



Attrition and academic performance of students identified as at-risk using administrative data

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University perspective

- The need to improve retention, progression and completion, particularly of equity groups—social inclusion, equity and regional development agendas
- Recently—the Bradley Review, and higher targets for higher education completion
- UTas has wide and open access (a 5 star access rating according to the Good Universities Guide)
- To develop interventions and strategies we need to know the who, what and why of the risk

Study origins, and why use administrative data?

- Talk of 'at-risk' students, but who are they, and why they are at risk? Is the risk real?
- Concerns expressed by Transition Services staff working directly with students
- Know that some administrative data can be used as a proxies for risk, with limitations
- Only resources for the study—experience and expertise of staff and existing data in university systems

Research questions

Having identified nominally 'at risk' students we then ask:

- Are they more likely to leave the university than students with no risk factors?
- Do they perform worse academically than students with no risk factors?
- Which groups are most/least at risk?
- Does increasing number of risk factors mean greater overall risk?

Information on risk

- Demographic
 - Some 'traditional' equity groups
- Educational background
- Administrative
 - Other information generated during the application and admissions process

NB information on disclosed disabilities/LAP holders not included; all groups domestic

Administrative 'risk' factors

- Country of birth not Australia (domestic students)
- Humanitarian visa holder
- Access scholarship holder (sub-group used)

- Tasmanian Year 12 entrant with a low score
- No Year 11 or 12 or prior tertiary study

- In a non-professional associate degree
- Received an alternative offer
- A condition of offer suggesting potentially at-risk
- Admitted on probation or with an at risk flag

The study cohort

Students who were commencing old or commencing new in either summer or semester 1 of 2008 and who were enrolled in:

- At least one graded unit in summer or semester 1
- An undergraduate or associate degree course at some point in 2008

Includes:

- FFPOS students
- Students who withdrew before census date

Excludes:

- Students who entered postgraduate studies in 2008
- FFPOS students in English language studies until the end of semester 1

In total--4868 students (929 with one or more risk factors)

Risk factor profile

Number of risk factors	Number of students	% of all students
0	3939	81.0
1	720	14.8
2	153	3.1
3	40	0.8
4	8	0.2
5	7	0.1
6	1	0.02
Total students	4868	100

Risk factors

Risk factor	Number of students	% of all students	% of this risk group with additional risk factor(s)
Country of birth not Australia (domestic students)	357	7.3	18.2
In an associate degree	241	5.0	*59.8*
Access scholarship holder	169	3.5	33.7
Received an alternative offer	112	2.3	**80.4**
Tasmanian Year 12 entrant with a low score	110	2.3	36.4
A condition of offer suggesting potentially at-risk	99	2.0	22.2
A probation or at risk flag	69	1.4	29.0
No Year 11 or 12 or prior tertiary study	68	1.4	*45.6*
Humanitarian visa holder	34	0.7	**70.6**

Method

Attrition determined by enrolment pattern:

- Retained if student had an enrolment in spring/semester 2, regardless of whether withdrew in summer/semester 1

Key performance results:

- GPA calculated for all non-W0 graded units in summer/semester 1, weighted by unit weight (UP's not included, TP's given a zero)
- Proportion with a $GPA \geq 4$
- Proportion failed 50% or more of load taken

Risk factors and attrition



Risk factor	Overall attrition %
No Year 11 or 12 or prior tertiary study	52.9*
In an associate degree	52.7*
Received an alternative offer	48.2*
Country of birth not Australia (domestic students)	34.2
A probation or at risk flag	33.3
A condition of offer suggesting potentially at-risk	33.3
Tasmanian Year 12 entrant with a low score	32.7
No administrative risk factors	24.7
Humanitarian visa holder	14.7
Access scholarship holder	10.1

Risk factor and performance

Risk factor	% with overall passing GPA	% who failed 50% or more of their load
Received an alternative offer	*32.5*	*62.3*
Tasmanian Year 12 entrant with a low score	*35.5*	*58.1*
Humanitarian visa holder	*37.9*	34.5
A probation or at risk flag	46.6	*43.1*
In an associate degree	57.1	37.8
A condition of offer suggesting potentially at-risk	58.8	20.7
Access scholarship holder	61.5	21.7
Country of birth not Australia (domestic students)	66.9	22.6
No Year 11 or 12 or prior tertiary study	70.2	23.4
No administrative risk factors	77.0	15.9

Summary

(relative to students with no administrative risk factors)

✓ better * worse ! >10 percentage points worse

Risk factor	Attrition	Academic performance
Received an alternative offer	!	!
Tasmanian Year 12 entrant with a low score	*	!
Humanitarian visa holder	✓	!
A probation or at risk flag	*	!
In an associate degree	!	!
A condition of offer suggesting potentially at-risk	*	!
Access scholarship holder	✓	!
Country of birth not Australia (domestic students)	*	*
No Year 11 or 12 or prior tertiary study	!	*

Risk load and outcomes

Does increasing number of risk factors mean greater overall risk?

Attrition and number of risk factors

Number of risk factors	Overall attrition %	Number of students
0	24.8	3939
1	35.3	720
2+	40.7	209

Performance and risk factor load

Number of risk factors	% with overall passing GPA	% failed 50% of more of load
0	77.1	16.0
1	64.9	23.9
2+	46.9	44.4

Summary

Relative to students with no administrative risk factors:

- attrition is worse in most risk factor groups
- performance is worse in all risk factor groups
- attrition increases and performance worsens as risk factor load increases

Looking at a range of 'poor' outcome groups: the majority are students with no administrative risk factors

- Withdrawn—77%
- Deferred—80%
- Leave of absence—81%
- Attrition—74%
- GPA <4—74%
 - <3—74%
 - <2—75%
 - <1—75%
 - =0—72%
- Failed 50% and more of load—72%

Recommendations

- Continued focus of Transition Services on ALL commencing students
- Some potential for specific strategies for students in high attrition groups & poor performance groups
 - individualised academic and personal support; focus on academic efficacy
 - admissions processes for alternative offer students now changed
 - however, identification of groups not easy or straightforward
- Under-prepared students—those who do not meet general entry requirements
 - Proposal to Admissions Policy Committee--diagnostic testing and a student learning plan to document a pathway, including foundation and bridging units, so student may eventually qualify for entry into the degree they aspire to do.