



Completing Higher Education

Gap-years and completion

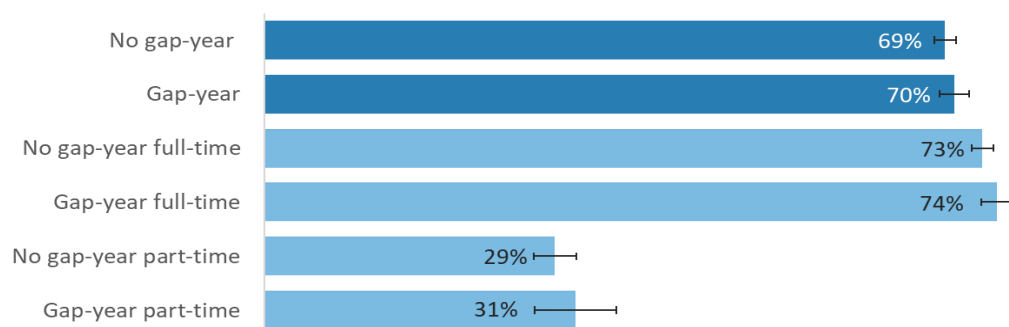
- *Students that took a gap-year show no difference in six-year completion rates compared to those who entered university straight after school.*
- *Students from regional and remote regions are more likely to take a gap-year.*

Gap-year takers are equally likely to complete their degree...

The impact of taking a gap-year¹ on study completion is an important consideration for a prospective student. Using higher education student data linked into the [Multi-agency Data Integration Project](#) for the first time, we have been able to analyse the characteristics and completion rates of students that go on to undertake a bachelor's degree compared to those who directly enter university from school.

Compared to students who directly entered university, students who took a gap-year were more likely to have come from a State or Territory with a smaller population.² Gap-year takers also had lower average tertiary entrance scores.³ By controlling for potentially confounding variables including tertiary entrance score, Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD), and community of origin, we found that students taking a gap-year were equally likely⁴ to complete their degree within six years (70 ± 1 per cent) compared to those who entered university straight after school (69 ± 1 per cent). These results apply to both full-time and part-time students.

Figure 1. Modelled six year completion rate by full-time/part-time study status and gap-year taking, 2011 commencers.



Source: Multi-Agency Data Integration Project, custom analytical extracts, 2010-2016.

¹ A 'gap-year' is defined as the break (generally a year) a student takes between completing high school and commencing higher education.

² Percentage of students taking a gap-year by state: NSW – 14%, VIC – 12%, QLD – 13%, SA – 16%, WA – 14%, TAS – 24%, NT – 34%, ACT – 29%.

³ Mean TER scores: 76.9 – gap-year taker, 81.2 – non gap-year taker

⁴ The comparisons between groups was confirmed using a Poisson regression on a statistically matched sub-sample controlling for confounding variables such as gender, tertiary entrance score etc. (No Gap - Gap: Incidence rate ratio = 1.01, $p = 0.33$, $N = 36,466$). See Data and Methodology.

Notes: The population for this graph are those who left high school between 2009 and 2010, commenced higher education on a Commonwealth Supported Place in 2011. Modelled data shown (N = 36,466).

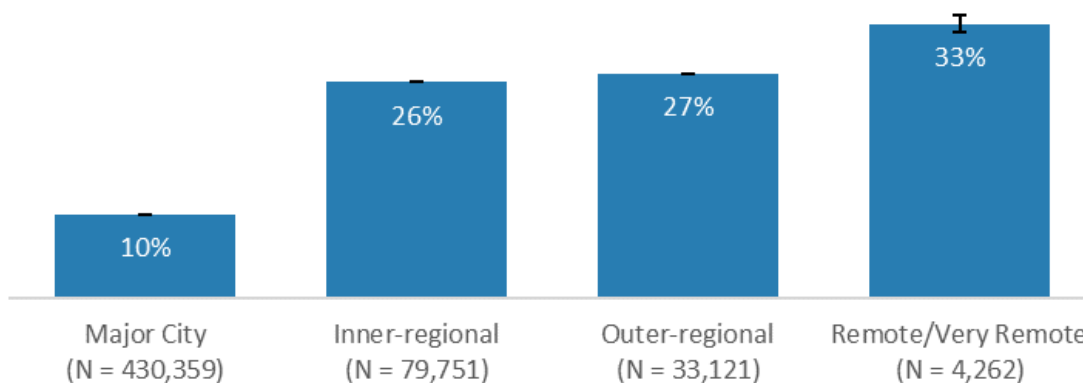
...are more likely to be from regional and remote areas...

On average, around one in seven students (14 per cent) of school leavers entering bachelor's courses between 2009 and 2016 took a gap-year. However, the percentage of school leavers taking a gap-year is declining, from 17 per cent in 2009 to 11 per cent in 2016.

The proportion of students taking a gap-year is relatively stable across the IRSAD deciles, ranging from 11-14 per cent (Table 1). However, for gap-year takers, the proportion working during a gap-year generally declines for students coming from the top 20 per cent most advantaged areas of Australia.

Consistent with other research, we found students from regional and remote regions are more likely to take a gap-year compared to those living in metropolitan areas (Figure 2).⁶ Regional undergraduate students have been identified as having higher costs of living (total expenditure) during university compared to city students.ⁱ This may encourage taking a gap-year to prepare financially for university.ⁱⁱ

Figure 2. Proportion of students taking a gap-year, by remoteness area of year 12 address, 2010-16.



Source: Multi-Agency Data Integration Project, custom analytical extracts, 2009-2016.

Notes: The population for this graph are those that commenced a bachelor's degree on a Commonwealth Supported Place for the first time between 2010 and 2016 and had a known year 12 address (N = 547,892). All proportions statistically different in pairwise proportion test ($p < 0.05$). Error margins 95% z-statistic.

...are generally working and moving during their gap-year and having to earn more during study...

Approximately 25 per cent of regional and remote gap-year takers moved into metropolitan areas during their gap-year. Tax data shows school leavers who take a gap-year before higher education study are more likely to be working during that gap-year (Table 1).⁵ Median annual income was also

⁵ Per cent reporting having earned an income in year following Year 12 (school leavers: 2010-2014): 91% - gap-year taker, 79% - non-gap-year taker, pair-wise proportion test ($P < 0.001$).

higher for gap-year takers that had earned income and this varied by IRSAD decile, with people coming from lower deciles generally earning higher income (Table 1).

Gap-year students were also more likely be working whilst studying⁶ compared with school-leavers that went straight to higher education. This result was not caused by differing study loads (see also Work and Study factsheet),⁷ but was greatest for gap-year students originating from poorer parts of Australia (Figure 3). This result is consistent with a higher likelihood of low socio-economic status and regional/remote students to report experiencing financial hardship. These students are less likely to have savings to use during financial stress, less likely to have financial support from family/partners and more likely to be financially supporting dependants.ⁱⁱⁱ

Table 1. Gap-year taking, workforce participation and income from personal exertion in the years following Year 12, by Index of Relative Socio-economic Advantage and Disadvantage (IRSAD), tax data 2011-15.

IRSAD (decile)	Likelihood of gap-year taking (%)	Gap-year		First year in study (Gap-year)		First year in study (No gap-year)	
		Likelihood of earning income from personal exertion (%)	Median income from personal exertion (\$)	Likelihood of earning income from personal exertion (%)	Median income from personal exertion (\$)	Likelihood of earning income from personal exertion (%)	Median income from personal exertion (\$)
1 (lowest)	11 ± 1	83 ± 2	13,830	89 ± 1	13,760	66 ± 1	6,811
2	12 ± 0	85 ± 1	14,184	92 ± 1	13,971	71 ± 1	7,280
3	13 ± 0	90 ± 1	14,241	93 ± 1	13,612	75 ± 1	7,733
4	13 ± 0	89 ± 1	14,095	93 ± 1	13,982	78 ± 1	7,895
5	14 ± 0	88 ± 1	13,770	94 ± 1	13,841	79 ± 0	7,959
6	13 ± 0	90 ± 1	13,378	94 ± 1	13,314	79 ± 0	8,009
7	12 ± 0	90 ± 1	12,732	94 ± 1	13,435	80 ± 0	7,911
8	12 ± 0	88 ± 1	11,857	93 ± 1	13,302	80 ± 0	7,847
9	11 ± 0	86 ± 1	10,580	92 ± 1	12,533	81 ± 0	7,530
10 (highest)	14 ± 0	86 ± 1	8,517	93 ± 1	11,037	83 ± 0	6,838

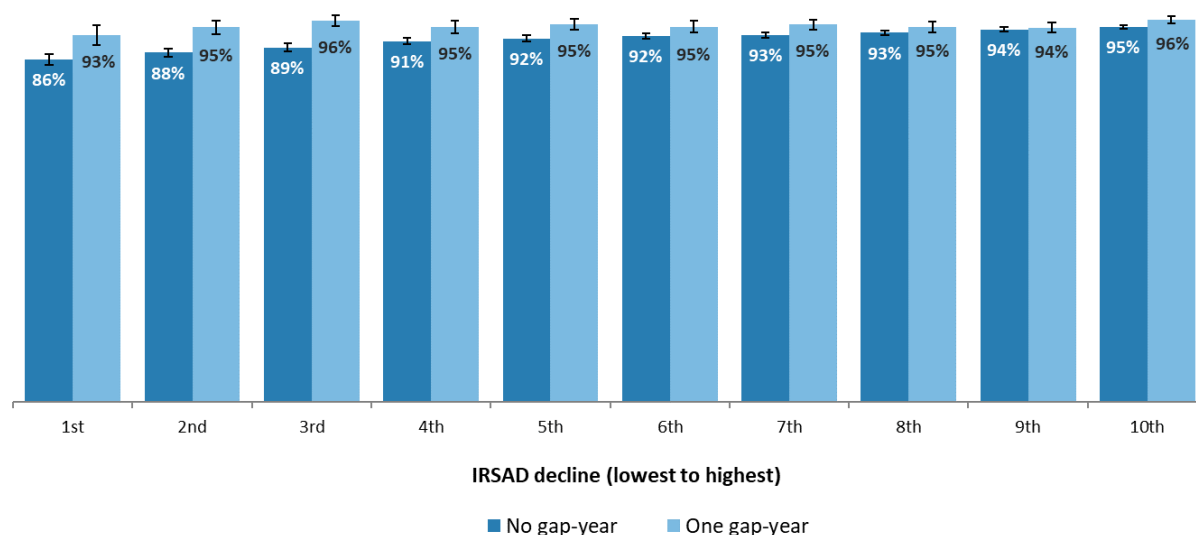
Source: Multi-Agency Data Integration Project, custom analytical extracts, 2009-2016.

Notes: The population for this graph are those who left high school between 2010 and 2014, commenced a bachelor's degree on a Commonwealth Supported Place between 2011 and 2016. Proportion in the workforce was measured by reporting in any income in the calendar year following Year 12 or first year of higher education. Income from personal exertion includes wages and salaries, attributable personal services income, lump sum payments, foreign source income, allowances, tip and fees. Median incomes reported are for those that reported any income (>\$0) during the year following Year 12 or first year of higher education. The student's modal Year 12 address was classified according to the Index of Relative Socio-economic Advantage and Disadvantage (IRSAD), (N = 358,893). Error margins are 95% z-statistic.

⁶ Per cent in the workforce measured by reporting any income in financial years where study load occurred (2011 commencers): 95% - gap-year taker, 92% non-gap-year taker, N= 65,367, pair-wise proportion test (p < 0.001).

⁷ Proportion studying full-time measured by a student's modal equivalent full-time study load (2011 commencers): 90% - gap-year taker, 91% - non-gap-year taker, N = 64,459, pair-wise proportion test (p = 0.28).

Figure 3. Percentage of students in the workforce whilst studying, by gap-year taking and Index of Relative Socio-economic Advantage and Disadvantage (IRSAD), commencing higher education 2011.



Source: Multi-Agency Data Integration Project, custom analytical extracts, 2010-2016.

Notes: The population for this graph are those who left high school between 2009 and 2010, commenced higher education on a Commonwealth Supported Place in 2011. Proportion in the workforce was measured by reporting any income by personal exertion in financial years where study load occurred. Income from personal exertion includes wages and salaries, attributable personal services income, lump sum payments, foreign source income, allowances, tip and fees. Groups were significantly different at deciles 2 to 3 (pair-wise proportion test, $p < 0.05$), $N = 65,367$. Error margins are 95% z-statistic.

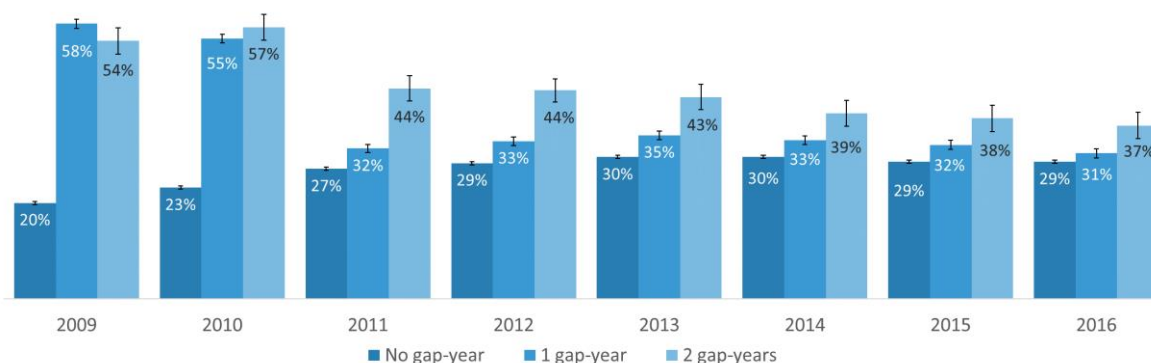
... are more likely to receive study assistance

Social security data shows that bachelor's degree students who take a gap-year (one or two years)⁸ are more likely to receive student income support in their first year of study than students who directly enter university (Figure 4). This trend has fallen since 2010 following changes to the Youth Allowance⁹ eligibility in 2011 (Figure 5), but still remains significantly higher.^{iv} These changes reduced eligibility for students from higher income families in metropolitan and inner-regional areas accessing Youth Allowance by claiming independence through employment.^v

⁸ Scope expanded in income support analysis for gap-year taking to one or two years to more accurately capture policy change.

⁹ Here we refer only to Youth Allowance provided to students.

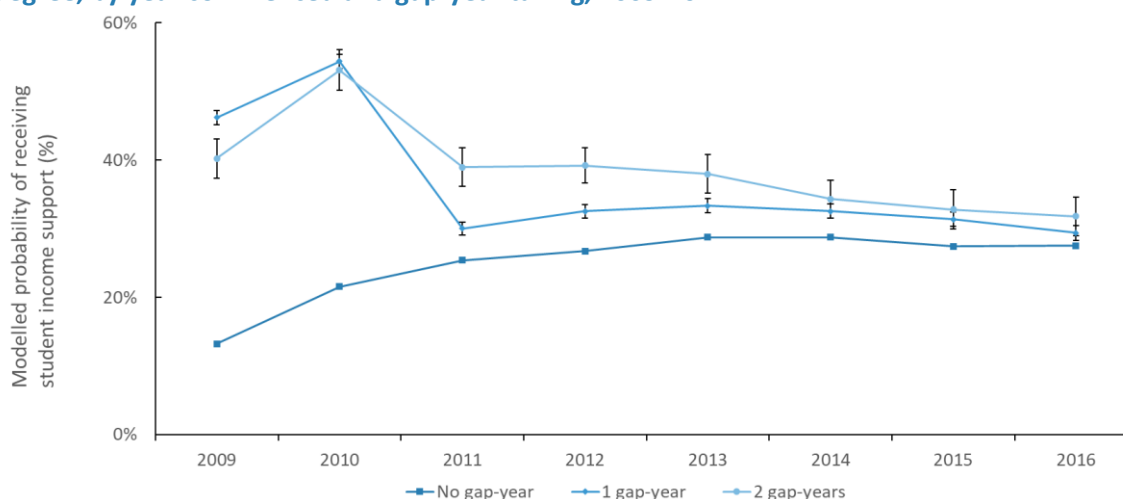
Figure 4. Proportion of students receiving student income support in first year of bachelor’s degree, by year commenced and gap-year taking, 2009-16.



Source: Multi-Agency Data Integration Project, custom analytical extracts, 2008-2016.

Notes: The population for this graph are those that commenced a bachelor’s degree for the first time on a Commonwealth Supported Place between 2009 and 2016 (N = 588,758). Error margins 95% z-statistic.

Figure 5. Modelled probability of receiving student income support in first year of bachelor’s degree, by year commenced and gap-year taking, 2009-16.



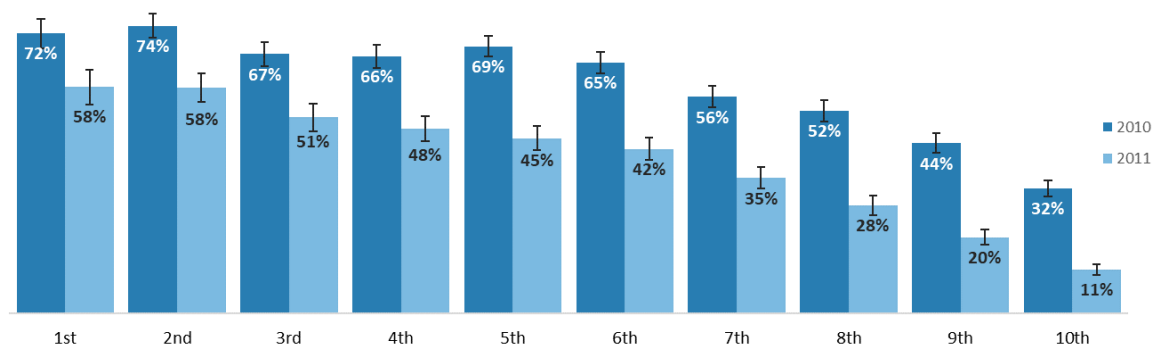
Source: Multi-Agency Data Integration Project, custom analytical extracts, 2009-2016.

Notes: The population for this graph are those that commenced a bachelor’s degree for the first time on a Commonwealth Supported Place between 2009 and 2016. Modelled probability regression: incidence of receiving student income support in the first year of study was as a function of gap-year taking, year commenced, age, Indigeneity, disability, institution, gender, attendance type, English-speaking country of birth, language, tertiary entrance score, parents’ education, field of education ($\chi^2 = 76,012$, $p < 0.001$, pseudo- $R^2 = 0.11$, $N = 588,758$). Error margins 95% confidence interval.

Further analysis on the impact of this policy change was undertaken by measuring the change in income support for gap-year takers by their location and an area-based measure of socio-economic status, the *Index of Relative Socio-Economic Advantage and Disadvantage* (IRSAD) while they were still in year 12 (Figure 6). The proportion of gap-year takers receiving student income support declined for all IRSAD deciles and locations from 2010 to 2011. However, the decline was greatest for students coming from high socio-economic status areas (Figure 6) and/or students living in major

cities.¹⁰ This result is consistent with our data and other reports that demonstrate that student income support is now better targeted to students with low socio-economic status or from regional and remote areas.ⁱ

Figure 6. Proportion of gap-year takers (one or two years) receiving student income support in their first year of a bachelor’s degree, by year commenced and location - Index of Relative Socio-economic Advantage and Disadvantage (IRSAD), 2010-11.



Source: Multi-Agency Data Integration Project, custom analytical extracts, 2009-2016.

Notes: The population for this graph are those that took a gap-year (one or two years) and commenced a bachelor’s degree on a Commonwealth Supported Place between 2010 and 2011 and had a known year 12 address (N = 21,554). Yearly movement at each decile significantly different (pair-wise proportion test, $p < 0.05$). The student’s modal year 12 address was classified according to the Index of Relative Socio-economic Advantage and Disadvantage (IRSAD). Error margins 95% z-statistic.

Data and methodology

The analysis in this paper used 588,770 HEIMS (Higher Education Information Management System) records linked to MADIP (Microdata: Multi-Agency Data Integration Project, Australia). Students were defined as gap-year takers when they commenced higher education (in either semester) a year after graduating high school and commenced a bachelor’s degree course including Bachelor’s Honours, Bachelor’s Pass.

Students who commenced higher education the year after graduating high school are considered non-gap-year takers and students starting higher education more than one year after graduating high school were out of scope. For the income support analysis, we expanded the scope to include students who took a two-year gap before commencing to accurately capture policy change.

The income by exertion variable is constructed from Personal Income Tax and Pay As You Go payment summary data. Income by exertion (as opposed to income from investment) is based on gross income from all sources excluding fringe benefits, government allowances, interest, dividends, capital gains, rent, business income (exertion includes personal services business income) and termination payments.

The analysis included students who: commenced a bachelor’s degree between 2009 and 2016 and were aged 15-21 years old, higher education entry criteria was via secondary school, highest level of educational attainment was secondary school, were a newly commencing higher education student, did not withdraw prior to commencement, and commenced a bachelor’s degree course. Student income support includes Youth Allowance (Student), Austudy and ABSTUDY. A student’s year 12 address was determined by their modal address (most days) during the year they completed year 12.

A random forest tree model was constructed to determine the most important indicators for completion which were then used for matching and statistical analysis. Variables used were; tertiary entrance score, attendance type, institution, IRSAD,

¹⁰ Relative decline in proportion of gap-year students (one or two years) receiving student income support by remoteness (2010 to 2011): Major City: -43 per cent, Inner-regional: -35 per cent, Outer-regional: -23 per cent, Remote/Very remote: -30 per cent.

STEM vs. Non-STEM field of education, remoteness area of modal year 12 address, gender, mental health service use, English speaking country of birth, disability, Indigeneity, language spoken at home, attendance mode, parents' educational status. Summary statistics and a binomial logit was used on the matched sample to confirm significance of taking a gap-year on completion.

Previous Australian research on higher education completion rates for students who take a gap-year have been inconclusive.^{vi vii viii} A 2012 report using the Longitudinal Survey of Australian Youth (LSAY) found little effect of gap-year taking on completion status.⁶ Previous research at a single Australian university, identified gap-year takers as having lower university marks.⁷ Literature on gap-year taking commonly identifies having lower tertiary entrance scores as factors in instances of taking a gap-year and university performance.⁷

ⁱ Universities Australia (2018) *2017 Universities Australia Student Finances Survey*, Universities Australia, Canberra

ⁱⁱ Richardson S & Friedman T (2010) *Australian regional higher education: Student characteristics and experiences*. Australian Council for Educational Research.

ⁱⁱⁱ Universities Australia (2018) *2017 Universities Australia Student Finances Survey*, Universities Australia, Canberra

^{iv} Parliament of Australia (2017) *Student income support: a chronology*, Parliament of Australian, Accessed 22/10/2019.

^v Parliament of Australia (2010) *Opposition seeks changes to eligibility for Youth Allowance for inner regional students*, Parliament of Australia, Accessed 22/10/2019.

^{vi} Curtis DD, Mlotkowski P and Lumsden M (2012) *Bridging the gap: who takes a gap year and why?* NCVER, Adelaide.

^{vii} Birch ER and Miller PW (2007) The characteristics of 'Gap-Year' students and their tertiary academic outcomes. *Economic Record* **83**(262): 329-344.

^{viii} Parker PD, Thoemmes F, Duineveld JJ and Salmela-Aro K (2015) I wish I had (not) taken a gap-year? The psychological and attainment outcomes of different post-school pathways. *Developmental Psychology* **51**(3): 323.