



International Baccalaureate students studying at UK higher education institutions: How do they perform in comparison with A level students?

Research summary

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April 2021

Purpose

This study compares higher education outcomes among students who enter universities in the United Kingdom (UK) with either an International Baccalaureate (IB) Diploma Programme qualification or an A level¹ qualification. Specific outcomes examined within the study include:

- enrollment in a top 20 UK higher education institution (HEI)
- continuation to the second year of university study
- achievement of a first- or second-class honours degree and
- activity six months after completion of higher education.

Research design

Using data sourced from the UK Higher Education Statistics Agency (HESA) and the IB examination data system, this study included all first-year students enrolled for a full-time first degree at a UK HEI from the academic years 2013–14 to 2018–19, for a total of 61,325 IB students and 1,231,480 A level students. While there was an increase in IB students attending a UK HEI between 2013–14 and 2018–19 (from 7,105 to 12,560), there were many more A level than IB students at UK institutions.

The majority of IB students studying at UK HEIs are not UK-domiciled (71.9%) and, as a result, socio-demographic data for these students is not available in the HESA database. Therefore, the statistical analysis was restricted to UK-domiciled IB and A level students attending UK HEIs.

Descriptive analysis revealed that the demographic characteristics of IB and A level students differed in important ways. Thus, to ensure a fair comparison of higher education outcomes, the researchers employed

a statistical technique (propensity score matching) that allowed for the construction of matched samples of UK-domiciled IB diploma² and A level students that were equivalent in terms of sex, socio-economic classification, ethnicity, state school marker, low participation marker and academic tariff score. Researchers conducted analyses on three groups of students, as defined below.

- The **student** cohorts included matched samples of IB diploma and A level holders (13,165 each) enrolled full-time, for a first degree, in the first year of study at a UK HEI.
- The **qualifier** cohorts included matched samples of IB diploma and A level students (11,120 each) who had successfully completed a full-time first degree at a UK HEI.
- The **leaver** cohorts included matched samples of IB diploma and A level students (5,940 each) who had successfully completed a full-time first degree at a UK HEI and had completed the HESA “Destinations of Leavers from Higher Education” (DLHE) survey six months later.

¹ A level qualifications are traditionally studied by students in England, Wales and Northern Ireland (aged 16–18) over two years, and are offered in a wide variety of subjects. Students have the freedom to study subjects of their choice. A levels are graded A* to E based on student performance. There is no limit to the number of A level subjects a student can study, but typically it is three or four.

² As there were small numbers of IB course students in the data, the analysis was restricted to those who had achieved an IB diploma.

Higher education enrolment and outcomes

Results showed that IB diploma students, qualifiers and leavers fared significantly better than their A level peers on several indicators of higher education success. Figure 1 shows the odds ratios³ comparing the likelihood of various higher education outcomes for the two groups. Odds ratios greater than one indicate that IB students were more likely to achieve the outcome.

- IB diploma students were **three times** more likely than matched A level students to enrol in a top 20 HEI ($p < 0.05$, OR=3.02, 95% CI [2.84, 3.21]).
- While continuation rates were high for both groups (over 97%), IB diploma students were **21%** more likely than matched A level students to continue to their second year of university study or to leave after gaining their intended award ($p < 0.05$, OR=1.21, 95% CI [1.04, 1.40]).

- IB diploma qualifiers were **7%** more likely to achieve a first-class honours degree than matched A level qualifiers ($p < 0.05$, OR=1.07, 95% CI [1.01, 1.13]).
- IB diploma qualifiers were **40%** more likely than matched A level qualifiers to obtain a first- or upper second-class honours degree ($p < 0.05$, OR=1.40, 95% CI [1.29, 1.52]).
- IB diploma leavers were **25%** less likely to be engaged in work after graduation ($p < 0.05$, OR=0.75, 95% CI [0.70, 0.82]), but at the same time were **38%** more likely than their A level peers to be engaged in further study post-graduation ($p < 0.05$, OR=1.38, 95% CI [1.27, 1.5]).

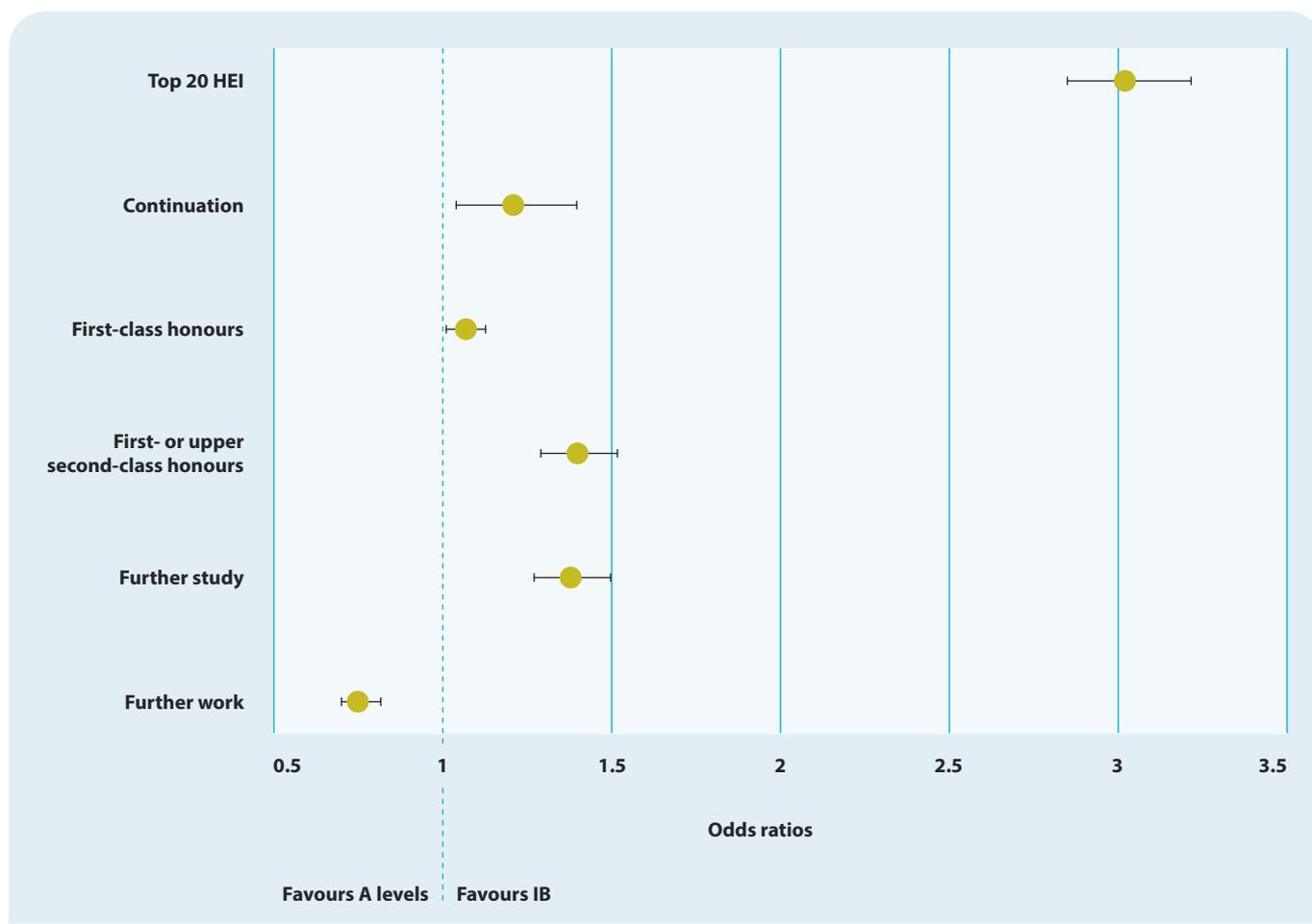


Figure 1. Odds ratio results by outcome type

³Odds ratio (OR) is an effect size statistic showing the magnitude of the effect.

Conclusions

Students can enter higher education in the UK from anywhere in the world. Although there was an increase in IB students attending a UK HEI between 2013–14 and 2018–19, overall, there were many more A level than IB students at UK institutions. The majority of IB students studying at UK HEIs had a domicile outside of the UK while A level students were much more likely to be UK-domiciled. This is not surprising given that A levels are a UK-based qualification and high proportions of students stay in the UK for university.

To control for differences in background characteristics and academic preparation of IB and A level students, matched samples were created, allowing for fair comparisons on higher education outcomes in the UK. Results showed that IB diploma students were significantly more likely to attend a top 20 HEI, to graduate with honours and to engage in further study upon graduation.

This summary was developed by the IB Research department. A copy of the full report is available at: www.ibo.org/en/research/. For more information on this study or other IB research, please email research@ibo.org.

To cite the full report, please use the following: Duxbury, V, Westlake, C, Joice, W and Jones, E. 2021. *International Baccalaureate students studying at UK higher education institutions: How do they perform in comparison with A level students?* Bethesda, MD, USA. International Baccalaureate Organization.