THE HOBSONS RETENTION PROJECT: CONTEXT AND FACTOR ANALYSIS REPORT

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THE CONTEXT: STUDENT EXPERIENCE AND RETENTION

INTRODUCTION

This paper[1] provides an overview of Australian tertiary education student experience and engagement at undergraduate and postgraduate levels for domestic and international students as related to issues of retention, followed by an analysis of results from a benchmarking exercise that explored how committed case study institutions were to managing retention and minimising sttrition. Through the development of a framework based on the concepts of Difficulty; the nature of the institution and Performance; what is done by the institution in relation to retention; a benchmarked factor analysis was conducted with 17 institutions, including universities, TAFE and HE private providers.

The term *retention* is used throughout this document to refer to the proportion of students who re-enrol at an institution in a given year compared with the students who were enrolled in the previous year, less those students who have completed their course[2]. Other terms used in the literature include *Success*, *Completion*, *Persistence*, *Progression, Survival* vs *Non-retention*, *Deferral*, *Discontinuing*, *Attrition, Early departure*, *Failure, Drop-out.*

Reasons for non-retention reflect not only academic failure or drop-out but also cross-institutional mobility, course transfer and temporary deferral. Caution should be used in applying national data to a specific student body; demographics, experiences, expectations and needs of the student body vary between institutions and indeed within institutions.

The main documents used in this overview are Krause, Hartley, James, and McInnis, (2005) **The First Year Experience in Australian Universities: Findings from a Decade of National Studies**, CSHE, University of Melbourne/DEST (Survey undertaken in 2004); ACER 2009 **Engaging Students for Success**, AUSSE (Australasian Survey of Student Engagement), Melbourne (Survey undertaken in 2008); the **AEI International Student Surveys - Higher Education sector summaries** 2006 and 2007; and various papers from the First Year Curriculum Design Symposium held at QUT in February 2009 and earlier conferences.

Other documents, both Australian and international, were also reviewed and are included in the References. There is a large body of international research and theory exploring the individual, social, and organizational factors which impact on student retention in higher education. Of importance in student retention/dropout literature is the classic and much quoted work of Vincent Tinto, first developed in 1975 and updated in 2000 and in more recent papers. Tinto's work gains most support because of its central notion of "integration". Tinto (2000, 2009) lists five conditions supportive of student learning and retention: *expectations, support, feedback, involvement,* and *relevant learning* in settings that are conducive to learning.

While many surveys of students show that external factors (convenience, changing course, financial situation) are often given as the most important reasons for withdrawal, other recent literature focuses on the factors pertinent to retention that are internal to universities and are within immediate institutional control and action (Tinto & Pusser, 2006).

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[1] This research was funded by Hobsons Asia Pacific for which the authors wish to express their gratitude.
[2] (CSHE, University of Melbourne (2008) **Participation and Equity**, p14).

The literature also emphasises that student success and therefore retention rates are largely determined by student experience in the first year (FYE Conference and symposium papers, 2007, 2008, 2009; Kift,2009). The most significant loss of students, as a result of withdrawal, was reported to occur during the first year of their program (Tinto, 1999). If students can be retained beyond the first year, their probability for success increases in each subsequent year (Williford & Schaller, 2005).

The focus is predominantly on the experience of undergraduate students, both domestic and international, and to a lesser extent on course-work postgraduate students, particularly international students. The contention is that many of the same issues relating to undergraduate student engagement, learning, support and retention apply to postgraduate students, especially international postgraduate coursework students in their first year of study in Australia.

The project was generously funded by Hobsons Asia Pacific.

Students "considering deferring study" or withdrawing

The 2004 (CSHE, Student Experience) and 2008 (AUSSE, Student Engagement) survey data found that students were as likely to consider deferring (or departing) for personal and practical as for academic reasons. Reasons given included;

- "emotional health" (highest rated on 2004 Student Experience survey)
- convenience or practical reasons (highest rated on 2008 Student Engagement survey)
- financial reasons
- wanting to change course
- perceived academic performance
- improving career prospects, obtaining better quality education.

These findings are confirmed in the literature of the last decade where studies in the US, UK and Australia indicate a range of issues impacting on retention and suggest that academic issues account for only the minority of withdrawals (for example, DesJardins et al (2002), Catterall, Gill, Martins, & Simeoni (FYE 2003), Elliott, (2003), Yorke (2000). External reasons are cited in the literature as being equally important, including a mix of family, financial and logistical issues.

In 2004, a national research project investigating attrition from first-year university undergraduate degree courses involving 4,390 domestic students was carried out in 34 Australian universities (Long, Ferrier, & Heagney, 2006). Based on the responses of 1,917 students who did not re-enrol at the same university in the first semester of 2005, the study identified the 10 most important reasons for withdrawal out of the 64 surveyed. The top ten influences identified as playing a large role in the respondents' decision to discontinue their program are listed in rank order in table 1.

Table 1
Top Ten Influences for Discontinuation

Reasons for student withdrawal in rank order	% large influence	Rank
I needed a break from study	24.3	1
Difficult to balance study and work commitments	23.7	2
I changed my career goals	21.6	3
I found something I'd like to do better	19.3	4
I found a better path to my career goals	15.5	5
The course or program wasn't what I expected	15.1	6
I felt stressed and anxious about my study	14.0	7
Course would not help me achieve my career goals	13.3	8
I didn't like the way the course was taught	12.9	9
The subjects weren't as interesting as I expected	12.6	10

In terms of the academic reasons for students leaving before completing their program, many studies have shown a positive relationship between student withdrawal and poor academic preparation or performance (e.g., Ashby, 2004; Krause, Hartley, James, & Mclnnis, 2005; Rickinson & Rutherford, 1996). Insufficient information about the course or institution before students enrol has been highlighted more recently as another major reason for withdrawal (Yorke & Longden, 2007). Some studies discuss more generic factors associated with student withdrawal, such as incompatibility between the students and their course and a lack of commitment to the course (Rickinson & Rutherford, 1996; Williford & Schaller, 2005).

Student demographics impacting on retention

The literature review indicated that the following student demographic characteristics either individually or in combination can have an impact on retention or potential for attrition

- Gender
- Age
- Socio-economic background
- Urban- rural background
- Disability
- Full time/part-time
- Indigenous
- Non English speaking background
- International student
- First post-secondary course
- First in family to undertake higher education.
- Entering from a post-secondary pathway program

There are variations across groups in performance, satisfaction and consideration of deferral.

Risk Indicators

By monitoring identified risk indicators, institutions may be able to impact retention. Risk factors reported in the literature (ACER, 2009[2008 AUSSE Student Engagement data]) include;

- hours of paid work off-campus (over 16 hours per week) can be linked to disengagement
- students under 20 are reported as less engaged than older students
- international students are slightly more likely to consider departure than domestic students
- students from provincial and remote areas are more likely to consider departure than urban based students
- indigenous students have considerably higher early departure intentions
- students in the architecture, creative arts and education fields all report higher departure intentions
- students with grades below credit level appear considerably more likely to consider departing than others
- students with disabilities are more likely to consider early departure.

> *"Such evidence helps affirm the importance for institutions of implementing carefully designed monitoring and preventative procedures that can track student progress, identifying at risk students, and putting in place conditions which may support and inspire student success".*
>
> *(ACER, 2009, Survey, p44).*

Research into key factors which predict commencing students' success or failure in their first year of study is outlined by Wilson and Lizzio in studies at Griffith University (FYE Pacific Rim Conference,2008.)

Wilson & Lizzio suggest that students may be more likely to drop out if they;

- don't develop a social network at university
- don't have a sense of vocational purpose in their degree
- don't regularly attend lectures and tutorials (with the exception of a small number of very bright young men)
- don't have access to, or engage with the online environment
- do work more than 25 hours a week if enrolled full time
- are the first in their family to attend university (low social capital)
- are a member of a minority or disadvantaged group (e.g., indigenous, rural, refugee, disability, international, single parents, primary caregivers)

Student Engagement and Student Satisfaction

While academic factors have not until recently been seen as a major influence on student retention, the broader issue of engagement of students with learning and the learning community is now internationally recognised as a prominent indicator of the nature and quality of the first year experience and retention of students. The 2008 AUSSE analysis

suggests that satisfaction, support and learning outcomes are the most important correlates of retention.

Limited engagement (or disengagement) of students includes non-attendance on campus, skipping classes, coming to class without completing assignments and lack of peer interaction. The literature indicates that students need to develop a sense of belonging to a group and form relationships with peers to be effective and successful learners.

Much has been written on student satisfaction and its relationship with engagement. The Student Experience survey (CSHE, 2005) measured satisfaction with the course of study. The results indicated that 75% of students found their course intellectually stimulating, 71% enjoyed their course, and 70% were satisfied with the university experience. The survey concluded that;

- rural students tend to be more satisfied than urban students
- students enrolled in arts and education courses are more satisfied than students in management, commerce, engineering, IT, agriculture and environment
- females are more satisfied than males
- international students are less satisfied than domestic students
- students who speak a language other than English at home are less satisfied than those who are native English speakers.

Crosling, Thomas and Heagney (eds) (2008) have put together a collection of papers on the role of academic and social engagement in the retention of students. They suggest that academic engagement is "reflected in students' attending classes, their active and interactive involvement with staff and fellow students, and with learning resources." They suggest that "students also need to experience their learning as challenging. Teaching and learning approaches that assist students to interact with their classmates and staff providing them with feedback on themselves as students and on their approaches to their study create a climate where students feel supported and encouraged to continue." They also comment on social engagement and the limited opportunities to develop student networks and relationships, the result of many students undertaking paid employment and spending less time on the campus.

Teaching and learning issues

The Student Surveys (CSHE, 2004 and AUSSE, 2008) indicated that academic staff play a key role in contributing to students' engagement with their study and their institution, finding that;

- only 50% of students felt that staff are usually available to discuss their work
- many students perceive that staff are not accessible
- fewer than 30% of students felt that the teaching staff took an interest in their progress and gave helpful feedback
- 30% of students regularly sought advice and help from teaching staff
- 30% of students reported that they did not receive helpful academic advice or were dissatisfied with the range of subject choices]
- females students were more satisfied with the teaching than male students
- 50% students thought orientation gave a good introduction to the university
- international students were not as positive about the teaching.

There is a current and growing body of Australian research that emphasises the importance to retention of curriculum delivered in settings that are conducive to learning. (Kift, 2009, Tinto,2009). In addition the role of integrated support from professional staff and support agencies (counselling, academic skills for example) is recognised but in many institutions remains as an added extra on the sideline of the teaching and learning task. (Bishop 2009; Kift 2009; Nelson 2009; Skene 2009). Student services need to be coordinated and presented in a 'just in time and just for me" fashion to appeal to students. (Kift, 2009).

Strategies in support of retention

Many examples of support programs and interventions, some delivered online, to enhance the first year experience are described in the literature and in best practice case studies. They include;

- peer mentoring (peer transition programs, peer tutoring, *PASS*: *Peer assisted study sessions* etc)
- collaborative learning programs
- appointment of academics as *First Year Advisors*
- online interactive orientation programs
- first year essay feedback/assessment cycle
- English language support including diagnostic assessment of writing and presentation skills
- on-line learning communities utilising Facebook
- e-portfolios (supporting independent and reflective learning).

Long, Ferrier & Heagney (2006) provide a summary of institutional strategies found to improve retention in Australian universities. The strategies identified in that study included;

- provision of accurate and detailed information about courses before students enrol
- general and academic support services specifically customised to suit a variety of students and disciplines
- assurance that no students feel isolated or lonely by providing a responsive social environment, active orientation and transition programs, the support of campus-based clubs and societies
- provision of financial support to students in the form of scholarships, emergency funds, containing non-tuition costs such as books, internet access, printing costs, library fines and parking fees and fines
- the results of regular student-based assessments of teaching made known to the staff and explicitly linked to promotion and recognition systems
- regular monitoring of withdrawal and reviewing patterns of attrition.

A retention project at UWS introduced in 2005 (Scott, 2009) has focused on measuring specific areas for improvement including;

- quality of student orientation
- accuracy and speed of enrolments and fees invoicing
- provision of contact for students to promptly resolve their administrative problems
- first-year student engagement in learning (easy access to IT resources, use of WebCT, group projects, peer mentors)

- ensuring student clarity about what is expected of them, especially regarding assessment
- more active promotion and communication of support services and facilities.

Touch points in the student journey

The conceptual framework of the student lifecycle (Higher Education Academy, 2001) is particularly useful in focusing practice on the student experience and in helping to design timely forms of student support. There is fairly wide recognition that effective transition into and through higher education is a continuous process with students facing an evolving set of transition tasks and milestones from the early point of 'aspiring and deciding to attend university' through to graduation. The task of facilitating transition thus requires a developmental framework to identify students' needs and developmental priorities over their degree trajectory (e.g., early contact at the point of student offer, to pre-semester activities to facilitate student engagement and orientation, to the first few weeks of both semesters in year one, to the transitions from year one to year two, years two and three, and eventually to alumni and postgraduate student status.) The key notion is that of providing just in- time lifecycle appropriate interventions that will facilitate student success**.**

The stages in the student lifecycle include: Prospect Management, Application Processes, Enrolment Processes, Semester/Year, Final Semester, Alumni.

For each stage, touch points can be identified. Examples of touch point activities are initial enquiry, follow up, marketing (Prospect Management); application, acceptance (Application Processes); pre-arrival, arrival, identifying at risk groups, enrolment, advisor lists (Enrolment Processes), first assignment, subsequent assignments, assessment of students at risk, change of units, student feedback, academic and life skills counselling (Semester/Year), careers/work, graduation (Final Semester), alumni communications, special interest groups (Alumni). Each touch point has one or more activities associated with it.

Touch points and activities can be student-initiated or institution-initiated. They cover regular institution processes, innovative processes (undertaken in some institutions or faculties), student actions, academic monitoring and optional support services.

Institutions vary in the actions they take when students reach critical touch points. It is evident from the literature that responses which communicate directly with students, define a role for academics and support staff in identifying students 'at risk' and provide a feed-back loop will contribute towards student engagement and retention.

PERFORMANCE AND RETENTION: WHAT THE DATA TELLS US

The Department of Education, Employment and Workforce Relations (DEEWR) publishes measures of institutional performance. One dataset reports attrition, progression and retention rates for commencing bachelor students 2001- 2007/8. These rates are reported for commencing domestic and overseas bachelor students by higher education provider.
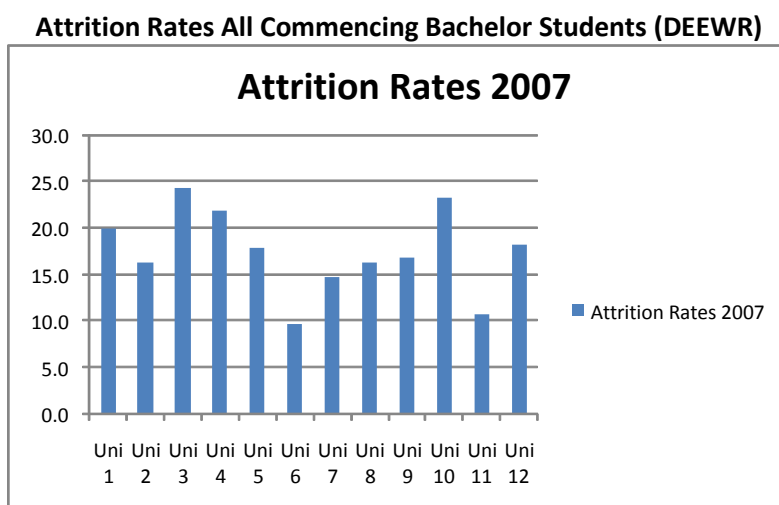
Attrition

In Australia's universities on average 16.97% undergraduates who commenced their studies in 2007 failed to complete their studies in 2007 or re-enrol the following year (dropped out). Fewer international students dropped out than domestic students with 10.58% of international students dropping out compared to 18.97% of domestic students. Results for all students for our case study institutions are provided below.

Table 1
Attrition Rates Case Study Universities 2007

	Uni 1	Uni 2	Uni 3	Uni 4	Uni 5	Uni 6	Uni 7	Uni 8	Uni 9	Uni 10	Uni 11	Uni 12
Attrition Rates 2007	19.8	16.3	24.2	21.8	17.9	9.7	14.8	16.3	16.8	23.2	10.7	18.2

Chart 1

Attrition Rates All Commencing Bachelor Students (DEEWR)

With the exception of one case study institution the attrition rates for overseas students were significantly lower than attrition rates for domestic students. Attrition rates at our case study universities range from 9.7% to 24.2%. Analysis overtime shows that attrition rates can change with one case study universities reducing their attrition rate by as much as 28% between 2001 and 2007 while another had an increase of 29%.
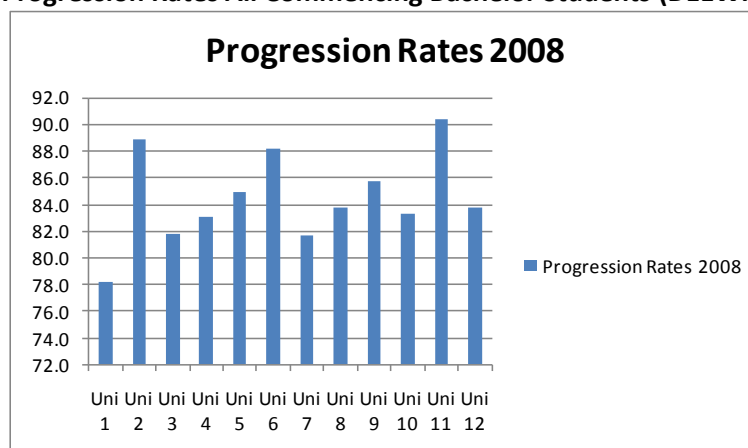
Progression

On average in Australian universities commencing undergraduates passed 85.22% of the subjects they attempted in 2008. Domestic undergraduates passed 85.38% of what they are attempted while overseas students passed 84.72% of what they attempted.

Progression rates for our case study institutions range from 78.2% to 90.4% and are shown below. In eight of our twelve case study universities the progression rates for domestic students were better than those for overseas students.

Table 2
Progression Rates Case Study Universities 2008

	Uni 1	Uni 2	Uni 3	Uni 4	Uni 5	Uni 6	Uni 7	Uni 8	Uni 9	Uni 10	Uni 11	Uni 12
Progression Rates 2008	78.2	88.9	81.8	83.0	84.9	88.2	81.7	83.8	85.7	83.3	90.4	83.8

Chart 2
Progression Rates All Commencing Bachelor Students (DEEWR)

Analysis over time shows that progression rates can vary marginally over time with one case study improving its progress rate by 7% between 2001 and 2008 while two others saw progress rates decline by 3%.
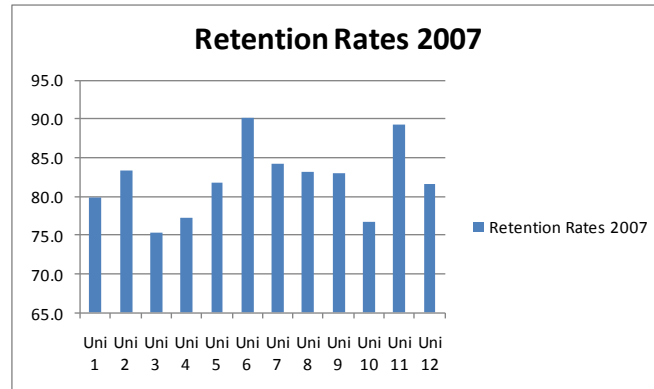
Retention

Retention rates are based on the number of students who commenced their studies in 2007 and continued their studies in the following year as a proportion of all students who commenced their course in 2007 and did not complete their studies that year. On average in Australian universities the retention rate for all commencing undergraduates was 82.65%. The retention rate for overseas students was better than the rate for domestic students at 89% compared to 80.7% respectively.

Table 3
Retention rates All Case Study Universities 2007

	Uni 1	Uni 2	Uni 3	Uni 4	Uni 5	Uni 6	Uni 7	Uni 8	Uni 9	Uni 10	Uni 11	Uni 12
Retention Rates 2007	79.9	83.3	75.3	77.3	81.9	90.1	84.3	83.1	83.1	76.7	89.2	81.6

Retention rates at case study universities ranged from 75.3% to 90.1%. In all universities with the exception of one the retention of overseas students was higher than the retention rate for domestic students.

Chart 3
Retention Rates All Commencing Bachelor Students (DEEWR)

Analysis over time shows that retention rates can vary marginally over time with one case study improving its retention rate by almost 5% between 2001 and 2007 while two others saw progress rates decline by more than 4%.

For most of our case study universities attrition rates have an inverse relationship with progression. The average attrition rate across all case study universities is 17.5% and the average progression rate is 84.5%. With the exception of three case study institutions a lower than average attrition rate is associated with a higher than average progression rate as in Chart 4.

Chart 4
Retention and progression
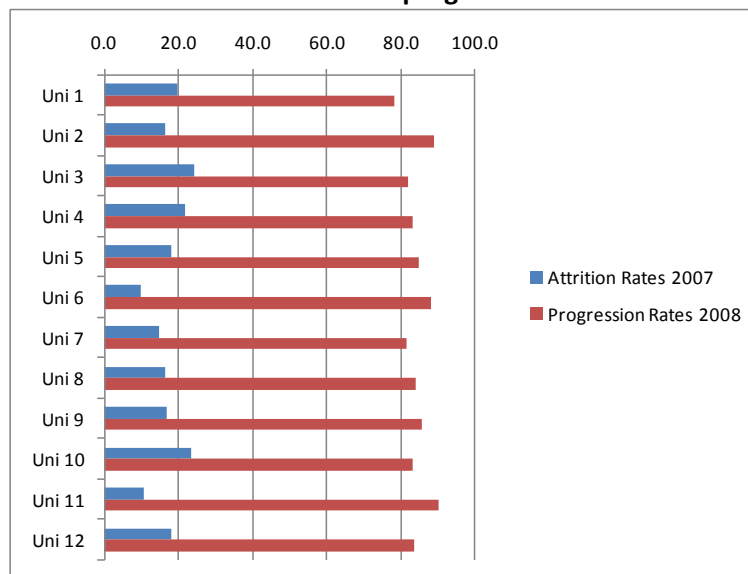
Progression has a positive relationship with retention. The average retention rate across the case study universities is 82.1%. With the exception of three case study institutions, interestingly the same case study institutions that do not conform to the attrition progression pattern, a higher than average progression rate is associated with a higher than

average retention rate and conversely a lower than average progression rate is associated with a lower than average progression rate as in Chart 5.

Chart 5
Retention and Progression
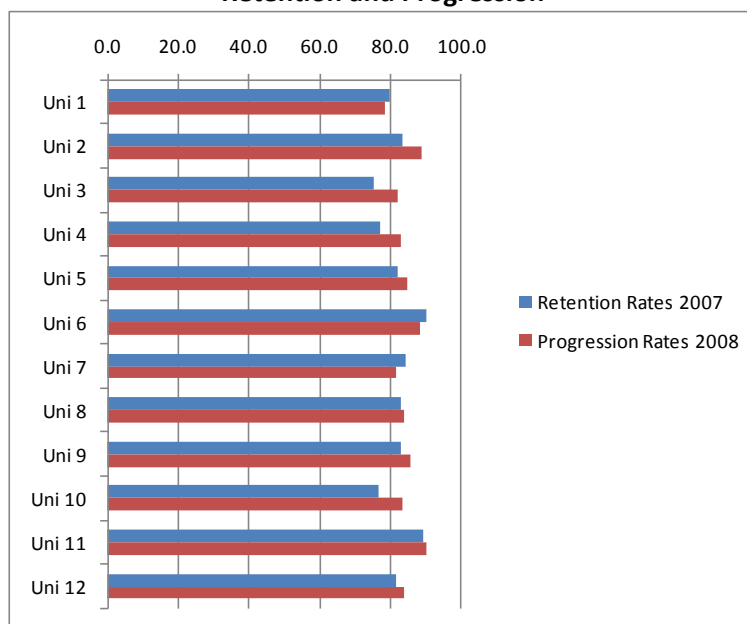
The DEEWR Attrition, Progress and Retention reports provide high level performance measures but they are one dimensional and nonspecific measures of performance for commencing undergraduates only. They have limited scope and do not consider the variations that occur in these rates within institutions. Many variables impact attrition progression and retention rates such as field of study, level of study, study mode, student type, age, socio-economic status and so on.

It is possible to use publicly available data to calculate overall annual attrition rates for Australia's universities. These provide an indication of the total proportion of students across all levels of study who were enrolled in one year but did not re-enrol or graduate the following year. Available data enables this measure to be determined for total enrolled students, domestic students and international students, by university. The formula used to calculate overall attrition rates is the same as that used by Olsen in the AUIDF Retention Study where attrition = the proportion of students in year 2007 who neither completed nor returned in year 2008 where T is Total number of students enrolled in 2007, C is number of students in population T who continued in 2008 and G is number of students in population T who completed in 2007 (T-C-G)/T.

This approach provides an overall attrition rate for Australia's universities of 13.73%. International students stay the course slightly better than domestic students with an attrition rate of 13.11% compared to domestic student attrition rate of 13.95%. It should be noted that because this approach includes all students international and domestic students enrolled offshore or via distance education or online modes are included in these rates. For our case study institutions attrition rates for all students varied from a low of 5.59% to 20.42%. The attrition rate for domestic students was generally higher than the rate for international students with the exception of four case study institutions.

The lag in the availability of data is a problem with attrition rates for students who were enrolled in 2007 and who did not continue their studies in 2008 only available with the release of the dataset by DEEWR in 2009.
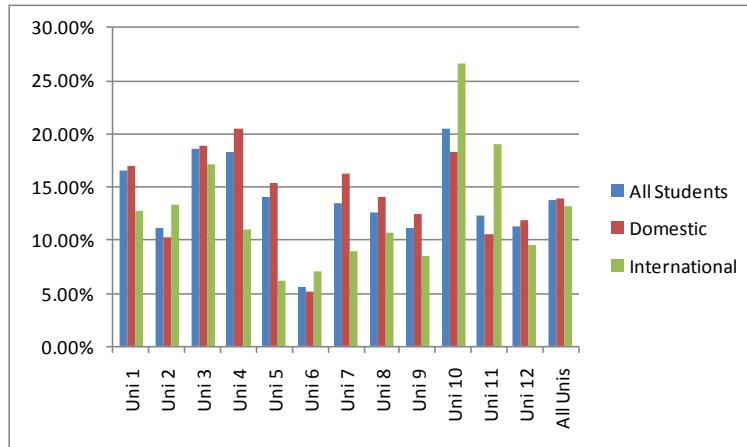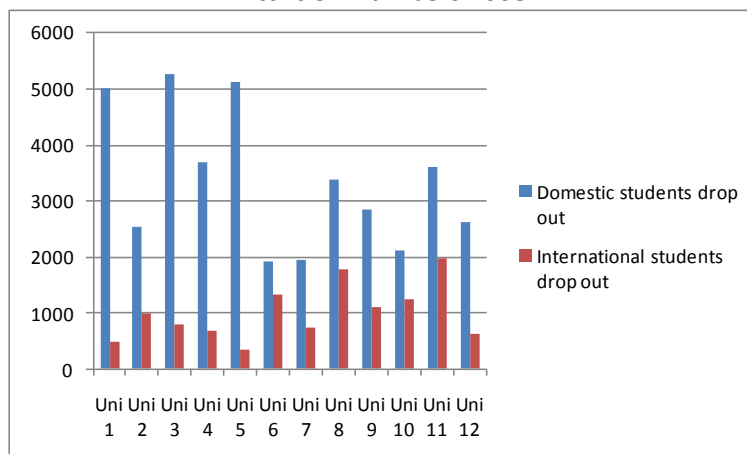
Chart 6
Overall Attrition Rates

Chart 7
Attrition Numbers 2008

In 2008 the Australian University International Directors Forum (AUIDF) commissioned a study in Retention and Attrition in Australian Universities. This study of fulltime onshore and on campus undergraduate and postgraduate coursework students, conducted by Alan Olsen, on behalf of 32 Australian universities established that 10.5% of all students that commenced their studies in 2006 did not stay the course (graduate or re-enrol) in 2007. For international students the drop out rate was 7.6% and for domestic students it was 11.3%. Women stayed the course better than males with 6.5% and 10.7% of international and domestic women dropping out compared to 8.6% of international males and 12.7% of Australian males. Undergraduates also stayed the course better than postgraduate coursework students. 7.6% of international postgraduates and 16.6% of Australian postgraduates dropped out compared to 7.7% of international undergraduates and 10.9% of Australian undergraduates who dropped out.

Chart 8
Attrition Rates by Group (AUIDF)
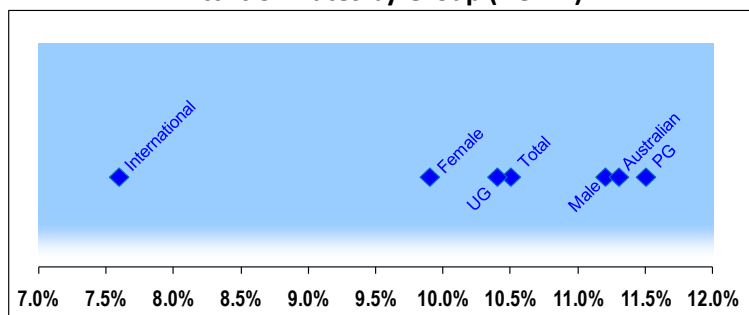
Attrition rates were also compared for students by 10 Broad Fields of Education. Attrition rates were seen to vary across the ten fields with attrition rates lowest in Health and Engineering and highest in IT, Society and Culture, Agriculture/Environmental and Related Studies and Creative Arts. In every Broad Field of Education, international students stayed the course better than domestic students.

Table 4
Broad Fields of Education: Australian and International Students

Field	International Population	Australian Population	International Attrition	Australian Attrition
Management & Commerce	45,135	66,002	7.4%	10.9%
Society & Culture	9,767	84,011	8.3%	13.8%
Health	9,279	61,170	5.8%	7.6%
Education	2,810	43,369	6.0%	10.2%
Science	5,535	35,600	8.2%	12.2%
Engineering	10,606	29,653	7.0%	9.6%
Creative Arts	5,564	33,110	9.9%	13.6%
IT	10,305	11,827	8.8%	14.2%
Architecture/Build	2,921	11,988	7.0%	10.2%
Agriculture/Env	746	6,509	9.5%	13.7%

There are multiple personal and demographic factors that can impact individual student's academic performance and their ability to stay the course. Likewise there are various institutional factors that can impact attrition, progression and retention such as course entry standards, urban vs rural or remote location, class sizes, use of casual staff etc. None of the public datasets take into account any of these factors.

In the course of this study some institutions argued that students who leave their institution in order to articulate into a related course at another institution is not a loss to the system and therefore should not been counted in attrition. Others argued that students have a right to leave and others stated that they did not consider they had a retention problem because the weaker students dropped out in first year and the serious students were then able to focus on their studies. In some states resources booms see universities competing with employers for human capital this can have a significant impact on attrition. Again the public datasets are unable to account for these factors.

As performance funding is introduced in Australian higher education measures of attrition, progression and retention will become more important and institutions are likely to introduce their own more granular tracking and reporting methodologies. It is unlikely

however that this data will be made publicly available. More significantly in the context of this study is the fact that the lag in the data means that institutions must take a long term approach to retention and develop a series of measures that track changes to retention until overall public attrition, progression and retention rates can be impacted. One case study institution has adopted an approach whereby students who are identified as being at risk are monitored for progression and performance. This approach differentiates between students who were able to be contacted and assisted by retention or institutional staff and those who were not. Results to date show that those who were assisted stayed the course better than those who were not and in some instances had higher performance rates.

Institutions will need to develop mechanisms to monitor student engagement and gain early warning signs of disengagement. Early intervention can reduce attrition rates and thereby reduce the costs of attrition.

The cost of attrition

The cost of attrition for an international student studying onshore is generally estimated to be $17,000 for each year of lost tuition fees in addition to the costs to recruit (measured at an average of AUD$3,288 per student- AUIDF Benchmarking studies). The loss of ten onshore international students will cost somewhere in the order of $170,000 per annum in lost tuition fees (assuming students pay for one whole year of study) and $32,880 in marketing and recruitment costs.

In 2008, all 274,186 international student enrolments both on and offshore contributed $2,946,127,000 in tuition revenue to Australia's public universities. This is an average of $10,745 per enrolment. With an overall international student attrition rate of 13.11%, then Australian public universities loose a combined 35,946 student enrolments a year. The total loss of fee revenue is $386,239,770 and total marketing and recruitment costs were up to $100 million ($2782 per student) allowing for reduced marketing and recruitment costs for students studying offshore. Whilst a good proportion of these students are likely to re-circulate and enrol with other providers these figures indicate the magnitude of the annual cost of attrition particularly given that recruitment costs cannot be recouped.

The cost of attrition for domestic students was generally estimated to be $14,000 for each year of lost tuition fees by several case study institutions. The Australian Government website goingtouni.gov provides and indication of what students pay per EFTSL and the government contribution per EFTSL. Government and student contributions vary across disciplines but it is reasonable to assume the average combined student and government contribution is around $11,000 per EFTSL which converts to approximately $7,800 per enrolment. For this study an average tuition income of $8,000 per domestic enrolment will be used.

Recruitment costs for domestic students are lower than for international students with no agent commission costs or expensive international travel costs. However open days and other major events are costly and advertising in local media expensive so it is reasonable to assume an average cost of $500 per student. In 2008 total domestic student enrolments in Australia's public universities was 727,817 contributing total fee revenue of $5,822,536,000. With an overall domestic student attrition rate of 13.95%, then Australian public universities loose a combined 101,530 students a year, a total loss of $812,240,000 in tuition fee

revenue and total recruitment costs of $50,765,236. Again a proportion of these students will re-circulate and enrol with other providers, others may return to study some years later. However these figures indicate the magnitude of the costs of attrition.

Combining costs for international student attrition with domestic costs results in total annual costs of $1,198 million in tuition fees and $151 million in marketing and recruitment costs. The total cost of attrition is $1.4 billion and across the 38 public universities this is an average of $36 million per university. These figures are indicative only because the actual cost of attrition is dependent on the rate of attrition, the significance of attrition, the average annual tuition fees, and costs of marketing and recruitment. For example whilst Group of Eight universities tend to have lower overall attrition rates the average annual tuition fee is higher and therefore the impact of attrition is higher compared to universities with lower tuition fees.

Chart X
The Cost of Attrition at Australian Universities 2008

	Total Enrolments Include Offshore	Numbers Dropped Out	Total Tuition Fee Loss	Costs of Marketing & Recruitment	Total Cost of Attrition
International Students	274,186	35,946	$386 million	$100 million	$486 million
Domestic Students	727,817	101,530	$812 million	$51 million	$863 million
Total	1,002,003	137,476	$1,198 million	$151 million	$1,367 million
Average per Australian University	263,685	3618	$32 million	$4 million	$36 million

The cost of attrition at our case study universities is shown in Chart 9. Whilst individual institutional attrition rates have been used in these calculations the average tuition fee revenues and marketing costs used above have also been used here. On average our case study institutions lost just under $27 million from domestic fee revenue, $11 million from international student fee revenue, $1.7 million in domestic marketing and recruitment costs and $3.3 million in international marketing and recruitment costs. The average overall cost of attrition was $42.6 million in 2008.

Chart 9
Cost of Attrition 2008
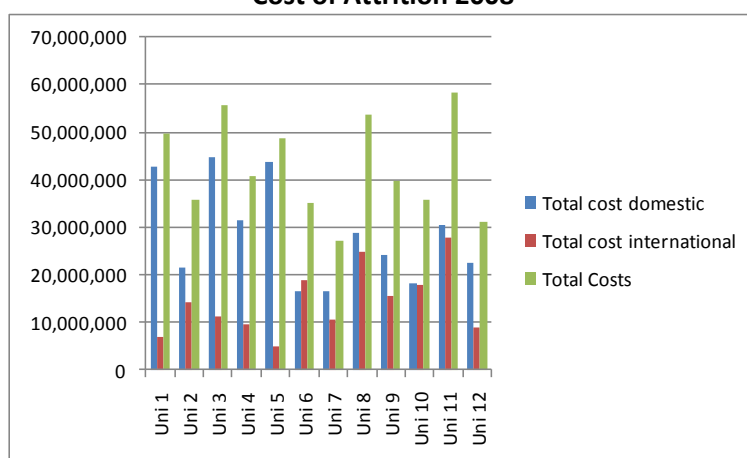
It is unlikely that attrition will ever be eliminated entirely. Our retention study found that small private higher education providers typically demonstrated a comparatively high level of commitment to retention through dedicated policies, human resources, business processes and systems and technology. However even these providers reported some level of attrition at around 5% per annum. These providers generally had low degrees of difficulty so were probably best placed to eliminate attrition if it was at all possible.

Perhaps then it is more helpful to consider the cost of attrition by degrees. A one percent improvement in the overall attrition rate at Australia's public universities would mean that 7268 fewer domestic students dropped out and 2742 fewer international students dropped out. This is a saving of up to $58.2 million in domestic tuition fee revenue and up to $29.5 million in international student fee revenue, a total of $87 million to Australia's public universities, or $2.3 million per university. The loss in marketing costs for domestic students would be reduced by $3.7 million for domestic students and $7.6 million for international students, a total of $297,368 per university.

Every 1% drop in attrition would save Australia's public universities almost one billion dollars, or up to $2.6 million per university.

Looking forward a demand driven uncapped system is likely to drive the cost of attrition up even higher and universities are likely to increase their commitment to retaining their students.

The Benchmarking Study

THE FACTOR ANALYSIS

Introduction to the case studies

The Student retention Study included a total of 17 case studies. These comprised 8 detailed case studies involving face to face and telephone meetings with groups of senior management and operational supervisors and staff. These case studies were supported by 9 verifier cases. Each of these involved telephone or face to face interviews with a single or small group of middle or senior management. Three of the institutions were private higher education providers (HEPs), two public TAFE institutions and 12 public universities. Each interview worked through a common series of lines of enquiry designed to identify the policies, processes, systems and actions each institution employed in order to manage retention. Each case study was written up as a report which comprised the interviewer's interpretation of responses and evidence of commitment to retention.

The results and analysis of the case studies were entered into a master spreadsheet of retention factors. Institutions were profiled to determine their provider type i.e. Government/non government, university, higher education provider (HEP), and/or Vocational Education and Training institution (VET). Each institution was then assigned a degree of difficulty. This process was intended to show the unique institutional context that each is working under and to enable like with like comparisons where possible.

Then each case study institution was assigned a performance rating across a range of factors related to the actions and commitment of each institute to retention as evidenced by actions, resourcing, policies and processes.

Two key performance measures were developed- degree of difficulty and overall performance. Some weighting of specific factors was used in recognition that the presence of certain factors was likely to have a more significant impact on retention in the case study institution than others. For example in the degree of difficulty rating a relatively high proportion of commencing equity cohorts and existence of multiple campuses was weighted more highly than percentage of international student enrolments and the existence flexible entry programs. For performance rating the existence of dedicated and centralised human resources for retention and dedicated and universal business processes was rated more highly than conducting exit surveys and peer mentoring.

The performance of each institution was then benchmarked against each of the retention factors. The analysis and observations that follow are based on the factor analysis benchmarking process.

DEGREE OF DIFFICULTY

Publically available data was used to determine a range of factors that represent the underlying difficulty for each individual case study institution in managing and engaging in a proactive student retention strategy. The factors used to determine the degree of difficulty for each institution included;

- Multi campus
- Distance or online provision
- Staff student ratio
- Student body size
- Retention, progression and attrition rates for all commencing undergraduate first year students
- Proportion of commencing cohort from equity groups (excluding women in non traditional areas but including NESB students, students with a disability, Indigenous students, low SES, regional and remote students)
- Proportion of entrants who are TER entrants
- Flexible entry
- Proportion of international student enrolments
- Proportion of male enrolments
- Proportion of casual staff.

Public sources of data were used and a factor specific rating was used to assign a score between zero and 5, where zero meant that the factor did not apply and 5 meant the institution was at the highest end of the range. For example two of the case studies scored zero for multi campus because they have only a single campus based in a major city, while one institution scored 5 due to multiple campuses distributed across several rural locations.

Data sources included;

- DEEWR Students: Selected Higher education Statistics, full year tables 2008 and 2007, including Overseas Students, Equity Groups, Attrition, Progress and Retention, Award Course Completions
- DEEWR Staff 2008 table 1.6
- Good Universities Guide 2009

Findings-degree of difficulty

The degree of difficulty ranged from as low as 0.17 to the highest 2.96 on a scale of 0 to 5 where 0 was almost no difficulty factors and 5 was the highest possible degree of difficulty. The mean was 1.7.

Small private providers that have specialised and restricted course offerings, small class sizes, small student body size, low student to teacher ratio, often housed on a single campus had the lowest degrees of difficulty while large, multi campus universities with a relatively high representation of equity groups, large class sizes, high student to staff ratio and flexible entry programs had the highest degree of difficulty. It should be noted that there was limited availability of data for private providers.

Chart 10
Degree of Difficulty All Institutions
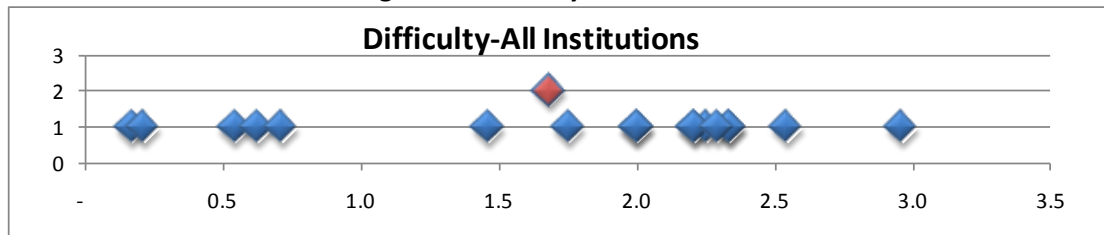
In recognition of limitations on availability of public data for private providers Chart 14 provides the degree of difficulty for Universities. The mean was 2.2.

Chart 11
Degree of Difficulty for Universities
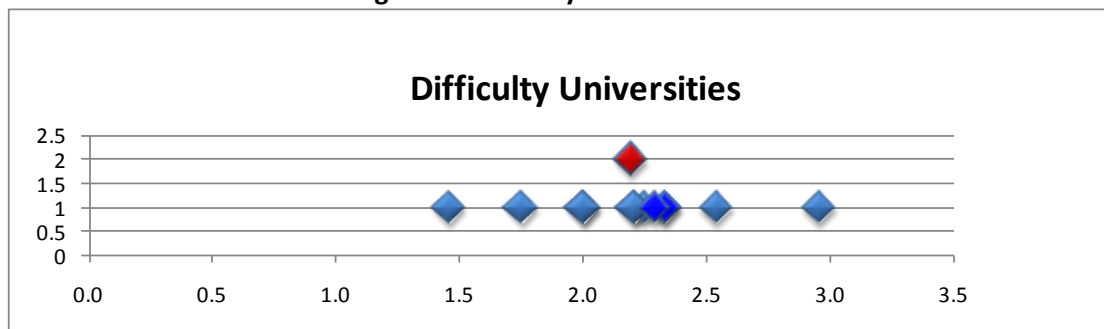
Performance

The Factor Analysis Spreadsheet also provided for each institution across some 32 factors of retention. These factors spanned the student lifecycle and provided an assessment of each institution's commitment to retention as demonstrated through actions, such as policies, processes and protocols, and resourcing including human resources, physical and technological resources.

Each case study institution was given a rating for each performance factor where zero meant there was no evidence of actions or resources and 5 meant there was the highest commitment through actions or resourcing. For example institutions were rated according to the extent that retention/ completions was a key performance indicator for senior staff. Where there were no KPIs based on retention or completions the institution scored zero, where KPIs based on retention or completions were universally adopted including at senior executive level a score of 5 was assigned.

The performance assessment spanned the student lifecycle;

- Enquiry and prospect management and pre-arrival
- Arrival, enrolment and orientation
- The first year experience or the student's first year and continuing students
- Completions and withdrawals

Findings-performance

The overall performance of all case study institutions ranged from a low of 1.4 to a high of 3.2. The mean was 2.2.

Chart 12
**Performance Ratings All Institutions**
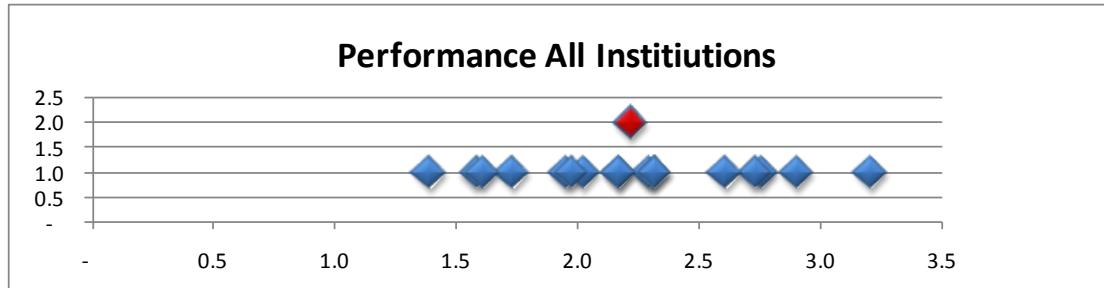
Given the higher degree of difficulty the case study universities had in managing and engaging a proactive retention strategy Chart 13 provides a performance rating for Universities.

Chart 13
Performance Ratings Universities
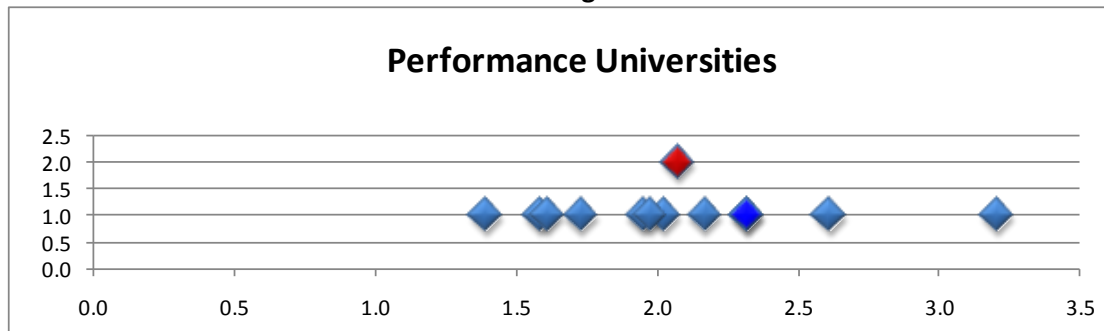
The lowest rating was again 1.4 and highest 3.2. The mean was 2.1.

Chart 14
**Performance and Difficulty All Institutions**
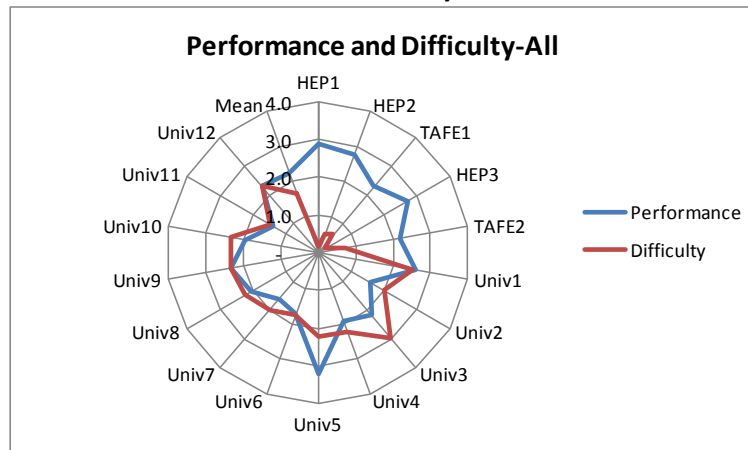
Difficulty and performance shown together clearly illustrates the low degree of difficulty private HEPs have relative to their high commitment to retention as demonstrated by policies, actions and resources related to managing retention. Quite simply for private HEPs losing students is bad for the bottom line as well as for future business, so measures to improve retention have an important financial rationale as well as a reputational one.

Universities on the other hand have higher degrees of difficulty and very varied responses and levels of commitment to retention.

The performance ratings were analysed across a range of elements including:

- Culture of Retention
- Existence of KPIs related to retention/ completions for senior executive staff
- Existence and Use of a CRM/ student portal for managing and enabling retention strategies and actions
- Resourcing of retention through dedicated staff
- Existence of business processes related to retention
- Commitment to retention through universally adopted policies
- Performance at key phases in the student lifecycle related to retention including
  - Pre-enrolment
  - First year experience
  - Completing/ withdrawing students and alumni

Chart 15
**Performance Ratings Related to Culture of Retention**
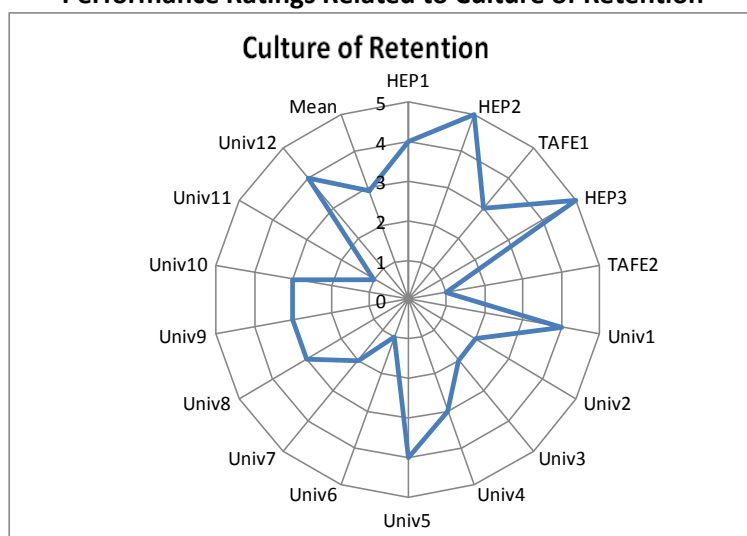
Private HEPs consistently rated highly on evidence of a culture of retention. Individual administrative and teaching/academic staff were well versed in the policies, processes and systems related to retention and the roles they played as individuals in retaining students throughout various phases of the student lifecycle. The rating of TAFEs and universities was variable with some stand outs exceeding the mean (2.9) and others well below.

Chart 16
**Performance Ratings for Policies Related to Retention**
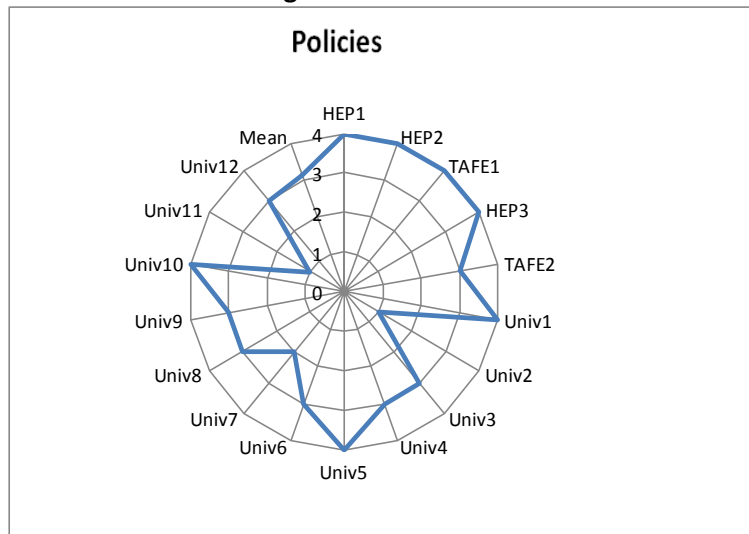
Policies

The private HEPs, one TAFE and three universities had institution wide policies related to retention. Institution wide policies are poorly developed in the university system.

Chart 17
Performance Ratings Related to Use of Dedicated people for Retention/ Transition


Use of Dedicated People
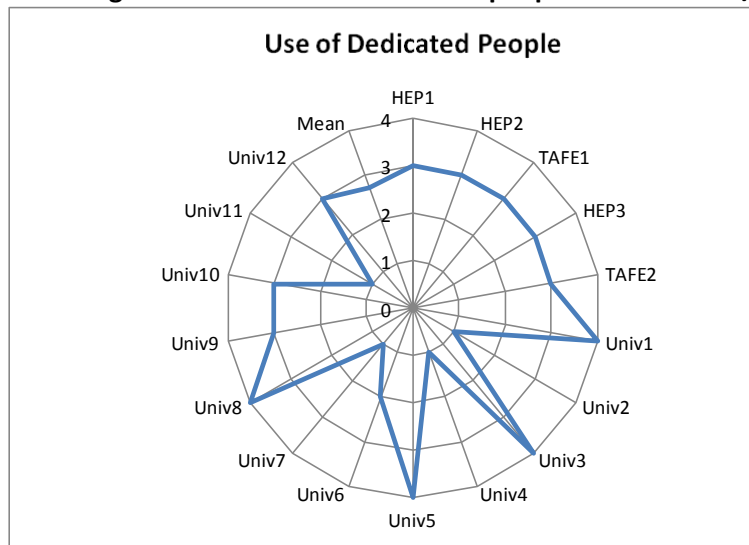
There is some evidence that universities are beginning to develop specific and centralised staff resources whose responsibilities include retention. In most cases these were relatively recent appointments (within the last three years). Private HEPs and TAFEs scored well with all staff, near universally, dedicating a portion of their time and effort to retaining students. Size seems to matter when it comes to resourcing retention with the larger universities tending to require centralised and decentralised (faculty) retention resources while the smaller private HEPs were able to rely on the decentralised yet unified effort of all individuals.

Chart 18
Performance Ratings Related to KPI's Based on Retention


KPI's Based on Retention
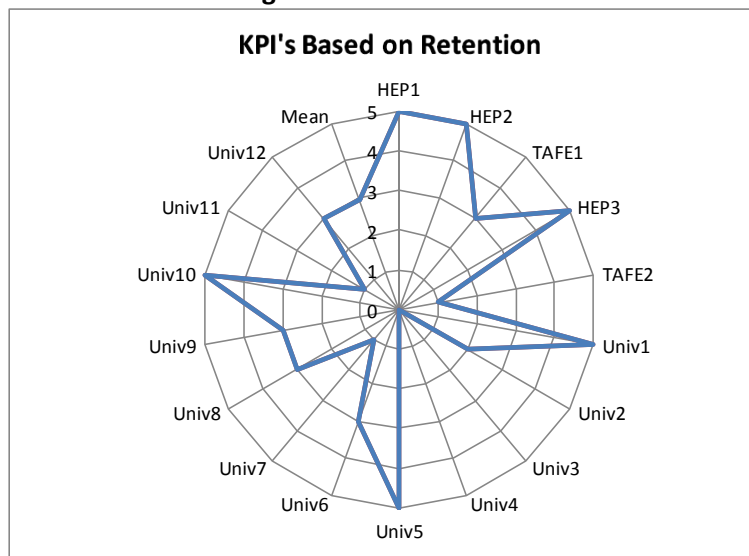
Three universities and all private HEPs had key performance indicators (KPIs) for staff, including senior executive staff, related to retention and completions. Typically there were very clear links between satisfaction/exit surveys and subject performance, and staff review processes. Overall universities had very mixed ratings on KPIs related to retention.

Chart 19
Performance Ratings for Existence of Business processes Related to Retention
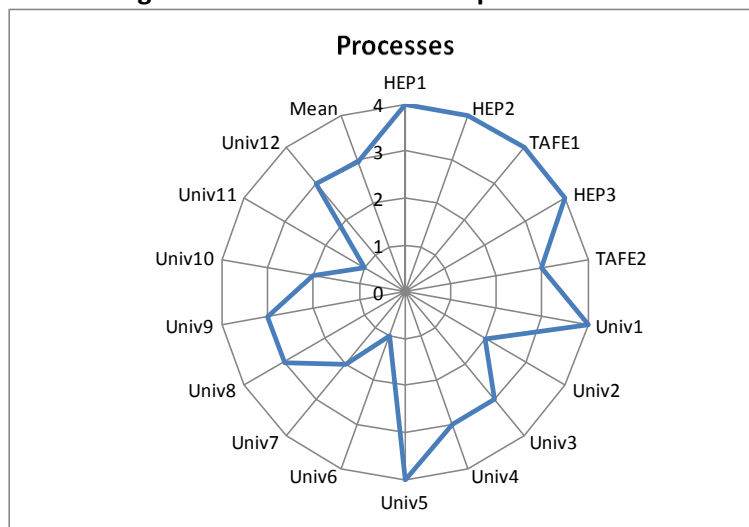
Processes

Private HEPs and TAFE institutes were able to demonstrate clear and consistent processes and actions related to identification and management of at risk students. Universities demonstrated variable commitment to retention with some developing and implementing near universal processes and programs for at risk students and others unable to show any evidence apart from the lone efforts of enthusiastic individuals in academic departments or administrative units.

Chart 20
Performance Ratings Related to Use of CRM/ Student Portal for Retention


Use of CRM/Student Portal
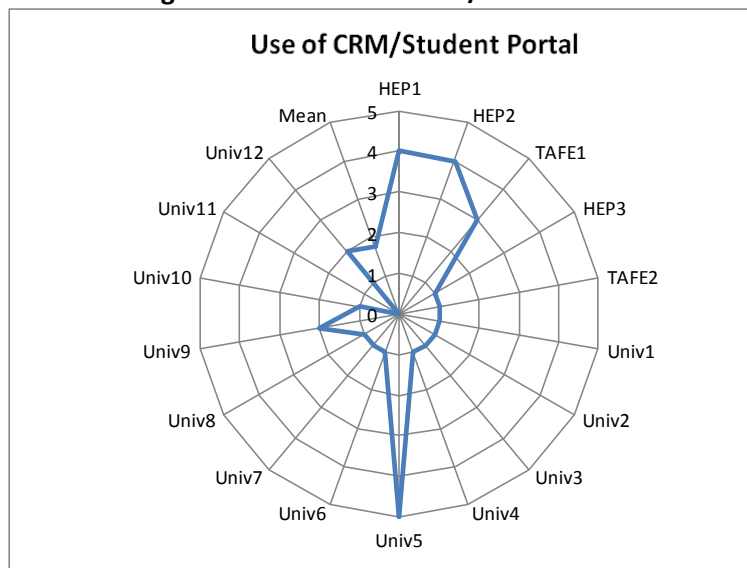
There was very little evidence of the use of systems and technology to enable and support implementation of retention policies and processes. One university and two private HEPS have systems that provide a central repository of case information, interactions and documentation for individual cases and cohorts of at risk students. The systems take data from main student administration data bases, track interactions between students and staff, provide a basis for proactively identifying, dealing with and following up at risk students and reports to enable statistical analysis of outcomes of retention policies and processes.

In the institutions where there was a heightened awareness and commitment to retention but no system actions were manual and uncoordinated across the institution with little or no sharing of case history and progress. Measuring the outcomes of retention policies and processes and tracking the progress of individual cases was difficult, manual and mostly superficial as a result.

Retention and the Student Lifecycle

Institutional commitment to retention was assessed at various points in the student lifecycle. Attention to retention at some case study institutions at pre-enrolment involved screening for early detection of at risk cohorts, self identification for at risk cases, compulsory orientation programs that spanned arrival, enrolment and commencement of studies, and counselling for course choice on arrival.

Chart 21
Performance Ratings Related to the Pre-enrolment Process
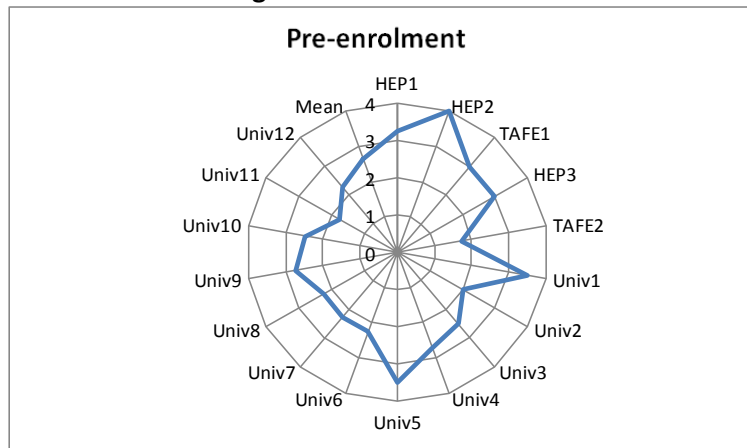
Pre-enrolment

The commitment and effort at pre-enrolment across the case study institutions was variable. All private HEPs, one TAFE and five universities exceeded the mean at pre-enrolment.

Chart 22
Performance Ratings Related to First Year Experience

First Year Experience
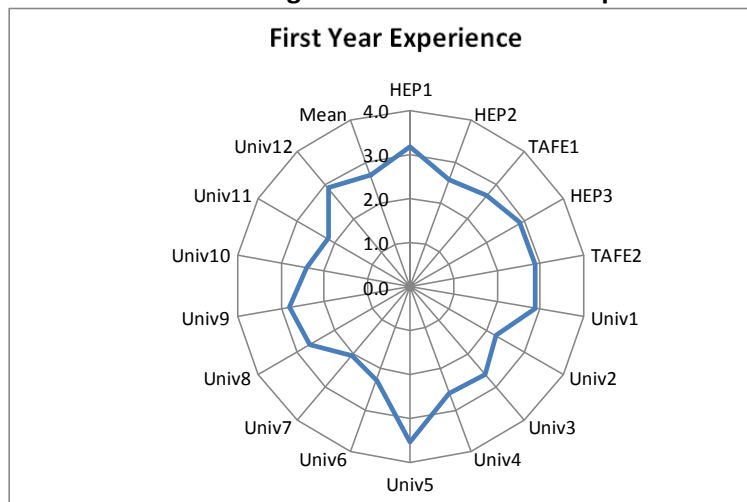
The first year experience or the transition experience of lateral entry students was generally acknowledged to be an important phase in the student lifecycle. The assessment of effort at this stage tended to be focussed around existence of attendance monitoring, assignment submission and performance monitoring, monitoring student engagement prior to the end of the first semester, reviewing performance on completion of the first semester to identify at risk students. The use of peer mentoring was generally regarded as an effective mechanism for tracking and enhancing student engagement. Social inclusion programs were also important.

Typically in the better performing institutions at risk students once identified were provided with group and some degree of individual language and learning support and referred to counselling services as required. The existence of dedicated retention and/or student engagement policies, processes, people and systems was essential to the success of efforts in the first year experience or transition experience.

Chart 23
Performance Ratings Related to Completing Students and Alumni
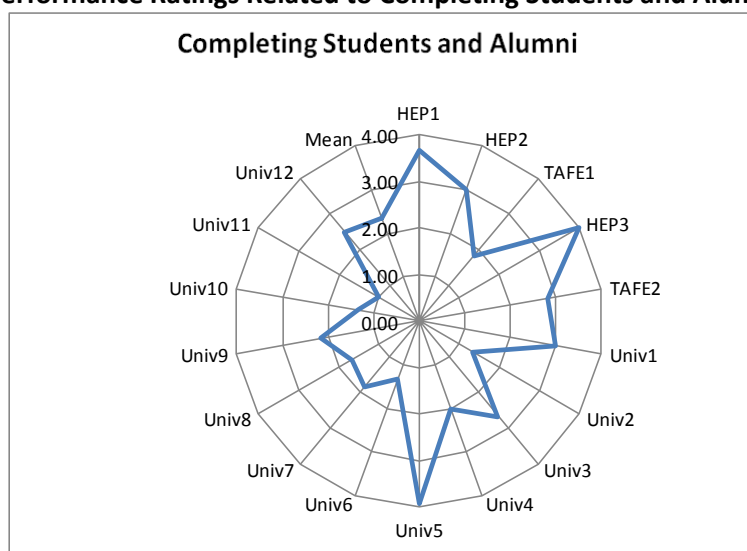
At this phase in the student lifecycle the use of satisfaction and exit surveys was examined and the extent to which these informed retention policy and processes and were related to subject, course and staff reviews.

Once again the performance of the private HEPs was strong while the performance of TAFEs and universities was variable at best.

Common Features Of Best practice

The common factors that the highest performing case study institutions had in common include:

- A universal culture of retention where staff had a clear understanding of their own role in retention
- KPIs for retention/ completions including senior executive staff
- Use of a central CRM. Student portal for student management and engagement
- Central processes for retention with wide scale adoption in faculties and teaching departments
- Central policies for retention

The presence of these factors demonstrated an institution's commitment to retention.

Actions the best performing institutions shared included:

- Screening for early detection
- Near universal early monitoring of assignment submission
- Student performance monitoring prior to the end of semester of study period
- Have well articulated wide spread adoption of at risk programs and actions for at risk students
- Provide both individual and group language and learning support

- Undertake satisfaction and exit surveys, record and analyse results and these are linked to staff, subject and course reviews

Chart 24 below shows that across various performance measures relatively few institutions can demonstrate consistent and significant commitment to retention.

Chart 24
Performance Ratings Various Performance Parameters
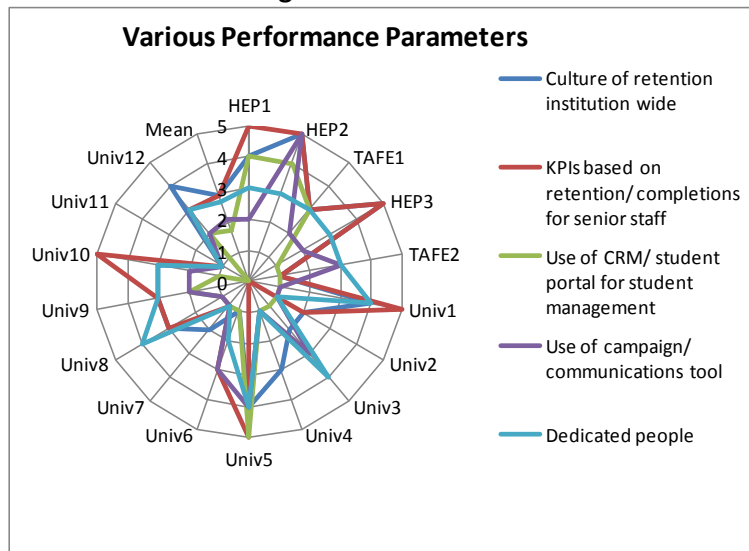
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