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RESEARCH SUMMARY

IB graduates in Australian universities:
Entry and outcomes
A case study of two institutions

*Based on a research report prepared for the IB
by Daniel Edwards and Catherine Underwood,
Australian Council for Education Research (ACER)*

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Background

The International Baccalaureate (IB) offers four educational programmes for a worldwide community of schools, aiming to create a better, more peaceful world. Founded in 1968, the organization currently works with more than 3,400 schools in over 140 countries to develop and offer challenging programmes to about one million students aged 3 to 19 years.

This study focused on the postsecondary enrollment and achievement of IB Diploma Programme graduates. The Diploma Programme (DP) is an academically challenging and balanced programme of education, with internal assessment and final examinations, that prepares students aged 16 to 19 for success at university and life beyond. Students complete subjects from six different groups ensuring both breadth and depth of study. In addition, three core elements—the extended essay, theory of knowledge, and creativity, action, service—are compulsory and central to the philosophy of the programme.

Currently, the DP is offered in 2,373 schools around the world. In the Asia-Pacific region, the number of schools offering the DP has increased by 78% over the last six years, from 209 schools in 2007 to 373 schools in 2012. Australia, in particular, has the fifth largest number (61 in 2012) of schools offering the DP worldwide.

Although interest in the DP as preparation for higher education is growing worldwide, there is a limited but growing body of empirical evidence documenting the relationship between student participation in the DP and postsecondary educational attainment. In this direction, the IB Research Department commissioned the Australian Council for Education Research (ACER) to examine the postsecondary attainment of DP graduates in Australian universities.

Research design

This research examined the postsecondary transition, progression, academic performance, and post-university pathways of DP graduates in two Australian universities. The following questions guided this study.

Transition to university

- What are the admission rates of IB students who apply to these two institutions? How do these rates compare with the overall admission rates at these universities?
- In which fields of study do IB students enrol? How do these trends compare with non-IB students?
- What are the key characteristics of the IB cohort (gender, age, country of birth and socio-economic status)?

University progression

- What are the yearly progression rates?
- What proportion of IB students complete their degree on time?
- How do IB students compare with similar non-IB students in terms of progression and graduation rates?

Academic performance

- What are the correlations between IB scores and achievement at university?
- How do IB students compare with non-IB students in terms of university achievement?

Post-university pathways

- What proportion of IB students move on to graduate studies?
- What are the post-graduation employment outcomes for IB students?

To explore these questions, two cohorts of DP graduates enrolling at two tertiary institutions in Australia (N=135 at University A and N=19 at University C) were tracked over a five-year period following enrollment in 2007. University A is a selective research-intensive university in south-eastern Australia. University C is a large university situated on the Australian eastern seaboard. Longitudinal data on IB students included student characteristics, prior educational background, enrollment, progression, academic achievement (GPA) and graduation. In addition to IB student data, University A provided longitudinal data for a control sample of non-IB graduates, which allowed comparisons between the IB and non-IB students at that university. Post-university destination data for University A graduates were obtained from the Graduate Destinations Survey (GDS), a voluntary survey administered to all Australian university graduates. National and state level data were also used in order to provide a wider context to the findings.

Key findings

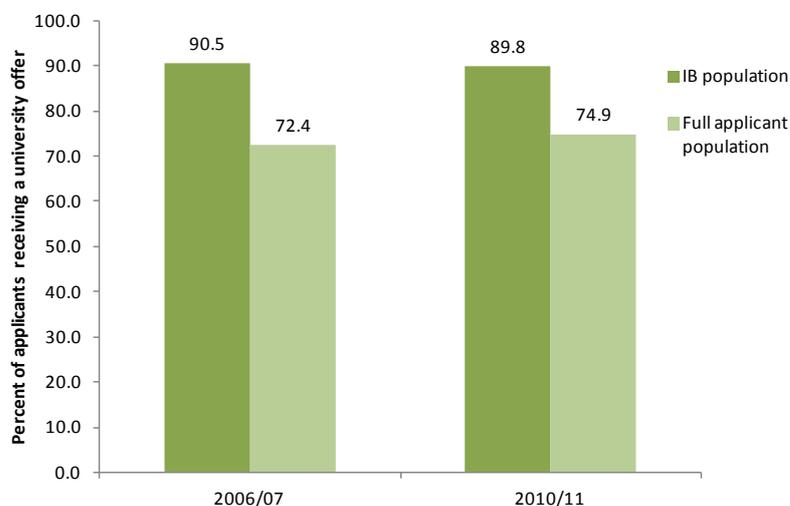
Entry rates

The number of IB graduates applying for study at the two universities increased on average by 67% between 2006/07 and 2010/11. At University A, the increase in the number of IB applicants was 27%. At University C the number increased by a staggering 340% (from 94 applicants in 2006/07 to 414 applicants in 2010/11).

Data provided by University A revealed that IB students were more likely to be offered admission at this institution than other applicants. In 2006/07 and 2010/11, University A admitted 35% of IB applicants, compared with 26% of the full applicant pool. Moreover, at the state level¹, IB students were more successful in being admitted than non-IB applicants (see Figure 1). In 2006/07, 91% of IB graduates who applied for university in this state received an offer, while only 72% of the non-IB students were admitted. 2010/11 saw a similar state-wide trend (90% versus 75%, respectively).

¹ This refers to the Australian state where University A was located.

Figure 1. Rate of offers made to applicants for university, state-wide, 2006/07 and 2010/11



However, IB students were less likely than other applicants to accept their offers and actually enroll. In 2006/07, 61% of the IB students admitted by University A enrolled for study, while 68% of all admitted applicants chose to enroll. In 2010/11, only 48% of the IB students who received an offer enrolled, while 70% of all applicants did so. It may be that IB students are more likely to accept offers from institutions outside of the state, but further research is needed to explain these lower rates of accepting offers.

Characteristics of IB graduate university enrollees

The IB students enrolled at these universities were more likely to be born outside of Australia, when compared with the non-IB group (34% compared with 25% at University A; 37% at University C). In addition, the IB students enrolled at University A were more likely than non-IB students to come from areas of high socio-economic status (SES). A possible explanation is that the DP is more likely to be offered in independent schools (private schools) in Australia than in government schools (with the former comprising a larger proportion of students from high SES backgrounds). On other comparisons, IB graduates had similar characteristics to the control group.

University progression and completion

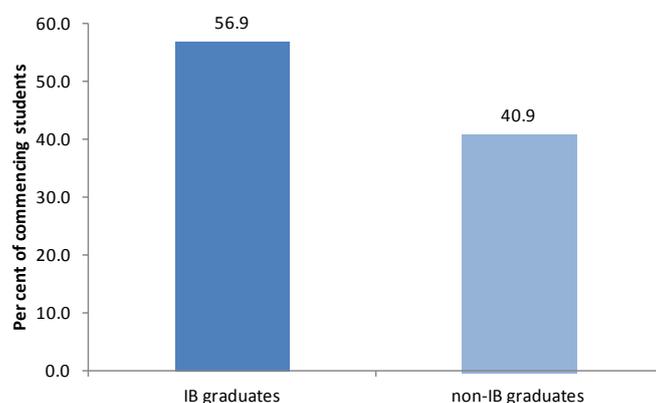
At University A, when compared with non-IB students, IB students had higher rates of yearly progression and degree completion within five years of commencement. Table 1 displays the proportion of students who commenced in 2007 and completed each year of study, over a three-year period.

Table 1. Progression rates of IB and non-IB graduates at University A

Year completed	IB graduates		Non-IB graduates	
	Number	Per cent	Number	Per cent
1 st year in 2007	115	85.2	3565	85.8
2 nd year in 2008	95	70.4	2640	63.6
3 rd year in 2009	80	59.3	2168	52.2

Findings show that at University A, 57% of IB students who entered the university for full-time study in 2007 completed their degree by 2011, while among non-IB students in the control group the completion rate was only 41% (see Figure 2).

Figure 2. 2011 graduation rates of University A students commencing in 2007



Academic performance

Results of regression analyses showed that, when student characteristics and secondary school achievement are taken into account, IB students and non-IB students perform at similar levels in terms of GPA (grade point average) over their university career. Prior academic achievement (ATAR² and IB score converted to ATAR) was the best predictor of university academic achievement (GPA).

Analysis reveals high correlations between IB scores converted to ATAR and university GPAs for the IB students enrolled at University A. These correlations are notably larger than those found in the control (non-IB) group (see Table 2).

² Australian Tertiary Admissions Rank. Given that the IB Diploma Programme does not produce an ATAR score, IB scores were converted to ATAR in order to provide comparisons with the control group.

Table 2. Correlations between university entrance scores (ATAR) and GPA, at University A

	IB graduates (IB score converted to ATAR)	Non-IB graduates (ATAR)
GPA 2007	0.61**	0.34**
GPA 2008	0.58**	0.41**
GPA 2009	0.53**	0.25**
GPA 2010	0.45**	0.26**
GPA 2011	0.44**	0.23**

Post-university pathways

University graduate destination data show that the IB students and non-IB students graduating from University A had similar rates (36%) of post-university enrolment for further study in the year following university completion. In addition, 87.1% of IB students compared with 91.7% of non-IB students were employed full-time or part-time in the year following university completion. These results, however, should be interpreted cautiously given that graduate destination data was available only for a small sample of IB students (N=36).

Conclusion

This study has provided insight into the transition of DP graduates as they progress through two Australian universities. Given the limited longitudinal data available from University C, many of the findings in this report relate to University A only, and should be interpreted cautiously. However, the data from University A point towards a number of worthwhile findings. Although issues encountered in collecting data from universities and small IB cohorts made drawing statistically valid conclusions difficult in this study, it can be considered as the first phase of a multi-stage project. Now that the initial project is completed, and as the number of IB graduates in Australia grows, recruitment and engagement of additional universities may be easier than was the case for this study.

Data clearly show a growth in the DP in Australia, and the increasing numbers of IB graduates applying to Australian universities highlight the need to build a greater understanding of the relationship between IB scores and the standard ATAR score for university selection and admissions purposes. Accordingly, this study shows significant correlations between student performance in the DP and university GPA. In terms of student characteristics, although there were some differences between the cohorts, these differences were inconsistent across the years and will likely change as the IB cohort grows. The main difference found between the cohorts was in the different socio-economic profile of these students, likely due in part to the higher rates of DP students coming from private high schools.

Data from other universities would help to shed further light on this finding and offer a more solid foundation for drawing conclusions relating to differences in student characteristics. Regression analysis showed that for University A, overall there is little difference in university achievement between IB and non-IB students when variables such as gender, age, language

background and secondary school achievement are controlled. Essentially, the conclusion is that IB students perform as well as other students at university when accounting for demographic characteristics and prior academic achievement. However, the IB graduate cohort appears to have higher rates of progression and be more likely to complete their degree within five years. These measures are useful for developing an understanding of the progression and achievement of DP graduates in Australian higher education, and with the potential for replication in other institutions, the insights gained here may be worth considering in future work.

This summary was developed by the IB Research Department. A copy of the full report prepared by the Australian Council for Education Research (ACER) is available at <http://www.ibo.org/research/policy/programmevalidation/diploma/>.

For more information on this study or other IB research, please email research@ibo.org.

To cite the full report, please use the following:

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