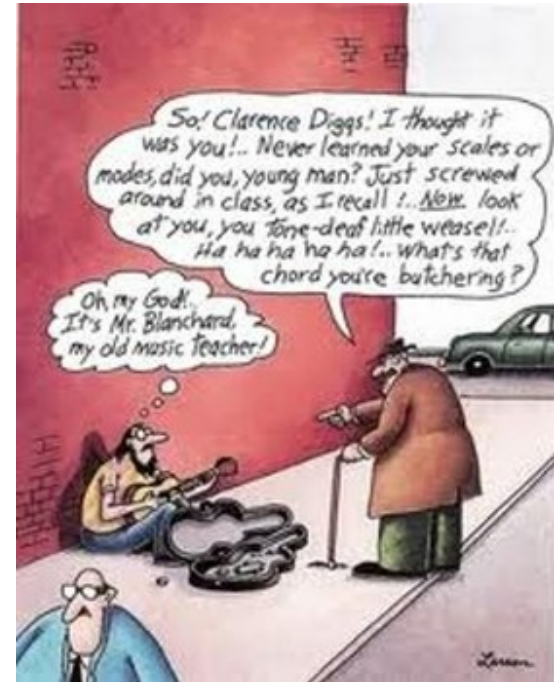
... welcome to the first day
of the rest of your life and to
get started we'll make a list
of all the silly things
you did yesterday...



Leunig

Scope

- *University entry & qualifications*
- *HSC Myths*
- *Calculation of ATAR & bonus points*
- *Interstate & overseas study*
- *Advice*



What to the following acronyms mean?

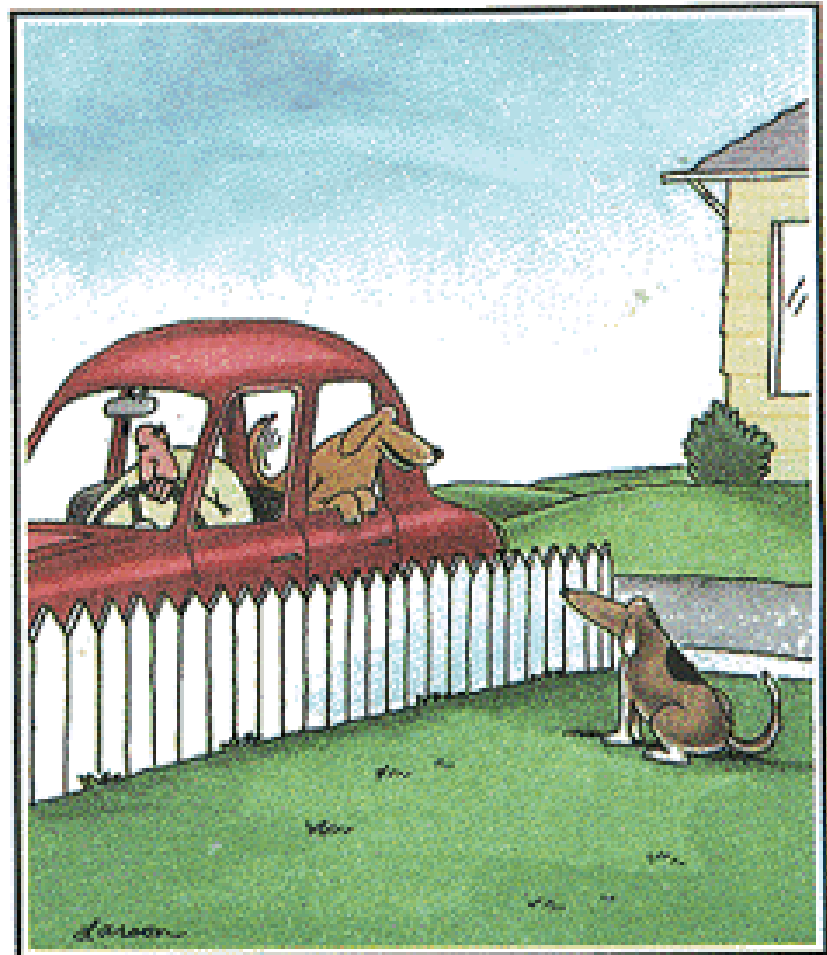
- UAC
- BOSTES
- ATAR
- RTO
- AQF
- EAS
- UMAT
- SAT



Hopeful parents



*Some
misconceptions!*



"Ha ha ha, Biff. Guess what? After we go to the drugstore and the post office, I'm going to the vet's to get tutored."

Too clever by half: HSC maths students punished in ATAR

■ Eryk Bagshaw

Students studying advanced maths across the state are being punished for taking on the more challenging HSC subject as the number of students studying no maths or general maths continues to grow.

A study of almost 50,000 students who studied mathematics in the 2013 HSC has revealed that the current scaling mechanisms that determine university admissions unfairly advantage general mathematics students, who study a simpler form of practical mathematics than those who undertake the calculus-based two-unit course.

The research published in the

11/RS/1 A002 NPL

9-10

ATAR point boost from doing general maths over advanced

Australian Journal of Education showed that on average general maths students were almost twice as likely to improve their results based on their corresponding year 10 school certificate data. Those who studied advanced mathematics were three times more likely to see a reduction in their results with an average nine mark ATAR advantage between the two courses.

"There is a clear and strong

51%

of 1000 maths teachers believed students were deliberately picking courses below their capabilities.

message from students that higher level mathematics is not the preferred option for the HSC," wrote the report's author David Pitt. "The current scaling mechanism provides a strong incentive to general mathematics for a very large group of students."

The NSW Mathematics Teachers Association has called for a complete overhaul of the ATAR system since it does not properly

differentiate students, unlike its Victorian counterpart, which scales the maths courses against each other.

The former chief examiner of HSC mathematics, Brad Elliott, said he complained to the University Admissions Centre (UAC) in 2013 after he saw his students being ripped off by taking on the more challenging course.

In a response to Mr Elliot, the chair of the technical committee on scaling, acknowledged that the current HSC structure does not provide any common ground on which to link performance on general mathematics and advanced mathematics but that universities were more likely to adopt reward

systems for those who took on the more difficult course.

Research by the Australian Mathematical Sciences Institute in 2014 found the trend was moving in the opposite direction with NSW universities increasingly listing assumed knowledge in degrees rather than pre-requisites. The shift has meant that students do not necessarily have to complete advanced maths.

A survey of 1000 maths teachers in 2013 found that 51 per cent believed that some students in their school were deliberately selecting maths courses below their capability. The most common reason given by students was a desire to optimise ATAR results.

SMH 20 MAY 2015



A couple of myths ...

I'll get a better ATAR if I study more than 10 units.

Not necessarily, but if you have the ability it may be worthwhile to broaden the scope of your studies.

I can work out my ATAR from my trial or HSC marks.

The ATAR is about position, and even high HSC marks don't necessarily mean a high position and therefore a high ATAR.

Fred and Laura's results show the large difference in ATARs arising from much smaller differences in HSC marks. (see p 23 of 2013 Scaling Report)

	Fred		Laura	
Course	HSC mark	Percentile	HSC mark	Percentile
Biology	70	41	80	75
Business Studies	70	35	80	66
English Advanced	70	10	80	45
Mathematics	70	20	80	49
Modern History	70	27	80	62
Visual Arts	70	17	80	56
ATAR	55.95		79.45	

More Myths.....

- **Choose hard courses – they will be “scaled up”.**

This may be true, but if you don't do well you are still likely to have a low scaled mark.

- **Choose easy courses – you will do better and the scaling won't matter.**

This may be true, but you may have to do really well to get a good mark.

- **Does my school matter?**

NO!!! Your ATAR depends on how well you do.

- **Don't choose a VET course – you won't get a good ATAR.**

False – it doesn't matter what course you do ... it is still possible to get a good ATAR. But remember that you can only include two units from Category B courses.

- **Choose courses with a high percentage of students in Band 6.**

False – the ATAR is based on the actual marks you get, and is not affected by the percentage of students in Band 6.





Difference between UAC and BOSTES

UAC	BOSTES
Calculates the ATAR	Calculates HSC marks
Scales raw marks to take away the differences between patterns of study	Moderates assessment marks to take away differences between schools
Reports the ATAR to NSW HSC students	Reports HSC marks to NSW HSC students
Processes university applications on behalf of participating institutions.	Overseas NSW K-12 school curriculum and the HSC



Overview of 2014 HSC and ATAR

- **75 388 students completed at least one HSC course**
- **3 682 did not complete any ATAR course (BDC with exam)**
- **91.1% of the remaining pool (71 706) received the HSC**
- **77.4% (55 482) received an ATAR**
- **94.3% of those receiving an ATAR in 2014 only included 2014 courses**
- **The 99.95 ATAR group studied 37 different courses out of the 118 courses offered**
- **The median ATAR in 2014 was 68.95**
- **Slightly more females (53.1%) than males in the ATAR group**
- **44.6% completed only 10 units, 33.1% did more than 10 units**
- **9 834 students received an HSC but not an ATAR**
- **11 students who received an ATAR in 2014 were not eligible for an HSC**

WHAT is the ATAR?

- The Australian Tertiary Admission Rank -
- a numerical measure of a student's overall academic achievement in the HSC in relation to that of other students.
- it's about POSITION.
- a number between 0.00 and 99.95 (only ATARs above 30 are reported)
- intended for use by universities to rank and select school leavers for admission to university

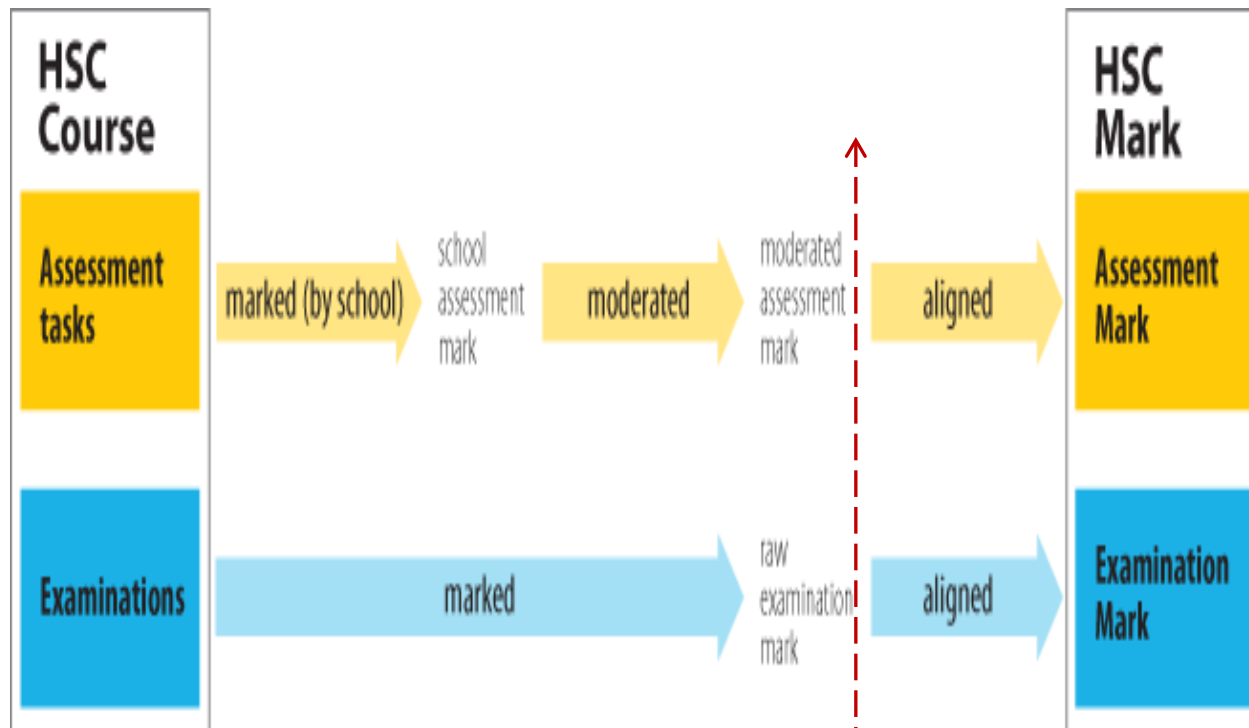


ATAR calculation

- The ATAR is based on an aggregate of **scaled** marks in **10 units** of ATAR courses comprising:
 - the **best two units of English**
 - the **best eight of the remaining units**, which can include up to two units of Category B courses
- Marks can be **accumulated** over a five-year period, but if a course is repeated, only the last satisfactory attempt is used in the ATAR calculation.
- A scaled mark is calculated **the year the course is completed**.

Board of Studies road map

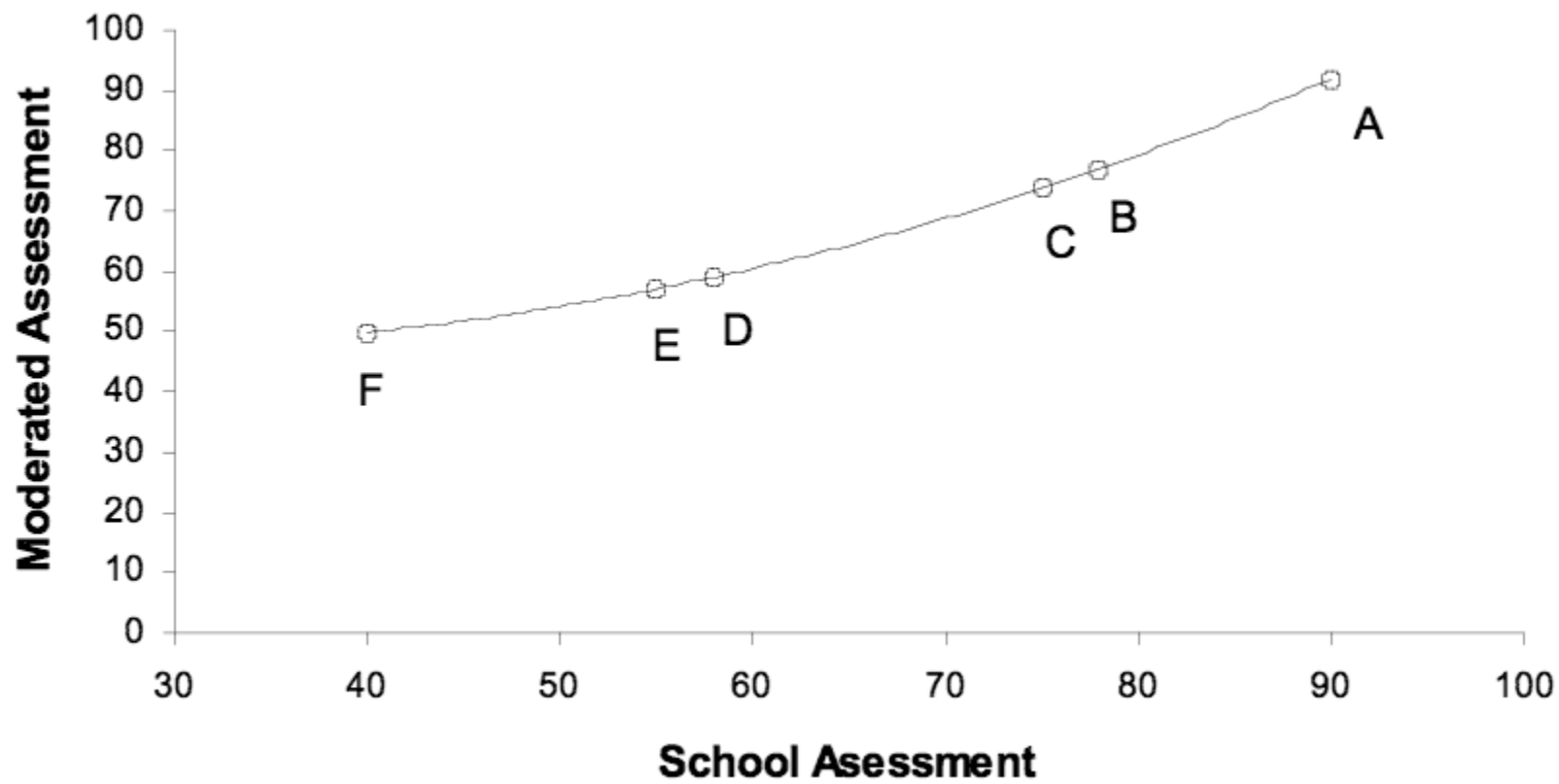
The Board of Studies provides a profile of how each student has performed in each course attempted.



Moderation - example

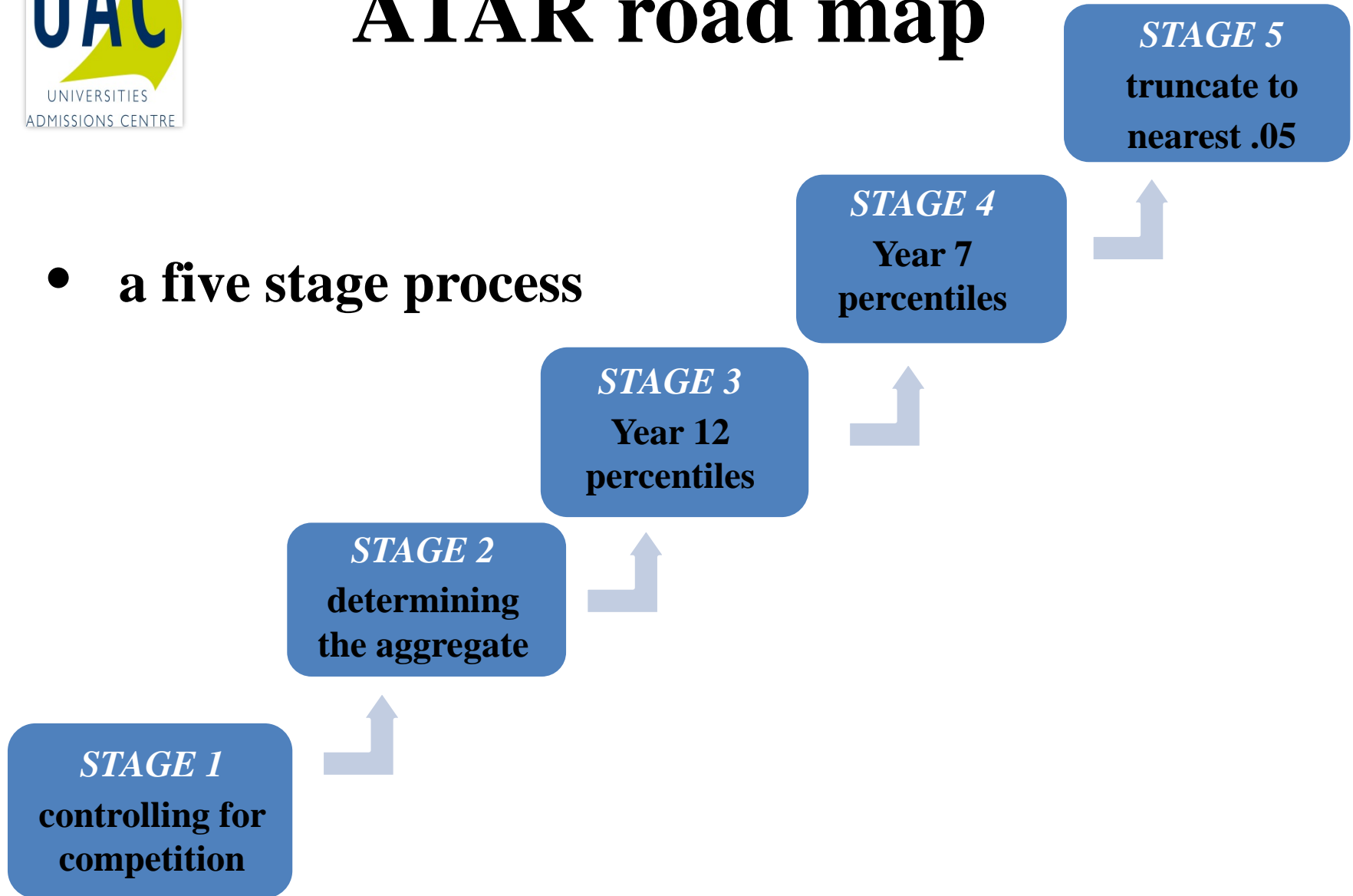
The following table (with figures rounded for simplicity) shows the school assessment marks, the examination marks and the moderated assessment marks obtained by a hypothetical group of six students who studied Modern History at Example High School. The rank order of the students on each set of marks is also given:

<i>Student</i>	<i>School Assessment Mark</i>	<i>Rank</i>		<i>Examination Mark</i>	<i>Rank</i>		<i>Moderated Assessment Mark</i>	<i>Rank</i>
A	90	1		92	1		92	1
B	78	2		72	3		77	2
C	75	3		80	2		74	3
D	58	4		60	4		59	4
E	55	5		50	6		57	5
F	40	6		55	5		50	6
Total:	396			409			409	
Mean:	66			68			68	



ATAR road map

- a five stage process



Stage 1 – controlling for competition

For each course, examination marks and moderated assessments where available are averaged to produce a *raw mark*, which is changed into a *scaled mark*.



The scaling algorithm starts from the premise that a student's position in a course depends on

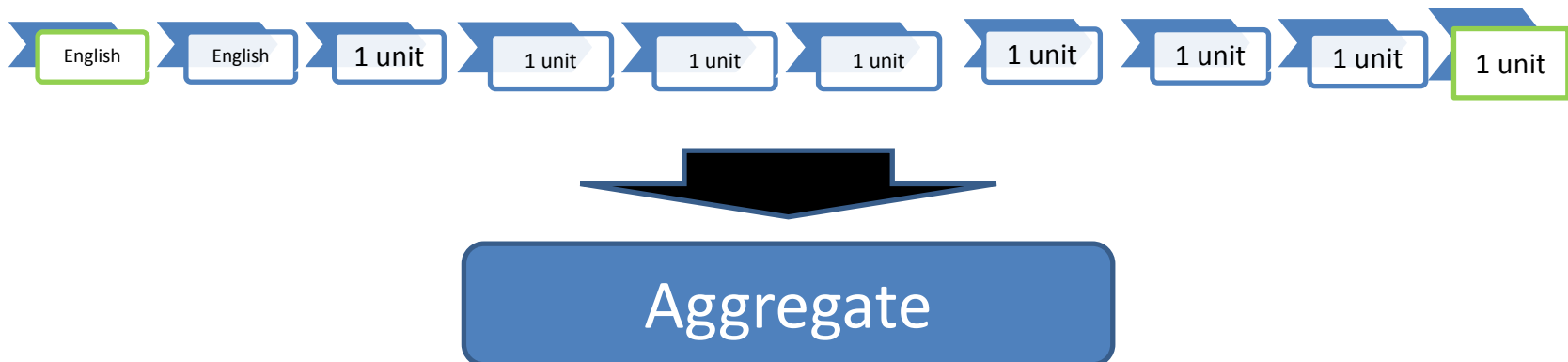
- how good they are at that subject, and
- the strength of the competition.

Scaling controls for the strength of the competition

Stage 2 – determining the aggregate

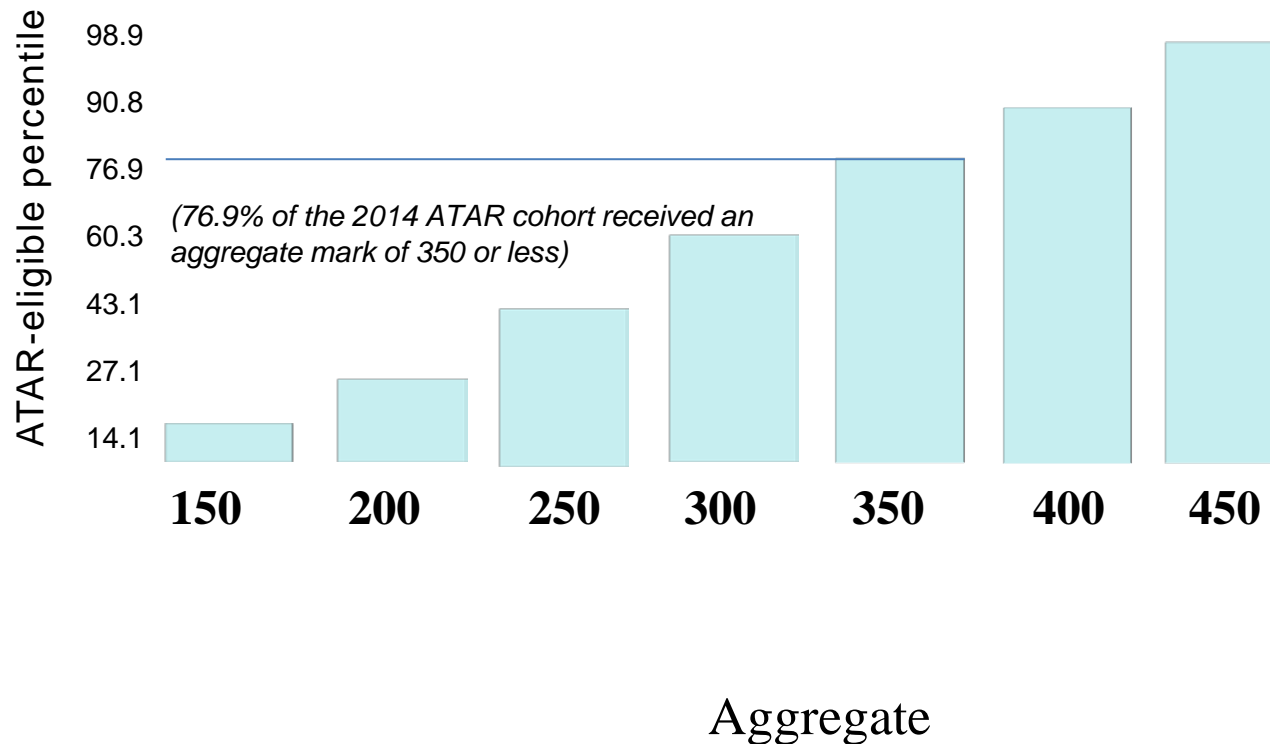
For each student an aggregate mark is formed by adding together the scaled marks of

- the best two units of English**
- the best eight units from the student's remaining courses, (no more than 2 units from Category B courses can be included)**



Stage 3 ATAR-eligible percentiles

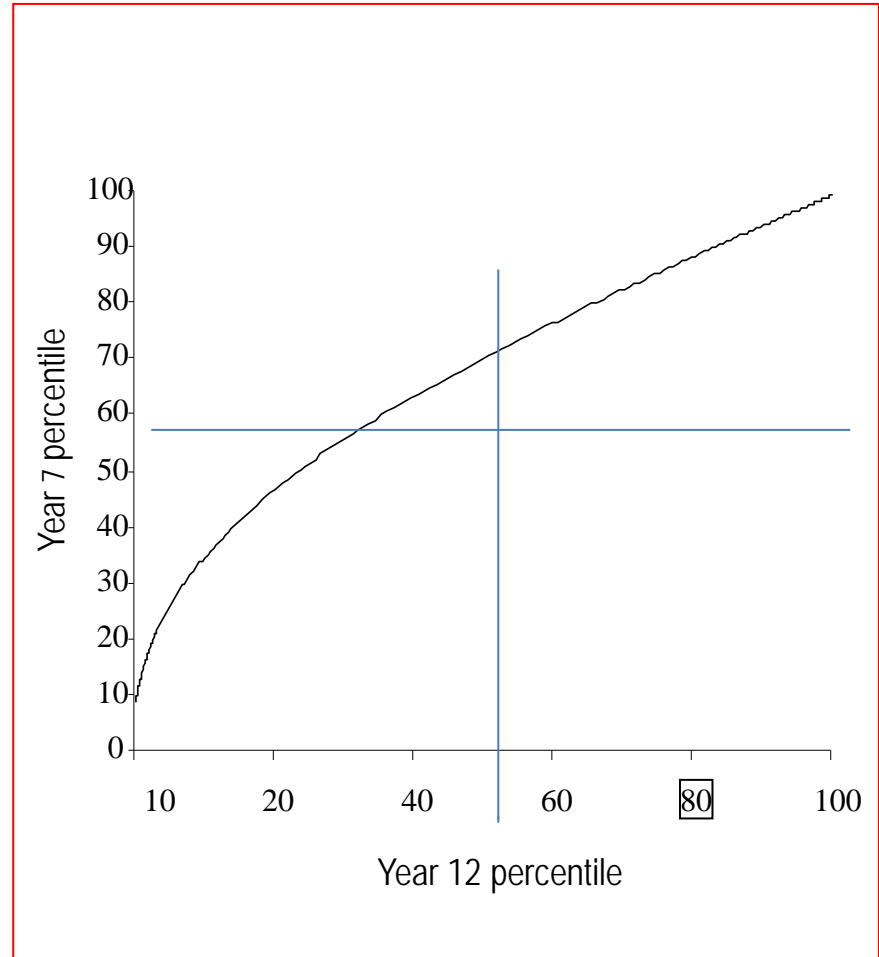
All Year 12 students who are eligible for an ATAR are ranked on the basis of their aggregates. ATAR-eligible percentiles, which show the position of students relative to their ATAR cohort, are then determined for these aggregates.



Stage 4 – Year 7 percentiles

In 2014, 55 482 students received an ATAR out of approximately 80,000 students who started Year 7 with them.

To make NSW ATARs comparable to ATARs calculated in other states, students' positions relative to the TOTAL cohort, including those who left before Year 10 and those Year 12 students who were not eligible for an ATAR, are calculated.



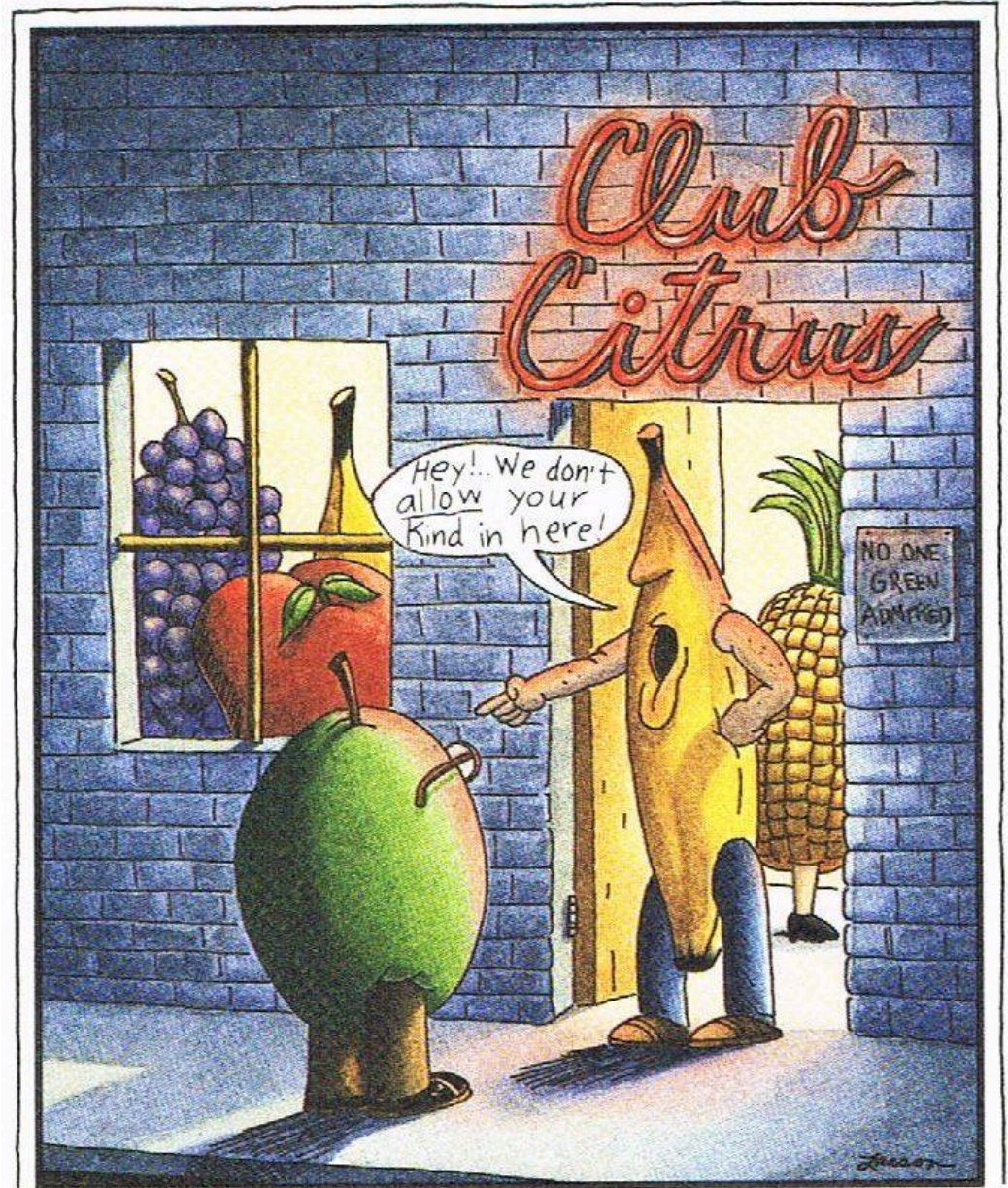
Stage 5 – determining the ATARS

- **When the position of each student relative to the full Year 7 cohort has been determined, the final step is to truncate these percentiles to the nearest 0.05, starting at 99.95.**
- **Here are some examples from the 2014 calculations. (*Table A9*)**

ATAR	Range of Percentiles	Lowest aggregate
99.95	99.951-99.999	475.3
99.50	99.501-99.549	454.0
99.00	99.001-99.049	444.5
98.00	98.001-98.049	431.2

Bonus points

- Regional
- EAS
- Elite athletes & performers
- Subject



Forbidden Fruit

THINKING OF STUDY INTERSTATE & OVERSEAS?



UNITED KINGDOM

<http://www.educationuk.org/global/>

<https://www.ucas.com/>



USA

http://www.internationalstudent.com/study_usa/

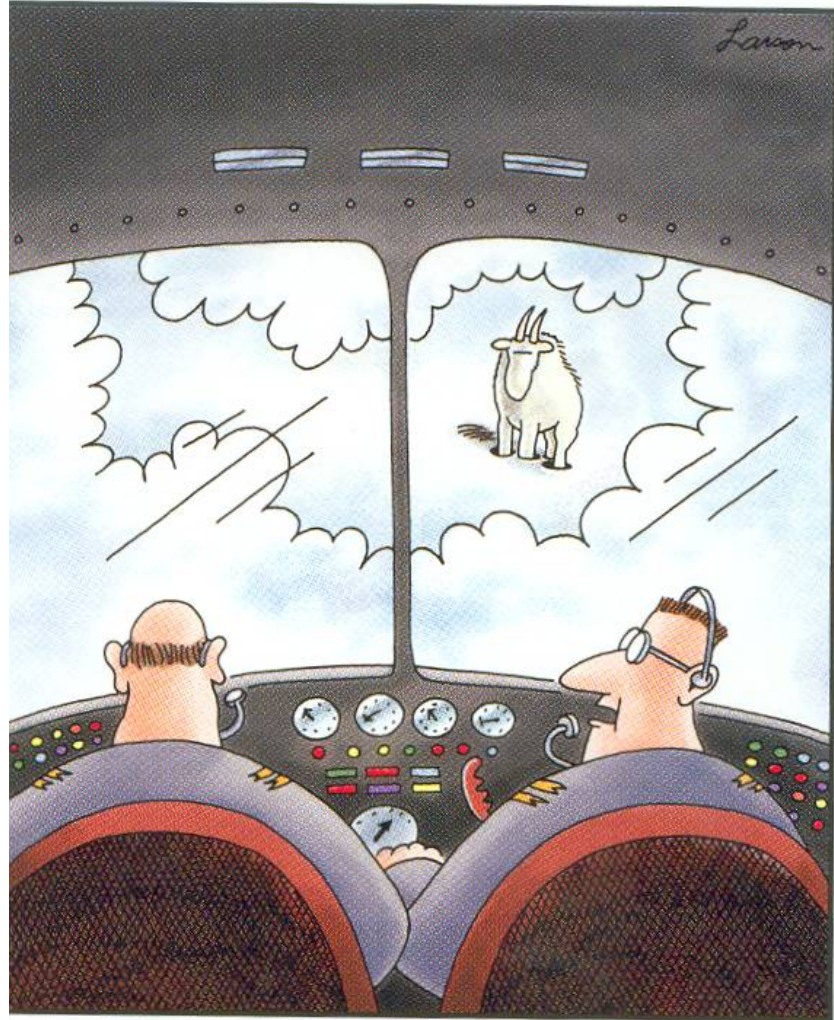
Advice

- *Get educated first, specialise at post grad level.*
- *When selecting subjects for YRS 11-12, choose subjects you enjoy & are good at.*



Cow philosophy

Questions ?



"Say ... what's a mountain goat doing way up here in a cloud bank?"

Where to go for more information

- **Report on the Scaling of the 2014 NSW Higher School Certificate**
- **The Australian Tertiary Admission Rank in New South Wales: A technical report**
- **Frequently asked questions about the ATAR**
- **University entrance requirements for 2018 (for Year 10 students in 2015)**

<http://www.uac.edu.au/publications/undergraduate/index.shtml>