

SOCIO-ECONOMIC BENEFITS OF INDEPENDENT BOARDING SCHOOLS

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GLOSSARY

Term	Definition
Terms Relating to Boarding Schools	
Boarders/ Boarding students	Students who use boarding services.
Boarding	Boarding refers to the provision of any form of boarding service for school students in Australia. This includes ad hoc, weekly, termly, annual boarding services.
Boarding school(s)	Any school in Australia that provides boarding-related services and activities is defined as a boarding school for the purposes of this report (including but not limited to those provided by Independent boarding schools).
Independent boarding school(s)	Any Independent school in Australia that provides boarding-related services and activities is defined as an Independent boarding school for the purposes of this report. Note that in assessing the economic contribution of Independent boarding schools, only the activity associated with the provision of boarding-related services and activities and the education of boarding students (i.e., their education in the classroom on a day-to-day basis alongside day students) is included within the scope of economic contribution of Independent boarding schools – all activity associated with educating non-boarding students is excluded.
Independent schools	Independent schools are not-for-profit, non-government education providers. The definition of Independent school applied in this study excludes Australian Catholic systemic schools.
Major city/ Cities	Major cities in this report refer to the geographical catchments covered by the major cities of Australia category defined by the Australian Statistical Geography Remoteness Structure from the Australian Bureau of Statistics.
Majority Aboriginal and Torres Strait Islander School (MATSIS)	Any Independent school in which the majority of students identify as Aboriginal and Torres Strait Islander persons.
Regional	Regional areas in this report refer to the geographical catchments covered by the inner regional Australia and outer regional Australia categories defined by the Australian Statistical Geography Remoteness Structure from the Australian Bureau of Statistics.
Regional and remote	Refers to the aggregate of regional and remote categories as defined above.
Remote	Remote areas in this report refer to the geographical catchments covered by the Remote Australia and Very Remote Australia categories defined by the Australian Statistical Geography Remoteness Structure from the Australian Bureau of Statistics.
Measures Used in Economic Contribution Modelling	
Employment	Refers to the part-time and full-time employment positions supported by an industry and is expressed in terms of full time equivalent (FTE) positions. One FTE equates to one person employed full time for a period of one year.
Gross Domestic/ State/ Territory Product (GDP/ GSP/ GTP)	Refers to the value of all outputs of an industry, including taxes/ subsidies on its final products, after deducting the cost of goods and services inputs in the production process. Gross product (e.g., Gross Domestic Product/ Gross State Product/ Gross Territory Product) defines a true net economic contribution of a State/ Region and is subsequently the preferred measure for assessing economic impacts.
Incomes	Measures the level of wages and salaries paid to employees of each industry.
Initial impacts	The economic activity of the Independent boarding schools themselves, as well as activity from their capital expenditure and from international student and induced visitor expenditure.
Flow-on impacts – household consumption induced (Type II)	The consumption induced activity from household expenditure on goods and services resulting from wages and salaries being paid to Independent boarding school employees and those within the Independent boarding schools' supply chain.
Flow-on impacts – production induced (Type I)	The effects from initial expenditure on goods and services by Independent boarding schools, international students and induced visitors, as well as the second and subsequent round effects of increased purchases by suppliers in response to increased sales.

Term	Definition
Terms Relating to Survey Results	
n	The number of survey participants who responded to the survey question being described.

EXECUTIVE SUMMARY

BACKGROUND

Independent Schools Australia (ISA) represents the interests of the Independent schools across Australia. Independent schools in Australia are comprised of 1,187 schools and 667,259 students, representing 12.4% of all Australian schools and 16.6% of students (ISA, 2022).

Boarding provision is an important service provided by Independent schools. Independent schools operated 64.9% of all Australian boarding schools in 2020¹, housing approximately 14,600 students. Boarding schools are an integral feature of the Australian education system, particularly for regional and remote students who may have limited access to high-quality education.

PURPOSE & APPROACH

This report provides an independent, evidenced-based assessment of the economic and social impact of providing boarding-related services and activities at Independent schools in Australia. For the purposes of this assessment, (as outlined in the Glossary) the term *Independent boarding schools* has been used in this report to encompass the provision of boarding-related services and activities at Independent schools in Australia, including the day-to-day education of boarding students by Independent schools. Independent schools in Australia providing these services have been defined, in this report, as Independent boarding schools. However, it should be recognised this study aims to examine the economic contribution specific to the provision of boarding-related services and activities and does not include non-boarding related activities of Independent boarding schools within the scope of this assessment (e.g., the education of non-boarding students).

The findings of the report demonstrate the impact of Independent boarding schools at the national, state and territory level and for each of the three boarding school typologies at a national level (major cities, regional and remote, and Aboriginal and Torres Strait Islander boarding – referred to as Majority Aboriginal and Torres Strait Islander Schools in this report). Definitions of these typologies are provided in the Glossary.

The assessment has applied an economic significance approach using Input-Output modelling to assess the direct (initial) and flow-on economic contribution of Independent boarding schools to each state and territory economy, the national economy and the contribution of each boarding school typology (major cities, regional and remote and Majority Aboriginal and Torres Strait Islander Schools) to the national economy in terms of output, Gross Domestic Product, employment and income (i.e., wages and salaries). In support of the economic contribution assessment, an online survey was distributed to parents and caregivers of Independent boarding students as well as school leaders and staff of Independent boarding schools to understand drivers of parents' choice to send children to boarding schools, benefits and challenges associated with boarding and visitation to boarding students.

KEY FINDINGS

Overview of Australian Boarding Schools

In 2020, Australia recorded in excess of 20,900 boarding students and 208 schools providing and/ or utilising boarding services². Independent schools account for the majority of the schools and students in Australian boarding schools comprising 64.9% of schools providing boarding services and 69.5% of boarding students. Enrolments in Australian boarding schools have remained relatively constant over the past 10 years fluctuating between a high of 21,500 in 2017 and a low of 18,703 in 2012 (ABSA, 2022).

¹ 2020 data is used to align with the financial questionnaire data which is for 2020, and the economic contribution assessment which has been conducted for the 2019-20 period.

² This includes schools which do not own and operate their own facilities and utilise private boarding facilities for their students.

Regional and remote boarders represent the majority of Australia's boarding student population. In 2021, boarders from regional and remote areas represented 71.0% of the total boarding population (ABSA, 2022) while just 27.8% of the national population lived in such locations (ABS, 2022). Aboriginal and Torres Strait Islander students also represent a significant proportion of Australian boarders accounting for 18.7% of boarding students (ABSA, 2022) compared to 3.3% of the wider population (ABS, 2018). In the last five years Aboriginal and Torres Strait Islander students and regional and remote students have accounted for an increasing share of the boarding population.

Parents enrol their children to board in Independent boarding schools for a variety of reasons. In a nationally distributed survey³ of parents and caregivers of Independent boarding students and school leaders and staff of Independent boarding schools, parents were asked to identify the main reasons for their child/ children attending boarding school. Of the 474 parents or caregivers who participated in the survey, 470 answered this question. These results were supported by information gathered from discussions with principals of Independent boarding schools. The main reasons identified are the following:

- Access to education or higher quality education provision.
- Access to specialised subjects and ease of managing participation in extra-curricular commitments.
- Social and character development of students.
- Geographical isolation of the family residence.
- Consistency and stability of schooling.
- Family relationship or history with a school.

In the absence of boarding opportunities most families surveyed for this assessment would choose to enrol their children in a local school (including local Government, Independent and Catholic Schools). For families living in remote areas with limited local alternative education options, distance education is the most commonly preferred alternative. Relatively few students would otherwise attend their current Independent boarding school as a day student.

There are many social and economic benefits of attending an Independent boarding school. Many benefits are enjoyed by the boarders themselves, with 82.5% of surveyed parents or caregivers, staff and school leaders (n=572) believing boarding school is a positive experience for most boarding students, while other benefits are broader, benefitting the boarders' family and the wider school network. The benefits of boarding school for students, identified through interviews with principals and a nationally distributed survey of parents and caregivers of Independent boarding students and school leaders and staff of Independent boarding schools (n=572), are as follows:

- Higher academic outcomes.
- An immersive learning experience.
- A sense of community.
- Increased opportunity for social interaction with peers.
- Greater preparation for post-school environments.
- Greater independence and self-reliance.
- Improved psychological resilience.
- Increased tolerance and compassion.
- Reduced family and community pressures and responsibilities.

³ Which received a total of 572 responses.

Economic Contribution of Independent Boarding Schools

Independent boarding schools support a broad range of economic activities including:

- Operating activities and expenditure of Independent boarding schools themselves, including:
 - Employing staff, such as boarding house supervisors, cooking, cleaning, and laundry staff and operations and maintenance staff.
 - Generating turnover (or revenue), including revenue from student fees and charges.
 - Provision of education services (tuition and boarding) for boarding students.
 - Purchasing goods and services for operational activities, for example food and beverages for provided meals, and building and grounds maintenance.
- Capital investment by Independent boarding schools such as land acquisition, building/ facility construction and other capital purchases.
- Inducing International student expenditure through the attraction of Independent students.
- Inducing visitor expenditure from visitors to international and interstate domestic borders.

The following table provides an overview of the economic contribution of Independent boarding schools to the national, state and territory economies. An assessment has also been conducted of the economic contribution of Independent boarding school typologies (major city, regional and remote and Majority Aboriginal and Torres Strait Islander Schools) to the national economy.

Table ES. 1. Estimated Initial and Flow-On Contribution of Independent Boarding Schools, 2019-20

Value of Economic Contribution	Gross Domestic/ State/ Territory Product (\$M)	Incomes (\$M)	Employment (FTEs)
By State and Territory			
New South Wales	\$672.3	\$430.5	5,178
Victoria	\$431.2	\$280.9	4,051
Queensland	\$380.9	\$252.3	3,428
Western Australia	\$255.9	\$172.3	1,905
South Australia	\$79.3	\$55.2	870
Tasmania	\$17.0	\$12.9	177
Northern Territory	\$30.0	\$22.8	282
Australian Capital Territory	\$13.0	\$10.1	113
Australia	\$1,879.4	\$1,236.9	15,998
By Independent Boarding School Typology			
Major City	\$1,286.5	\$843.8	10,913
Regional and Remote	\$495.1	\$331.2	4,290
MATSI	\$97.9	\$62.0	796
Australia	\$1,879.4	\$1,236.9	15,998

Note: Total may not sum due to rounding.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

Including initial and flow-on activity, at the national level, Independent boarding schools are estimated to have contributed to approximately \$1.9 billion in GDP in 2019-20, representing 0.10% of the total contribution to total GDP by all industries for the year⁴. This level of activity equates to that generated by a regional centre, such as Wangaratta. The level of employment supported by Independent boarding schools (including both initial and flow on activity) equated to approximately 0.11% of national employment.

⁴ Total industry contribution to GDP in 2019-20 was \$1.8 trillion. An additional \$125 billion in GDP was contributed through taxes less subsidies on final demand (e.g., demand by households) rather than production by industry. Only the industry contribution to GDP has been examined in the economic contribution assessment.

Table ES. 2. Estimated Initial and Flow-On Contribution of Independent Boarding Schools, Share of State, Territory and National Outcomes, 2019-20

Value of Economic Contribution	Gross Domestic/ State/ Territory Product (\$M)	Incomes (\$M)	Employment (FTEs)
By State and Territory (% Share of State, Territory or National Outcomes)			
New South Wales	0.11%	0.12%	0.13%
Victoria	0.10%	0.10%	0.12%
Queensland	0.11%	0.13%	0.13%
Western Australia	0.08%	0.13%	0.14%
South Australia	0.08%	0.08%	0.10%
Tasmania	0.05%	0.07%	0.07%
Northern Territory	0.12%	0.17%	0.23%
Australian Capital Territory	0.03%	0.04%	0.04%
Australia	0.10%	0.11%	0.12%
By Independent Boarding School Typology (Share of National Outcomes)			
Major City	0.07%	0.08%	0.09%
Regional and Remote	0.03%	0.03%	0.03%
MATIS	0.01%	0.01%	0.01%
Australia	0.10%	0.11%	0.12%

Note: Total may not sum due to rounding.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

Savings to Government and Taxpayers

Approximately 14,566 boarding students attended an Independent boarding school in 2020. The savings presented by Independent boarding schools in providing education services to these students is estimated at approximately \$253.0 million. This was comprised of \$190.4 million in recurrent education cost savings (capturing the ongoing maintenance and upkeep of school assets) and \$62.6 million in infrastructure cost savings, representing a significant and ongoing saving to taxpayers.

The Economic Value of Enhanced Education Outcomes

Independent boarding schools are often chosen by parents and families as they are considered to provide access to higher quality education and higher academic outcomes than alternative forms of education (AEC, unpublished). This is confirmed by standardised school test results, such as PISA scores (ACER, 2019), in which students attending Independent schools in Australia record higher PISA scores than students attending Australian Government schools and Australian Catholic schools.

Research by the OECD (2010) indicates that the enhanced educational outcomes provided by Independent schools (of which Independent boarding schools are a sub-set), though higher PISA scores (and the associated lift in labour productivity), can be linked to a contribution to growth in GDP of around \$14.3 million in 2019-20. This economic benefit is estimated to be provided annually to the national economy by the enhanced education outcomes (and productivity gains) delivered by Independent boarding schools.

Cost to Benefit Assessment

A cost to benefit assessment was conducted to identify the quantum of economic and social benefits associated with Independent boarding school activities by comparison to the cost of providing Independent boarding school services.

The costs of operating Independent boarding schools in 2020 was estimated at a total of \$869.6 million (including operating expenditure, wages and salaries of employees and capital expenditure).

The benefits of Independent boarding schools are significant, including:

- The value of supported economic activity in terms of profits to Australian education providers and supporting businesses benefiting from the initial and flow-on activities of Independent boarding schools, estimated at \$643.1 million in 2020.
- The value to employed staff of Independent boarding schools in 2020, estimated at \$124.7 million in 2020.
- The value to the economy of a higher skilled labour force as a result of higher PISA scores, estimated at \$14.3 million per annum (or a present value⁵ of \$189.7 million over the coming 30 years)
- The value of retaining young people who would otherwise be disengaged from formal education⁶, which has significant impacts on their life outcomes and outcomes for society as a whole (ABS, 2017, Lamb and Huo, 2017, AIHW, 2021), including:
 - Increased labour force participation.
 - Increased employment.
 - Increased wages and salaries (resulting in increased taxation revenues for government).
 - Reduced numbers of criminals and prisoners (and reduced costs to victims of crimes).
 - Reduced costs to government from increased private health insurance coverage.

The ongoing value of these benefits from Independent boarding school operations is estimated at a present value of \$39.5 million over the coming 30 years.

In total, the present value of the benefit of Independent boarding school operations in 2020 was estimated at \$997.0 million. Based on estimated costs of \$869.6 million in 2020, the cost to benefits ratio of Independent boarding schools was estimated at 1.15, suggesting a return of \$1.15 for every \$1.0 of cost.

⁵ All present values have been discounted at a rate of 7% per annum over a period of 30 years.

⁶ Approximately 1% of students attending an Independent boarding school would otherwise not be engaged in formal education, according to the parents and caregivers surveyed for this assessment.

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1. INTRODUCTION

1.1 BACKGROUND

Independent Schools Australia (ISA) represents the interests of the Independent schools across Australia. It is a non-profit peak body whose members are the eight non-profit representative bodies for Independent schools in each state and territory. Independent schools are non-government education providers and are a vital part of the Australian education system. They have earned a reputation for providing high-quality educational experiences. Independent schools in Australia are comprised of 1,187 schools and approximately 667,259 students, representing 12.4% of all Australian schools and 16.6% of students (ISA, 2022).

Boarding provision is an important service provided by Independent schools. Independent schools operated 64.9% of all Australian boarding schools in 2020⁷, housing approximately 14,600 students. Boarding schools are an integral feature of the Australian education system, particularly for regional and remote students who may have limited access to high-quality education.

AEC have been commissioned to determine the economic contribution supported by the operations of Independent boarding schools across Australia. A high level, indicative, Cost Benefit Assessment has also been commissioned to determine the net economic costs and benefits associated with the provision of boarding-related services and activities at Independent schools.

1.2 PURPOSE OF THIS REPORT

This report provides an independent, evidenced-based assessment of the economic and social impact of providing boarding-related services and activities at Independent schools in Australia. For the purposes of this assessment, (as outlined in the Glossary) the term *Independent boarding schools* has been used in this report to encompass the provision of boarding-related services and activities at Independent schools in Australia, including the day-to-day education of boarding students by Independent schools. Independent schools in Australia providing these services have been defined, in this report, as Independent boarding schools. However, it should be recognised this study aims to examine the economic contribution specific to the provision of boarding-related services and activities and does not include non-boarding related activities of Independent boarding schools within the scope of this assessment (e.g., the education of non-boarding students).

The findings of the report demonstrate the impact of Independent boarding schools at the national, state and territory level and for each of the three boarding school typologies at a national level (major cities, regional and remote, and Aboriginal and Torres Strait Islander boarding – referred to as Majority Aboriginal and Torres Strait Islander Schools in this report). Definitions of these typologies are provided in the Glossary.

1.3 APPROACH

The assessment has applied an economic significance approach using Input-Output modelling to assess the direct (initial) and flow-on economic contribution of Independent boarding schools to each state and territory economy, the national economy and the contribution of each boarding school typology (major cities, regional and remote and Majority Aboriginal and Torres Strait Islander Schools) to the national economy in terms of output, Gross Regional Product, employment and income (i.e., wages and salaries). An outline of the Significance Assessment methodology is provided in Appendix A. Details of measures reported in the modelling are provided in Appendix B and a summary of the models used in the development of the contribution assessment is provided in Appendix C.

In support of the economic contribution assessment, an online survey was distributed to parents and caregivers of Independent boarding students and school leaders and staff of Independent boarding schools to understand drivers of parents' choice to send children to boarding schools, benefits and challenges associated with boarding and

⁷ 2020 data is used to align with the financial questionnaire data which is for 2020 and the economic contribution assessment which has been conducted for the 2019-20 period.

visitation to boarding students. The survey tool and the outcomes of the survey are provided in Appendix D and an analysis of the methodology, participation and key results of the survey is in Appendix E.

This report is structured as follows:

- **Overview of Boarding Schools in Australia (Chapter 2):** Provides an overview of Australian boarding schools, including Independent boarding schools which is the focus on this assessment.
- **Economic Contribution of Boarding Schools (Chapter 3):** Provides an overview of the assumptions and results of the economic contribution assessment for each of the states and territories, Australia and the three boarding Typologies.
- **Savings to Governments and Taxpayers (Chapter 4):** Presents the cost savings to government (and taxpayers) from the provision of education services by Independent boarding schools.
- **The Economic Value of Enhanced Education Outcomes (Chapter 5):** Presents the estimated productivity benefit to the economy from a higher skilled labour force, as a result of higher PISA scores associated with Independent boarding schools.
- **Costs to Benefits Assessment (Chapter 6):** Presents a high-level assessment of the costs associated with Independent boarding schools compared to the economic and social benefits associated with Independent boarding schools. This chapter also presents a qualitative assessment of the social benefits which were unable to be quantified for the Costs to Benefit Assessment.

2. OVERVIEW OF BOARDING SCHOOLS IN AUSTRALIA

This chapter provides an overview of boarding schools in Australia with specific attention paid to Independent boarding schools. It includes an overview of the size of the Australian boarding school market and demand for boarding services, the alternatives to boarding school for boarders and their families, and the benefits and challenges associated with boarding. In addition to government and industry reports and data, this chapter is informed by individual consultations with five Independent boarding school principals across Australia and a nationally distributed survey of parents and caregivers of Independent boarding students as well as school leaders and staff of Independent boarding schools. Respondents to the survey included 474 parents or caregivers, 57 principals or heads of boarding, and 41 teachers or staff members. Because only parents were required to answer some questions and some missing responses, the number of respondents to each question has been noted throughout this report.

2.1 PROFILE OF AUSTRALIAN BOARDING SCHOOLS

In this section, 2020 data is used to ensure consistency with the economic contribution assessment, which was performed in relation to the 2019-2020 financial year.

In 2020, Australia recorded in excess of 20,900 boarding students and 208 schools and/ or utilising boarding services⁸. Though some schools offer boarding to students in primary years, 99.5% of boarding students in Australia are in years 7 and above (ABSA, 2022). Independent schools account for the majority of boarding schools and students in Australia comprising 64.9% of schools providing boarding services and 69.5% of boarding students. Queensland has the largest share of boarding schools and students in the country, with 56 schools providing boarding services comprising 26.9% of the country's total and 30.3% of boarding students located in the state. Western Australia and New South Wales (excluding Australian Capital Territory) follow with 46 schools each and 22.1% of the country's boarding schools.

Approximately 14,566 students were boarding at an Independent boarding school in 2020. New South Wales has the largest share of boarders in Independent boarding schools with 4,947 boarders comprising 34.0% of the country's total. Queensland follows with 3,736 boarders in Independent boarding schools comprising 25.7% the country's total.

Table 2.1. Australian Boarding Schools and Boarding Students, 2020

Component	NSW & ACT	VIC	QLD	SA	WA	TAS	NT	Australia
Boarding Schools								
Independent schools ¹	42	24	34	9	17	6	3	135
Catholic schools	3	5	16	5	11	0	1	41
Government schools	3	0	6	2	18	0	3	32
Total	48	29	56	16	46	6	7	208
Boarding Students								
Boarding students in Independent schools	5,091	2,403	3,736	896	1,773	203	464	14,566
Boarding students in Catholic and government schools ²	1,004	514	2,608	421	1,859	75	-	6,362
Total	6,095	2,917	6,344	1,317	3,632	278	345	20,928

Note: (1) Includes Independent Catholic schools. (2) All estimates for Independent schools above were provided by ISA (2021), for all other boarding schools data was provided by ABSA (2022), in some instances the estimates provided by these sources do not align.
Source: ISA (2021), ABSA (2022)

⁸ This includes schools which do not own and operate their own facilities and utilise private boarding facilities for their students.

Most Independent boarding schools are located in major cities. Independent schools with boarding facilities in major cities account for 56.3% of all Independent boarding schools. Approximately 36.8% of Independent boarding schools are located in regional and remote areas with 35.4% of Independent boarding schools located in regional areas and the remaining 1.4% in remote areas. There are a further 10 Majority Aboriginal and Torres Strait Islander Independent boarding schools, comprising 6.9% of the total.

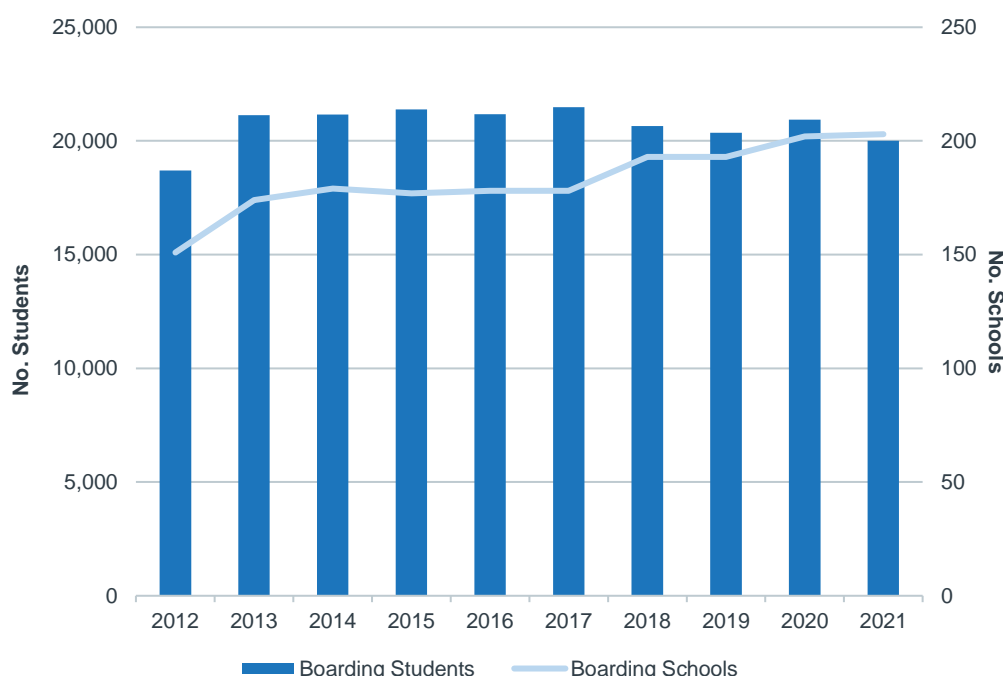
Table 2.2. Typology of Independent Boarding Schools, 2020

Component	Total	Major Cities	Regional & Remote	MATSIS
Independent schools with their own boarding facility	144	81	53	10
Boarding students in Independent schools	14,566	9,081	4,881	604

Note: Some Independent schools with their own boarding facility choose not to offer boarding services
Source: ISA (unpublished)

Enrolments in Australian boarding schools have remained relatively constant over the past 10 years fluctuating between a high of 21,500 in 2017 and a low of 18,703 in 2012. Since 2012, approximately 52 new facilities have been established, with much of this growth occurring in 2013 and 2018 (ABSA, 2022).

Figure 2.1. Growth of Australian Boarding Schools, 2012 to 2021



Source: ABSA (2022)

2.2 MARKETS FOR BOARDING SERVICES

In this section, the market for boarding services refers to the source of demand for boarding services, or where students come from. This analysis has been informed through discussions with Independent boarding school principals and data collected from various government and industry sources.

Regional and remote boarders represent the majority of Australia's boarding student population. In 2021, boarders from regional and remote areas represented 71.0% of the total boarding population (ABSA, 2022) while just 27.8% of the Australian population lived in such locations⁹ (ABS, 2022). Aboriginal and Torres Strait Islander students also represent a significant proportion of Australian boarders accounting for 18.7% (ABSA, 2022) of boarding students compared to 3.3% of the wider population (ABS, 2018). This is in alignment with the anecdotal evidence provided by principals of Independent boarding schools. Most Independent boarding school principals emphasised

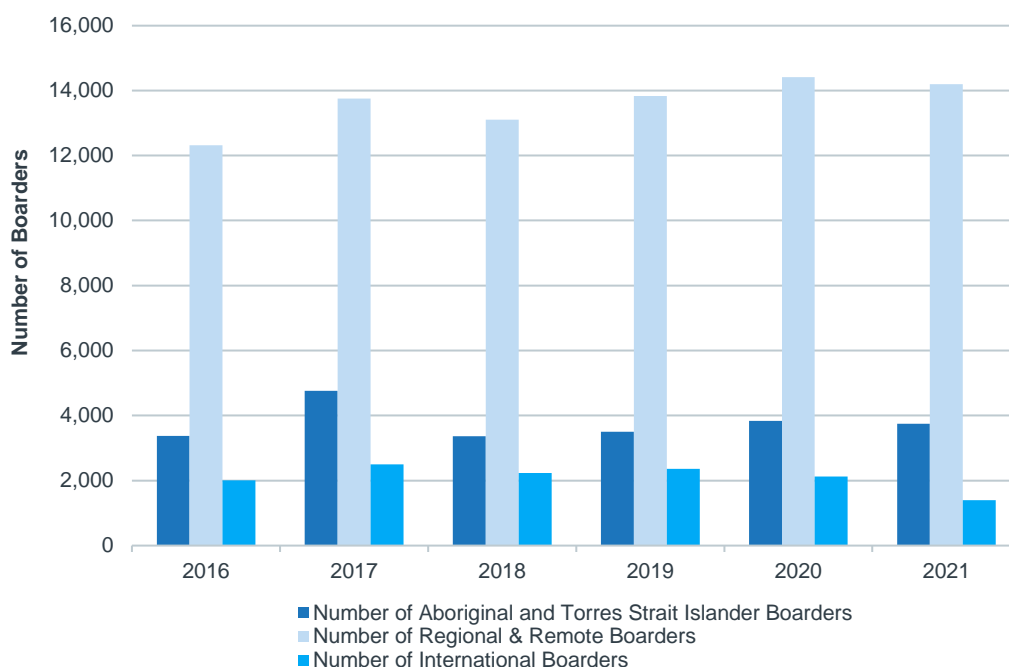
⁹ Data provided by ABSA (2022) describes these boarders as "Rural" but does not provide a definition of this geography. However, it is assumed to approximately align with the regional and remote typology described in this study.

the reliance of regional and remote families on Independent boarding schools, and some discussed the intergenerational attendance of regional and remote families at their school. Some schools have also established relationships with local Aboriginal and Torres Strait Islander communities, in recognition of the potential benefits Independent boarding schools can bring to such communities.

In the last five years Aboriginal and Torres Strait Islander students and regional and remote students have accounted for an increasing share of the boarding student population. In 2012, Aboriginal and Torres Strait Islander boarders accounted for 12.8% of the boarding student population and by 2021 had increased to 18.7% (ABSA, 2022). Regional and remote students accounted for 58.2% of the boarding student population in 2016 and by 2021 had increased to 71.0% (ABSA, 2022). These increases in share are due to both an increase in the number of Aboriginal and Torres Strait Islander students and regional and remote students and a decrease in the number of boarding students from major cities over the five-year period. Despite continuing to increase as a proportion of the total boarding student population, the number of Aboriginal and Torres Strait Islander boarders and regional and remote boarders decreased in 2021.

From 2012 to 2019, the number of international boarders in Australia increased by 33.8%, however, between 2019 and 2021 the number of international boarders in Australia decreased by 40.7% (ABSA, 2022). This reflects the impact of COVID-19 and the associated policy responses on international travel. Despite these disruptions, international boarders still represented 7.0% of the boarding population in 2021, down from a high of 11.6% in 2017 and just lower than the pre-pandemic low of 7.3% in 2013 (ABSA, 2022). Though the closure of Australia's borders would have impacted the intake of new international students, a large cohort of the existing international students remained. As existing students graduated and no new intakes were realised, the international student body decreased year on year between 2019 and 2021. As Australia enters a new phase of managing the COVID pandemic in which international borders are opening and domestic restrictions are being lifted, many Independent boarding schools are now looking at ways to re-attract international students and return international attendance to pre-pandemic numbers and growth trends.

Figure 2.2. Typologies of Boarding Students, 2016 to 2021



Source: ABSA (2022)

In 2020, 2,664 International students boarded at Independent boarding schools, representing 18.3% of Australian Independent boarding students (ISA, 2021). South Australia recorded the greatest proportion of international boarders with international boarders representing 33.0% of South Australian Independent boarding students (ISA, unpublished a). Victoria and Tasmania followed with international students representing 32.3% and 30.5% of the state's Independent Boarding Students, respectively.

Table 2.3. International and Domestic Boarders by State, Independent Boarding Schools, 2020

International or Domestic Status	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
International boarding students at Independent boarding schools ¹	592	777	749	296	167	62	0	21	2,664
Domestic boarding students at Independent boarding schools	4,355	1,626	2,987	600	1,606	141	464	123	11,902
All boarders at Independent boarding schools	4,947	2,403	3,736	896	1,773	203	464	144	14,566

Note: (1) Overseas students at boarding schools are assumed to be boarding

Source: ISA (unpublished a)

Most international boarders at Independent boarding schools attended schools in major cities. International boarders represented 23.6% of boarders at Independent boarding schools in major cities and 10.6% of boarders at Independent boarding schools in regional and remote areas.

Table 2.4. International and Domestic Boarders by Typology, Independent Boarding Schools, 2020

International or Domestic Status	Major Cities	Regional & Remote	MATSIS	Australia
International boarding students at Independent boarding schools ¹	2,146	518	0	2,664
Domestic boarding students at Independent boarding schools	6,935	4,363	604	11,902
All boarders at Independent boarding schools	9,081	4,881	604	14,566

Note: Overseas students at boarding schools are assumed to be boarding

Source: ISA (unpublished a)

2.3 DRIVERS OF DEMAND FOR BOARDING SCHOOLS

This section explores the demand for Independent boarding schools including the reasons families choose boarding school for their children, how demand has changed in recent years and the extent to which Independent boarding schools are reliant on the boarding student cohort. Information in this section is largely derived from interviews with five Independent boarding school principals across Australia and a nationally distributed survey of parents and caregivers of Independent boarding students as well as school leaders and staff of Independent boarding schools. The survey received a total of 572 completed responses. In each instance where the outcome of a specific question is being described, an *n* value representing the number of survey participants who responded to the question is reported. This section specifically uses the outcomes of survey questions which allowed responses from parents and caregivers only and where other questions have been considered only the responses from parents are included.

2.3.1 Reasons for Boarding

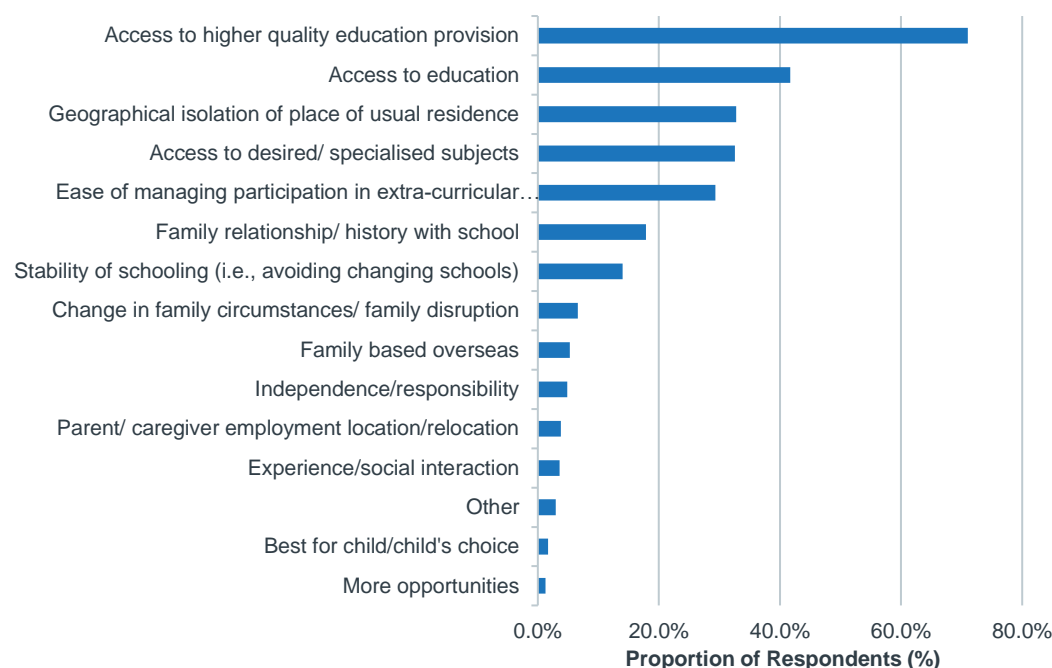
Discussions with principals at five Independent boarding schools as well as a survey of parents of Independent boarding school students and Independent boarding school staff identified a broad range of reasons why families may choose boarding school for children:

- According to interviews with Independent boarding school principals, Independent boarding schools provide families living in regional and remote areas the opportunity to access higher quality education provision than what may be available within their local area. Indeed, access to higher quality education provision was identified by 71.1% of surveyed parents (*n*=470) as a main reason for their child/ children attending boarding school. Many parents (41.7%, *n*=470) also indicated that access to education was a key reason for their child/ children attending a boarding school and was particularly important for remote families. Families in remote areas may be less likely to have access to local schooling, as many remote schools have mixed year level classes and some do not offer schooling up to year 12 (Guenther & Osborne, 2020).
- According to interviews with principals, some Independent boarding schools offer specialised subjects and extra-curricular activities, such as arts, cultural, and sporting programs, which may not otherwise be available to children from remote areas, and which draw students in major cities to particular schools. Principals also identified that local parents looking to promote their child's proficiency in an extra-curricular field may also

choose to send their child to an Independent boarding school to access the school's resources and to manage the commitment, particularly if transport times or parent commitments make the required number of hours impossible to facilitate as a day student. In the survey, 32.6% of parents (n=470) identified access to desired or specialised subjects as a main reason for their child/ children attending a boarding school. For 29.4% of parents (n=470), the ease of managing their child's participation in extra-curricular commitments was a main factor for their child/ children attending a boarding school.

- During interviews, principals noted that Independent boarding schools provide a supportive and productive environment with positive peer influences, which can be perceived as supporting the social development of students. Principals believed that for children from regional and remote areas, boarding offers exposure to a larger and more diverse cohort than would be available at local schools. Parents may expect that this exposure, in combination with the variety of different life experiences, will lead to growth in character. In the survey, increased opportunities for social interaction with peers was identified as a main benefit of boarding school for students by 75.3% of parents (n=474) largely from regional and remote areas. Greater independence and self-reliance was identified as a main benefit of boarding school for students by 89.0% of parents (n=474).
- The geographical isolation of place of usual residence is a key reason for the child/ children attending a boarding school for many parents (32.8%, n=470). This is most commonly a main reason for families in remote locations, of whom 46.5% (n=261) identified geographical isolation of place of usual residence as a main reason for their child/ children attending a boarding school.
- Independent boarding schools may provide consistency and stability for students with unstable family lives. During interviews, principals identified such unstable circumstances as parents travelling for work, changing family structure, or interpersonal issues within the family. Principals believed Independent boarding schools could offer children in these families consistency and support networks through high school outside of the family structure. For 14.0% of parents surveyed (n=470), stability of schooling (i.e., avoiding changing schools) was a main reason for their child/ children attending a boarding school and for 6.6% of parents (n=470) a change in family circumstances or a family disruption was a main reason. Further, for 5.3% of parents (n=470) surveyed, the family being based overseas was a main reason for their child/children to attend boarding school and for 3.8% of parents (n=470) their employment location/relocation was a main reason.
- As noted by principals of Independent boarding schools in interviews, family ties to a particular Independent boarding school can cause families to choose boarding for their children. Some families have intergenerational history with an Independent boarding school and want to continue the tradition with their own children. Approximately 17.9% of the parents surveyed (n=470) identified family relationships or history with the school as a main reason for their child/ children attending a boarding school.

Table 2.5. Parents' Main Reasons for their Child/ Children Attending a Boarding School, Survey Outcome (n=470)



Source: AEC (unpublished)

2.3.2 Changing Demand

Principals of Independent boarding schools indicated in interviews that the COVID-19 pandemic and the associated policy responses impacted the demand for Independent boarding schools. International travel to Australia was put on hold from 2020 to 2022, resulting in a decline in international student enrolments in Independent boarding schools as some international students returned home and prospective students were unable to enter Australia. Principals noted that domestic families also faced increased uncertainty regarding the safety and stability of boarding school through lockdowns and the move to online learning, causing a reduction in enrolment. As schools adapted to the pandemic and developed strong contingency plans, and international and domestic borders re-opened, parents' confidence in boarding has rebounded.

According to some Independent boarding school principals, school selection in recent years has become increasingly dependent on the school's offering of subjects and extra-curricular activities. Families have historically chosen boarding due to a deficit issue in which their local area is lacking a desired or required service. Families are increasingly choosing schools based on the program offering and how it fits with the specific needs of their child.

2.3.3 Reliance on Boarding Schools

During interviews, most of the principals of Independent boarding schools expressed a strong reliance on the provision of boarding services to maintain their school's current service offering in regard to subjects and extracurricular activities. Of the five schools interviewed, those in major cities were less reliant on boarding (with boarders comprising a smaller proportion of the overall student population) and were confident they could fill places with local students should boarding no longer be provided. However, regional and remote and Majority Aboriginal Torres Strait Islander Schools were less likely to be able to fill places with local students, particularly in the short term. Without boarders, these schools would have to reduce their offering of services and programs due to budget pressures and reduced demand for services.

According to some principals, some schools limit the proportion of their student body who are boarders. These schools are conscious of achieving a balanced student body in which no single group dominates. While schools note the positive cultural impact of boarding students it is important to achieve balance to create a culture which is inclusive of both day students and boarders.

2.4 KEY ALTERNATIVES TO BOARDING SCHOOL

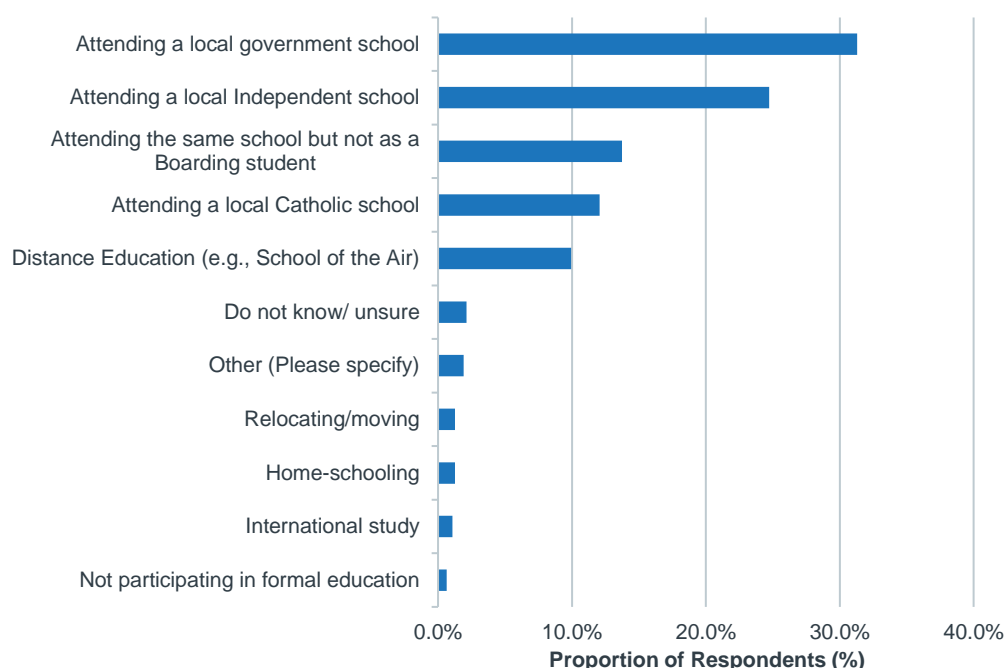
This section explores the alternative schooling options available to boarding students and the alternative that would have been taken if boarding was not available. This section is informed by a survey of parents and caregivers of Independent boarding students as well as school leaders and staff of Independent boarding schools (n=572).

For most families, attending a local school (including local Government, Independent and Catholic Schools) is the primary alternative to boarding with 68.1% of parents (n=473) indicating it would be the alternative for their child or children if boarding school was not an option. This is particularly true for families who live in regional areas (a sub-set of regional and remote areas) of whom 77.9% (n=104) would attend a local school.

Relatively few parents indicated that if boarding was not an option their child/ children would attend the same school but not as a boarding student, with only 13.7% of parents (n=473) selecting this as the alternative. Most of these families are located centrally with 25.6% of families in major cities (n=86) preferring this option.

For families living in remote areas (a sub-set of regional and remote areas), alternative education options are limited. If boarding school was not an option, distance education (such as School of the Air) would be the alternative option for the largest share of remote families with 44.9% of parents (n=69) selecting this option. In some remote areas, local schools may not offer education options up to year 12 and may still be some distance from the family's home (Guenther & Osborne, 2020), making distance education one of the few suitable options. Attending a local school was the preferred alternative option for 39.1% of parents living in remote areas (n=69), the majority of whom would enrol their children in a local government school. While very few students would not participate in formal education¹⁰ more remote students would not participate in formal education than students in more central locations. Approximately 1.4% of remote parents (n=69) indicated not participating in formal education as the alternative to boarding school for their child.

Figure 2.3. Alternatives to Boarding School, Survey Outcome (n=473)



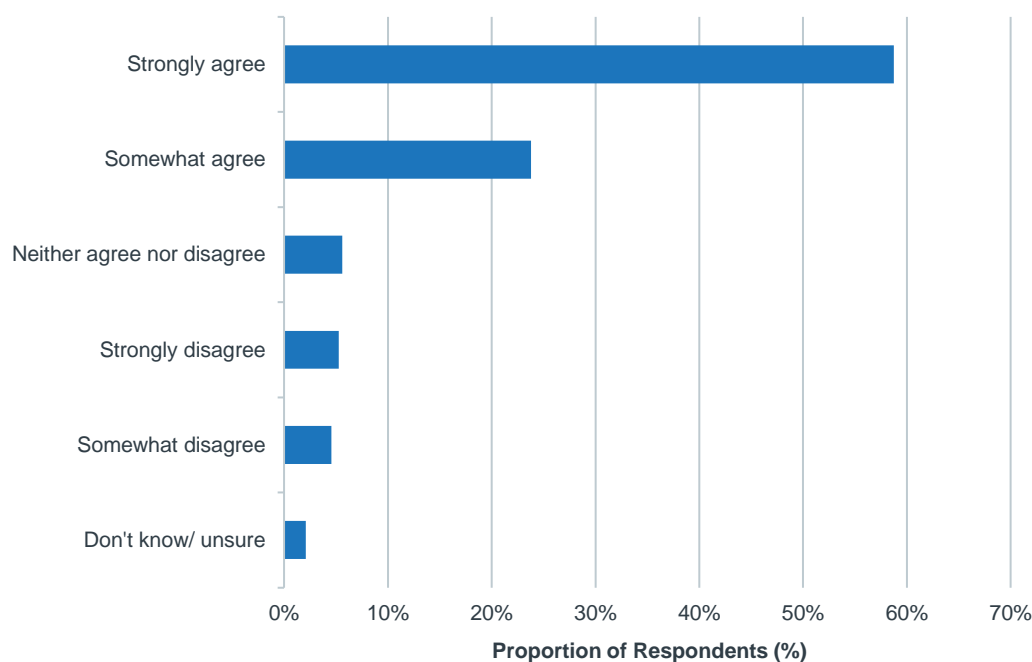
Source: AEC (unpublished)

¹⁰ Students in Australia must stay in school until they have completed year 10, usually between 15 and 16 years old.

2.5 BENEFITS OF BOARDING

There are many social and economic benefits of attending an Independent boarding school. Many benefits are enjoyed by the boarders themselves, with 82.5% of parents or caregivers and staff (n=572) believing boarding school is a positive experience for most students, while other benefits are broader, benefitting the boarders' family and the wider school network. Benefits of boarding identified through interviews with principals and a survey of parents and caregivers of Independent boarding students as well as school leaders and staff of Independent boarding schools (n=572) are outlined below.

Figure 2.4. To What Extent Survey Respondents Agree or Disagree that Boarding School is a Positive Experience for Most Students, Survey Outcome (572)



Source: AEC (unpublished)

2.5.1 Educational Benefits

Independent boarding schools are considered to offer a higher quality education service than students would otherwise experience. By comparison to regional and remote alternatives, Independent boarding schools often have a wider range of subjects, speciality areas, and resources required to provide high quality teaching and extra-curricular programs. Approximately 70.8% of survey respondents (n=572) identified higher academic outcomes as a main benefit of boarding school.

Principals of Independent boarding schools cited the immersive experience of boarding school as an academic benefit to students. The boarding environment provides students with the resources required to excel academically and develop strong academic habits. According to principals, Independent boarding schools can create a culture of learning, by providing after school academic tutoring, study groups and access to school resources. Such structured learning opportunities enhance students' ability to study and facilitates the development of strong study habits. This is particularly true for boarders whose homes are not well suited to academic work, for example homes with poor internet connection.

2.5.2 Social Benefits

Interviewed principals considered Independent boarding schools to provide a sense of community which allows students to create strong support networks. Staff of Independent boarding schools are aware of the challenges of being away from family and community and prioritise building strong relationships with boarders and providing support. Principals also found that boarders support each other and can form close bonds within their cohort. The

increased opportunities for social interaction with peers was identified by 76.7% of survey respondents (n=572) as being a main benefit of boarding school for students.

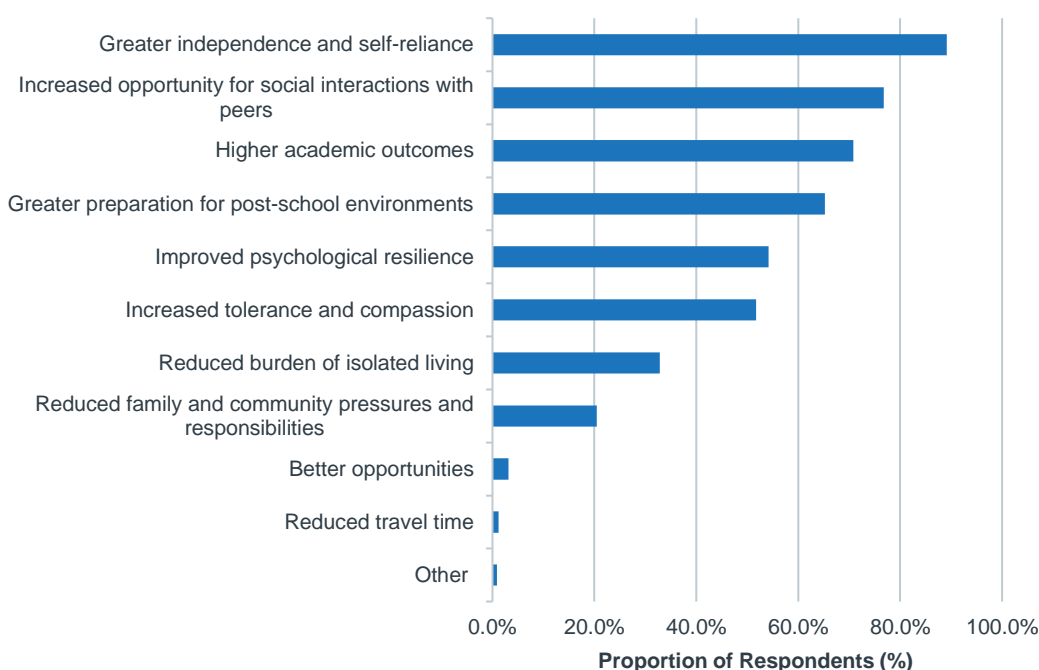
Interviewed principals cited boarding school as a driver of accelerated social development for boarders. Some principals believe boarders become more independent after leaving the family home and are exposed to issues that would otherwise only be faced in adulthood (such as independent living, self-management and shared accommodation). Principals noted that in a boarding school environment, boarders must become proficient communicators, help others and manage friendships relatively independently. Greater independence and self-reliance was identified by 89.2% of survey respondents (n=572) as being a main benefit of boarding school for students. Survey respondents additionally identified greater preparation for post-school environments and improved psychological resilience as main benefits of boarding school for students with 65.2% and 54.2% of respondents (n=572) identifying each option, respectively.

Where schools have diversity in their boarding student cohort, boarders may become more accepting of differences. Multiple principals of schools with boarders of diverse backgrounds emphasised the benefits brought from boarder's exposure to difference. The cross-cultural interactions that occur in such a close environment can facilitate understanding, acceptance and social cohesion. Among survey respondents (n=572), 51.7% found increased tolerance and compassion to be a main benefit of boarding school for students. Principals additionally found the benefits realised from exposure to cultural diversity are experienced by the school as a whole and therefore also apply to day students.

Interviews with principals shed light on the cultural benefit boarding services can provide to schools. Because boarders live on campus and are active on campus after school hours, the school becomes a place that serves purposes beyond a day school. Principals found this can remove the transactional quality of schools which close after the school day has finished.

Interviewed principals recognised that for some boarders, boarding school will alleviate some of the pressure of family or community responsibilities. At home, some students may be required to participate in the family business, care for family or assist in the home beyond what would normally be expected. Reduced family and community pressures and responsibilities was identified as a main benefit of boarding school for students by 20.5% of survey respondents (n=572).

Figure 2.5. The Main Benefits of Boarding School for Students, Survey Outcome (n=572)



Source: AEC (unpublished)

2.6 CHALLENGES FOR BOARDING STUDENTS

This section explores the challenges faced by boarding students as a result of boarding school. The information presented in this section has been provided by principals of Independent boarding schools during interviews.

Homesickness appears to be the primary challenge for boarders. All principals interviewed emphasised the challenge that boarders face in leaving their family, local community and support networks. Students may find it difficult to maintain a sense of belonging in both the boarding and home environments and may find it difficult to re-integrate back to the home environment during holiday periods and post schooling. Principals recognised homesickness as particularly challenging for international and regional and remote students for whom distance is a greater factor and home culture may be substantially different from boarding.

If Independent boarding schools have higher academic standards than boarders are accustomed to, interviewed principals have found it can be challenging to manage the transition. Children who come to boarding school with a limited educational background or who have attended schools with lower academic standards may have to work to meet the higher academic standards and may require literacy and numeracy intervention.

During interviews, principals noted that some boarders struggle with school policy regarding technology and social media. As technology and social media have increasing importance in student's lives, schools have had to devise ways to manage boarder's usage and ensure safe technology practices. While parents would normally be able to provide individual supervision and set tailored rules for their child, Independent boarding schools take a broader approach. Boarders have to comply with the rules that apply to the cohort and principals recognised that some boarders may find this reduced freedom challenging.

Interviewed principals have found that some boarders struggle to adjust to the general environment of boarding school. Students do not necessarily have access to their food preferences, they are constantly in a large group, and students have to rely more on boarding staff than parents for needs and support. Principals recognised this could be challenging for students who are not accustomed to a communal lifestyle.

Interviewed principals recognised that students with health issues may find the adjustment to boarding school more challenging than most. Students with mental or physical health issues who had previously received primary support from their family may have to adjust to relying on staff for their needs or a more independent care plan. While schools may provide additional resources for students who require it, principals acknowledged this may still present a significant and challenging adjustment.

3. ECONOMIC CONTRIBUTION OF BOARDING SCHOOLS

This chapter describes the economic contribution of Independent boarding schools to each State and Territory economy as well as the contribution of the three boarding school Typologies (major city, regional and remote and Majority Aboriginal and Torres Strait Islander Schools) to the national economy¹¹. It includes estimates of initial and flow-on contributions to other industries where relevant. The approach used in identifying the economic contribution, and measures used, are detailed in Appendix A and Appendix B.

For the purposes of this assessment, any Independent school in Australia that provides boarding-related services and activities is defined as an Independent boarding school for the purposes of this report.

In assessing the economic contribution of Independent boarding schools, only the activity associated with the provision of boarding-related services and activities and the education of boarding students (i.e., their education in the classroom on a day-to-day basis alongside day students) is included within the scope of economic contribution of Independent boarding schools – all activity associated with educating non-boarding students is excluded.

3.1 OVERVIEW OF MODEL DRIVERS

Estimates of the initial economic activity associated with operational activities and capital expenditure of Independent boarding schools, as well as international student expenditure and induced visitor expenditure, are outlined below.

Note that all data for Independent schools provided are for the 2020 calendar year. However, the Input-Output models and other data used are compiled and presented by financial years. While it is acknowledged there is a discrepancy in data sets, Independent schools data was assessed and compared against 2019-20 economic data and has been reported as reflecting the economic contribution of Independent schools in 2019-20 throughout the report.

It is also understood 2020 was an unusual year for boarding schools, with many students sent home for a portion of the year. However, the level of expenditure and economic activity for 2020 was not considered significantly different to preceding years and has been considered appropriate for this examination, as it was considered to be comparable to preceding years (ISA, unpublished a).

3.1.1 Operational Activities

Independent boarding schools initial activity contributed to the national, State and Territory economies through the provision of education services to more than 14,500 boarding students in 2020. In providing these services, Independent boarding schools:

- Undertook operating activities and expenditure, including:
 - Employing staff, such as Boarding House supervisors, cooking, cleaning, and laundry staff and operations and maintenance staff.
 - Generating turnover (or revenue), including revenue from student fees and charges.
 - Provision of education services (tuition and boarding) for boarding students.
 - Purchasing goods and services for operational activities, for example food and beverages for provided meals, and building and grounds maintenance.

¹¹ The estimates presented are likely an underestimate of the total contribution of Independent boarding schools as the financial data provided does not include Independent school revenue and expenditure derived through some avenues, for example study tours. Living expenses of interstate boarding students within these economies was also unable to be estimated due to insufficient data.

- Made capital purchases and expended money on items such as land acquisition, building/ facility construction and other capital purchases. This included capital expenditure on boarding facilities as well as the estimated proportion of capital expenditure on other infrastructure which is associated with educating boarding students.

Financial data for Independent boarding schools (ISA, unpublished a) was analysed to inform the model drivers for operational activities. Operational activities and capital expenditure items associated with the operation of the boarding facility (i.e., boarding fees and charges and capital works and improvements on the boarding structure) have been included, as has the estimated proportion of tuition-related activities and expenditure associated with boarding students (estimated based on the proportion of boarding students of the total student body at Independent Schools with a boarding facility). All activity associated with international students (tuition and boarding) was assumed to be directly related to boarding activity, under the assumption the vast majority (if not all) international students attending Independent boarding schools would be boarders.

In 2019-20 Independent boarding schools generated approximately \$828.0 million in turnover (similar to industry output – see Appendix B for a description, capturing income associated with boarding and education of boarders as outlined above) and spent approximately \$266.5 million on goods and services for operational activities. Subtracting Independent boarding schools' operational expenditure on goods and services (i.e., operational expenditure less wages and salaries) from turnover provides an estimate of the value Independent boarding schools' operational activities added to the national economy in 2019-20. This equates to an initial contribution of approximately \$561.6 million to Australia's Gross Domestic Product (GDP).

Independent boarding schools spent \$104.4 million on capital expenditure in 2019-20, including \$81.4 million for land and buildings works/ acquisitions and \$23.0 million in purchases of other capital items. Capital expenditure was allocated to relevant Input-Output transaction table industries in the following manner:

- Capital Expenditure - Land and Building:
 - Non-Residential Building Construction – 70%
 - Heavy and Civil Engineering Construction – 30%
- Capital Expenditure – Other:
 - Wholesale Trade – 100%.

Whilst this is expected to vary year to year, it is provided as an indicative estimate for this study.

3.1.2 International Student Expenditure

Independent boarding schools also contribute to each economy through the attraction of fee-paying international school students. These students would otherwise not be expected to live in Australia during the course of their studies.

Independent boarding schools attract international students to study in each state and territory and typology¹² in a range of individual or group programs. Independent boarding schools received \$128.7 million in revenues from international students in 2019-20, through student tuition fees and charges as well as for boarding. International students also spend money in the broader State and Territory economies (i.e., outside of expenditure for school tuition and boarding).

Information identifying the expenditure of international students in each economy was not available for this assessment. In order to develop an indicative estimate of their expenditure on goods and services, data from the ABS (2020b) regarding expenditure of international school students on tuition fees compared to goods and services was used. This data indicates around 60% to 65% of international school student expenditure between 2000-01 and 2019-20 was on goods and services, compared to 30% to 35% on tuition fees.

The above estimates include international students at all forms of education services, not just Independent schools. For the purposes of this assessment approximately 50% of international Independent school student expenditure

¹² Excluding Majority Aboriginal and Torres Strait Islander Schools as these schools did not report any international students in 2020 (ISA, unpublished a)

has been assumed to be for tuition fees and boarding (with the remainder on goods and services) to account for higher fees at Independent schools compared with government schools (Productivity Commission, 2022). This equates to a conservative estimate of the Independent boarding school international student expenditure on goods and services, other than tuition and boarding, in the national economy of \$128.7 million in 2019-20. Expenditure of international students on tuition and boarding is not included in this section as this represents revenue of Independent boarding schools and is therefore already captured within the operational activity of Independent boarding schools estimated above.

To allocate expenditure on goods and services to Input-Output industries, allocations of average expenditure from the most recent household expenditure survey (ABS, 2017a) were used and allocated to their most relevant Input-Output industry for each State and Territory. Expenditure on education and housing costs were excluded, as this expenditure is already accounted for in tuition fees and boarding.

3.1.3 Domestic Boarding Student Expenditure

In addition to international students, domestic boarding students also contribute to the local economies in which they are staying. The activity of domestic boarders has been excluded as boarding students with a usual place of residence elsewhere within the same State or Territory represent a transfer of activity from one locality to another within the State or Territory, rather than generating an overall increase in economic activity in the State or Territory. Living expenses of interstate boarding students does provide an increase in economic activity that would not otherwise occur, however, there was insufficient data available to accurately identify the expenditure of interstate boarders for each State or Territory or typology. Interstate boarders have therefore been excluded from the assessment. The effect of this exclusion will be to underestimate the value of Independent boarding schools, but this is expected to be relatively modest.

3.1.4 Induced Visitation of International and Interstate Boarders

Both international and intrastate boarders attract visitors to the location in which they are based, and this additional visitation activity supports economic activity through increased visitor expenditure. Expenditure of visitors who undertook trips specifically to visit boarders at Independent boarding schools has been included in this assessment, assuming the expenditure associated with these trips is focussed on the boarder's location.

3.1.4.1 Induced Visitation Associated with International Boarders

A study of the economic benefits of international students to the national economy (Deloitte, 2015), estimated a total of 2.0 million visitor nights were associated with international visitors who came to Australia specifically to visit an international student (including international students at higher education and other institutions as well as those in school) in 2014. Associated with these visitor nights was expenditure estimated at approximately \$282 million (in 2014-dollar terms) which would not otherwise have occurred within the national economy. In 2015, there were a total of 585,846 international students in Australia, assuming the same level of international visitation and expenditure in 2015 would suggest approximately 3.6 international visitor nights are attracted to Australia per international student with each visitor night generating approximately \$149.0 in visitor expenditure within the country (in 2020 dollar terms).

Approximately 2,664 international students attended an Australian Independent boarding school (ISA, unpublished b). Of these students, over 79% were boarders of a school in either New South Wales, Victoria or Queensland. In contrast, none of these boarders attended a school in the Northern Territory.

It is estimated approximately 9,504 visitor nights were spent in Australia by visitors who came to the country specifically to visit an international student attending an Independent boarding school. Associated with these visitor nights is an inferred \$1.4 million in visitor expenditure throughout the national economy. Expenditure was disaggregated to sectors within the economy based on the purchasing patterns of international visitors to Australia in 2019 (prior to the COVID pandemic) (TRA, 2021a) to provide guidance on the types of sectors which tend to benefit from international visitation. Expenditure on Primary and Secondary Education Services was removed from these estimates as this represents turnover associated with Independent boarding schools and is already captured in the Operational Activities component, above.

3.1.4.2 Induced Visitation Associated with Domestic Interstate Boarders

Approximately 11,902 domestic students attended an Independent boarding school in 2020 (ISA, unpublished b). Of these students, reflecting the strong share of boarders in New South Wales, Victoria and Queensland, these three states comprise the greatest share (together they exceed over 75%) of domestic boarders in Australia.

A survey of parents of Independent boarding school students and Independent boarding school staff undertaken by AEC for this assessment identified approximately 26% of Australia's boarders were boarding in a different state to their place of usual residence (AEC, unpublished) and parents undertook an average of 9.0 trips to see their child or children in a usual year (on average, parents recorded approximately 1.4 children under their care being in boarding school). Of these visits, approximately 80% would not have otherwise occurred if their child had not been at boarding school.

On average, interstate visitors visiting relatives spend an average of 4.3 nights on their trip (including both overnight and domestic visitors) (TRA, 2021b). It was assumed that the average visit involved 1.5 visitors (assuming for some trips only one parent visited their child/ children). In order to present a conservative estimate of the economic benefit associated with visits to domestic boarding students, only the visits to students living in a different location and only the visitor nights which would not have otherwise occurred have been included in this assessment.

Based on this approach, it is inferred approximately 98,514 visitor nights were spent in Australia by interstate visitors who travelled specifically to visit a domestic boarding student attending an Independent boarding school. Associated with these visitor nights is an inferred \$19.0 million in visitor expenditure throughout the national economy.

Estimates of visitor nights were developed for each State, Territory and typology based on the number of domestic boarding students present in each State, Territory and typology. For the State and Territory assessment, the average length of stay for interstate domestic visitors visiting relatives to each location was also applied (for the typology assessment the national average length of stay for interstate domestic visitors visiting relatives was applied).

Expenditure was disaggregated to sectors within the economy based on the purchasing patterns of domestic overnight visitors by location in 2019 (prior to the COVID pandemic) (TRA, 2021b) to provide guidance on the types of sectors which tend to benefit from domestic visitation. Expenditure on Primary and Secondary Education Services was removed from these estimates as this represents turnover associated with Independent boarding schools and is already captured in the Operational Activities component, outlined above.

3.2 STATE AND TERRITORY ASSESSMENT

This economic contribution assessment assesses the contribution of Independent boarding schools, as defined in the Glossary. All aspects of Independent boarding schools have been included in this assessment – including boarding activities and the provision of education services to boarding students. However, education services provided to day students are excluded from this assessment.

A description of the measures and terminology used in the modelling analysis are defined in Appendix B.

3.2.1 Initial Contribution of Boarding Schools to State and Territory Economies

The following sections outline the drivers of Independent boarding school economic contribution assessment for each State and Territory applying the methodology outlined in Section 3.1.

3.2.1.1 Operational Activities

In 2019-20 Independent boarding schools generated an initial contribution of approximately \$561.6 million to Australia's GDP (refer to Section 3.1.1). Estimates for each State and Territory are outlined in Table 3.1 below. Together, New South Wales, Victoria and Queensland contribute towards over 70% of the total initial economic contribution of Independent boarding schools to the national economy.

Table 3.1. Initial Contribution of Independent Boarding Schools, 2019-20

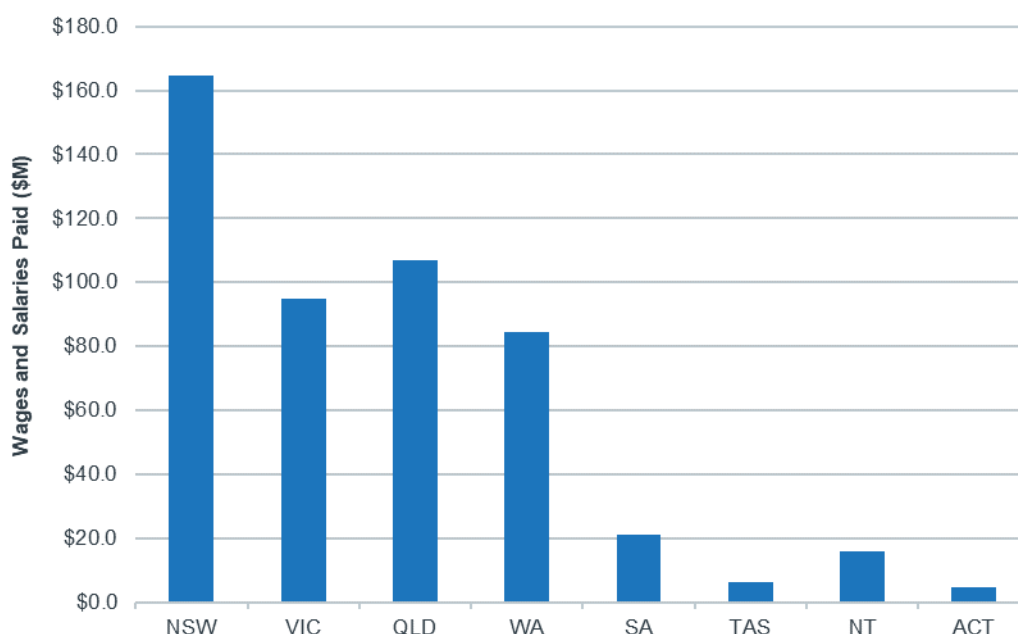
Component	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Turnover (\$M)	\$282.4	\$154.7	\$178.6	\$134.9	\$35.4	\$9.0	\$25.5	\$7.5	\$828.0
Operational Expenditure ¹ (\$M)	\$91.0	\$56.0	\$53.7	\$37.9	\$14.0	\$3.2	\$7.7	\$2.9	\$266.5
Initial Contribution to Gross State/Territory/Domestic Product (\$M)	\$191.4	\$98.7	\$124.9	\$97.0	\$21.3	\$5.8	\$17.8	\$4.6	\$561.6

Note: Totals may not sum due to rounding. (1) Excluding labour expenditure.

Source: ISA (unpublished a), AEC

Estimates of the employment supported by initial activity associated with Independent boarding schools were developed based on average annual income estimates¹³ for the total school sector (Productivity Commission, 2022) and estimated Independent boarding school compensation of employees (i.e., wages and salaries paid) (ISA, unpublished a). This process estimated initial activity of Independent boarding schools employed 6,454 FTE staff in 2019-20. Over 70% of these FTE employees were located in New South Wales, Victoria and Queensland.

Staff at Independent boarding schools were paid a total of approximately \$498.7 million in wages, salaries and other compensation in 2019-20. This equates to expenditure on salary and wages of approximately \$77,300 per FTE employee. Estimates for each State and Territory are outlined in Figure 3.1.

Figure 3.1. Total Wages and Salaries Paid to Independent Boarding School Employees, 2019-20

Source: ISA (unpublished a), AEC

3.2.1.2 Capital Expenditure

Capital expenditure estimates and assumptions were developed as outlined in Section 3.1.1. The following table provides an overview of the capital expenditure assumptions for each State and Territory in 2019-20.

¹³ Average annual income estimates were lifted to reflect the increased wages and salaries paid by Independent schools compared to the industry average.

Table 3.2. Initial Capital Expenditure of Independent Boarding Schools, 2019-20

Component	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Capital Expenditure - Land and Building (\$M)									
Non-Residential Building Construction	\$26.3	\$7.4	\$12.3	\$6.1	\$2.4	\$0.3	\$1.0	\$1.3	\$57.0
Heavy and Civil Engineering Construction	\$11.3	\$3.2	\$5.3	\$2.6	\$1.0	\$0.1	\$0.4	\$0.5	\$24.4
Capital Expenditure - Other (\$M)									
Wholesale Trade	\$10.2	\$3.0	\$4.3	\$3.1	\$0.6	\$0.2	\$0.4	\$1.2	\$23.0

Note: Totals may not sum due to rounding.

Source: ISA (unpublished a), AEC

In estimating the initial economic contribution of this capital expenditure, standard Input-Output production functions for the industries outlined in Table 3.2 were assumed, using a transaction table developed for each State and Territory as outlined in Appendix A. Based on these production functions, Independent boarding schools' initial capital expenditure is estimated to have generated economic activity for each State and Territory's businesses as outlined in Table 3.3.

Table 3.3. Initial Capital Expenditure Economic Activity of Independent Boarding Schools, 2019-20

Component	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Gross State/Territory/ Domestic Product (\$M)	\$15.4	\$4.4	\$6.6	\$4.2	\$1.1	\$0.2	\$0.6	\$1.4	\$33.8
Incomes (\$M)	\$10.1	\$2.9	\$4.3	\$2.8	\$0.7	\$0.1	\$0.4	\$0.9	\$22.1
FTE Jobs	96	30	46	24	9	2	5	9	219

Note: Totals may not sum due to rounding.

Source: ISA (unpublished a), AEC

3.2.1.3 Student and Visitor Expenditure

International Student Expenditure

International student expenditure estimates and assumptions were developed as outlined in Section 3.1.2. The majority of international student expenditure is estimated to be undertaken in New South Wales, Victoria and Queensland. A summary of expenditure by international students by State and Territory is presented in Table 3.4.

Table 3.4. Expenditure on Goods and Services by Independent Boarding School International Students, \$M, 2019-20

IO Industry	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Retail Trade	\$13.5	\$23.3	\$15.1	\$3.6	\$7.5	\$1.9	\$0.0	\$0.6	\$66.3
Accommodation	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
Food and Beverage Services	\$2.6	\$4.2	\$2.2	\$0.6	\$1.3	\$0.3	\$0.0	\$0.1	\$10.8
Road Transport	\$0.2	\$0.3	\$0.2	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.8
Rail Transport	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2
Water, Pipeline and Other Transport	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
Air and Space Transport	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2
Postal and Courier Pick-up and Delivery Service	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3
Motion Picture and Sound Recording	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3
Broadcasting (except Internet)	\$0.1	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.6
Internet Service Providers, Internet Publishing and Broadcasting, Websearch Portals and Data Processing	\$0.2	\$0.3	\$0.2	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$1.0
Telecommunication Services	\$0.9	\$1.6	\$1.1	\$0.2	\$0.5	\$0.1	\$0.0	\$0.0	\$4.2
Finance	\$0.1	\$0.1	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.4
Insurance and Superannuation Funds	\$4.1	\$6.8	\$4.3	\$1.3	\$2.3	\$0.4	\$0.0	\$0.2	\$20.1
Auxiliary Finance and Insurance Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
Rental and Hiring Services (except Real Estate)	\$0.5	\$1.1	\$0.7	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$2.3

IO Industry	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Non-Residential Property Operators and Real Estate Services	\$0.2	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4
Professional, Scientific and Technical Services	\$0.3	\$0.5	\$0.4	\$0.1	\$0.3	\$0.0	\$0.0	\$0.0	\$1.6
Building Cleaning, Pest Control and Other Support Services	\$0.1	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.5
Public Administration and Regulatory Services	\$1.4	\$3.0	\$1.7	\$0.4	\$1.0	\$0.2	\$0.0	\$0.1	\$7.2
Health Care Services	\$0.8	\$1.0	\$0.7	\$0.2	\$0.3	\$0.1	\$0.0	\$0.0	\$3.3
Heritage, Creative and Performing Arts	\$0.2	\$0.3	\$0.3	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.8
Sports and Recreation	\$0.4	\$0.6	\$0.4	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$1.7
Gambling	\$0.1	\$0.2	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5
Automotive Repair and Maintenance	\$0.4	\$0.8	\$0.4	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$2.1
Other Repair and Maintenance	\$0.1	\$0.1	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.5
Personal Services	\$0.6	\$0.9	\$0.5	\$0.1	\$0.2	\$0.1	\$0.0	\$0.0	\$2.2
Other Services	\$0.0	\$0.1	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.3
Total	\$27.0	\$46.1	\$29.1	\$7.3	\$14.8	\$3.3	\$0.0	\$1.2	\$128.7

Sources: ABS (2020b, 2017a), ISA (unpublished a), AEC.

Induced Visitor Expenditure from Visitors of International Students

Induced visitor expenditure associated with visitors of international students was estimated using the approach outlined in Section 3.1.4.1. It is estimated the states of Queensland, Victoria and New South Wales comprise the greatest share of international students attending Independent boarding schools and, as a result, record the greatest contribution towards total initial economic benefit associated with induced visitation.

Table 3.5. Initial Impact of Induced Visitation of International Students at Independent Boarding Schools, 2019-20

Component	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Summary									
Number of International Boarding Students	592	777	749	167	296	62	0	21	2,664
Inferred Induced Visitor Nights	2,112	2,772	2,672	596	1,056	221	0	75	9,504
Inferred Induced Visitor Expenditure (\$000s)	\$304	\$399	\$385	\$86	\$152	\$32	\$0	\$11	\$1,368
Visitor Expenditure by Industry (\$000s)									
Road Transport	\$10	\$13	\$13	\$3	\$5	\$1	\$0	\$0	\$45
Rail Transport	\$0	\$1	\$1	\$0	\$0	\$0	\$0	\$0	\$2
Water, Pipeline and Other Transport	\$22	\$29	\$28	\$6	\$11	\$2	\$0	\$1	\$101
Accommodation	\$68	\$89	\$86	\$19	\$34	\$7	\$0	\$2	\$304
Food and Beverage Services	\$56	\$73	\$70	\$16	\$28	\$6	\$0	\$2	\$250
Retail Trade	\$61	\$81	\$78	\$17	\$31	\$6	\$0	\$2	\$276
Personal Services	\$5	\$7	\$7	\$2	\$3	\$1	\$0	\$0	\$24
Heritage, Creative and Performing Arts	\$5	\$6	\$6	\$1	\$2	\$0	\$0	\$0	\$21
Sports and Recreation	\$3	\$3	\$3	\$1	\$1	\$0	\$0	\$0	\$12
Gambling	\$2	\$3	\$3	\$1	\$1	\$0	\$0	\$0	\$9
Postal and Courier Pick-up and Delivery Service	\$3	\$4	\$4	\$1	\$2	\$0	\$0	\$0	\$15
Rental and Hiring Services	\$6	\$7	\$7	\$2	\$3	\$1	\$0	\$0	\$26
Primary and Secondary Education Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Technical, Vocational and Tertiary Education Services	\$49	\$65	\$62	\$14	\$25	\$5	\$0	\$2	\$222
Arts, Sports, Adult and Other Education Services	\$14	\$18	\$17	\$4	\$7	\$1	\$0	\$0	\$61

Note: Totals may not sum due to rounding.
Source: ISA (unpublished a), TRA (2021a), AEC

Induced Visitor Expenditure from Visitors of Domestic Interstate Boarders

Induced visitor expenditure associated with visitors of domestic boarding students was estimated using the approaches outlined in Section 3.1.4.2. It is estimated the states of New South Wales, Victoria and Queensland comprise the greatest share of domestic boarders attending Independent boarding schools and, as a result, record the greatest contribution towards total national initial economic benefit associated with induced domestic visitation.

Table 3.6. Initial Impact of Induced Visitation of Domestic Students at Independent Boarding Schools, 2019-20

Component	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Summary									
Number of Domestic Boarding Students	4,355	1,626	2,987	1,606	600	141	464	123	11,902
Inferred Induced Visitor Nights	26,508	14,560	29,489	27,391	5,675	1,572	8,129	605	98,514
Inferred Induced Visitor Expenditure (\$000s)	\$4,476	\$2,589	\$4,868	\$4,082	\$928	\$302	\$1,664	\$113	\$19,022
Visitor Expenditure by Industry (\$000s)									
Road Transport	\$112	\$65	\$122	\$102	\$23	\$8	\$42	\$3	\$477
Rail Transport	\$3	\$2	\$4	\$3	\$1	\$0	\$1	\$0	\$14
Water, Pipeline and Other Transport	\$203	\$117	\$221	\$185	\$42	\$14	\$75	\$5	\$862
Accommodation	\$1,343	\$777	\$1,461	\$1,225	\$278	\$91	\$499	\$34	\$5,707
Food and Beverage Services	\$1,175	\$680	\$1,278	\$1,072	\$243	\$79	\$437	\$30	\$4,994
Retail Trade	\$1,258	\$728	\$1,368	\$1,147	\$261	\$85	\$468	\$32	\$5,345
Personal Services	\$27	\$16	\$29	\$25	\$6	\$2	\$10	\$1	\$115
Heritage, Creative and Performing Arts	\$110	\$64	\$120	\$100	\$23	\$7	\$41	\$3	\$468
Sports and Recreation	\$87	\$50	\$95	\$79	\$18	\$6	\$32	\$2	\$370
Gambling	\$16	\$9	\$18	\$15	\$3	\$1	\$6	\$0	\$69
Postal and Courier Pick-up and Delivery Service	\$27	\$16	\$29	\$25	\$6	\$2	\$10	\$1	\$115
Rental and Hiring Services	\$97	\$56	\$105	\$88	\$20	\$7	\$36	\$2	\$410
Primary and Secondary Education Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Technical, Vocational and Tertiary Education Services	\$5	\$3	\$5	\$5	\$1	\$0	\$2	\$0	\$21
Arts, Sports, Adult and Other Education Services	\$1	\$1	\$1	\$1	\$0	\$0	\$0	\$0	\$5

Note: Totals may not sum due to rounding.
Source: ISA (unpublished a), TRA (2021a), AEC

Total Induced Student and Visitor Expenditure

In estimating the initial economic contribution of student and visitor expenditure on goods and services by international students, standard Input-Output production functions for the industries outlined in Table 3.4, Table 3.5 and Table 3.6 were assumed, using a localised transaction table for each State and Territory developed as outlined in Appendix A.

Based on these production functions, initial expenditure on goods and services by Independent boarding school international students, visitors to international students and visitors to domestic interstate students is estimated to have generated economic activity for businesses in each State and Territory in 2019-20 as outlined in Table 3.7.

Table 3.7. Initial Economic Activity Associated with Students and Visitors Associated with Independent Boarding School Students, 2019-20

Component	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Gross State/Territory/ Domestic Product (\$M)	\$16.3	\$25.2	\$17.7	\$5.8	\$8.2	\$1.9	\$0.8	\$0.7	\$76.5
Incomes (\$M)	\$12.2	\$18.9	\$13.2	\$4.4	\$6.1	\$1.4	\$0.6	\$0.5	\$57.3
FTE Jobs	198	321	223	71	106	26	9	7	960

Note: Totals may not sum due to rounding.

Source: ABS (2020b, 2017a), ISA (unpublished a), AEC.

3.2.1.4 Summary of Initial Contribution of Independent Boarding Schools

A summary of the initial economic contribution of Independent boarding schools to each State and Territory's economy in 2019-20 is presented in Table 3.8. In total, initial activity associated with Independent boarding schools contributed approximately \$671.9 million to GDP in this period. The economic contribution of initial activity associated with Independent boarding schools is largely driven by the operational activity which comprised more than 83% of the total initial impact. In keeping with the number of students and volume of operational activity in New South Wales, Victoria and Queensland, these states comprised the greatest share of national initial economic contribution.

Independent boarding schools are a labour-driven service provider, with initial operational activity supporting approximately 6,454 FTE jobs in 2019-20. Approximately 66% of total operational expenditure by Independent boarding schools in 2019-20 was spent on staff wages and salaries (\$498.7 million), and a further \$79.5 million in incomes was delivered through capital expenditure and expenditure of students and visitors within the national economy. These incomes represented more than 86% of Independent boarding schools' total initial contribution to GSP/GTP/GDP.

Table 3.8. Initial Contribution of Independent Boarding Schools by State and Territory, 2019-20

Component	NSW	VIC	QLD	WA	SA	TAS	NT	ACT	Total
Gross State/ Territory/ Domestic Product (\$M)									
Operational Activity	\$199.2	\$102.9	\$129.8	\$69.6	\$30.7	\$6.0	\$18.5	\$4.8	\$561.6
Capital Expenditure	\$15.4	\$4.4	\$6.6	\$4.2	\$1.1	\$0.2	\$0.6	\$1.4	\$33.8
Induced Student and Visitor Expenditure	\$16.3	\$25.2	\$17.7	\$5.8	\$8.2	\$1.9	\$0.8	\$0.7	\$76.5
Total Initial Contribution	\$223.2	\$128.3	\$149.1	\$107.0	\$30.6	\$7.9	\$19.2	\$6.7	\$671.9
Incomes (\$M)									
Operational Activity	\$170.2	\$98.0	\$110.5	\$63.7	\$28.5	\$6.5	\$16.5	\$4.9	\$498.7
Capital Expenditure	\$10.1	\$2.9	\$4.3	\$2.8	\$0.7	\$0.1	\$0.4	\$0.9	\$22.1
Induced Student and Visitor Expenditure	\$12.2	\$18.9	\$13.2	\$4.4	\$6.1	\$1.4	\$0.6	\$0.5	\$57.3
Total Initial Contribution	\$186.9	\$116.6	\$124.4	\$91.4	\$28.1	\$7.8	\$17.0	\$6.1	\$578.1
Employment (FTE)									
Operational Activity	1,987	1,526	1,408	832	370	77	200	54	6,454
Capital Expenditure	96	30	46	24	9	2	5	9	219
Induced Student and Visitor Expenditure	198	321	223	71	106	26	9	7	960
Total Initial Contribution	2,280	1,876	1,677	926	485	105	214	70	7,634

Note: Total may not sum due to rounding.

Sources: ABS (2020b, 2017a), ISA (unpublished a), AEC.

3.2.2 Flow-On Contribution of Independent Boarding Schools

The flow-on (or indirect) contribution of Independent boarding schools (as defined in the Glossary) has been estimated using Input-Output models, as outlined in Appendix A. In undertaking the modelling, initial operational activity, capital expenditure and expenditure on goods and services by international students, visitors to

international students and visitors to domestic interstate students outlined in Section 3.1.4 was allocated to relevant industries in the Input-Output model:

- For operational activity, this process is based on estimating the inter-industry purchases of goods and services by Independent boarding schools, using financial data by detailed categories for Independent boarding schools (ISA, unpublished a) disaggregated to 114 Input-Output industries using the structure for the 'Primary and Secondary Education Services (incl Pre-Schools and Special Schools)' industry.
- Capital expenditure and expenditure on goods and services by international students and induced visitors of international and interstate boarders was assumed to follow standard industry purchasing patterns to determine expenditure by industry as outlined in Table 3.4.

The above process provides the multipliers used for estimating Type I flow-on activity (or production induced impacts). Financial data for Independent boarding schools (ISA, unpublished a) was also used to estimate the total purchases of Independent boarding school services by households. This is used in developing multipliers for estimating Type II flow-on activity (or household consumption induced impacts). Refer to Appendix B for additional descriptions of Type I (i.e., production induced) and Type II (i.e., consumption induced) flow-on impacts.

Outcomes for States, Territories and Typologies were re-based to the national total, accounting for the leakage of economic activity between locations (i.e., this approach ensures any economic activity in New South Wales as a result of Independent boarding school activity in the Australian Capital Territory is captured in the New South Wales assessment). Flow-on activity supported by Independent boarding schools is presented for each location based on intra-state (or intra-region) activity, as well as the total flow-on activity including that supported by Independent boarding schools in other locations.

In total, Independent boarding schools are estimated to have contributed approximately \$1.2 billion to Australian GDP through flow-on activity in 2019-20, including both production induced (type I) and consumption induced (type II) impacts (Table 3.9). Flow-on activity supported over 8,360 FTE jobs nationally in 2019-20, paying \$658.8 million in wages, salaries and other employee compensation for the year.

Table 3.9. Estimated Flow-On Contribution of Independent Boarding Schools to the Australian Economy, 2019-20

Economic Contribution	Gross Domestic Product (\$M)	Incomes (\$M)	Employment (FTEs)
Production Induced Contribution	\$261.3	\$175.7	1,959
Consumption Induced Contribution	\$946.3	\$483.1	6,405
Total Flow-On Contribution	\$1,207.6	\$658.8	8,364

Note: Total may not sum due to rounding.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.2.3 Total Contribution of Independent Boarding Schools

3.2.3.1 Australia

Including initial and flow-on activity, at the national level, Independent boarding schools are estimated to have contributed to approximately \$1.9 billion in GDP in 2019-20, representing 0.10% of the total contribution to total GDP by all industries for the year¹⁴. This level of GDP is comparable to that of a regional city, such as Wangaratta (AEC, unpublished a), and equates to 3.5% of the total initial GDP (i.e., excluding supply chain) of the Primary and Secondary Education Services sector in 2019-20.

¹⁴ Total industry contribution to GDP in 2019-20 was \$1.8 trillion. An additional \$125 billion in GDP was contributed through taxes less subsidies on final demand (e.g., demand by households) rather than production by industry. Only the industry contribution to GDP has been examined in the economic contribution assessment.

For every initial dollar of gross product produced by Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$1.80 is produced elsewhere in the national economy through supply chain and household consumption impacts.

Reflecting the nature of services provided by Independent boarding schools is the 15,998 FTE jobs supported by Independent boarding schools in 2019-20, including initial and flow-on activity, paying a total of \$1.2 billion in total employee compensation. This equated to 0.12% of total jobs and 0.11% of total employee compensation nationally in 2019-20.

Table 3.10. Estimated Initial and Flow-On Contribution of Independent Boarding Schools to the Australian Economy, 2019-20

Value of Economic Contribution	Gross Domestic Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Contribution	\$671.9	\$578.1	7,634
Production Induced Contribution	\$261.3	\$175.7	1,959
Consumption Induced Contribution	\$946.3	\$483.1	6,405
Total Contribution	\$1,879.4	\$1,236.9	15,998
Percent of Total National Economy	Gross Domestic Product (%)	Incomes (%)	Employment (%)
Initial Contribution	0.04%	0.05%	0.06%
Production Induced Contribution	0.01%	0.02%	0.02%
Consumption Induced Contribution	0.05%	0.04%	0.05%
Total Contribution	0.10%	0.11%	0.12%

Note: Total may not sum due to rounding.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.2.3.2 New South Wales

In New South Wales, including initial and flow-on activity (including flow-on activity attracted from Independent boarding schools located in other States and Territories) Independent boarding schools are estimated to have contributed to approximately \$672.3 million in GSP in 2019-20, representing 0.11% of the total contribution to total GSP by all industries for the year¹⁵. For every initial dollar of gross product produced by Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$2.01 is produced elsewhere in the New South Wales economy through supply chain and household consumption impacts (including that associated with initial activities in other States and Territories).

Reflecting the nature of services provided by Independent boarding schools is the 5,178 FTE jobs supported by Independent boarding schools in 2019-20, including initial and flow-on activity, paying a total of \$430.5 million in total employee compensation. This equated to 0.13% of total jobs and 0.12% of total employee compensation in 2019-20 in New South Wales.

¹⁵ Total industry contribution to New South Wales GSP in 2019-20 was \$584 billion. An additional \$39.4 billion in GSP was contributed through taxes less subsidies on final demand (e.g., demand by households) rather than production by industry. Only the industry contribution to GSP has been examined in the economic contribution assessment.

Table 3.11. Estimated Initial and Flow-On Contribution of Independent Boarding Schools to the New South Wales Economy, 2019-20¹

Value of Economic Contribution	Gross State Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$223.2	\$186.9	2,281
Production Induced Contribution of New South Wales Independent Boarding Schools to New South Wales	\$78.3	\$54.1	549
Consumption Induced Contribution of New South Wales Independent Boarding Schools to New South Wales	\$214.5	\$107.2	1,368
Total Contribution of New South Wales Independent Boarding Schools to New South Wales	\$516.0	\$348.2	4,133
Production Induced Contribution of Australian Independent Boarding Schools to New South Wales	\$101.7	\$69.1	702
Consumption Induced Contribution of Australian Independent Boarding Schools to New South Wales	\$347.4	\$174.5	2,194
Total Contribution of Australian Independent Boarding Schools to New South Wales²	\$672.3	\$430.5	5,178
Percent of Total Local Economy ³	Gross State Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.04%	0.05%	0.06%
Production Induced Contribution	0.02%	0.02%	0.02%
Consumption Induced Contribution	0.06%	0.05%	0.05%
Total Contribution	0.11%	0.12%	0.13%

Notes: (1) Total may not sum due to rounding. (2) Includes the Initial Contribution in the local region. (3) Includes flow-on activity from Independent boarding school initial activities in other States and Territories.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.2.3.3 Victoria

In Victoria, including initial and flow-on activity (including flow-on activity attracted from Independent boarding schools located in other States and Territories) Independent boarding schools are estimated to have contributed to approximately \$431.2 million in GSP in 2019-20, representing 0.10% of the total contribution to total GSP by all industries for the year¹⁶. For every initial dollar of gross product produced by Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$2.36 is produced elsewhere in the Victorian economy through supply chain and household consumption impacts (including that associated with initial activities in other States and Territories).

Reflecting the nature of services provided by Independent boarding schools is the 4,051 FTE jobs supported by Independent boarding schools in 2019-20, including initial and flow-on activity, paying a total of \$280.9 million in total employee compensation. This equated to 0.12% of total jobs and 0.10% of total employee compensation in 2019-20 in Victoria.

¹⁶ Total industry contribution to Victorian GSP in 2019-20 was \$433.0 billion. An additional \$29.2 billion in GSP was contributed through taxes less subsidies on final demand (e.g., demand by households) rather than production by industry. Only the industry contribution to GSP has been examined in the economic contribution assessment.

Table 3.12. Estimated Initial and Flow-On Contribution of Independent Boarding Schools to the Victorian Economy, 2019-20¹

Value of Economic Contribution	Gross State Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$128.3	\$116.6	1,879
Production Induced Contribution of Victorian Independent Boarding Schools to Victoria	\$50.9	\$34.3	401
Consumption Induced Contribution of Victorian Independent Boarding Schools to Victoria	\$146.2	\$74.1	1,035
Total Contribution of Victorian Independent Boarding Schools to Victoria	\$325.4	\$225.0	3,265
Production Induced Contribution of Australian Independent Boarding Schools to Victoria	\$66.2	\$43.8	512
Consumption Induced Contribution of Australian Independent Boarding Schools to Victoria	\$236.7	\$120.5	1,660
Total Contribution of Australian Independent Boarding Schools to Victoria²	\$431.2	\$280.9	4,051
Percent of Total Local Economy ³	Gross State Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.03%	0.04%	0.06%
Production Induced Contribution	0.02%	0.02%	0.02%
Consumption Induced Contribution	0.05%	0.04%	0.05%
Total Contribution	0.10%	0.10%	0.12%

Notes: (1) Total may not sum due to rounding. (2) Includes the Initial Contribution in the local region. (3) Includes flow-on activity from Independent boarding school initial activities in other States and Territories.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.2.3.4 Queensland

In Queensland, including initial and flow-on activity (including flow-on activity attracted from Independent boarding schools located in other States and Territories) Independent boarding schools are estimated to have contributed to approximately \$380.9 million in GSP in 2019-20, representing 0.11% of the total contribution to total GSP by all industries for the year¹⁷. For every initial dollar of gross product produced by Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$1.55 is produced elsewhere in the Queensland economy through supply chain and household consumption impacts (including that associated with initial activities in other States and Territories).

Reflecting the nature of services provided by Independent boarding schools is the 3,428 FTE jobs supported by Independent boarding schools in 2019-20, including initial and flow-on activity, paying a total of \$252.3 million in total employee compensation. This equated to 0.13% of total jobs and 0.13% of total employee compensation in 2019-20 in Queensland.

¹⁷ Total industry contribution to Queensland GSP in 2019-20 was \$338.8 million. An additional \$22.8 billion in GSP was contributed through taxes less subsidies on final demand (e.g., demand by households) rather than production by industry. Only the industry contribution to GSP has been examined in the economic contribution assessment.

Table 3.13. Estimated Initial and Flow-On Contribution of Independent Boarding Schools to the Queensland Economy, 2019-20¹

Value of Economic Contribution	Gross State Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$149.1	\$124.4	1,679
Production Induced Contribution of Queensland Independent Boarding Schools to Queensland	\$35.3	\$24.1	297
Consumption Induced Contribution of Queensland Independent Boarding Schools to Queensland	\$114.8	\$59.7	853
Total Contribution of Queensland Independent Boarding Schools to Queensland	\$299.3	\$208.2	2,783
Production Induced Contribution of Australian Independent Boarding Schools to Queensland	\$45.8	\$30.7	380
Consumption Induced Contribution of Australian Independent Boarding Schools to Queensland	\$186.0	\$97.2	1,369
Total Contribution of Australian Independent Boarding Schools to Queensland²	\$380.9	\$252.3	3,428
Percent of Total Local Economy ³	Gross State Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.04%	0.06%	0.07%
Production Induced Contribution	0.01%	0.02%	0.01%
Consumption Induced Contribution	0.05%	0.05%	0.05%
Total Contribution	0.11%	0.13%	0.13%

Notes: (1) Total may not sum due to rounding. (2) Includes the Initial Contribution in the local region. (3) Includes flow-on activity from Independent boarding school initial activities in other States and Territories.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.2.3.5 Western Australia

In Western Australia, including initial and flow-on activity (including flow-on activity attracted from Independent boarding schools located in other States and Territories) Independent boarding schools are estimated to have contributed to approximately \$255.9 million in GSP in 2019-20, representing 0.08% of the total contribution to total GSP by all industries for the year¹⁸. For every initial dollar of gross product produced by Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$1.39 is produced elsewhere in the Western Australian economy through supply chain and household consumption impacts (including that associated with initial activities in other States and Territories).

Reflecting the nature of services provided by Independent boarding schools is the 1,905 FTE jobs supported by Independent boarding schools in 2019-20, including initial and flow-on activity, paying a total of \$172.3 million in total employee compensation. This equated to 0.14% of total jobs and 0.13% of total employee compensation in 2019-20 in Western Australia.

¹⁸ Total industry contribution to Western Australian GSP in 2019-20 was \$305.3 billion. An additional \$20.6 billion in GSP was contributed through taxes less subsidies on final demand (e.g., demand by households) rather than production by industry. Only the industry contribution to GSP has been examined in the economic contribution assessment.

Table 3.14. Estimated Initial and Flow-On Contribution of Independent Boarding Schools to the Western Australian Economy, 2019-20¹

Value of Economic Contribution	Gross State Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$107.0	\$91.4	928
Production Induced Contribution of Western Australian Independent Boarding Schools to Western Australia	\$22.4	\$15.5	164
Consumption Induced Contribution of Western Australian Independent Boarding Schools to Western Australia	\$74.0	\$37.6	478
Total Contribution of Western Australian Independent Boarding Schools to Western Australia	\$203.4	\$144.5	1,838
Production Induced Contribution of Australian Independent Boarding Schools to Western Australia	\$29.1	\$19.8	210
Consumption Induced Contribution of Australian Independent Boarding Schools to Western Australia	\$119.8	\$61.1	767
Total Contribution of Australian Independent Boarding Schools to Western Australia²	\$255.9	\$172.3	1,905
Percent of Total Local Economy ³	Gross State Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.03%	0.07%	0.07%
Production Induced Contribution	0.01%	0.02%	0.02%
Consumption Induced Contribution	0.04%	0.05%	0.06%
Total Contribution	0.08%	0.13%	0.14%

Notes: (1) Total may not sum due to rounding. (2) Includes the Initial Contribution in the local region. (3) Includes flow-on activity from Independent boarding school initial activities in other States and Territories.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.2.3.6 South Australia

In South Australia, including initial and flow-on activity (including flow-on activity attracted from Independent boarding schools located in other States and Territories) Independent boarding schools are estimated to have contributed to approximately \$79.3 million in GSP in 2019-20, representing 0.08% of the total contribution to total GSP by all industries for the year¹⁹. For every initial dollar of gross product produced by Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$1.59 is produced elsewhere in the South Australian economy through supply chain and household consumption impacts (including that associated with initial activities in other States and Territories).

Reflecting the nature of services provided by Independent boarding schools is the 870 FTE jobs supported by Independent boarding schools in 2019-20, including initial and flow-on activity, paying a total of \$55.2 million in total employee compensation. This equated to 0.10% of total jobs and 0.08% of total employee compensation in 2019-20 in South Australia.

¹⁹ Total industry contribution to South Australian GSP in 2019-20 was \$103.2 million. An additional \$6.7 billion in GSP was contributed through taxes less subsidies on final demand (e.g., demand by households) rather than production by industry. Only the industry contribution to GSP has been examined in the economic contribution assessment.

Table 3.15. Estimated Initial and Flow-On Contribution of Independent Boarding Schools to the South Australian Economy, 2019-20¹

Value of Economic Contribution	Gross State Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$30.6	\$28.1	485
Production Induced Contribution of South Australian Independent Boarding Schools to South Australia	\$8.9	\$5.9	77
Consumption Induced Contribution of South Australian Independent Boarding Schools to South Australia	\$22.9	\$12.0	178
Total Contribution of South Australian Independent Boarding Schools to South Australia	\$62.4	\$46.0	648
Production Induced Contribution of Australian Independent Boarding Schools to South Australia	\$11.5	\$7.5	99
Consumption Induced Contribution of Australian Independent Boarding Schools to South Australia	\$37.1	\$19.6	286
Total Contribution of Australian Independent Boarding Schools to South Australia²	\$79.3	\$55.2	870
Percent of Total Local Economy ³	Gross State Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.03%	0.04%	0.06%
Production Induced Contribution	0.01%	0.01%	0.01%
Consumption Induced Contribution	0.04%	0.03%	0.03%
Total Contribution	0.08%	0.08%	0.10%

Notes: (1) Total may not sum due to rounding. (2) Includes the Initial Contribution in the local region. (3) Includes flow-on activity from Independent boarding school initial activities in other States and Territories.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.2.3.7 Tasmania

In Tasmania, including initial and flow-on activity (including flow-on activity attracted from Independent boarding schools located in other States and Territories) Independent boarding schools are estimated to have contributed to approximately \$17.0 million in GSP in 2019-20, representing 0.05% of the total contribution to total GSP by all industries for the year²⁰. For every initial dollar of gross product produced by Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$1.16 is produced elsewhere in the Tasmanian economy through supply chain and household consumption impacts (including that associated with initial activities in other States and Territories).

Reflecting the nature of services provided by Independent boarding schools is the 177 FTE jobs supported by Independent boarding schools in 2019-20, including initial and flow-on activity, paying a total of \$12.9 million in total employee compensation. This equated to 0.07% of total jobs and 0.07% of total employee compensation in 2019-20 in Tasmania.

²⁰ Total industry contribution to Tasmanian GSP in 2019-20 was \$30.9 million. An additional \$2.1 billion in GSP was contributed through taxes less subsidies on final demand (e.g., demand by households) rather than production by industry. Only the industry contribution to GSP has been examined in the economic contribution assessment.

Table 3.16. Estimated Initial and Flow-On Contribution of Independent Boarding Schools to the Tasmanian Economy, 2019-20¹

Value of Economic Contribution	Gross State Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$7.9	\$7.8	105
Production Induced Contribution of Tasmanian Independent Boarding Schools to Tasmania	\$1.3	\$0.9	12
Consumption Induced Contribution of Tasmanian Independent Boarding Schools to Tasmania	\$4.6	\$2.4	35
Total Contribution of Tasmanian Independent Boarding Schools to Tasmania	\$13.8	\$11.2	151
Production Induced Contribution of Australian Independent Boarding Schools to Tasmania	\$1.7	\$1.1	16
Consumption Induced Contribution of Australian Independent Boarding Schools to Tasmania	\$7.4	\$4.0	57
Total Contribution of Australian Independent Boarding Schools to Tasmania²	\$17.0	\$12.9	177
Percent of Total Local Economy ³	Gross State Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.03%	0.04%	0.04%
Production Induced Contribution	0.01%	0.01%	0.01%
Consumption Induced Contribution	0.02%	0.02%	0.02%
Total Contribution	0.05%	0.07%	0.07%

Notes: (1) Total may not sum due to rounding. (2) Includes the Initial Contribution in the local region. (3) Includes flow-on activity from Independent boarding school initial activities in other States and Territories.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.2.3.8 Northern Territory

In the Northern Territory, including initial and flow-on activity (including flow-on activity attracted from Independent boarding schools located in other States and Territories) Independent boarding schools are estimated to have contributed to approximately \$30.0 million in GTP in 2019-20, representing 0.12% of the total contribution to total GTP by all industries for the year²¹. For every initial dollar of gross product produced by Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$0.56 is produced elsewhere in the Northern Territory economy through supply chain and household consumption impacts (including that associated with initial activities in other States and Territories).

Reflecting the nature of services provided by Independent boarding schools is the 282 FTE jobs supported by Independent boarding schools in 2019-20, including initial and flow-on activity, paying a total of \$22.8 million in total employee compensation. This equated to 0.23% of total jobs and 0.17% of total employee compensation in 2019-20 in the Northern Territory.

²¹ Total industry contribution to Northern Territory GTP in 2019-20 was \$25 billion. An additional \$262 million in GTP was contributed through taxes less subsidies on final demand (e.g., demand by households) rather than production by industry. Only the industry contribution to GTP has been examined in the economic contribution assessment.

Table 3.17. Estimated Initial and Flow-On Contribution of Independent Boarding Schools to the Northern Territory Economy, 2019-20¹

Value of Economic Contribution	Gross Territory Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$19.2	\$17.0	214
Production Induced Contribution of Northern Territory Independent Boarding Schools to the Northern Territory	\$1.8	\$1.2	15
Consumption Induced Contribution of Northern Territory Independent Boarding Schools to the Northern Territory	\$5.3	\$2.6	31
Total Contribution of Northern Territory Independent Boarding Schools to the Northern Territory	\$26.2	\$20.8	253
Production Induced Contribution of Australian Independent Boarding Schools to the Northern Territory	\$2.3	\$1.6	19
Consumption Induced Contribution of Australian Independent Boarding Schools to the Northern Territory	\$8.5	\$4.3	49
Total Contribution of Australian Independent Boarding Schools to the Northern Territory²	\$30.0	\$22.8	282
Percent of Total Local Economy ³	Gross Territory Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.08%	0.13%	0.17%
Production Induced Contribution	0.01%	0.01%	0.02%
Consumption Induced Contribution	0.03%	0.03%	0.04%
Total Contribution	0.12%	0.17%	0.23%

Notes: (1) Total may not sum due to rounding. (2) Includes the Initial Contribution in the local region. (3) Includes flow-on activity from Independent boarding school initial activities in other States and Territories.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.2.3.9 Australian Capital Territory

In the Australian Capital Territory, including initial and flow-on activity (including flow-on activity attracted from Independent boarding schools located in other States and Territories) Independent boarding schools are estimated to have contributed to approximately \$13.0 million in GTP in 2019-20, representing 0.03% of the total contribution to total GTP by all industries for the year²². For every initial dollar of gross product produced by Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$0.94 is produced elsewhere in the Australian Capital Territory economy through supply chain and household consumption impacts (including that associated with initial activities in other States and Territories).

Reflecting the nature of services provided by Independent boarding schools is the 113 FTE jobs supported by Independent boarding schools in 2019-20, including initial and flow-on activity, paying a total of \$10.1 million in total employee compensation. This equated to 0.04% of total jobs and 0.04% of total employee compensation in 2019-20 in the Australian Capital Territory.

²² Total industry contribution to Australian Capital Territory GSP in 2019-20 was \$39.6 billion. An additional \$2.7 billion in GTP was contributed through taxes less subsidies on final demand (e.g., demand by households) rather than production by industry. Only the industry contribution to GTP has been examined in the economic contribution assessment.

Table 3.18. Estimated Initial and Flow-On Contribution of Independent Boarding Schools to the Australian Capital Territory Economy, 2019-20¹

Value of Economic Contribution	Gross Territory Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$6.7	\$6.1	70
Production Induced Contribution of Australian Capital Territory Independent Boarding Schools to the Australian Capital Territory	\$2.2	\$1.6	16
Consumption Induced Contribution of Australian Capital Territory Independent Boarding Schools to the Australian Capital Territory	\$2.1	\$1.2	14
Total Contribution of Australian Capital Territory Independent Boarding Schools to the Australian Capital Territory	\$11.0	\$8.9	98
Production Induced Contribution of Australian Independent Boarding Schools to the Australian Capital Territory	\$2.9	\$2.1	20
Consumption Induced Contribution of Australian Independent Boarding Schools to the Australian Capital Territory	\$3.4	\$1.9	23
Total Contribution of Australian Independent Boarding Schools to the Australian Capital Territory²	\$13.0	\$10.1	113
Percent of Total Local Economy ³	Gross Territory Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.02%	0.02%	0.03%
Production Induced Contribution	0.01%	0.01%	0.01%
Consumption Induced Contribution	0.01%	0.01%	0.01%
Total Contribution	0.03%	0.04%	0.04%

Notes: (1) Total may not sum due to rounding. (2) Includes the Initial Contribution in the local region. (3) Includes flow-on activity from Independent boarding school initial activities in other States and Territories.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.3 BOARDING TYPOLOGY ASSESSMENT

This economic contribution assessment assesses the contribution of Independent boarding schools, as defined in the Glossary. All aspects of Independent boarding schools have been included in this assessment – including boarding activities and the provision of education services to boarding students. However, education services provided to day students are excluded from this assessment.

A description of the measures and terminology used in the modelling analysis are defined in Appendix B.

3.3.1 Initial Contribution of Boarding Typologies to the National Economy

The following sections outline the drivers of Independent boarding school economic contribution assessment for each of the identified Typologies applying the methodology outlined in Section 3.1. There are three boarding school typologies assessed in this study:

- Boarding schools located in major cities (major cities)
- Boarding schools located in regional and remote areas (regional and remote)
- Boarding schools which have a student body primarily comprised of Aboriginal and Torres Strait Islander students (Majority Aboriginal and Torres Strait Islander Schools).

Outcomes for major cities and regional and remote typologies are exclusive of the impact of Majority Aboriginal and Torres Strait Islander Schools, as a result, the aggregate of the three typologies is equal to the national impact.

3.3.1.1 Operational Activities

In 2019-20 Independent boarding schools generated an initial contribution of approximately \$561.6 million to Australia's GDP (refer to Section 3.1.1). The vast majority of this initial economic contribution occurs in major cities across the nation, as outlined in Table 3.19.

Table 3.19. Initial Contribution to Gross Domestic Product of Independent Boarding Schools by Typology, 2019-20

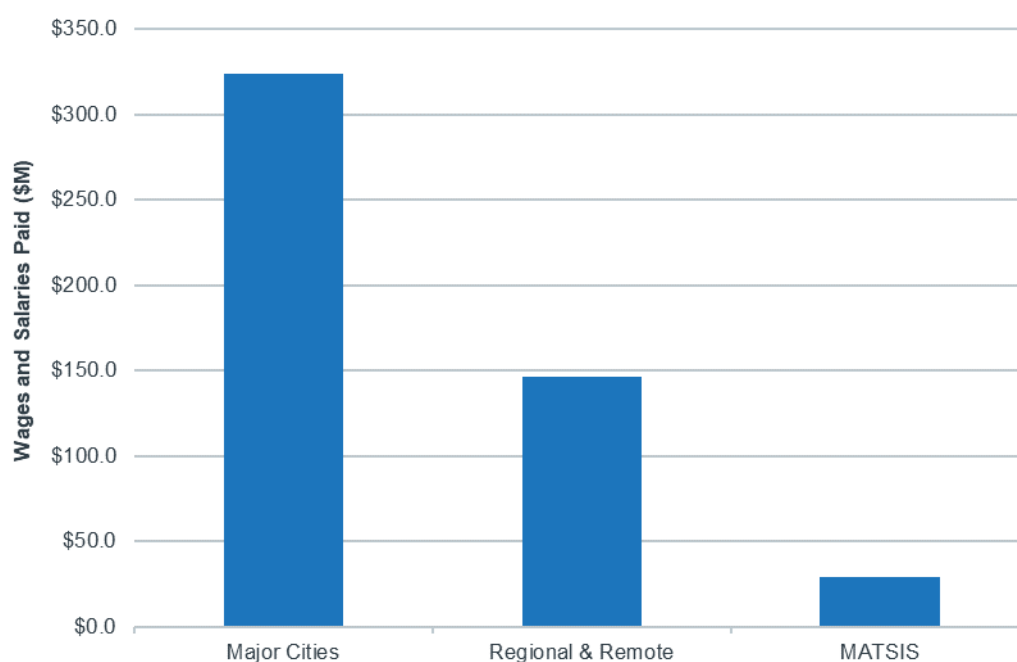
Component	Major Cities	Regional & Remote	MATSYS	Total
Turnover (\$M)	\$548.5	\$228.3	\$51.3	\$828.0
Operational Expenditure ¹ (\$M)	\$184.7	\$67.9	\$13.9	\$266.5
Initial Contribution to Gross Domestic Product (\$M)	\$363.8	\$160.4	\$37.4	\$561.6

Note: Totals may not sum due to rounding. (1) Excluding labour expenditure.
Source: ISA (unpublished a), AEC

Independent boarding schools employed 6,454 FTE staff in 2019-20, with the vast majority of these staff located in major cities (4,189) and approximately 1,890 located in regional and remote Areas. Approximately 375 FTE were employed at a Majority Aboriginal and Torres Strait Islander Independent boarding school.

Staff at Independent boarding schools were paid a total of around \$498.7 million in wages, salaries and other compensation in 2019-20. Estimates for each typology are outlined in Figure 3.2.

Figure 3.2. Total Wages and Salaries Paid to Independent Boarding School Employees by Typology, 2019-20



Source: ISA (unpublished a), AEC

3.3.1.2 Capital Expenditure

Capital expenditure estimates and assumptions were developed as outlined in Section 3.1.1. The following table provides an overview of the capital expenditure assumptions for each typology in 2019-20.

Table 3.20. Initial Capital Expenditure of Independent Boarding Schools, 2019-20

Component	Major Cities	Regional & Remote	MATSIS	Total
Capital Expenditure - Land and Building (\$M)				
Non-Residential Building Construction	\$46.5	\$7.8	\$2.7	\$57.0
Heavy and Civil Engineering Construction	\$19.9	\$3.3	\$1.2	\$24.4
Capital Expenditure - Other (\$M)				
Wholesale Trade	\$16.2	\$5.6	\$1.1	\$23.0

Note: Totals may not sum due to rounding. Source: ISA (unpublished a), AEC

In estimating the initial economic contribution of this capital expenditure, standard Input-Output production functions for the industries outlined in Table 3.20 were assumed, using a national transaction table as outlined in Appendix A. Based on these production functions, Independent boarding schools' initial capital expenditure is estimated to have generated economic activity for the nations' businesses as outlined in Table 3.21.

Table 3.21. Initial Capital Expenditure Economic Activity of Independent Boarding Schools, 2019-20

Component	Major Cities	Regional & Remote	MATSIS	Total
Gross State/Territory/ Domestic Product (\$M)	\$26.3	\$5.9	\$1.6	\$33.8
Incomes (\$M)	\$17.2	\$3.9	\$1.1	\$22.1
FTE Jobs	169	40	10	219

Note: Totals may not sum due to rounding.
Source: ISA (unpublished a), AEC

3.3.1.3 Student and Visitor Expenditure

International Student Expenditure

Independent boarding schools attract international students to study in a range of individual or group programs. Independent boarding schools received \$96 million in revenues from international students in 2019-20, through student fees and charges as well as for boarding. International students also spend money throughout the economy (i.e., outside of expenditure for school tuition and boarding).

Assumptions regarding the expenditure of international students attending each boarding school typology were consistent with those outlined in Section 3.2.1, including the assumption that approximately 50 percent of international Independent boarding school student expenditure is assumed to be for tuition fees (with the remainder on goods and services) to account for higher fees at Independent boarding schools compared with public schools.

To allocate expenditure on goods and services to Input-Output industries, allocations of average expenditure from the most recent household expenditure survey (ABS, 2017a) were used and allocated to their most relevant Input-Output industry for the nation. Expenditure on education and housing costs were excluded, as this expenditure is already accounted for in tuition fees and boarding. A summary of expenditure by international students is presented in Table 3.22, it is noted that Majority Aboriginal and Torres Strait Islander Schools do not record any revenues for international students and as such, are assumed not to have any international enrolments in this assessment.

Table 3.22. Expenditure on Goods and Services by Independent Boarding School International Students, \$M, 2019-20

IO Industry	Major Cities	Regional & Remote	MATSIS	Total
Retail Trade	\$53.3	\$13.0	\$0.0	\$66.3
Accommodation	\$0.1	\$0.0	\$0.0	\$0.1
Food and Beverage Services	\$8.7	\$2.1	\$0.0	\$10.8
Road Transport	\$0.6	\$0.1	\$0.0	\$0.8
Rail Transport	\$0.1	\$0.0	\$0.0	\$0.2
Water, Pipeline and Other Transport	\$0.1	\$0.0	\$0.0	\$0.1
Air and Space Transport	\$0.2	\$0.0	\$0.0	\$0.2
Postal and Courier Pick-up and Delivery Service	\$0.2	\$0.1	\$0.0	\$0.3

IO Industry	Major Cities	Regional & Remote	MATSIS	Total
Motion Picture and Sound Recording	\$0.2	\$0.0	\$0.0	\$0.3
Broadcasting (except Internet)	\$0.4	\$0.1	\$0.0	\$0.6
Internet Service Providers, Internet Publishing and Broadcasting, Websearch Portals and Data Processing	\$0.8	\$0.2	\$0.0	\$1.0
Telecommunication Services	\$3.4	\$0.8	\$0.0	\$4.2
Finance	\$0.3	\$0.1	\$0.0	\$0.4
Insurance and Superannuation Funds	\$16.2	\$3.9	\$0.0	\$20.1
Auxiliary Finance and Insurance Services	\$0.1	\$0.0	\$0.0	\$0.1
Rental and Hiring Services (except Real Estate)	\$1.8	\$0.4	\$0.0	\$2.3
Non-Residential Property Operators and Real Estate Services	\$0.4	\$0.1	\$0.0	\$0.4
Professional, Scientific and Technical Services	\$1.3	\$0.3	\$0.0	\$1.6
Building Cleaning, Pest Control and Other Support Services	\$0.4	\$0.1	\$0.0	\$0.5
Public Administration and Regulatory Services	\$5.8	\$1.4	\$0.0	\$7.2
Health Care Services	\$2.6	\$0.6	\$0.0	\$3.3
Heritage, Creative and Performing Arts	\$0.7	\$0.2	\$0.0	\$0.8
Sports and Recreation	\$1.3	\$0.3	\$0.0	\$1.7
Gambling	\$0.4	\$0.1	\$0.0	\$0.5
Automotive Repair and Maintenance	\$1.7	\$0.4	\$0.0	\$2.1
Other Repair and Maintenance	\$0.4	\$0.1	\$0.0	\$0.5
Personal Services	\$1.8	\$0.4	\$0.0	\$2.2
Other Services	\$0.2	\$0.1	\$0.0	\$0.3
Total	\$103.6	\$25.2	\$0.0	\$128.7

Sources: ABS (2020b, 2017a), ISA (unpublished a), AEC.

Induced Visitor Expenditure from Visitors of International Students

Induced visitor expenditure associated with visitors of international students was estimated using the approach outlined in Section 3.1.4.1. It is estimated the vast majority of international students attending Independent boarding schools attend schools located in major cities, representing approximately two-thirds of the total. As a result, these areas record the greatest initial contribution towards the total initial economic benefit associated with induced visitation.

Table 3.23. Initial Impact of Induced Visitation of International Students at Independent Boarding Schools, 2019-20

Component	Major Cities	Regional & Remote	MATSIS	Total
Summary				
Number of International Boarding Students	2,146	518	0	2,664
Inferred Induced Visitor Nights	7,656	1,848	0	9,504
Inferred Induced Visitor Expenditure (\$000s)	\$1,102	\$266	\$0	\$1,368
Visitor Expenditure by Industry (\$000s)				
Road Transport	\$36	\$9	\$0	\$45
Rail Transport	\$2	\$0	\$0	\$2
Water, Pipeline and Other Transport	\$81	\$20	\$0	\$101
Accommodation	\$245	\$59	\$0	\$304
Food and Beverage Services	\$201	\$49	\$0	\$250
Retail Trade	\$222	\$54	\$0	\$276
Personal Services	\$20	\$5	\$0	\$24
Heritage, Creative and Performing Arts	\$17	\$4	\$0	\$21
Sports and Recreation	\$9	\$2	\$0	\$12

Component	Major Cities	Regional & Remote	MATSIS	Total
Gambling	\$8	\$2	\$0	\$9
Postal and Courier Pick-up and Delivery Service	\$12	\$3	\$0	\$15
Rental and Hiring Services	\$21	\$5	\$0	\$26
Primary and Secondary Education Services	\$0	\$0	\$0	\$0
Technical, Vocational and Tertiary Education Services	\$179	\$43	\$0	\$222
Arts, Sports, Adult and Other Education Services	\$50	\$12	\$0	\$61

Note: Totals may not sum due to rounding.

Source: ISA (unpublished a), TRA (2021a), AEC

Induced Visitor Expenditure from Visitors of Domestic Interstate Students

Induced visitor expenditure associated with visitors of international students was estimated using the approach outlined in Section 3.1.4.2. It is estimated the vast majority of domestic students attending Independent boarding schools attend schools located in major cities, representing approximately two-thirds of the total. As a result, these areas record the greatest initial contribution towards the total national economic benefit associated with induced visitation.

Table 3.24. Initial Impact of Induced Visitation of Visitors of Domestic Interstate Students at Independent Boarding Schools, 2019-20

Component	Major Cities	Regional & Remote	MATSIS	Total
Summary				
Number of Domestic Boarding Students	6,935	4,301	604	11,902
Inferred Induced Visitor Nights	57,402	35,600	4,999	98,514
Inferred Induced Visitor Expenditure (\$000s)	\$13,191	\$4,969	\$861	\$19,022
Visitor Expenditure by Industry (\$000s)				
Road Transport	\$331	\$125	\$22	\$477
Rail Transport	\$10	\$4	\$1	\$14
Water, Pipeline and Other Transport	\$598	\$225	\$39	\$862
Accommodation	\$3,958	\$1,491	\$258	\$5,707
Food and Beverage Services	\$3,463	\$1,304	\$226	\$4,994
Retail Trade	\$3,707	\$1,396	\$242	\$5,345
Personal Services	\$80	\$30	\$5	\$115
Heritage, Creative and Performing Arts	\$325	\$122	\$21	\$468
Sports and Recreation	\$257	\$97	\$17	\$370
Gambling	\$48	\$18	\$3	\$69
Postal and Courier Pick-up and Delivery Service	\$80	\$30	\$5	\$115
Rental and Hiring Services	\$285	\$107	\$19	\$410
Primary and Secondary Education Services	\$0	\$0	\$0	\$0
Technical, Vocational and Tertiary Education Services	\$15	\$6	\$1	\$21
Arts, Sports, Adult and Other Education Services	\$3	\$1	\$0	\$5

Note: Totals may not sum due to rounding.

Source: ISA (unpublished a), TRA (2021a), AEC

Total Induced Student and Visitor Expenditure

In estimating the initial economic contribution of student and visitor expenditure on goods and services by international students, standard Input-Output production functions for the industries outlined in Table 3.22, Table 3.23 and Table 3.24 were assumed, using a national transaction table developed as outlined in Appendix A.

Based on these production functions, initial expenditure on goods and services by Independent boarding school international students, visitors to international students and visitors to domestic interstate students by typology is estimated to have generated economic activity for businesses in the national economy in 2019-20 as outlined in Table 3.25.

Table 3.25. Initial Economic Activity Associated with Independent Boarding School International Students, 2019-20

Component	Major Cities	Regional & Remote	MATSIS	Total
Gross State/Territory/ Domestic Product (\$M)	\$60.5	\$15.6	\$0.4	\$76.5
Incomes (\$M)	\$45.3	\$11.7	\$0.3	\$57.3
FTE Jobs	757	197	6	960

Note: Totals may not sum due to rounding.
Source: ISA (unpublished a), TRA (2021a), AEC

Summary of Initial Contribution of Independent Boarding Schools

A summary of the initial economic contribution of Independent boarding schools in each typology to the national economy in 2019-20 is presented in Table 3.26.

Table 3.26. Initial Contribution of Independent Boarding Schools by Typology, 2019-20

Component	Major Cities	Regional & Remote	MATSIS	Total
Gross State/ Territory/ Domestic Product (\$M)				
Operational Activity	\$363.8	\$160.4	\$37.4	\$561.6
Capital Expenditure	\$26.3	\$5.9	\$1.6	\$33.8
Induced Student and Visitor Expenditure	\$60.5	\$15.6	\$0.4	\$76.5
Total Initial Contribution	\$450.5	\$181.9	\$39.4	\$671.9
Incomes (\$M)				
Operational Activity	\$323.7	\$146.1	\$28.9	\$498.7
Capital Expenditure	\$17.2	\$3.9	\$1.1	\$22.1
Induced Student and Visitor Expenditure	\$45.3	\$11.7	\$0.3	\$57.3
Total Initial Contribution	\$386.2	\$161.7	\$30.3	\$578.1
Employment (FTE)				
Operational Activity	4,189	1,890	375	6,454
Capital Expenditure	169	40	10	219
Induced Student and Visitor Expenditure	757	197	6	960
Total Initial Contribution	5,115	2,127	391	7,634

Note: Total may not sum due to rounding.
Sources: ABS (2020b, 2017a), ISA (unpublished a), AEC.

3.3.2 Flow-On Contribution of Independent Boarding Schools

The flow-on (or indirect) contribution of Independent boarding schools has been estimated using Input-Output models, as outlined in Appendix A. In undertaking the modelling, initial operational activity, capital expenditure and expenditure on goods and services by international students, visitors to international students and visitors to domestic interstate students outlined in Section 3.3.1 was allocated to relevant industries in the Input-Output model:

- For operational activity, this process is based on estimating the inter-industry purchases of goods and services by Independent boarding schools, using financial data by detailed categories for Independent boarding schools (ISA, unpublished a) disaggregated to 114 Input-Output industries using the structure for the 'Primary and Secondary Education Services (incl Pre-Schools and Special Schools)' industry.
- Capital expenditure and expenditure on goods and services by international student was assumed to follow standard industry purchasing patterns to determine expenditure by industry as outlined in Table 3.22.

The above process provides the multipliers used for estimating Type I flow-on activity (or production induced impacts). Financial data for Independent boarding schools (ISA, unpublished a) was also used to estimate the total

purchases of Independent boarding schools services by households. This is used in developing multipliers for estimating Type II flow-on activity (or household consumption induced impacts). Refer to Appendix B for additional descriptions of Type I (i.e., production induced) and Type II (i.e., consumption induced) flow-on impacts.

3.3.3 Total Contribution of Independent Boarding Schools by Typology

3.3.3.1 Major City Boarding Schools

Including initial and flow-on activity Independent boarding schools in major cities are estimated to have contributed to approximately \$1.3 billion in GDP in 2019-20, representing 0.07% of the total contribution to total GDP by all industries for the year. For every initial dollar of gross product produced by Independent boarding schools in major cities (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$1.86 is produced elsewhere in the Australian economy through supply chain and household consumption impacts.

Reflecting the nature of services provided by Independent boarding schools in major cities is the 10,920 FTE jobs supported in 2019-20, including initial and flow-on activity, paying a total of \$843.8 million in total employee compensation. This equated to 0.09% of total jobs and 0.08% of total employee compensation in 2019-20 in Australia

Table 3.27. Estimated Initial and Flow-On Contribution of Major City Independent Boarding Schools to the Australian Economy, 2019-20¹

Value of Economic Contribution	Gross Domestic Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$450.5	\$386.2	5,123
Production Induced Contribution	\$190.2	\$128.0	1,427
Consumption Induced Contribution	\$645.8	\$329.7	4,371
Total Contribution	\$1,286.5	\$843.8	10,913
Percent of Total Local Economy	Gross Domestic Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.02%	0.04%	0.04%
Production Induced Contribution	0.01%	0.01%	0.01%
Consumption Induced Contribution	0.03%	0.03%	0.03%
Total Contribution	0.07%	0.08%	0.09%

Note: (1) Total may not sum due to rounding.

Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.3.3.2 Regional and Remote Boarding Schools

Including initial and flow-on activity regional and remote Independent boarding schools are estimated to have contributed to approximately \$495.1 million in GDP in 2019-20, representing 0.03% of the total contribution to total GDP by all industries for the year. For every initial dollar of gross product produced by regional and remote Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$1.72 is produced elsewhere in the Australian economy through supply chain and household consumption impacts.

Reflecting the nature of services provided by regional and remote Independent boarding schools is the 4,290 FTE jobs supported in 2019-20, including initial and flow-on activity, paying a total of \$331.2 million in total employee compensation. This equated to 0.03% of total jobs and 0.03% of total employee compensation in 2019-20 in Australia

Table 3.28. Estimated Initial and Flow-On Contribution of Regional and Remote Independent Boarding Schools to the Australian Economy, 2019-20¹

Value of Economic Contribution	Gross Domestic Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$181.9	\$161.7	2,126
Production Induced Contribution	\$60.0	\$40.2	448
Consumption Induced Contribution	\$253.2	\$129.3	1,714
Total Contribution	\$495.1	\$331.2	4,290
Percent of Total Local Economy	Gross Domestic Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.01%	0.01%	0.02%
Production Induced Contribution	0.00%	0.00%	0.00%
Consumption Induced Contribution	0.01%	0.01%	0.01%
Total Contribution	0.03%	0.03%	0.03%

Note: (1) Total may not sum due to rounding. Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

3.3.3.3 Majority Aboriginal and Torres Strait Islander Boarding Schools

Including initial and flow-on activity Majority Aboriginal and Torres Strait Islander Independent boarding schools are estimated to have contributed to approximately \$97.9 million in GDP in 2019-20, representing 0.005% of the total contribution to total GDP by all industries for the year. For every initial dollar of gross product produced by Majority Aboriginal and Torres Strait Islander Independent boarding schools (through operational activity, capital expenditure, international student expenditure and induced visitor expenditure), an additional \$1.48 is produced elsewhere in the Australian economy through supply chain and household consumption impacts.

Reflecting the nature of services provided by Majority Aboriginal and Torres Strait Islander Independent boarding schools is the 796 FTE jobs supported in 2019-20, including initial and flow-on activity, paying a total of \$62.0 million in total employee compensation. This equated to 0.006% of total jobs and 0.006% of total employee compensation in 2019-20 in Australia. Whilst the Majority Aboriginal and Torres Strait Islander Schools typology records relatively low outcomes as a proportion of the national economic outcomes, the size of the Majority Aboriginal and Torres Strait Islander Schools typology contribution is relatively high by comparison to some of the state outcomes, with a higher level of GDP, income and employment supported than Independent boarding school's contribution to the South Australian economy.

Table 3.29. Estimated Initial and Flow-On Contribution of Majority Aboriginal and Torres Strait Islander Independent Boarding Schools to the Australian Economy, 2019-20¹

Value of Economic Contribution	Gross Domestic Product (\$M)	Incomes (\$M)	Employment (FTEs)
Initial Stimulus	\$39.4	\$30.3	391
Production Induced Contribution	\$11.1	\$7.5	84
Consumption Induced Contribution	\$47.3	\$24.2	321
Total Contribution	\$97.9	\$62.0	796
Percent of Total Local Economy	Gross Domestic Product (%)	Incomes (%)	Employment (%)
Initial Stimulus	0.002%	0.003%	0.003%
Production Induced Contribution	0.001%	0.001%	0.001%
Consumption Induced Contribution	0.003%	0.002%	0.002%
Total Contribution	0.005%	0.006%	0.006%

Note: (1) Total may not sum due to rounding. Sources: ABS (2012, 2017a, 2017b, 2020a, 2021a, 2021b, 2021c, 2021d, 2021e), AEC (unpublished a, unpublished b), DoESB&T (2020), Flegg (2021), ISA (unpublished a), AEC

4. SAVINGS TO GOVERNMENTS AND TAXPAYERS

Independent schools receive a lower rate of government funding per student than Government schools. Through the provision of education services which would otherwise need to be provided by Government schools, Independent boarding schools thereby present a cost saving to both State and Commonwealth Governments, and, as a result, taxpayers. This assessment has been conducted at the State, Territory and national level only, and does not disaggregate tax payer benefits for each typology due to data limitations.

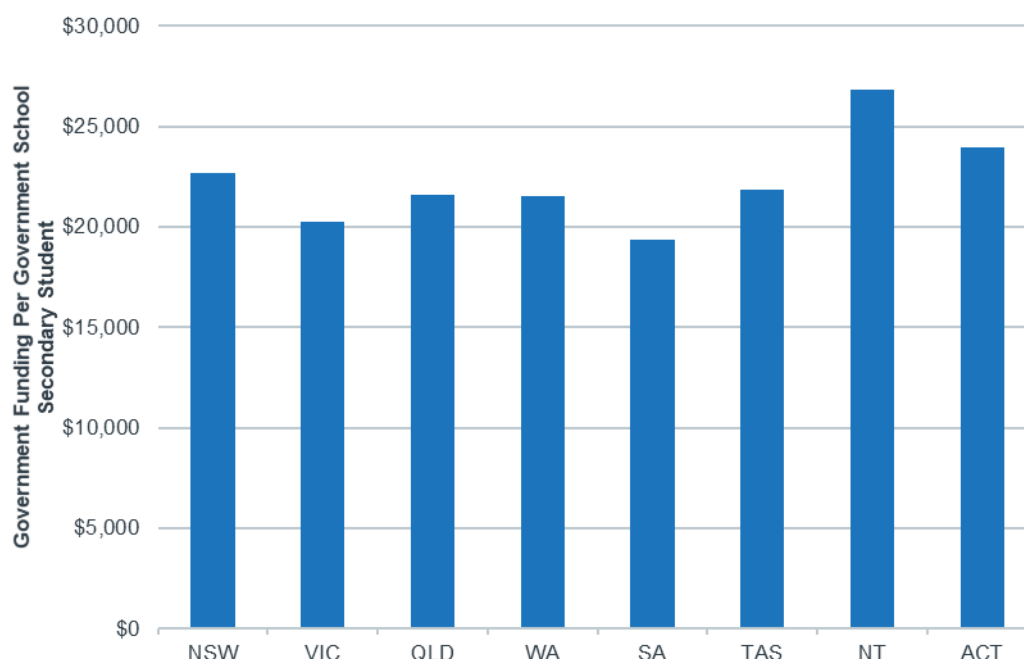
In estimating the savings generated by Independent boarding schools, two categories have been examined:

- Cost savings in terms of recurrent education costs, including expenditure on user costs of capital (which effectively refers to the cost for accessing capital assets, and can be considered to encompass the ongoing maintenance and upkeep of school assets).
- Cost savings in terms of contributions made by parents to capital infrastructure and improvements.

4.1 RECURRENT EDUCATION COSTS

To determine the recurrent education cost savings delivered by Independent boarding schools, Productivity Commission (2022) data detailing the average recurrent costs to the Commonwealth, State and Territory Governments (including user costs of capital) per government secondary school student²³ was applied. Nationally, total government funding per government secondary school student in Australia in 2019-20 is estimated at \$21,571, a breakdown by State and Territory is provided in Figure 4.1 below.

Figure 4.1. Commonwealth, State and Territory Government Funding per Student by State in 2019-20



Source: Productivity Commission (2022)

Approximately 14,566 boarding students attended an Independent boarding school in 2020. Applying the above average government expenditure per government secondary school student provides an estimate of the

²³ Though there are Independent Schools in Australia providing boarding school services, the vast majority of boarding students are in secondary schooling.

government funding required for recurrent education if Independent boarding school students were enrolled in government schools, of \$314 million in government expenditure for the year.

By comparison, Independent schools which have a boarding facility received an estimated \$1.2 billion in combined Commonwealth, State and Territory Government funding for recurrent education expenses in 2019-20 (ISA, unpublished a), equating to approximately \$8,499 per student (including both day students and boarders)²⁴.

This equates to a difference of \$13,072 per student in Government funding received by Independent schools for recurrent education expenses compared to what Governments would pay if Independent school students were enrolled in Government schools.

The saved recurrent education costs represented by the 14,566 students who attended an Independent boarding school in 2020, is estimated at approximately \$190.4 million in 2019-20.

4.2 CAPITAL EXPENDITURE

Independent boarding schools provide education facilities and infrastructure that are primarily paid for through private contributions, reducing the overall tax burden on households that would otherwise be incurred if all school infrastructure was required to be paid for in full by public funds from the State, Territory and Australian Governments.

Financial data from ISA (unpublished a) indicates that in 2020 approximately \$62.6 million was contributed by parents of Independent boarding school children to fund capital infrastructure and improvements. This is representative of the savings to all State, Territory and Australian Governments resulting from private funding for the provision of Independent boarding schools.

²⁴ This includes ABSTUDY payments received directly by the school, but excludes Assistance for Isolated Children payments, which are paid directly to families (Services Australia, 2022).

5. THE ECONOMIC VALUE OF ENHANCED EDUCATION OUTCOMES

Approximately 92% of parents and caregivers surveyed by AEC for this assessment indicated they had chosen boarding school for their child or children to “access higher quality education provision”. In addition, 97% of surveyed parents and caregivers indicated one of the main benefits of boarding school for children was “higher academic outcomes / increased opportunities”.

Research suggests boarding students achieve the same level of educational outcomes as their day student peers (Martin, J. *et. al.*, 2021) when attending the same school. Many boarding students are from regional and remote areas where academic outcomes are often lower than their counterparts in major cities (Lamb, Glover & Walstab, 2014), suggesting a significant gain in academic outcomes is achieved by these students from attending an Independent boarding school. This is supported by anecdotal evidence ascertained through individual interviews with principals of Independent boarding schools, which suggests schools provide support to students to lift the academic achievements of new boarders (who generally start boarding in secondary school) to the standard of the existing student body.

Research by the OECD (2010) indicates that the enhanced educational outcomes provided by Independent schools can be linked to a contribution to growth in GDP, through improved labour productivity. It is estimated the impact of the improved labour productivity supported by education provided by Independent boarding schools to boarding students equates to a lift in GDP of around \$14.3 million in 2019-20. This economic benefit is estimated to be provided annually by the enhanced education outcomes delivered by Independent boarding schools.

The strong academic achievement of boarding students presents an economic benefit to Australian society through increased economic growth and, as a result, increased economic wellbeing of Australians.

Table 5.1. PISA Scores, Australian Independent Schools versus Australian and OECD Means, 2018

PISA Scores	Reading	Mathematics	Science
Australian Independent Schools Mean	536	524	536
Australian Schools Mean	503	491	503
OECD Schools Mean	487	489	489

Source: ACER (2019).

The contribution Independent boarding schools (as Independent schools) make to Australia’s economic growth through enhanced education outcomes was estimated based on research by the OECD (2010), which found a causal relationship between academic performance and economic growth (using standardised PISA test scores²⁵ against economic performance over 40 years across 23 OECD countries), and results of the 2018 PISA scores (ACER, 2019) for Australian Independent schools compared to Government schools and Catholic schools.

By comparison to the outcomes of Government schools and Catholic schools, Independent schools report higher PISA scores across Mathematics, Science and Reading, even after taking into account the higher socio-demographic background of students attending Independent schools. Adjusted for socio-demographics, Independent schools achieved an average PISA score 24 points higher than Government schools and 14 points higher than Catholic schools.

²⁵ PISA tests 15-years olds on Reading, Mathematics and Science.

Table 5.2. PISA Scores, Australian Independent Schools versus Australian Government and Catholic Schools, 2018

PISA Scores	Reading	Mathematics	Science	Average
Australian Independent Schools	536	524	536	-
Australian Catholic Schools	515	499	512	-
Australian Government Schools	487	477	489	-
Adjusted Difference: Independent Schools Less Catholic Schools ¹	10	17	15	14
Adjusted Difference: Independent Schools Less Government Schools ¹	23	25	23	24

Note: (1) Adjusted for Socio-Demographics. Source: ACER (2019).

Parents and caregivers responding to the AEC survey which was conducted as part of this assessment were asked to identify the alternatives for their children if boarding was not an option. In response to this question, parents and caregivers indicated:

- Approximately 38% of Boarding students would otherwise attend either a local Independent school or would attend the same school (but as a day student).
- Approximately 31% of Boarding students would otherwise attend a local Government school.
- Approximately 12% of Boarding students would otherwise attend a local Catholic school.
- Approximately 12% would be attending some other form of education (including home schooling, distance education and international study).

As a result, it was estimated that of the 14,565 students attending an Independent boarding school in 2020:

- Approximately 5,605 would continue to attend an Australian Independent school (and would record an unchanged PISA score).
- Approximately 4,558 would otherwise attend an Australian Government school (and would record a PISA score approximately 24 points lower).
- Approximately 1,755 would otherwise attend an Australian Catholic school (and would record a PISA score approximately 14 points lower).
- Approximately 1,755 would otherwise attend another form of schooling (and would record a PISA score approximately 19 points lower²⁶).

Indicative estimates of the difference in Australia's mean PISA score, were it not for the education services provided by Independent boarding schools (as Independent schools), were developed based on these outcomes, and the proportionate contribution Independent boarding school students comprise of total national school students. Without Independent boarding schools, it can be indicatively estimated that Australia's mean PISA score would have been 0.04 points lower than was recorded in 2018 (assuming a similar disparity between Independent, Catholic and Government school PISA scores in 2020).

Based on the OECD's findings, this would equate to a modest reduction in Australian economic growth equivalent to approximately \$14.3 million in GDP for 2019-20. Whilst this is only an indicative estimate based on national data from ACER (2019) and OECD research regarding links between PISA scores and economic growth, it is reflective of the enhanced education outcomes supported by Independent boarding schools.

This economic benefit is estimated to be provided annually by the enhanced education outcomes delivered by Independent schools. They also deliver legacy benefits with the increased activity and productivity delivered by enhanced education outcomes being carried forward to subsequent years.

²⁶ The average of the socio-demographically adjusted difference between Independent schools and Catholic schools, and Independent schools and Government schools.

6. IMPORTANCE OF RETENTION OF YOUNG PEOPLE IN EDUCATION

There are significant ongoing benefits to students and society from young people remaining engaged in education. Individuals who have completed their secondary schooling are likely to benefit from improved employability, higher incomes, higher levels of self-assessed health and are less likely to engage in criminal activities²⁷ (ABS, 2017, Lamb and Huo, 2017, AIHW, 2021a). These outcomes also have long-term socio-economic benefits for society such as improved economic growth, productivity, creativity, innovation, social progress and wealth (Lamb and Huo, 2017).

Independent boarding schools play a role in retaining young people in education. Approximately 1% of parents and carers surveyed for this assessment indicated that their child or children would 'not [be] participating in formal education' if boarding school was not an option (n=473). Response rates for persons residing in rural (n=192) and remote (n=69) areas were not statistically significant enough to be relied upon, however, the results of these participants surveys suggest students normally residing in a regional or remote area were more likely than their major city counterparts to be at risk of disengagement.

School attendance rates for Aboriginal and Torres Strait Islander children underperforms attendance rates for non-Indigenous Australian children across each school year level (AIHW, 2021b). Once in secondary schooling, attendance rates of Aboriginal and Torres Strait Islander children drop considerably, from 81.6% in year 7 to 72.2% in year 10. By comparison, attendance rates over these year levels non-Indigenous Australian children drops from 92.6% to 89.3% (AIHW, 2021b).

Of the 23 respondents who indicated their child/ children attended an Indigenous facility or majority Indigenous facility, 4% indicated their child would 'not [be] participating in formal education' if boarding school was not an option. Though the sample size is not statistically significant enough to be relied upon, Aboriginal and Torres Strait Islander boarders attending an Independent boarding school are disproportionately at risk of early disengagement from education than other boarders (AIHW, 2021b).

By contributing to the retention of Aboriginal and Torres Strait Islander children in schooling, Majority Aboriginal and Torres Strait Islander Schools are providing significant social and economic benefits. In addition to those outlined in more detail in Section 7.2.4, retention of Aboriginal and Torres Strait Islander boarders in school may also contribute to improving health outcomes for Aboriginal and Torres Strait Islander students. A survey of Aboriginal and Torres Strait Islander People (ABS, 2010) suggests those who had attained a Senior Secondary Certificate of Education or equivalent were more likely to rate their own health as being 'excellent or very good' and less likely to suffer from high or very high levels of psychological distress than those who had attained lower levels of secondary education. Potentially corresponding to these improved health outcomes were generally lower levels of health risk factors, with the notable exception of short-term high-risk alcohol consumption (ABS, 2010). Macdonald *et al.* (2018) also find that many schools provide health education to students with focus on developing self-awareness regarding relationships, nutrition, sexual health and mental health. This approach takes a holistic view of student success and aims to empower students to make positive lifestyle choices.

Importantly, these benefits are not isolated to the current generation of students, but also future generations of Aboriginal and Torres Strait Islanders in their family and community, and these intergenerational benefits have the potential to be long lasting. Children of parents who have completed higher education are more likely to enrol in tertiary studies, are more likely to complete tertiary studies and were more likely to undertake complex forms of tertiary study than children whose parents had not completed higher education (Cataldi, E.F., *et al.*, 2018). It is also considered that income benefits can have intergenerational benefits, with a 10% lift in a parent's income estimated to correlate with a 2-3% lift in the income of their children (AIHW, 2020).

²⁷ Many of these benefits are quantified in Chapter 7.

7. COSTS TO BENEFITS ASSESSMENT

A high level cost to benefit assessment has been undertaken for this study to provide guidance on the degree of benefit Independent boarding schools deliver to the national economy and society relative to their costs.

7.1 COSTS OF INDEPENDENT BOARDING SCHOOLS

The total cost of operating Independent boarding schools in 2020 has been estimated at \$869.6 million (ISA, unpublished a), including (refer to Section 3.2.1 for more details):

- Operating expenditure of \$266.5 million.
- Operational compensation of employees of \$498.7 million.
- Capital expenditure of \$104.4 million.

7.2 QUANTIFIED BENEFITS OF INDEPENDENT BOARDING SCHOOLS

There are a broad range of social and economic benefits of Independent boarding schools to the national economy and society. Those which have been able to be quantified and compared to the costs of Independent boarding schools are outlined below.

Ongoing social benefits which will benefit both students and the broader Australian society over the coming decades as a result of Independent boarding school operations in 2020 have been included in this assessment, as well as those which are only applicable to 2020. Ongoing benefits have been discounted at a rate of 7% over the coming 30 years to estimate the present value of the ongoing social benefits of Independent boarding school activities.

7.2.1 Benefit to Education Providers and Supporting Business

Independent boarding schools support a broad range of initial and flow-on economic activities within the national economy (refer to Table 3.10). GDP is an economic measure typically used to quantify the true economic value of activities undertaken in a specific economy (in this instance, the Australian economy). There are three approaches to measuring GDP²⁸, including the incomes approach which aggregates all forms of incomes earned within an economy – including rents received, interest received, profits earned by businesses and compensation of employees (i.e., incomes paid to employees). In order to measure the economic benefit to businesses (through both initial and flow-on activities) supported by Independent boarding schools, the profits recorded by businesses has been quantified by removing the incomes impact from the GDP impact (refer to Table 3.10), as incomes represent a cost to businesses in their operational activities (they also represent a benefit to staff, which has been included in Section 7.2.2). The retained net benefit was estimated at approximately \$643.1 million in 2020.

7.2.2 Employment Benefit

Independent boarding schools employ approximately 6,454 staff in providing boarding services to students (refer to Table 3.10). The wages and salaries paid to these staff members are considered to represent an economic benefit of the Independent boarding school operations. It has been assumed that 25% of the wages and salaries associated with Independent boarding schools represents a net economic benefit to reflect the likelihood that many of these staff members might reasonably be otherwise employed (and receive salaries and wages from alternative employment) and staff members not otherwise employed would likely still contribute to Australia's economic activity (through consumption expenditure). This results in an economic benefit of \$124.7 million in 2020.

²⁸ Expenditure, Income and Value Added approaches.

7.2.3 Benefit of Enhanced Education

It is estimated the lift in PISA scores associated with students attending Independent boarding schools could be linked to a \$14.3 million lift in Australia's GDP (refer to Chapter 5). This is based on research conducted by the OECD (OECD, 2010) to understand the relationship between cognitive skills (measured by PISA scores) and economic growth. The findings of this study suggest improvement in the skills held by a nation's labour force can hold significant economic potential for the nation over the long term. Fundamentally, the OECD found that nations with greater human capital (measured by PISA scores) are more innovative and are therefore able to continually realise productivity gains, which supports economic growth. The present value of this benefit over the coming 30 years was estimated at \$189.7 million.

7.2.4 Benefit of Retention of Young People in Education

Approximately 1% of parents and carers surveyed for this assessment indicated that their child or children would not be participating in formal education if boarding school was not an option. Applying this 1% to the 14,565 students who were boarders at an Independent boarding school in 2020 suggests approximately 92 students who would not otherwise be engaged in education.

Retaining youths in education can have significant ongoing benefits for these students (and society) across their lives, including:

- Persons who have completed their senior school education²⁹ are more likely to be participating in the labour force: in 2017, approximately 70.6% of Australians who had completed their senior school education were participating in the labour force, compared to 29.1% of Australians who had not (ABS, 2017b). Based on these rates of labour force participation, it was estimated an additional 38 students who would not otherwise be in formal education would be participating in the labour force into the future.
- Persons who have completed their senior school education are more likely to be employed: in 2017, approximately 66.0% of Australians who had completed their senior school education were employed, compared to 25.5% of Australians who had not (ABS, 2017b). Based on these rates of employment, it was estimated an additional 15 students who would not otherwise be in formal education would be employed into the future.
- Persons who have completed their senior school education earn higher incomes: in 2017, Australians who had completed their senior school education earned, on average, \$24,103 per annum more than those had not (ABS, 2017b). Applying this lift in incomes to the 92 students who would not otherwise complete their senior school education suggests a lift in incomes of approximately \$2.2 million per annum. Associated with this lift in incomes would be a lift in taxation revenues to State, Territory and national governments. Assuming an average taxation rate of \$0.24 per \$1.00 of income (ABS 2021e, 2021f, 2021g), suggests a lift in taxation revenue of \$0.54 million per annum.
- Persons who have completed their senior school education are less likely to engage in criminal activities, reducing the costs associated with offenders and prisoners: Early school leavers have been estimated to offend at a rate of 61.3 offenders per 1,000 persons, and be imprisoned at a rate of 5.2 per 1,000 persons (Lamb and Huo, 2017). Costs of crime to government (including police and court administration and corrective services) was estimated at \$3,392 per offender (in 2013-14 dollars terms) and \$104,577 per prisoner (in 2013-14 dollars terms) (Lamb and Huo, 2017). Based on these assumptions, it was estimated Independent boarding school activities will prevent approximately 6 offenders and 1 prisoner into the future. The cost saving associated with this prevented crime was estimated at \$0.08 million (in 2019-20 dollars terms). Costs to victims are also avoided through the prevention of crime. The estimated cost to victims of crime is the equivalent of eight times the costs to government, capturing financial and social costs to victims. The avoided costs to victims was estimated at \$0.6 million. Unlike all other costs presented in this section, these costs are not incurred annually, and have been included in the first estimation period only (2020).

²⁹ In this section, having completed senior school education is defined as the achievement of a Senior Secondary Certificate of Education.

- Persons who have completed their senior school education are more likely to have private health cover, reducing the cost burden to government of health care provision: On average, 57% of school leavers have private health insurance, compared to 37% of early school leavers (Lamb and Huo, 2017). Based on the 92 students who would otherwise leave school early, it was estimated approximately additional 19 persons would have private health cover in Australia as a result of Independent boarding schools in 2020. Government expenditure on health care provision information (AIHW, 2021a) suggests a per capita health expenditure of \$9,954 per annum per person without private health insurance compared to a per capita expenditure of \$1,485 per annum per person with private health insurance. The cost saving to government associated with additional persons with private health cover as a result of Independent boarding schools was estimated at approximately \$0.16 million.

The present value of these ongoing benefits for the coming 30 years was estimated at \$39.5 million.

7.3 COSTS TO BENEFITS RATIO

Based on estimated costs of \$869.6 million in 2020 and total present value of estimated social and economic benefits of \$997.0 million, the cost to benefits ratio of Independent boarding schools was estimated at 1.15, suggesting a return of \$1.15 for every \$1.0 of cost.

7.4 UNQUANTIFIED SOCIAL BENEFITS

In addition to the range of quantified economic and social benefits of Independent boarding schools, a number of social benefits were unable to be quantified for this assessment but are important in considering the socio-economic benefits of Independent boarding schools. These benefits are outlined qualitatively below.

7.4.1 Academic Well-Being Benefits

Boarders record higher scores than day students on some measures of academic well-being including adaptive motivation, academic buoyancy (or resilience) and personal best goals and scored lower on absenteeism (Martin *et al.*, 2014). Principals who were engaged with to inform this study also identified some aspects of academic well-being which are stronger in boarding students compared to day students due to their immersion in school and the additional support they receive from staff in tutoring or study supervision, including adopting a culture of learning and positive study habits, higher academic motivation, and lower absenteeism. These aspects of academic well-being were considered to be supportive of academic achievement for boarding students.

7.4.2 Benefits to Aboriginal and Torres Strait Islander Boarders

Though a small component of the overall economic contribution of Independent boarding schools, Majority Aboriginal and Torres Strait Islander Schools can provide students with significant ongoing benefits throughout their lives. In particular, the additional support offered to Aboriginal and Torres Strait Islander students in boarding schools provides long-term benefits in the form of improved agency, employability and leadership (Macdonald *et al.*, 2018).

For Aboriginal and Torres Strait Islander families, particularly those living in rural ³⁰areas, boarding school can provide a range of opportunities for students, including assistance in achieving post-schooling education goals (such as university or vocational training) and career aspirations (Macdonald *et al.*, 2018). Some Majority Aboriginal and Torres Strait Islander boarding schools run job readiness programs which include diving licence acquisition, literacy and numeracy, computer literacy and 'soft skills' such as punctuality and workplace discipline. Some schools also provide opportunities for students to engage in paid work experience and complete basic qualifications (certificate I or II).

For some Aboriginal and Torres Strait Islander families (and some non-Aboriginal and Torres Strait Islander families), Independent boarding school can provide an opportunity to leave an unsafe home or peer environment

³⁰ Though this report has typically referred exclusively to Australians living in major cities, regional and remote areas, where other researchers have referred to Australians living in rural areas this terminology has been preserved so as to protect the meaning of their findings.

(Macdonald *et al.*, 2018). Removing children from unsafe environments can assist in improving school attendance and student behaviour.

7.4.3 Reduced Staff Shortages in Rural and Remote Areas

Approximately two thirds of Australian Independent boarding schools are located in a major city (ISA, unpublished), and approximately 77% of students attending Australian Boarding Schools are sourced from rural areas (ABSA, 2022). It could be suggested Independent boarding schools perform a role of centralisation, bringing students from dispersed areas into key population centres for education services.

In a nationally distributed survey, 69.3% of parents outside major cities (n=365) whose children are currently boarding at Independent boarding schools indicated that without boarding school their children would likely be attending a local school and adding to local demand for education services (such as teachers, principals and other employees of educational institutions). Schools in rural and remote locations have struggled with teacher shortages and high turnover for over a decade (Hudson & Hudson, 2008; Stephens & Calver, 2022). It is likely that without Independent boarding schools, the higher demand for education services in rural areas would be exacerbated and could result in significant lifts in operational expenditure for rural schools (through the need for higher wages aimed at attracting teachers to rural areas).

7.4.4 Improved Resilience

Research suggests that there is general parity between boarders and day students on most psychological metrics but where there are differences, results tend to favour boarders. In their study of Australian boarding schools, Martin *et al.* (2014) found no significant differences between boarders and day students on most measures of motivation, engagement and psychological well-being. However, boarders scored modestly higher than day students on some measures of psychological well-being including meaning and purpose, life satisfaction, participation in extracurricular activities, and parent relations. In the current study, 54.2% of survey respondents (n=572) responded that improved psychological resilience is a main benefit of boarding school for students.

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APPENDIX A: SIGNIFICANCE ASSESSMENT METHODOLOGY

The economic significance estimates in this report are produced using Input-Output transaction tables and models developed by AEC for the purposes of this assessment, combined with data from a range of sources, including State and National Accounts data, other industry data from the ABS, and data on Independent schools provided by Independent Schools Australia. The Input-Output models were used to produce estimates of the initial and flow-on contribution of Independent boarding schools to each State and Territory economy, the national economy and the contribution of each boarding school typology (major city, regional and remote and Majority Aboriginal and Torres Strait Islander Schools) to the national economy in terms of output, gross product, employment and income (i.e., wages and salaries).

OVERVIEW OF IO MODELLING

Input-Output (IO) analysis demonstrates inter-industry relationships within an economy, depicting how the output of one industry is purchased by other industries, households, the government and external parties (i.e., exports), as well as expenditure on other factors of production such as labour, capital and imports. IO analysis shows the initial and indirect (flow-on) effects of one industry on other industries and the general economy. As such, IO modelling can be used to demonstrate the economic contribution of an industry on the overall economy and how much the economy relies on this industry or to examine a change in final demand of any one industry and the resultant change in activity of its supporting industries.

SIGNIFICANCE ASSESSMENT VERSUS IMPACT ASSESSMENT

The framework employed in significance assessment **differs from that employed in traditional economic impact analysis** in that economic significance assessment primarily seeks the contribution of an existing industry as opposed to the impact of a “stimulus” (or expansion) in a particular industry or in several industries (West, 1993). The usual approach of comparing what the economy would be with and without the industries whose contributions are to be assessed does not work because the inter-relationship between industries means whether or not the industries to be assessed exist, there will still be demand for their outputs (e.g., a complete vehicle needs tyres so that whether or not the entire tyre manufacturer is closed down, the car manufacturer’s demand for tyres still exists). From a modelling stance, this problem is solved by assuming that demand for outputs of the industries to be assessed will instead be met by imports.

MODEL DEVELOPMENT

The models used in this assessment are derived from sub-regional transaction tables developed specifically for this project. The process of developing a sub-regional transaction table involves developing regional estimates of gross production and purchasing patterns based on a parent table, in this case the 2018-19 Australian transaction table (ABS, 2021a).

Estimates of output, gross production, incomes, and employment (by industry) in each State and the nation were developed based on the percent contribution to employment (by place of work) of each State and the nation to the Australian economy for the base model year of 2018-19. This is based on AEC’s annual employment estimates by industry by small area (AEC, unpublished a) applied to Australian gross output identified in the 2018-19 Australian table. Estimates for 2019-20 were then developed, based on estimates of annual change across a range of data sets, including:

- GRP from AEC’s in-house estimates of GRP by small area (AEC, unpublished b), as well as Gross State Product and Gross Domestic Product (ABS, 2021b), was used to estimate change in both gross product and output to 2019-20 (from the base of 2018-19).
 - An exception to this approach was construction-based industries, which used data regarding the change in total value of construction work done by State for buildings (ABS, 2021c) and engineering construction activity (ABS, 2021d).

- Annual employment by industry estimates from AEC's in-house employment by industry by small area model (AEC, unpublished b) was used to estimate changes in employment between years for each industry.

Additional details regarding AEC's in-house GRP and employment estimates models are provided in Appendix B.

Industry purchasing patterns within the study area were estimated using a Flegg Location Quotient approach, as described in Flegg *et al.* (2021), with a fixed degree of convexity applied to the regional size scalar. Regional final demand estimates (except exports) developed based on the regional inter-industry sales estimated using the Flegg Location Quotient relative to national inter-industry sales and final demand estimates for each industry (noting regional exports are assumed to reflect the remainder of total uses).

KEY ASSUMPTIONS AND LIMITATIONS OF IO MODELLING

The key assumptions and limitations of IO analysis include:

- **Lack of supply-side constraints:** The most significant limitation of economic impact analysis using IO multipliers is the implicit assumption that the economy has no supply-side constraints so the supply of each good is perfectly elastic. That is, it is assumed that extra output can be produced in one area without taking resources away from other activities, thus overstating economic impacts. The actual impact is likely to be dependent on the extent to which the economy is operating at or near capacity.
- **Fixed prices:** Constraints on the availability of inputs, such as skilled labour, require prices to act as a rationing device. In assessments using IO multipliers, where factors of production are assumed to be limitless, this rationing response is assumed not to occur. The system is in equilibrium at given prices, and prices are assumed to be unaffected by policy and any crowding out effects are not captured. This is not the case in an economic system subject to external influences.
- **Fixed ratios for intermediate inputs and production (linear production function):** Economic impact analysis using IO multipliers implicitly assumes that there is a fixed input structure in each industry and fixed ratios for production. That is, the input function is generally assumed linear and homogenous of degree one (which implies constant returns to scale and no substitution between inputs). As such, impact analysis using IO multipliers can be seen to describe average effects, not marginal effects. For example, increased demand for a product is assumed to imply an equal increase in production for that product. In reality, however, it may be more efficient to increase imports or divert some exports to local consumption rather than increasing local production by the full amount. Further, it is assumed each commodity (or group of commodities) is supplied by a single industry or sector of production. This implies there is only one method used to produce each commodity and that each sector has only one primary output.
- **No allowance for economies of scope:** The total effect of carrying on several types of production is the sum of the separate effects. This rules out external economies and diseconomies and is known simply as the "additivity assumption". This generally does not reflect real world operations.
- **No allowance for purchasers' marginal responses to change:** Economic impact analysis using multipliers assumes that households consume goods and services in exact proportions to their initial budget shares. For example, the household budget share of some goods might increase as household income increases. This equally applies to industrial consumption of intermediate inputs and factors of production.
- **Absence of budget constraints:** Assessments of economic impacts using multipliers that consider consumption induced effects (type two multipliers) implicitly assume that household and government consumption is not subject to budget constraints.

Despite these limitations, IO techniques provide a solid approach for taking account of the inter-relationships between the various sectors of the economy in the short-term and provide useful insight into the quantum of final demand for goods and services, both through initial activity and indirectly, likely to be generated by a project.

In addition to the general limitations of Input-Output analysis, there are two other factors that need to be considered when assessing the outputs of sub-regional transaction tables:

- It is assumed the sub-region has similar technology and demand/ consumption patterns as the parent (Australia) table (e.g., the ratio of employee compensation to employees for each industry is held constant).
- Intra-regional cross-industry purchasing patterns for a given sector vary from the national tables depending on the prominence of the sector in the regional economy compared to its input sectors. Typically, sectors that are more prominent in the region (compared to the national economy) will be assessed as purchasing a higher proportion of imports from input sectors than at the national level, and vice versa.

To assist in accounting for these limitations, AEC's approach has applied results from our internal GRP and employment models to the Input-Output models to more appropriately reflect the differences in production functions between the region examined and the national economy.

SIGNIFICANCE ASSESSMENT APPROACH

Contribution of Independent Boarding Schools

Input-Output tables utilise an aggregated system of industry classifications based on the ANZSIC system. In total, the 2018-19 Input-Output tables produced by the ABS (20201a) define 114 distinct industries. In assessing the contribution of Independent boarding schools, the activities of Independent boarding schools were extracted from the relevant Input-Output aggregated industries.

In practical terms this is achieved in the model by splitting each of the 114 industries represented in the Input-Output transaction tables into an "Independent boarding schools" and "Non-Independent boarding schools" component based on financial and employment data provided by ISA (unpublished a) on the operating activities and capital expenditure of their schools, and attributing these to their most relevant industry in the transaction tables. Assumptions regarding expenditure of international students were also developed and allocated to relevant industries. An overview of the aggregate expenditure and industry allocation is presented in section 0.

Once the transaction tables were complete, the significance models were developed through the development of coefficients as per Flegg (2021). The significance assessment is undertaken for the 2019-20 financial year.

Data Consistency

Data provided regarding Independent boarding school revenues, expenditure and employment are for the 2020 calendar year. However, the IO models and GSP data used are compiled and presented by financial years. While it is acknowledged there is a discrepancy in data sets, Independent boarding schools data was assessed and compared against 2019-20 economic data, and has been reported as reflecting the economic contribution of Independent boarding schools in 2019-20 throughout the report.

APPENDIX B: MEASURES USED IN MODELLING

The contribution of Independent boarding schools to the economy is estimated across the following three key measures:

- **Gross Product:** Refers to the value of all outputs of an industry, including taxes/ subsidies on its final products, after deducting the cost of goods and services inputs in the production process. Gross product (e.g., Gross Domestic Product/ Gross State Product/ Gross Territory Product) defines a true net economic contribution of a State/ Region and is subsequently the preferred measure for assessing economic impacts.
- **Incomes:** Measures the level of wages and salaries paid to employees of each industry.
- **Employment:** Refers to the part-time and full-time employment positions supported by an industry and is expressed in terms of full time equivalent (FTE) positions³¹.

An additional measure is also referenced:

- **Industry output (or turnover):** Refers to the total dollar value of all goods and services produced during the year, thereby including the costs of goods and services used in the development and provision of the final product. This measure overstates the true economic contribution of the industry as it double counts the value of material and services inputs used in the production of an industry's goods and services.

The economic contribution is measured in terms of:

- **Initial impacts**, which represents the economic activity of the Independent boarding schools themselves, as well as activity from their capital expenditure and from international student and induced visitor expenditure.
- **Flow-on impacts**, comprising:
 - **Production Induced (Type I)**, which represent the effects from initial expenditure on goods and services by Independent boarding schools, international students and induced visitors, as well as the second and subsequent round effects of increased purchases by suppliers in response to increased sales.
 - **Household Consumption Induced (Type II)**, which represent the consumption induced activity from household expenditure on goods and services resulting from wages and salaries being paid to Independent boarding school employees and those within the Independent boarding schools' supply chain.

³¹ Where one FTE equates to one person employed full time for a period of one year.

APPENDIX C: AEC GRP AND EMPLOYMENT MODELS

Every year AEC produces annual estimates of Gross Regional Product and employment by industry for small areas across Australia (Statistical Area 2 (SA2) and Local Government Area (LGA)). This appendix provides an overview of the approach used in modelling GRP and employment by industry.

GROSS REGIONAL PRODUCT

Background

Gross Domestic Product (GDP) and Gross State Product (GSP) figures are produced on a regular basis and published by the Australian Bureau of Statistics and the relevant State and Territory Government departments. However, regular official estimates of production for sub-State regions do not exist (Gross Regional Product, GRP³²).

The Australian Bureau of Statistics (ABS) use three approaches to calculate GDP/ GSP (Australian Bureau of Statistics, 2000):

- **Value added approach (or Production approach):** represents the difference between taking the market value of the goods and services produced by an industry (gross output) and deducting the cost of goods and services used up by the industry in the productive process (intermediate consumption).
- **Income approach:** calculates the cost of producing GRP by summing the incomes accruing from domestic production. These income components can be viewed as the market costs of production consisting of the compensation of employees (wages, salaries, and supplements), provision for the consumption of fixed capital (depreciation), net operating surplus, and net indirect taxes; and
- **Expenditure approach:** sums all final expenditures (ignoring expenditure on intermediate consumption) on goods and services, add on the contribution of exports and deduct the value of imports. Final expenditures are known as final demand and include final consumption expenditure by households, gross fixed capital expenditure by producers (i.e., durable assets), investment stocks and exports to the rest of the world.

Due to data limitations, it is not possible to calculate GRP using the same approach as national or State values. AEC estimates of GRP at factor cost use an indirect method to disaggregate official State GSP totals. As such, all GRP estimates will be subject to a combination of any errors in the State GSP estimates as well as those introduced by the methodology and data limitations used to allocate GSP to the constituent regions.

AEC Approach

AEC's GRP model utilises the ABS's national Input-Output (IO) transaction tables (ABS, 2021a) to develop GRP estimates by 114 industries for each LGA and SA2 in Australia for the latest IO release year at time of development (for the 2019-20 GRP estimates used in this study, the 2018-19 IO transaction tables were used). Development of LGA and SA2 estimates is based on AEC's IO model regionalisation process, as described in the "General Overview" of the "Model Development" section of Appendix A. The estimates are aggregated to the 19 industry classifications listed in ANZSIC, plus ownership of dwellings, and rebased to State Accounts estimates of value add by industry (ABS, 2021b).

Estimates of GRP for other years are developed based on industry growth in GVA at the State level, disaggregated to an LGA/ SA2 level primarily based on AEC's employment by industry estimates (described separately below). Key exceptions to this are:

³² GRP at factor cost is that part of the cost of producing the gross regional product which consists of gross payments to factors of production (labour, land, capital, and enterprise). It represents the value added by these factors in the process of production and is equivalent to gross regional product less indirect taxes plus subsidies.

- Agriculture, forestry, and fishing, which is based on small area commodity production value data from the ABS (2019).
- Ownership of dwellings, which uses data on the number of rented properties and average rental value for each small area based on Census of Population and Housing Data (ABS, 2017b).

Adjustments are also made to the mining industry to allocate a greater value per employee to where resources are located (versus office-based employment) based on occupation groupings.

EMPLOYMENT BY INDUSTRY

Background

Data outlining employment by industry by place of work (i.e., where the jobs are located) for small areas is only available every five years from the Census of Population and Housing. While other data sets exist providing more regular and up-to-date estimates of employment, these typically suffer from some combination of the following:

- Are not available for small areas.
- Are based on place of usual residence rather than place of work.
- Do not provide a breakdown of employment across industry.

Economic activity in a region is typically based on where jobs are located. To assist in providing more relevant and up-to-date statistics and analysis of economic activity at small regional levels, AEC has sought to address these data limitations by developing in-house estimates of annual employment by industry for LGA and SA2 geographies across Australia.

AEC Approach

AEC's approach to modelling employment by place of work uses 2011 and 2016 Census of Population and Housing employment by industry by place of work data as a starting point (ABS, 2012 and ABS, 2017b). Modelling for other years is, in the first instance, undertaken at a Statistical Area 4 (SA4) geographic level using data from the ABS quarterly Labour Force Survey (LFS) (ABS, 2021e), using regression techniques to smooth this data. Smoothed estimates are converted from place of usual residence to place of work estimates using Census differences for each SA4 between place of usual residence and place of work in 2011 and 2016 (straight line change assumed). Annual changes in the LFS are then applied to Census place of work data for the SA4s.

Small area (SA2) data from the Census as well as Department of Employment, Small Business and Training (DoESB&T, 2020) is then used to assist in splitting SA4 estimates to constituent SA2s across years, based on Census year shares and annual total employment change by SA2.

All estimates are rebalanced to ensure internal consistency between SA2s, SA4s, States and Australian totals. Estimates by LGA are developed using correspondence files between SA2s and LGAs.

APPENDIX D: SURVEY OUTCOMES

SURVEY TOOL

Table D. 1. Survey Tool for Independent Boarding Schools, Australia

#	Question	Response Options
Q1	What is your relationship to boarding student(s)? Single Response	1 i Parent or Caregiver (Go to Q2) 2 i School Principal/ Head of Boarding (Go to Q9) 3 i Teacher/ Staff Member (Go to Q9) 4 i No Relationship (End Survey) 98 i Other (please specify _____) 99 i Do not know/ unsure
Q2	In which State or Territory do you live? Single Response	1 i New South Wales 2 i Victoria 3 i Queensland 4 i South Australia 5 i Western Australia 6 i Tasmania 7 i Northern Territory 8 i Australian Capital Territory 98 i Other (please specify _____) 99 i Do not know/ unsure
Q3	Do you live in a Metropolitan, Regional or Remote area? Single Response	1 i Metropolitan area (e.g., Greater Sydney) 2 i Regional town/ city 3 i Rural area 4 i Remote area 98 i Other (please specify _____) 99 i Do not know/ unsure
Q4	Please indicate how many children under your care are in Boarding School. Single Response	1 i 1 Child 2 i 2 Children 3 i 3 Children 4 i 4 Or more children 99 i Do not know/ unsure
Q5	Including any drop off and pick up at the start and end of each term, how many times would you normally visit your child/ children at Boarding School per annum? Please provide an estimate which excludes any impact of COVID (and associated travel restrictions). Single Response	1 i 1-4 Times per year 2 i 5-8 Times per year 3 i 9-12 Times per year 4 i 13 Or more times per year 99 i Do not know/ unsure
Q6	What proportion of these visits would you have undertaken to the region in which the Boarding School is located, regardless of your child/ children being located there? Single Response	98 i _____ % 99 i Do not know/ unsure
Q7	What were the main reason(s) for the child/ children attending a Boarding School?	1 i Access to education 2 i Access to higher quality education provision 3 i Access to desired/ specialised subjects 4 i Geographical isolation of place of usual residence 5 i Family based overseas

#	Question	Response Options
	Multiple Response: Select All Which Apply.	6 <input type="checkbox"/> Change in family circumstances/ family disruption 7 <input type="checkbox"/> Parent/ caregiver employment location/relocation 8 <input type="checkbox"/> Ease of managing participation in extra-curricular commitments 9 <input type="checkbox"/> Family relationship/ history with school 10 <input type="checkbox"/> Stability of schooling (i.e., avoiding changing schools) 98 <input type="checkbox"/> Other (please specify _____) 99 <input type="checkbox"/> Do not know/ unsure
Q8	If Boarding School was not an option, what would be the alternative for your child/ children? Single Response	1 <input type="checkbox"/> Attending a local government school 2 <input type="checkbox"/> Attending a local Independent school 3 <input type="checkbox"/> Attending a local Catholic school 4 <input type="checkbox"/> Attending the same school but not as a Boarding student 5 <input type="checkbox"/> Distance Education (e.g., School of the Air) 6 <input type="checkbox"/> Home-schooling 7 <input type="checkbox"/> Not participating in formal education 98 <input type="checkbox"/> Other (please specify _____) 99 <input type="checkbox"/> Do not know/ unsure
The next few questions pertain to the school at which you work or the school at which your children are Boarding students.		
Q9	In which State or Territory is the Boarding School located? Single Response	1 <input type="checkbox"/> New South Wales 2 <input type="checkbox"/> Victoria 3 <input type="checkbox"/> Queensland 4 <input type="checkbox"/> South Australia 5 <input type="checkbox"/> Western Australia 6 <input type="checkbox"/> Tasmania 7 <input type="checkbox"/> Northern Territory 8 <input type="checkbox"/> Australian Capital Territory 98 <input type="checkbox"/> Other (please specify _____) 99 <input type="checkbox"/> Do not know/ unsure
Q10	Is the Boarding School located in a Metropolitan or Regional area? Single Response	1 <input type="checkbox"/> Metropolitan area (e.g., Greater Sydney) 2 <input type="checkbox"/> Regional town/ city 3 <input type="checkbox"/> Rural area 4 <input type="checkbox"/> Remote area 98 <input type="checkbox"/> Other (please specify _____) 99 <input type="checkbox"/> Do not know/ unsure
Q11	Is the Boarding facility Indigenous or majority Indigenous? Single Response	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 99 <input type="checkbox"/> Do not know/ unsure
Q12	In your experience, what are the main benefits of Boarding School for students? Multiple Response: Select All Which Apply.	1 <input type="checkbox"/> Improved psychological resilience 2 <input type="checkbox"/> Greater independence and self-reliance 3 <input type="checkbox"/> Reduced burden of isolated living 4 <input type="checkbox"/> Increased opportunity for social interactions with peers 5 <input type="checkbox"/> Higher academic outcomes 6 <input type="checkbox"/> Increased tolerance and compassion 7 <input type="checkbox"/> Greater preparation for post-school environments 8 <input type="checkbox"/> Reduced family and community pressures and responsibilities 98 <input type="checkbox"/> Other (please specify _____) 99 <input type="checkbox"/> Do not know/ unsure
Q13	To what extent do you agree or disagree with the following statement: Boarding School is a positive experience for most students. Single Response	1 <input type="checkbox"/> Strongly disagree 2 <input type="checkbox"/> Somewhat disagree 3 <input type="checkbox"/> Neither agree nor disagree 4 <input type="checkbox"/> Somewhat agree 5 <input type="checkbox"/> Strongly agree 99 <input type="checkbox"/> Do not know/ unsure

Source: AEC (unpublished)

SURVEY RESULTS

Table D. 2. What is Your Relationship to Boarding Student(s)?

Answer	Proportion of Responses	Number of Responses
Parent or Caregiver	82.7%	473
School Principal/ Head of Boarding	10.0%	57
Teacher/ Staff Member	7.2%	41
Other (please specify)	0.2%	1
No Relationship	0.0%	0
Do not know/ unsure	0.0%	0

Source: AEC (unpublished)

Notes:

Total Sample; Unweighted; base n = 572

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 3. In Which State or Territory do You Live?

Answer	Proportion of Responses	Number of Responses
New South Wales	40.7%	193
Queensland	24.3%	115
Victoria	16.0%	76
Tasmania	6.3%	30
Australian Capital Territory	3.6%	17
South Australia	2.5%	12

Source: AEC (unpublished)

Notes:

Filter: Q2 Filter; Unweighted; base n = 474; 17% filtered out

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 4. Do You Live in a Metropolitan, Regional or Remote Area?

Answer	Proportion of Responses	Number of Responses
Metropolitan area (e.g., Greater Sydney)	18.6%	86
Regional town/ city	22.5%	104
Rural area	41.6%	192
Remote area	15.2%	70
International	1.9%	9

Source: AEC (unpublished)

Notes:

Filter: Q2 Filter; Unweighted; base n = 462; total n = 474; 12 missing; 17% filtered out

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 5. Please Indicate How Many Children Under Your Care are in Boarding School

Answer	Proportion of Responses	Number of Responses
1 Child	67.5%	318
2 Children	23.4%	110
3 Children	7.6%	36
4 Or more children	1.5%	7

Source: AEC (unpublished)

Notes:

Filter: Q2 Filter; Unweighted; base n = 471; total n = 474; 3 missing; 17% filtered out

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 6. Including Any Drop Off and Pick Up at the Start and End of Each Term, How Many Times Would You Normally Visit Your Child/ Children at Boarding School Per Annum?

Answer	Proportion of Responses	Number of Responses
1-4 Times per year	18.4%	87
5-8 Times per year	19.2%	91
9-12 Times per year	22.6%	107
13 Or more times per year	37.8%	179
Do not know/ unsure	2.1%	10

Source: AEC (unpublished)

Notes:

Filter: Q2 Filter; Unweighted; base n = 474; 17% filtered out

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 7. What Proportion of These Visits Would You Have Undertaken to the Region in Which the Boarding School is Located, Regardless of Your Child/ Children Being Located There?

Answer	Proportion of Responses	Number of Responses
0% (Zero Percent)	20.7%	98
1% - 5%	5.7%	27
6% - 10%	11.2%	53
11% - 25%	13.9%	66
26% - 50%	11.2%	53
51% - 75%	1.3%	6
76% - 99%	4.4%	21
100%	7.4%	35
Don't Know/Unsure	24.3%	115

Source: AEC (unpublished)

Notes:

Filter: Q2 Filter; Unweighted; base n = 474; 17% filtered out

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 8 What Were the Main Reason(s) for the Child/Children Attending a Boarding School?

Answer	Proportion of Responses	Number of Responses
Access to higher quality education provision	71.1%	334
Access to education	41.7%	196
Geographical isolation of place of usual residence	32.8%	154
Access to desired/ specialised subjects	32.6%	153
Ease of managing participation in extra-curricular commitments	29.4%	138
Family relationship/ history with school	17.9%	84
Stability of schooling (i.e., avoiding changing schools)	14.0%	66
Change in family circumstances/ family disruption	6.6%	31
Family based overseas	5.3%	25
Independence/responsibility	4.9%	23
Parent/ caregiver employment location/relocation	3.8%	18
Experience/social interaction	3.6%	17
Other	3.0%	14
Best for child/child's choice	1.7%	8
More opportunities	1.3%	6

Source: AEC (unpublished)

Notes:

Filter: Q2 Filter; Unweighted; base n = 470; total n = 474; 4 missing; 17% filtered out

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 9. If Boarding School was not an Option, What Would be the Alternative for Your Child/ Children?

Answer	Proportion of Responses	Number of Responses
Attending a local government school	31.3%	148
Attending a local Independent school	24.7%	117
Attending the same school but not as a Boarding student	13.7%	65
Attending a local Catholic school	12.1%	57
Distance Education (e.g., School of the Air)	9.9%	47
Do not know/ unsure	2.1%	10
Other (Please specify)	1.9%	9
Relocating/moving	1.3%	6
Home-schooling	1.3%	6
International study	1.1%	5
Not participating in formal education	0.6%	3

Source: AEC (unpublished)

Notes:

Filter: Q2 Filter; Unweighted; base n = 473; total n = 474; 1 missing; 17% filtered out

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 10. In Which State or Territory is the Boarding School Located?

Answer	Proportion of Responses	Number of Responses
New South Wales	33.7%	193
Victoria	18.0%	103
Queensland	24.5%	140
South Australia	3.3%	19
Western Australia	5.1%	29
Tasmania	6.8%	39
Australian Capital Territory	8.2%	47

Source: AEC (unpublished)

Notes:

Total sample; Unweighted; base n = 572

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 11. Is the Boarding School Located in a Metropolitan or Regional Area?

Answer	Proportion of Responses	Number of Responses
Metropolitan area (e.g., Greater Sydney)	46.9%	267
Regional town/ city	47.3%	269
Rural area	3.9%	22
Remote area	1.2%	7
Don't Know/Unsure	0.5%	3

Source: AEC (unpublished)

Notes:

Total sample; Unweighted; base n = 569; total n = 572; 3 missing

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 12. Is the Boarding Facility Indigenous or Majority Indigenous?

Answer	Proportion of Responses	Number of Responses
Yes	5.1%	29
No	85.7%	490
Don't Know/Unsure	9.3%	53

Source: AEC (unpublished)

Notes:

Total sample; Unweighted; base n = 572

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 13. In Your Experience, What are the Main Benefits of Boarding School for Students?

Answer	Proportion of Responses	Number of Responses
Greater independence and self-reliance	89.2%	510
Increased opportunity for social interactions with peers	76.7%	439
Higher academic outcomes	70.8%	405
Greater preparation for post-school environments	65.2%	373
Improved psychological resilience	54.2%	310
Increased tolerance and compassion	51.7%	296
Reduced burden of isolated living	32.9%	188
Reduced family and community pressures and responsibilities	20.5%	117
Better opportunities	3.1%	18
Reduced travel time	1.2%	7
Other	0.9%	5

Source: AEC (unpublished)

Notes:

Total sample; Unweighted; base n = 572

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

Table D. 14. To What Extent do You Agree or Disagree with the Following Statement: Boarding School is a Positive Experience for Most Students

Answer	Proportion of Responses	Number of Responses
Strongly agree	58.7%	336
Somewhat agree	23.8%	136
Neither agree nor disagree	5.6%	32
Somewhat disagree	5.2%	26
Strongly disagree	4.5%	30
Don't know/ unsure	2.1%	12

Source: AEC (unpublished)

Notes:

Total sample; Unweighted; base n = 572

Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

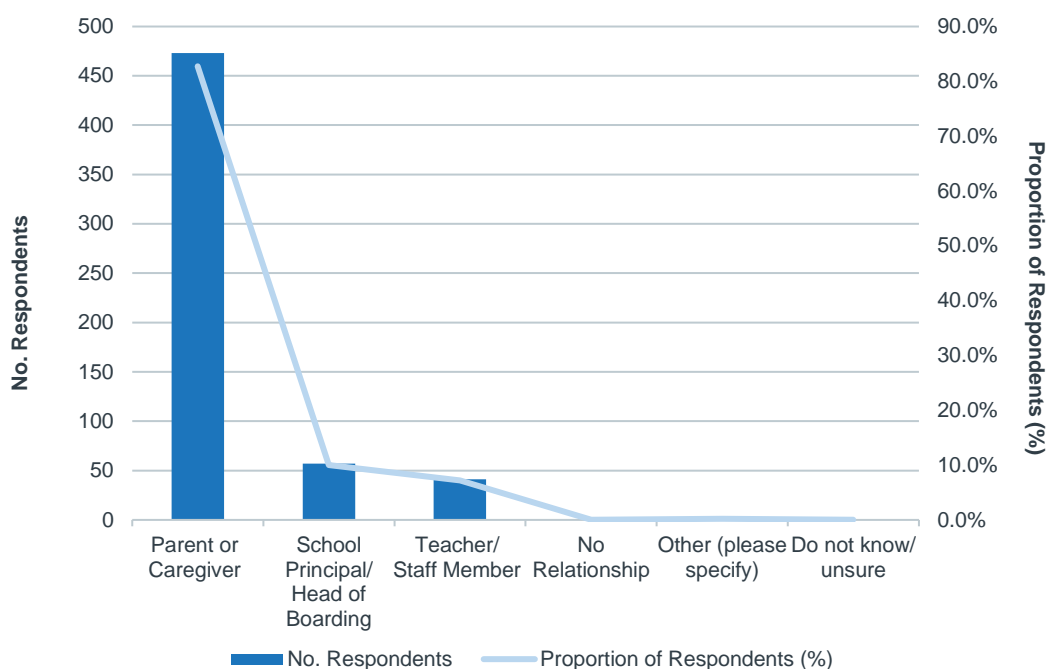
APPENDIX E: SURVEY ANALYSIS

To gain an understanding of the experience of boarding at Independent boarding schools in Australia, AEC undertook a national survey of parents and caregivers of Independent boarding students as well as school leaders and staff of Independent boarding schools. The survey was implemented between February 25 and March 18 2022 and received a total of 572 completed responses, including 474 parents or caregivers, 57 principals or heads of boarding, and 41 teachers or staff members. The survey was distributed by ISA to state and territory representatives of the Association of Independent Schools with direction for those representatives to promote it to their respective boarding schools. Potential respondents were advised that the survey would be used to support an assessment of the socio-economic benefits of boarding schools to the state/territory and national economies which would, in turn, be used in advocating for boarding schools to decision makers and funders. Participants were asked the questions outlined in Appendix D, and their responses have informed the assessment contained in this report. In each instance where the outcome of a specific question is being described, an *n* value representing the number of survey participants who responded to the question is reported. This appendix seeks to provide greater context to the survey results by highlighting some of the strengths, limitations and key outcomes.

DEMOGRAPHICS OF SURVEY RESPONDENTS

This survey was delivered to individuals holding a variety of roles in the Independent boarding school community, including parents, caregivers, principals, heads of boarding, teachers, and other staff members. Parents and caregivers represented the majority of survey respondents with 82.7% of respondents (*n*=572) identifying as such, principals and heads of boarding represented 10.0% of respondents and teachers and staff members represented 7.2%. If each boarder at Independent boarding schools had one parent or caregiver as a potential respondent to the survey, then 3.3% of potential parent or caregiver respondents participated in the survey. Principals and heads of boarding represented a relatively small proportion of survey respondents, however, assuming one principal or head of school responded per Independent boarding school (of which there are 135 in Australia (ISA, 2021)), it is estimated 42.2% of Independent boarding schools were represented by their principal or head of boarding in the survey (ISA, 2021).

Figure E. 1. Survey Respondents' Relationship to Boarding Student(s) (*n*=572)

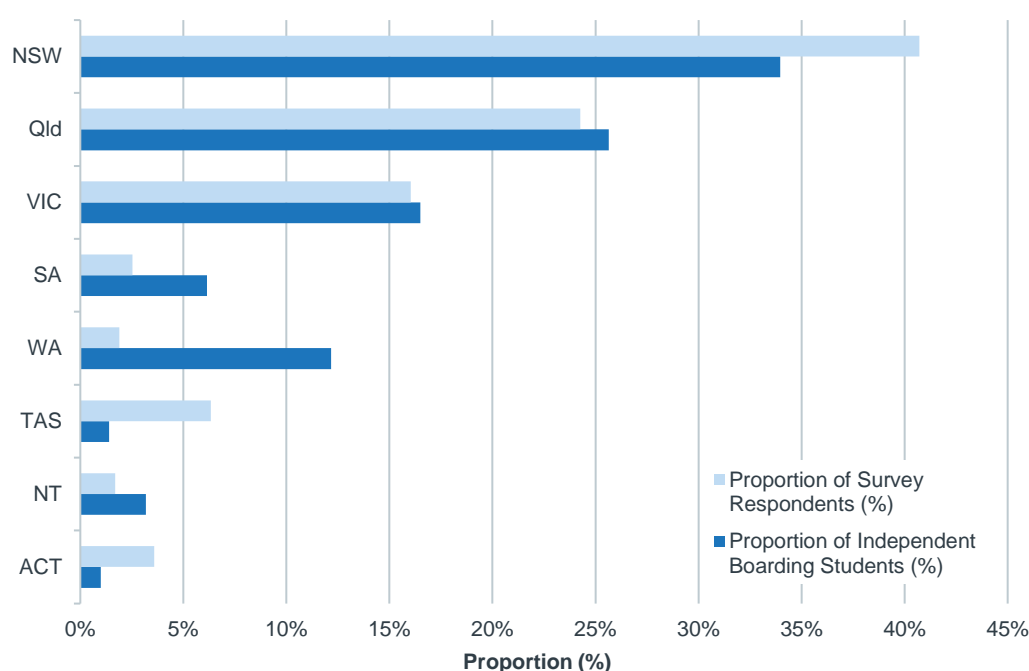


Source: AEC (unpublished)

The survey was distributed to Independent boarding schools nationally and requested parents to identify the state or territory in which they live. No state or territory recorded a sufficient number of respondents to form a

representative sample of the attitudes and behaviours of parents and caregivers of Independent boarding school students specific to that state or territory. New South Wales, Queensland and Victoria had the greatest number of parent or caregiver survey participants and similarly host the greatest number of boarding schools and students. Families from New South Wales represented 40.7% of respondents (n=474) but 34.0% of Australia's Independent boarding school boarders (ISA, 2021). Queensland and Victoria were accurately represented in the survey constituting 24.3% and 16.0% of survey respondents (n=474) and 25.7% and 16.5% of Independent boarding school boarders (ISA, 2021), respectively. The remaining states each had 30 respondents or less with 30 respondents located in Tasmania and a national low of eight respondents located in the Northern Territory. Notably, families from South Australia and Western Australia constituted 2.5% and 1.9% of survey respondents (n=474) but represent 6.2% and 12.2% of Independent Boarding Students (ISA, 2021), respectively. Because of the low response rate in the Northern Territory this survey was unable to capture the unique contribution of the state to boarding for Aboriginal and Torres Strait Islander students, who represent 82.9% of the total boarding population in the state (ABSA, 2022). This is considered to be a limitation of the report.

Figure E. 2. State or Territory in which Parent or Caregiver Respondents Live (n=474)

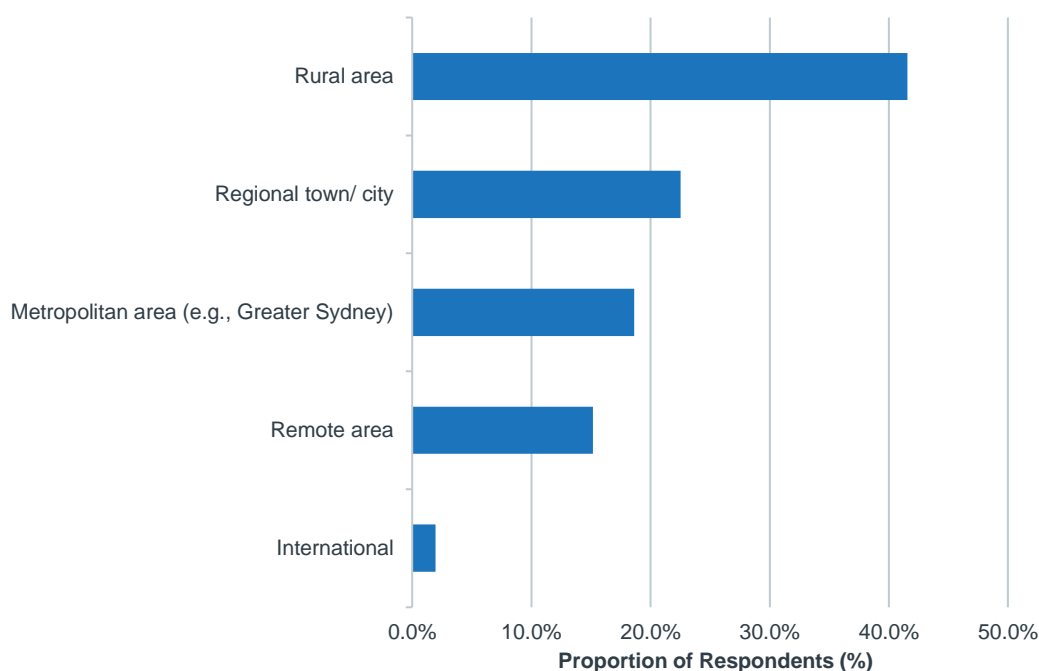


Source: AEC (unpublished), ISA (2021)

The proportion of survey respondents from parents or caregivers of international boarders was lower than may have been expected given the demographics of the Australian boarding student cohort more broadly. International boarders represented 7.0% of the Australian boarding cohort in 2021³³ (ABSA, 2022) whereas 1.9% of survey respondents (n=462) identified as living in an international location. Regional, rural and remote living individuals accounted for 79.2% of respondents (n=462) and 18.6% of respondents were from metro areas. ABSA (2022) estimate that, in 2021, 71.0% of all Australian boarding students were from rural areas³⁴ and 13.1% of students were from metro areas.

³³ 2021 data is used because it is the most recent and will provide the most accurate comparison for the survey.

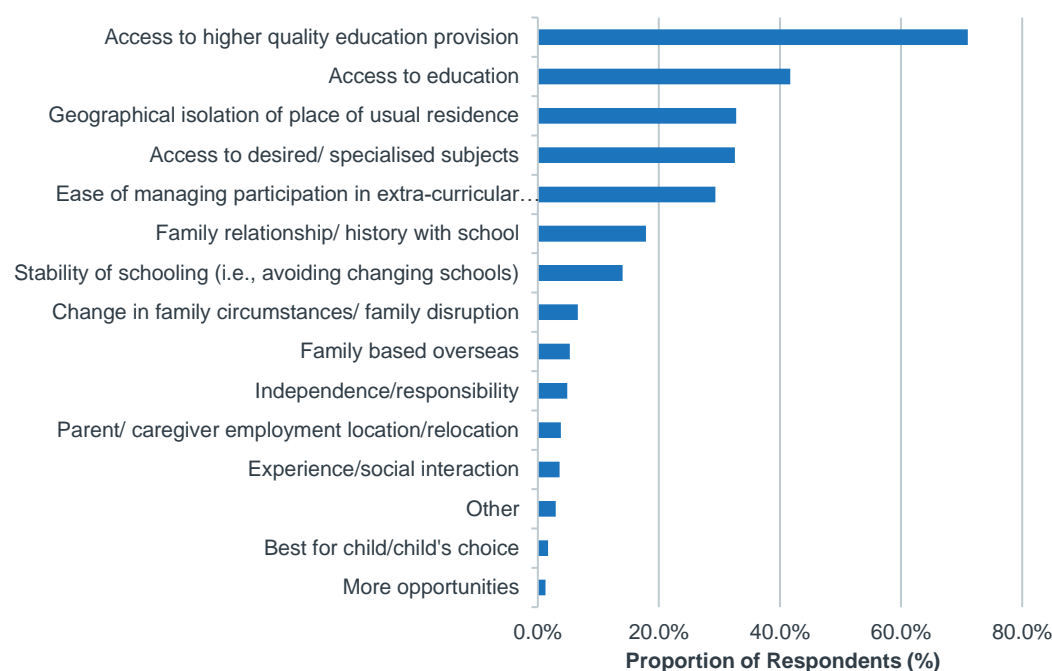
³⁴ Data provided by ABSA (2022) describes these boarders as "rural" but does not provide a definition of this geography. It is assumed to approximately align with the regional and remote typology described in this study.

Figure E. 3. Surveyed Parents Living in Metropolitan, Regional or Remote Areas (n=462)

Source: AEC (unpublished)

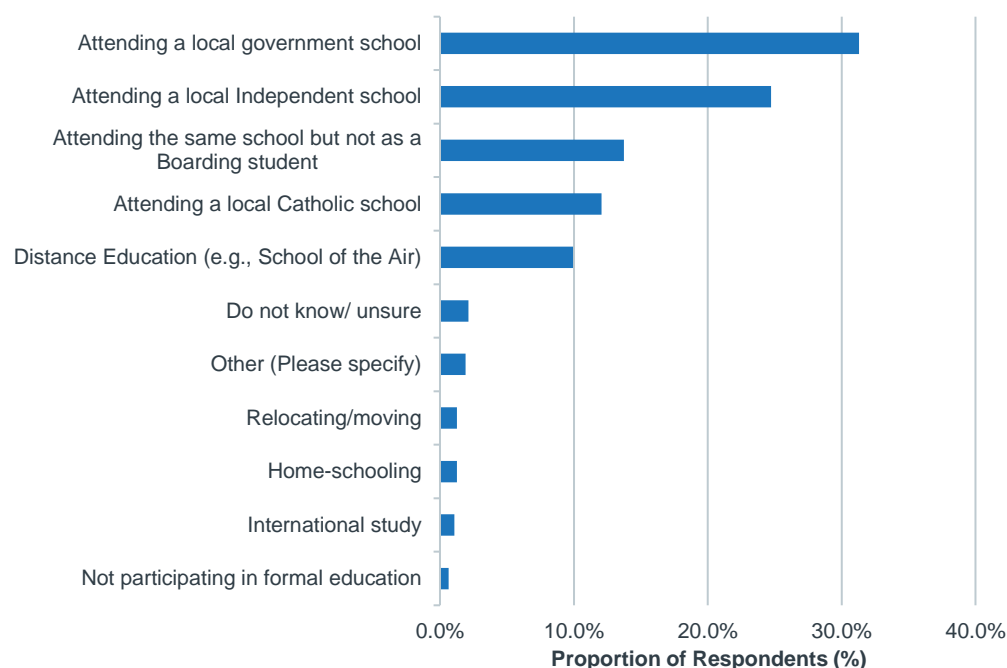
QUESTIONS OF INTEREST

The survey requested parents to identify the main reasons for their child/ children attending boarding school. Parents were asked to do this by indicating which of a list of reasons they considered to be main reasons for their child/children attending boarding school. They were additionally able to write-in a reason that was not listed. Of the 474 parents who participated in the survey, 470 responded to this question. As illustrated on Figure E.4 below, access to higher quality education was the most common reason for parents to choose boarding for their children with 71.1% of surveyed parents (n=470) identifying this as a main reason. Access to education followed with 41.7% of parents (n=470) identifying this as a main reason for choosing boarding for their children and 32.8% of parents identified geographical isolation of the family's usual residence as a main reason, both of which were reasons primarily chosen by parents in remote areas.

Figure E. 4. Surveyed Parents' Main Reasons for their Child/ Children Attending a Boarding School (n=470)

Source: AEC (unpublished)

The survey requested parents to identify the alternative for their child/ children if boarding school was not an option. Parents could select one response and were able to add in an alternative that was not listed. Out of the 474 parents who participated in the survey, 473 parents responded to this question. The most common alternative to boarding school among survey respondents was to attend a local government school with 31.3% of respondents (n=473) selecting this option. Following this, 24.7% of respondents (n=473) selected attending a local Independent school and 13.7% of respondents selected attending the same school but not as a boarding student.

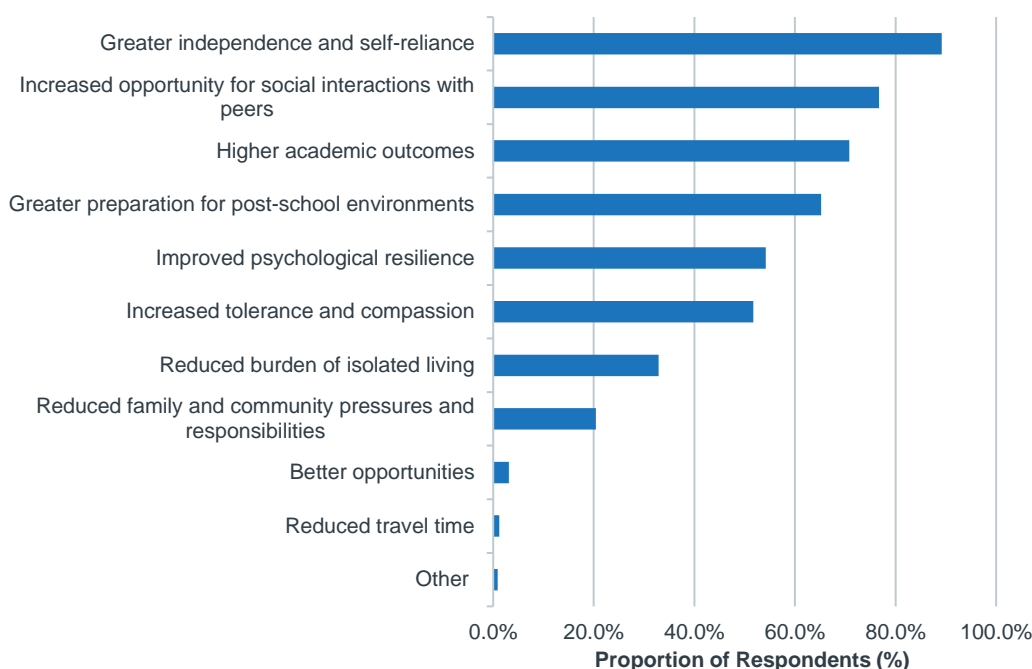
Figure E. 5. Alternatives to Boarding School Identified by Surveyed Parents (n=473)

Source: AEC (unpublished)

The survey requested respondents, including parents and staff, to identify the main benefits of boarding school for students. Respondents were able to choose multiple benefits in a provided list and add in a main benefit that was not listed. All of the 572 parents and staff who participated in the survey responded to this question. As illustrated

in Figure E.6 below, the most commonly identified main benefit of boarding school to students was greater independence and self-reliance with 89.2% of respondents (n=572) selecting this option. Following this, the most commonly identified main benefits to students were an increased opportunity for social interaction with peers and higher academic outcomes with 76.7% and 70.8% of respondents (n=572) selecting these options, respectively. Among parents, increased opportunity for social interaction with peers was most commonly identified as a main benefit of boarding school by those from remote areas with 88.6% parents (n=70) in remote areas selecting this option.

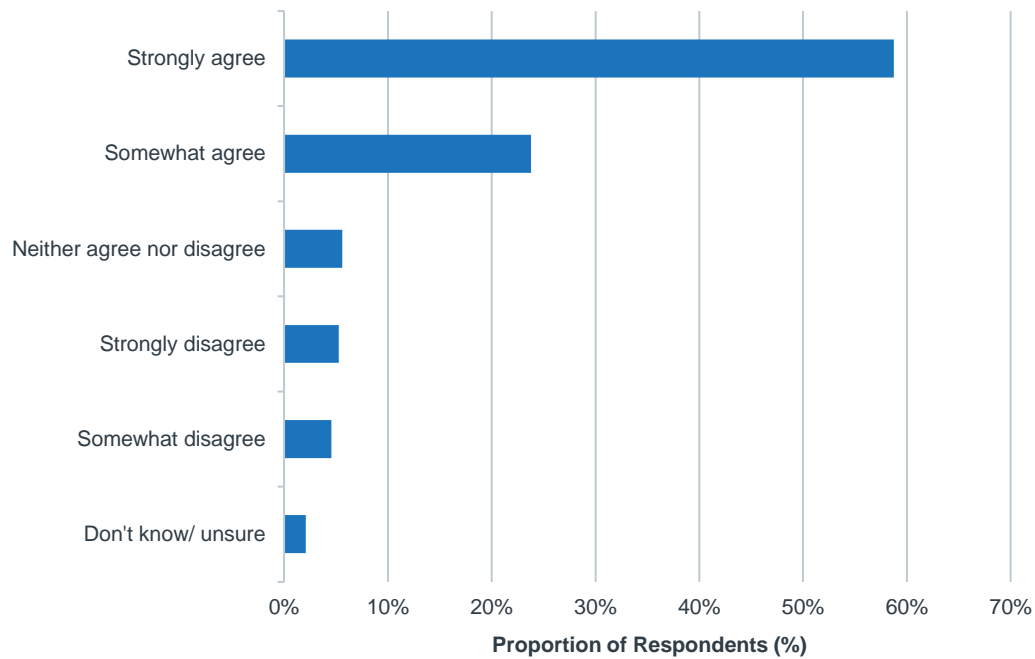
Figure E. 6. The Main Benefits of Boarding School Identified by Survey Respondents (n=572)



Source: AEC (unpublished)

The survey requested parents and staff to indicate to what degree they agree or disagree that boarding school is a positive experience for most students. Respondents were required to indicate this by selecting a single response on a five-point Likert scale with an additional option of “don’t know/ unsure”. All of the 572 respondents answered this question. The majority of respondents agreed that boarding school is a positive experience for most students with 58.7% of respondents (n=572) strongly agreeing and 23.8% somewhat agreeing. Relatively few respondents disagreed that boarding school is a positive experience for most students with 4.5% (n=572) strongly disagreeing and 5.2% somewhat disagreeing.

Figure E. 7. To What Extent Survey Respondents Agree or Disagree that Boarding School is a Positive Experience for Most Students (n=572)



Source: AEC (unpublished)

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OUTCOME DRIVEN

