

Performance indicators: relation to each other and to sector averages

IRU Performance based funding Briefing 3

The Government proposes to use student experience, graduate outcomes and equity group participation measures in the performance-based component of each university's maximum grant under the Commonwealth Grants Scheme. The *Performance-based funding for the Commonwealth Grant Scheme Discussion Paper* remains open to which measures will be included, whether the measures will be standard across all universities or involve a core/optional mix with different weightings, the approach for assessing performance (e.g. minimum standards, stretch targets, historical performance, sectoral average) and how student background or university context will be controlled for.

This briefing:

- examines the correlation between the various measures discussed to identify overlapping and hence potentially redundant measures; and
- considers the variations in performance of universities compared with the sector average using the university groupings to gain insight without targeting particular universities.

Findings

- The data on graduate employment three years after graduation shows no correlation of that outcome with any of the student experience or equity indicators being discussed. It shows only a weak correlation with the full time employment indicator (taken at the 4-6 month point after graduation).
- Four student progress measures (attrition, completion, retention and success) are highly correlated with each other (>0.8). This suggests they capture similar phenomena.
- The student progress measures are negatively correlated (<-0.5) with key equity group participation (low SES; indigenous; and regional and remote). This suggests a tension between equity participation and student progression.
- Student satisfaction is not correlated with student progress, most equity participation groups and graduate outcomes.
- IRU and RUN members generally perform above the sectoral average for equity participation, but below the sectoral average on student progress.
- Go8 and ATN members generally perform strongest on student progress and weakest on equity participation.
- Relative university performance on student progress do not change notably when adjusted for different equity group enrolments.
- None of the university groups are characterized by strong or weak student satisfaction or graduate outcomes.

The performance measures and their correlation

The Discussion Paper proposes performance measures be drawn from measures of student progress and experience, graduate outcomes and equity participation. There are also similar indicators that have been considered to assess university performance, such as success rates for students by unit, and data on employment at three years post-graduation.

Discussion paper performance measures

Student progress and experience	Graduate Outcomes	Equity
First-year student attrition/retention	Full-time employment rate Full-time further study	Participation by students from low SES, regional/remote or Indigenous background
Student completion within six years		
Overall student satisfaction		

Table 1 shows the correlation between performance indicators for Australian universities in the most recent year of data. A high number indicates that the two measures have similar outcomes and a large negative number that the two measures are opposite to each other.

Having measures that correlate highly provides several ways to measure a common outcome, without any one of them dominating. Having several measures that do not correlate would cover different potential outcomes.

The most interesting aspect of Table 1 is that the measure of graduate employment after three years has a close to zero relationship with all student and equity measures and weak relationship to employment midway through the year after graduation.

Table 1. Correlation between performance indicators for individual Australian universities

	A	B	C	D	E	F	G	H	I	J	K	L	M
A - Attrition	1												
B - Comp. (6yr)	-0.92	1											
C - Retention	-0.89	0.82	1										
D - Success	-0.90	0.93	0.80	1									
E - Indigenous	0.61	-0.61	-0.53	-0.58	1								
F - Low SES	0.64	-0.67	-0.61	-0.63	0.41	1							
G - Reg. & Rem	0.67	-0.59	-0.70	-0.52	0.70	0.59	1						
H - Disability	0.03	-0.04	-0.06	-0.10	0.05	0.06	0.12	1					
I - NESB	-0.37	0.37	0.22	-0.10	-0.37	-0.22	-0.39	-0.27	1				
J - Student Sat.	-0.07	-0.06	0.09	0.09	0.00	-0.09	-0.11	0.02	-0.47	1			
K - FT empl (4m)	0.12	-0.09	-0.18	-0.01	0.32	0.03	0.43	-0.14	-0.10	-0.27	1		
L - FT empl (3 yr)	-0.12	0.03	0.21	0.16	0.11	-0.04	-0.00	0.06	-0.08	-0.09	0.47	1	
M - FT study	-0.60	0.64	0.48	0.53	-0.41	-0.37	-0.40	0.12	0.34	-0.02	-0.46	-0.34	1

The negative correlation between equity participation and student experience (excluding satisfaction) is typical across the sector. The strong correlation between attrition, completion, retention and success (all greater than 0.8) indicate they capture similar phenomena and may be substitutable.

Student satisfaction is not well correlated with any other measure. The broader lack of correlation between student satisfaction and other measures may suggest that the quality of the student experience is unrelated to how well universities prepare their students for employment. The lack of correlation with full-time further study may be due to variation within each institution and field-based differences in further study options.


University results compared with the average

Table 2. Average performance of university groups against sectoral average on selected measures

Groups	Student Progression					Equity Participation		
	Attrition	6-Year Completions	Retention	Success	Student Satisfaction	Indigenous	Low SES	Regional & Remote
	2016	2017	2016	2017	2017	2017	2017	2017
IRU	22%	56%	79%	84%	78%	3%	23%	33%
Go8	11%	78%	87%	92%	78%	1%	10%	10%
ATN	14%	68%	84%	89%	78%	1%	18%	10%
RUN	28%	47%	75%	79%	79%	3%	30%	51%
No group	20%	62%	79%	86%	80%	2%	16%	21%
National -Total	18%	64%	82%	87%	79%	2%	18%	20%
Standard Deviation	7.0	12.1	5.3	5.1	4.1	1.5	9.0	21.9
Average (Mean)	19%	62%	81%	86%	79%	2%	19%	25%

Groups	Graduate Outcomes		
	FT emp (4 month)	FT emp (3 year)	Further FT Study
	2018	2018	2018
IRU	71%	89%	19%
Go8	72%	89%	30%
ATN	73%	90%	17%
RUN	74%	89%	13%
No Group	74%	88%	18%
National-Total	73%	89%	21%
Standard Deviation	7.0	2.6	8.4
Average (Mean)	73%	89%	20%

Legend:



Standard Deviations:

The consultation paper considers whether to compare institutional performance to a sectoral average as the benchmark. Table 2 shows the average performance of university groups compared to the sectoral average on selected performance measures. Performance is colour-coded based on the

number of standard deviations above or below the sectoral average. Outcomes above the average are shaded green and outcomes below the average are red.

Generally, IRU and RUN members perform above the sectoral average for equity participation, below the sectoral average on student progress. The Go8 and ATN members generally perform strongest on student progress and weakest on equity participation. None of the university groups are characterised by high or low student satisfaction or graduate outcomes.

The Discussion Paper acknowledges that student experience may be related to the types of students enrolled. As a solution, it discusses comparing institutional performance on attrition against a weighted average for low SES, external and other student cohorts. As shown in Table 3, institutional student retention results for equity groups are generally lower than the overall retention rates for all students, but the patterns across university groups are consistent with the overall student experience results. Universities that perform well above the sectoral average on retention continue to do so for equity group students since their high selectivity of students continues to drive the outcome. Therefore, taking a modified or weighted average would reduce, but not substantively change, the overall outcomes on these performance measures between universities.

Table 3. Average performance of university groups for retention for equity groups (2016), difference from total retention shown in parentheses

	Total Retention	Equity Group Retention			
		Indigenous	Low SES	Regional	Remote
IRU	79%	72% (-7%)	78% (-1%)	78% (-1%)	74% (-5%)
Go8	87%	81% (-6%)	86% (-1%)	87% (-)	83% (-4%)
ATN	84%	75% (-9%)	83% (-1%)	83% (-1%)	79% (-5%)
RUN	75%	70% (-5%)	75% (-)	76% (+1%)	79% (+4%)
NG	79%	72% (-7%)	78% (-1%)	79% (-)	75% (-4%)
National Total	82%	73% (-9%)	79% (-3%)	78% (-4%)	75% (-7%)

Conclusion

The performance indicators under consideration can inform students and others about university performance but are not well suited to drive funding. They have little relationship to the level of graduate employment three years out.

The performance benchmarks need to be set primarily in response to each university's recent and target level outcomes to assess their performance, with sector data used to ensure the target is sufficiently robust. Ratings of good or bad performance must reflect clearly significant divergence from the expected result.

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