

# Data opportunities in international education and training

Report for Navitas





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#### **Contents**

Ex	ecutive summary	3
1	Why does better international education and training data matter?	6
	1.1 This document proposes improvements to the availability of international education and train data in Australia	_
	1.2 This work is intended to deliver data-driven benefits and opportunities under three broad purposes	6
	1.3 Improving international education and training data would be consistent with broader reform data openness	
	1.4 Our approach has been guided by a set of data principles	8
2	What is the current state of international education and training data in Australia?	9
	2.1 International education and training data currently exists in a number of disparate datasets w varying degrees of access	
	2.2 Current state enrolment data presents a number of gaps and limitations	17
3	What are the opportunities for improvement in international education and training data in Australia?	
	3.1 There are opportunities to expand the scope of data collected	21
	3.2 There are opportunities to improve IET data accessibility	23
	3.3 There are opportunities for greater consistency in data collection and dissemination	24
4	When and where should international education and training data be made available?	25
	4.1 Explore means to reducing the lag time in production of Department of Education and Training	_
	4.2 Further effort should be devoted to producing easily consumable reports	25
	4.3 Explore opportunities for greater detail on interactive pivot tables	26
	4.4 Work towards a consistent and integrated platform in the long term	26
5	How can these improvements be implemented?	26
	5.1 Successful implementation will require prioritisation	26
	5.2 There are options available to improve IET data governance	27
Аp	pendix A Detailed current state data analysis	29
Αp	pendix B Kev datasets in other stages of the student journey	31

#### **Executive summary**

This document prepared for Navitas Ltd examines the current state of international education and training (IET) data availability in Australia, its strengths and limitations, and identifies opportunities for improvement in data collection, integration, reporting and availability.

#### Why does better international education and training data matter?

Consistent with the broader reforms on data openness in Australia, information and data is increasingly a key requirement to many domains in the international education sector. IET data can serve a wide variety of purposes. The focus of this document is to understand the availability of data to serve one or more of the following three purposes:

- public policy effectiveness to inform debate and decision making on public policy settings
- market efficiency to allow efficient allocation of resources from a whole of sector perspective, where all parties have access to the greatest extent of information possible to inform their activities
- operational efficiency to allow informed decisions at the level of the individual organisation.

This work critically examines the current state data availability against a set of seven principles for successful data collection and dissemination: completeness; timeliness; accessibility; consistency; equity; sensitivity to privacy; and the extent to which data is future-proof.

#### What is the current state of international education and training data in Australia?

International education and training data currently exists in a number of disparate datasets with varying degrees of access. Our analysis considers all stages of the student journey, with a focus on enrolments, finding that data on international enrolments sits across multiple data sources and locations and that current state enrolment data presents a number of gaps and limitations.

#### Key limitations to IET data in Australia include:

- timing and accessibility issues for key data sources
- difficulties in identifying location of study and regions within source countries
- limitations to data on visa application lodgments and grants
- unreconciled differences and inconsistencies across key data sources
- limited data on enrolment channels captured in key sources
- a lack of data on the non-student visa market
- issues with the ability of data to keep up with future developments in education delivery.



### What are the opportunities for improvement in international education and training data in Australia?

### Opportunities to expand the scope of data collected:

- development of an international student enquiry dataset to serve as a lead indicator
- greater granularity of visa application and grants data
- exploring opportunities to capture data on the behaviour of students in non-student visa enrolments
- seeking to provide more detailed data on the international student experience
- continuing to strengthen data on various forms of value in international education
- collection and dissemination of data on post–study behaviour.

### Opportunities to improve the accessibility of data:

- improving and simplifying access to the Department of Education and Training's Higher Education Information Management System (HEIMS)
- improving the access to visa application and grants data
- providing greater access to data by region within source country
- providing more comprehensive publicly available data.

### Opportunities for greater consistency in data collection and dissemination:

- seeking to address integration issues and discrepancies between key data sets
- providing consistency in the treatment of providers across data sources.

### When and where should international education and training data be made available?

The Department of Education and Training should explore means for reducing the lag time in production of key datasets, with opportunities to provide data several months earlier than existing publication dates. Further effort should also be devoted to producing easily consumable reports and exploring opportunities for greater detail on publicly available interactive pivot tables. In the longer term, work should be devoted to providing a consistent and integrated source of data across all IET subsectors.

#### How can these improvements be implemented?

Successful implementation of recommended initiatives will require clear prioritisation and a user-centred focus. Options available to improve data governance in IET range from:

- an adjunct to current arrangements
- a whole-of-government / whole-of-sector working group with expert panel members, including experts in data science and analytics from outside the sector
- a comprehensive data repository with an agency responsible for broader IET data and analysis that is governed by government and the sector.

International Education and Training is a data-rich environment with significant untapped potential for the sector. Ensuring the appropriate data stewards are working effectively together to meet the purposes of public policy effectiveness, market efficiency and operational efficiency is vital to improved data collection and dissemination in Australia.

# 2 Why does better international education and training data matter?

# 2.1 This document proposes improvements to the availability of international education and training data in Australia

Information and data is increasingly a key requirement to many domains in the international education and training sector. The range of users and requirements is accelerating with the increasing complexity and sophistication of user needs and expectations. Historical approaches to data collection and reporting are changing across the education landscape.

This document, prepared for Navitas Ltd, examines the current state (as at April 2018) of international education and training data availability in Australia, its strengths and limitations, and identifies opportunities for improvement in data collection, reporting and availability. It is intended to serve as an informative piece of research, and as a starting point for further discourse on data capture and availability in the sector. This document also provides concrete options to improve the availability of international education data in Australia.

Within the context of a complex and diverse international education system in Australia, the scope of this work is constrained to:

- The Higher Education, Vocational Education and Training (VET) and English Language Intensive Courses for Overseas Students (ELICOS) sub-sectors (thereby excluding the school and non-award sub-sectors)
- Australian education providers (excluding data on international destination countries)
- Inbound international students to Australian providers (excluding outbound mobility for domestic Australian students).

# 2.2 This work is intended to deliver data-driven benefits and opportunities under three broad purposes

International education and training (IET) data can serve a wide variety of purposes. The focus of this document is to understand the availability of data to serve one or more of the following three purposes.

#### 1. Public policy effectiveness

The availability of IET data for interrogation and analysis is important to inform debates on public policy settings. In particular, a plurality of views and advice on the implications of policy changes and emerging systemic risk in the industry would be invaluable given the highly regulated and policy-contingent nature of the sector.

With better and more accessible data, this work could be done by a wide variety of players including government agencies at different levels of government, industry bodies, think tanks, academic research institutes, and policy-active IET providers themselves.

#### 2. Market efficiency

As the IET market continues to grow and become more competitive, market participants will need to improve their understanding of market trends and student behaviour. The efficient allocation of resources from a whole of sector (and arguably whole of economy) perspective will be more likely when all parties have access to the greatest extent of information possible to inform their activities. Specifically, market participants will need to understand how demand is changing and how the market is responding to these

changes. In the absence of such data, IET providers will not be well-placed to adapt their business strategies, to take informed risks, and to innovate.

#### 3. Operational efficiency

At the level of individual organisations, data is critical to inform not just strategic choices, but also operational considerations. CRICOS registered providers are continually seeking to more efficiently and effectively deliver education and training that meets the needs of students and industry, and publicly available data is an important input that informs firm-level practices. Such operational decisions might include:

- where and how to direct expenditure on marketing and recruitment
- what commencement and retention targets to set to drive internal performance
- · decisions around product development and pricing
- alignment of admissions processes against good practice benchmarks.

More efficient and effective operations at the firm level in turn generate economic benefits for the wider economy.

While these three purposes drive the need for improvements in IET data, it is also worth acknowledging that, as outlined recently by the Productivity Commission, "the substantive argument for making data more available is that opportunities to use it are largely unknown until the data sources themselves are better known, and until data users have been able to undertake discovery of data" (Productivity Commission 2017).

# 2.3 Improving international education and training data would be consistent with broader reforms on data openness

Recent work on data availability in Australia suggests a broader reform agenda, with multiple bodies focusing on opportunities for increased data openness and accessibility. It follows that opportunities considered in this paper are consistent with the broader movement towards open data in Australia.

As the Productivity Commission concluded in its *Inquiry into Data Availability and Use* (March 2017):

Extraordinary growth in data generation and usability has enabled a kaleidoscope of new business models, products and insights. Data frameworks and protections developed prior to sweeping digitisation need reform...

...Improved data access and use can enable new products and services that transform everyday life, drive efficiency and safety, create productivity gains and allow better decision making.

... Lack of trust by both data custodians and users in existing data access processes and protections and numerous hurdles to sharing and releasing data are choking the use and value of Australia's data.

Other initiatives focusing on improved utilisation and collection of data in Australia include:

- The Commonwealth Government's focus on <u>Open Data</u>, including development of an Open Data Toolkit and promoting the use of public data
- The Mitchell Institute's submission to the Productivity Commission's Inquiry into the National Education Evidence Base <u>Education data: harnessing the potential</u> (May 2016)
- The Department of Education and Training's proposed <u>Redevelopment and Audit of the Higher</u> <u>Education Data Collection</u>, including a recent discussion paper and request for submissions
- The revised National VET Data Policy, which took effect in January 2018

#### 2.4 Our approach has been guided by a set of data principles

Our work has been guided by a set of seven principles for successful data collection and dissemination. We have critically examined current state data availability against these principles and designed our identified improvement opportunities with them in mind.

Data should, as much as is reasonably practical, be:

- 1. **Complete** erring towards covering more fields and variables rather than less
- 2. **Timely** being available within a reasonable timeframe, to ensure the benefit of its analysis can be realised with greater currency and certainty
- 3. **Accessible** being readily available for access, in a form which is easily understood and processed by an average data consumer
- 4. **Consistent –** following a similar set of guidelines for collection and availability across similar data sets
- 5. **Equitable –** providing benefits to a wide variety of relevant users, independent of the resourcing levels or other characteristics of users
- 6. **Sensitive to privacy legislation –** maintaining the strict privacy of individuals and organisations in line with current regulatory requirements
- 7. **Future-proof** considering emerging trends in education delivery and their implications for data collection and dissemination.

The focus of this analysis is on the extent to which available data meets the requirements of an average data user, with some industry context, but not sophisticated expertise.

# 3 What is the current state of international education and training data in Australia?

# 3.1 International education and training data currently exists in a number of disparate datasets with varying degrees of access

The current international education and training (IET) data landscape can be characterised as being fragmented and somewhat inaccessible to the majority of interested parties.

The Mitchell Institute's assessment of education data broadly would be equally applicable to IET data specifically:

Australia's current approach to education data collection, analysis and dissemination has developed over time, generally in silos, in response to specific jurisdictional and sectorial needs and priorities, and before modern analytical and technical capacities were developed.

#### Our analysis considers all stages of the student journey, with a focus on enrolments

International education data in Australia is held across a number of datasets, mostly held by government agencies, covering a range of variables and stages of the student lifecycle.

For the purposes of this analysis, data availability has been considered against seven stages of the student journey (as shown in Figure 1):

- 1. **Enquiry** including all pre-application student activity
- 2. Application
- 3. **Enrolment** including visa data, student headcount, student load, commencements and continuing students
- 4. Student experience
- 5. Value including cost and value to the student, and value to providers and the Australian economy
- 6. Completion
- 7. **Post-study pathways** including pathway into further study, post study employment and visa outcomes.

This analysis focuses on data availability in the *enrolment* stage of the journey, on the assumption that detailed and complete enrolment data provides the greatest value to providers, government and the sector as a whole. However, it is strongly recommended that mechanisms be taken forward within the broader improvements to IET data across all the stages of the student journey.

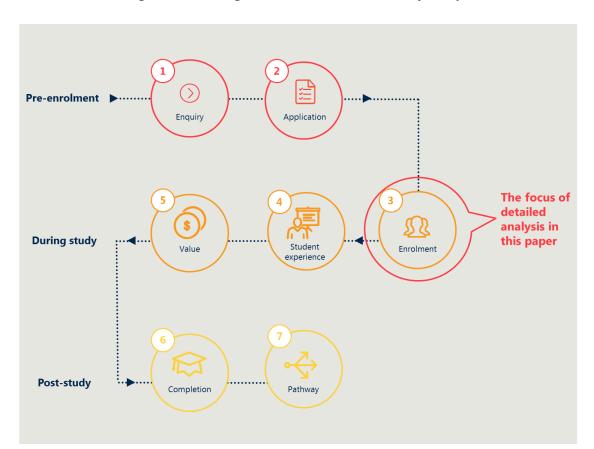


Figure 1: Seven stages of the international student journey

#### Data on international enrolments sits across multiple data sources and locations

#### **Current state data sources**

Current state data on international enrolments sits across a number of different data sources and locations. Each of these sources captures data on a range of variables, largely in isolation from other collections. The major Australian data sources on IET enrolments are summarised in Table 1 below.

Table 1: Key sources of IET data in Australia

Source	Publication	Indicative view
	Higher Education Information Management System (HEIMS) data requests – Available via paid request. Includes a significant level of information on applications and enrolments for international and domestic students. Detailed information related to international education available includes citizenship status (overseas), home country, Field of Education, university, qualification level, term time address and attendance type.	Superant of the content of the conte
Commonwealth Department of Education and Training	Higher Education Data Cube (uCube) – Publicly available. Data cube with information on enrolments and commencements by citizenship category (overseas and domestic), course level, Field of Education, state, and institution. Information is not available on the source country for students. Note the data includes the aggregate of onshore and offshore enrolments.	Court   Cour
	<b>Higher education enrolment tables –</b> summarising data by source country, sector and provider state.	Application Constrained   Application Constrained   Application of Application Constrained   A
	International education research snapshots - developed by the International Research and Analysis Unit to provide stakeholders with summary updates on current activities and developments in international education data and research.	Research Snapshot  When the Share (allow of allow of the share the share of the sha

Source	Publication	Indicative view
	<b>Orbis tool</b> - overview dashboard showing visualisations on trends in the international student data, student visa grants, and education exports	International education data  Aurorate provision material stratigeners, data and auropin, dancy with interactive data through 160 Orlin, its emplower harborial sylintersultimed educations and sparing arrival.    Description of the CYTES   Contract PROPERTY
Austrade – Market Information Package (MIP)	Pivot tables - The MIP basic pivot table is publicly available and includes information on international student commencements and enrolments in onshore courses by state/territory, sector, nationality, and year based on the PRISMS database. More detailed information is available to registered members through the standard and detailed pivot tables which include further information on Field of Education (broad, narrow, detailed), level of study, region and provider type (government, non-government). Information is not available for specific provider enrolments and commencements.	
National Centre for Vocational Education Research (NCVER)	VOCSTATS – Available via free registration. Multiple data sets presented on apprenticeships, trainees, government funded students and courses, total VET students and VET in-schools – including level of study of international students and Field of Education. Information is not available for specific provider enrolments and commencements.	Monte of the Control
Commonwealth Department of Home Affairs	Studying in Australia Statistics – Statistical information on international students on a variety of student visa programs. Includes information on student visas and temporary graduate visas lodged and granted based on citizenship of the applicant, provider state, previous visa held, sector and whether the application was made onshore or offshore, as well as other demographic factors such as age and gender.	Student visas indeped prior table  Student visas in

Further detail on the above data sets and other complementary data sources is included in Appendix A.

#### Our assessment has been guided by a data assessment scale

For the purposes of this analysis, a data assessment scale has been developed to assess the available data in international education, considering the key features of *timeliness* and *accessibility*. This assessment scale is set out in Table 2 below, with equal emphasis placed on accessibility and timeliness.

In evaluating data accessibility, this analysis considered:

- 1. Cost of access
- 2. Extent to which the data is publicly available (vs requiring registration/membership)
- 3. Ease of analysis and interpretation by an average user in the IET sector

Table 2: IET data assessment scale

Timeliness	Accessibility – Cost, extent and ease			
Tillelilless	Low	Medium	High	
Monthly/quarterly	0	0	0	
Annual data (publication <6 months lag)	0	0	0	
Annual data (publication >6 months lag)	0	0	0	
Not published	0	0	0	
Not collected	0	0	0	

Legend	
Excellent	0
Good	0
Moderate	0
Poor	0

### Assessment of current state data sources shows disparities in data collection and reporting exist

The matrix displayed in Table 3 below sets out the classification of key variables in IET against the data assessment matrix, for each of the respective levels of study. While this matrix does not include interaction between variables (for example *course of study* by *provide type*), these interactions are discussed in the commentary that follows. The minimum expectation for each of the variables below is the inclusion of a source country field against the respective variables. For example, *mode of attendance* is rated *moderate* for higher education enrolments, as this information requires access to a HEIMS data request to understand *mode of attendance* by *source country*. While the *mode of attendance* field is available publicly via uCube, that data set does not include *source country* information, so the mode of *attendance* data is considered *not available* via uCube.

Table 3: Current state data assessment matrix (enrolments)

Sector		Higher education	VET	ELICOS
Level (AQF)		5-10	1-6	ELICOS
	Field of Education (2 digit)	0	0	n/a
Field of education	Field of Education (4 digit)	0	0	n/a
	Course of study name	0	0	n/a
Source	Country	0	0	0
location	Market sub-region	0	0	0
Enrolment cha	Enrolment channel		0	0
Type of attendance		0	0	0
Mode of attendance		0	0	0
Provider name (total overseas students)		0	0	0
Provider name (by source country)		0	0	0
<b>Provider type</b> (government vs non-government)		0	0	0
Provider location (by state)		0	0	0
Campus location (onshore vs offshore, campus postcode)		0	0	0

Table 4: Current state data assessment matrix (visa applications and grants)

Sector		Higher education	VET	ELICOS
Level (AQF)		5-10	1-6	
Field of education	Field of Education (2 digit)	0	0	n/a
Source	Country	0	0	0
location	Market sub-region	0	0	0
	Application location (onshore vs offshore)		0	0
Provider name		0	0	0
Provider type (government v	<b>Provider type</b> (government vs non-government)		0	0
Provider location (by state)		0	0	0
_	Campus location (campus postcode)		0	0
Previous visa type		0	0	0

The above data assessment matrices give rise to a number of observations on IET data availability, namely:

- State and provider type characteristics are consistently available all information regarding enrolment trends by source country for provider state and provider type are rated excellent. Austrade's MIP provides timely and accessible data, showing emerging trends across Higher Education, VET, ELICOS and non-award enrolments.
- **Provider name detail is scant** receiving moderate to poor ratings, with the exception of Higher Education, for *total overseas students* by *provider name*, which is publicly available via uCube but with a significant time delay. *Provider name* by *source country* data is available via a HEIMS request for Higher Education providers (rated moderate due to timing and accessibility issues), while data is not published by *provider name* for VET, Non-award, or ELICOS enrolments. Similarly, visa data released by the Department of Home Affairs does also not provide information on provider name.
- Higher education data is the highest quality but difficult to access, while ELICOS data is particularly limited thanks to publications via Austrade's MIP full pivot (rated excellent due to monthly publication and medium accessibility) and DET's HEIMS (rated moderate due to timing and accessibility issues), Higher Education data fares best in this assessment. VET fares well on some measures (namely *Field of Education* and *source county*) and poorly on others (*provider name* and *attendance* details), where data is not collected. ELICOS fares worst, largely reliant on the English Australia survey, which does not provide significant detail, nor does it produce a pivot table of data to be analysed with historical data included (outlined in Appendix A).
- Market sub-region and enrolment channel data is lacking receiving a poor rating, as a result of not being collected and/or published on a consistent or centralised basis. While information on previous visa held release by the Department of Home Affairs does allow some assessment of

pathways based on the sector of study at a source country level, this information is not broken down by the field the student studies or the education institution they attend.

• **Visa application and grant data lacks granularity** – lacking information by provider name, provider type and source city/region within source country. Where available, visa data receives a good rating due to medium accessibility and bi-annual releases.

#### Current sources are generally accessible, but do not address all important elements

A summary of ratings and rationale for each of the major datasets (where they contain applicable data) is set out in Table 5 below:

Table 5: Current state data assessment - key IET data sources (if applicable)

Source	Rating	Rationale
Department of Education, HEIMS	0	<ul><li>annual data (publication &gt;6 months lag)</li><li>low accessibility</li></ul>
Department of Education, uCube	0	<ul><li>annual data (publication &gt;6 months lag)</li><li>high accessibility</li></ul>
Austrade, Market Information Package (basic)	0	<ul><li>monthly data (approximately 2-3 month lag)</li><li>high accessibility</li></ul>
Austrade, Market Information Package (detailed)	0	<ul><li>monthly data (approximately 2-3 month lag)</li><li>medium accessibility</li></ul>
NCVER, VOCSTATS	0	<ul><li>annual data (publication &lt;6 months lag)</li><li>medium accessibility</li></ul>
Department of Home Affairs, Studying in Australia Statistics	0	<ul><li>bi-annual data</li><li>medium accessibility</li></ul>

Legend	
Excellent	0
Good	0
Moderate	0
Poor	0

### 3.2 Current state enrolment data presents a number of gaps and limitations

As highlighted in the data assessment in Section 3.1 above, the current state of international education enrolment data in Australia is limited by several key issues:

- Department of Education and Training HEIMS and uCube enrolment data releases can lag significantly behind data capture
- 2. Some key data sources are **not fully publicly accessible**
- 3. There is difficulty in identifying location of study
- 4. There are unreconciled differences across DET and Austrade datasets
- 5. Data on student source country does not capture city or regions within source country
- 6. There is limited data captured in key sources on **enrolment channels**
- 7. The **non-student visa market is not captured** in key data sources
- 8. Some data fields may quickly become outdated, due to emerging trends in education delivery

### Department of Education and Training enrolment data releases can lag considerably behind data capture

A key issue identified in the timeliness of data releases relates to Department of Education and Training's Higher Education Information Management System (HEIMS) and higher Education Data Cube (uCube) release dates. These datasets typically form the basis for detailed provider-level analysis on international student enrolments.

Enrolment data for any given year is not released until the final quarter of the following year, meaning that most analysis is completed on the basis of lag in data of up to two years. For example, a user wishing to analyse provider-level trends for 2016 would typically be required to wait until November 2017 to receive the relevant data and would not be likely to complete a detailed analysis until late 2017 or early 2018.

As a result, policy discussions and internal provider strategic direction is often formed on the basis of a significant lag in understanding of trends.

#### Some key data sources are not entirely publicly accessible

The major publicly available datasets for enrolments in international education and training are the Department of Education and Training's uCube and Austrade's MIP Basic Pivot. Data included in and excluded from these datasets is explored elsewhere in this paper, to the extent that it is apparent that these two datasets do not provide a detailed or comprehensive view of international education enrolments in Australia.

In order to complete a detailed analysis on international education and training enrolment trends, the three key sources of reference are:

- 1. Department of Education and Training's HEIMS available via paid request only, data requests through HEIMS can be seen as difficult to complete for unfamiliar users. This data can be costly to request and resource-intensive to analyse, potentially leading to issues in equity of access. For example, smaller organisations may not have the requisite budget to complete or commission significant analysis of large data sets obtained through this source.
- 2. **Austrade's Market Information Package (full version)** available via paid registration for approved users only (include registered education institutions and Edtech organisations, representative bodies, government bodies and other "Special case" MIP subscribers).
- 3. **National Centre for Vocational Education and Research's (NCVER) VOCSTATS** as per NCVER's specifications:

VOCSTATS is specifically targeted at those users who have a requirement for highly tailored outputs, have a good understanding of the intricacies and limitations of the NCVER collections, and are willing to design and generate their statistical outputs directly. Access to VOCSTATS is by application and all registered users must acknowledge the conditions associated with the application's use. This includes details of how data from VOCSTATS should be referenced and a statement in all publications that the information obtained from VOCSTATS has been extracted by the author and they take responsibility that the information extracted is appropriate for its intended use.

#### There is difficulty in identifying location of study

At a broad level, the key publicly available data source, uCube, does not distinguish between onshore and offshore enrolments. Given the Department collects information on course campus location, this would likely be a relatively straightforward addition to the dataset.

At a more detailed level, analysis of campus location (including states and postcodes for enrolments in Australia, and country of study for offshore enrolments) requires a detailed (paid) request through the Department's HEIMS.

There are two key implications of the above limitations:

- a) Users wishing to assess city and town-based trends in international education in Australia are unable to do so via publicly available sources.
- b) Analysts seeking to understand trends in delivery via onshore/offshore campuses for specific providers are unable to do so via the publicly available resources.

It is worth noting that Austrade's publicly available Market Information Package provides location (state/territory) of provider for onshore international students, the sector of study and the nationality of the student. However, this data does not include the full set of categories included in the pivot tables behind the MIP pay-wall, such as Provider Type, Field of Education or Level of Study.

#### There are unreconciled differences and inconsistencies across key data sources

The two key sources for detailed data analysis considered in this paper (HEIMS and MIP – full) are difficult to reconcile and are inconsistent in their approaches. Austrade's MIP draws on PRISMS data which includes onshore enrolment and commencement data. Ideally, this data should be consistent with data for onshore campuses in the Department's HEIMS. In practice, these two datasets do not reconcile, and figures can vary up to approximately four per cent between sources. There are also discrepancies in non-award foundation enrolments across the two sources, with the number of international enrolments classified as *Foundation* under MIP far greater than international non-award enrolments reported via HEIMS (excl. Study Abroad non-award enrolments), although this may be an under-reporting issue. Reporting of *Foundation* enrolments under MIP is via manual selection of a *Foundation* indicator, leading to potential issues with classification consistency.

Further to this, it is difficult to compare data for Higher Education and VET across sources. There is no equivalent uCube data set for VET which provides provider level detail for universities.

As the Mitchell Institute noted:

The way enrolment is measured is different in VET and higher education, in part reflecting different patterns and types of provision. However, there are opportunities to establish more consistent protocols about how enrolment is measured (for example, identifying core substantive/professional courses and excluding minor courses, or through learner intention questions that link intent to outcome).

#### Data on student source country does not capture city / region within source country

None of the key data sources on international enrolments provide detailed information on source locations for students, beyond country of origin.

Driven by concerns about concentration risk in Australian international education, and the impacts of the recently introduced Simplified Student Visa Framework (SSVF), much of the recent discourse on international education data focuses on the growing share of students from large markets (in particular, China and India, whose combined share of international higher education enrolments in Australia grew by three percentage points from 2013 to 2016 to be 39%.

Given the significance of large markets, the ability to distinguish source regions within those markets is critical. This is relevant for large markets both in terms of magnitude of population and geographic size. The ability to discern source location within a country is useful in understanding both student demand and quality (including risk) by region in some of Australia's largest markets. This would allow the development of insights on concentration risk within a specified country and could potentially inform visa and international education policy.

It should be noted that the Department of Home Affairs via the Austrade MIP, on occasion provides registered members with detail on visa applications by region for China, but no information on how visa applications transfer to enrolments.

#### Visa data lacks granularity, timeliness and full information is not accessible

Via the Commonwealth Department of Home Affairs, data on visa application lodgment and grants is publicly available. Publications include reports and accessible pivot tables, including data on:

- Applications lodged (including by citizenship, by month, client location and provider state)
- Visas granted (including by citizenship, by month, client location and provider state, by previous visa held) including grant rates
- Applications on hand i.e. the number of visas currently being processed.

This data is provided on a bi-annual basis and application data can serve as a useful lead indicator on enrolment trends. However, there are several limitations with this data source. This includes the significant duration between the release of information and that the pivot tables are 'locked' – i.e. the grants and applications visa data is not able to be assessed based on multiple variables and cannot be extracted for analysis purposes. Visa *applications made* and visa *applications granted* also sit across two separate pivot tables which can make analysis of the relationship difficult. This severely limits the ability for providers to assess visa trends and inform decision-making.

#### There is limited data on enrolment channels captured in key sources

Holding an understanding of trends in channels for international student enrolment is key, particularly from a market efficiency and operational efficiency perspective. Improving access to this information would allow greater efficiency in resource allocation for Australian providers and allow them to adequately benchmark their activity against peers. This information is not available in the major publicly accessible sources but is often commissioned as market research by individual providers and groups.

#### The non-student visa market is not captured in key data sources

Given recent trends in education delivery, the non-student visa market is expected to experience strong growth. Students entering Australia on a non-student visa (for example for Executive Education short courses, school study tours and English languages courses) are not captured in key data sets (in particular Austrade's Market Information Package). This presents limitations on understanding the true number of international students in Australia, prohibiting well-informed public policy discussion and limiting the ability of providers to adequately respond to demand emerging trends in delivery. Given the close link between international education and tourism, there are potential opportunities to explore collection and reporting of data on learners entering Australia to undertake short or targeted study on alternative visas such as tourist or working holiday maker visas.

#### Some data fields may quickly become outdated, due to emerging trends in education delivery

There are limitations in current data sets to meet the future data requirements for international education in Australia. Future-focused considerations for data collection include:

- 1. The rise of non-traditional courses, including micro-credentialing
- 2. The rise of non-traditional delivery methods, including online courses
- 3. Work-integrated learning opportunities

These are not captured to any significant extent in the existing data sets on international enrolments in Australia.

#### Case study - highlighting limitations on the average user

To highlight discrepancies in data availability in IET in Australia, Table 6 below sets out a case study, for a hypothetical user seeking to explore international student enrolments by *source country*, by *2-digit Field of Education*, *by institution* and *campus location*. This scenario is explored through the eyes of both an average user and a sophisticated data analyst.

Table 6: Case study demonstrating data access disparities for an average and sophisticated user

#### Average user (publicly available sources only)

#### **Hypothetical data access:**

Austrade MIP (basic) – access to enrolments by source country, by provider state (onshore only). Access to monthly data with an average two to three-month lag

uCube – access to enrolments by 2-digit Field of Education, by provider, by provider state (not able to distinguish between onshore and offshore, and not able to determine source country); 1-year lag

**Result:** An average user is able to access onshore enrolments by source country and destination state with a short lag.

In order to understand provider-level and Field of Education-level trends, the user must wait until the last quarter of the following year, at which time the user will not be able to distinguish between onshore and offshore enrolments.

#### Sophisticated user (registered and paid access)

#### **Hypothetical data access:**

Austrade MIP (full) – access to enrolments by source country, by detailed Field of Education, by state, by provider type, with an average two to three-month lag (onshore only)

HEIMS request (paid) – access to detailed information on source country, campus location, Field of Education, course name, and various other detailed characteristics

**Result:** Over and above the average user, a sophisticated user is able to access Field of Education trends and provider type trends with a short lag.

In the last quarter of the following year, over and above an average user, a sophisticated user is able to derive detailed insight on providerlevel trends, down to the course name level, detailed level of study, and can distinguish between onshore and offshore enrolments.

# 4 What are the opportunities for improvement in international education and training data in Australia?

### 4.1 There are opportunities to expand the scope of data collected

There are opportunities for advancements in data capture across the stages of the student life-cycle, providing likely quick-wins and significant gains. Priority items include:

#### 1. Pre-enrolment

- a) Development of an international student **enquiry dataset** to serve as a lead indicator
- b) Greater distribution, visibility and granularity of visa application and grant data

#### 2. During study

- c) Explore opportunities to capture data on the behaviour of non-student visa enrolments, including learners studying English, short courses, executive education, study tours and non-traditional online modules.
- d) Seek to provide more detailed **data on the international student experience**, beyond the twoyearly International Student survey
- e) Continue to strengthen data on various forms of value in international education.

#### 3. Post-completion

f) Collection and dissemination of data on post-study behaviour and outcomes

#### Development of an international student enquiry dataset to serve as a lead indicator

There is currently no publicly available information which serves as a reliable lead indicator on enrolment trends in IET. An easily accessible solution to act as a lead indicator could include data on enquiries from international students. Enquiry data, such as traffic to particular websites, education agent enquiries, visa application volumes (from regions within source countries) could be investigated as a means to providing an early indication of student trends.

### Greater distribution / ease of access of visa application and grant data and increased visibility of visa status for providers

The Department of Home Affairs holds highly detailed data on student visa applications and grants. Justifiably, much of this data is confidential and cannot be shared due to privacy and/or security concerns. While still maintaining the strict confidentiality of data where required, there are opportunities for increased reporting on student visa figures, particularly at an aggregated level.

This could include data relating to:

- · Visa application lodgment and grant data, including movements between sectors of study
- Student source region/city
- Application channel data (including agent vs direct application)

Beyond the obvious policy, market and operational efficiency benefits this would provide, it would also allow for easier management of agent relationships. One such example of improvements in data availability relating to the use of agents is the recently announced amendments to *the Education Services to Overseas Students Act 2000* (ESOS Act) which will allow the Department of Education and Training to

share education agent performance information with providers, enabling providers to more readily assess the benefits of their agent relationships. In the longer term, the Department will consider releasing data for the public to view.

Improving the visibility for providers of visa status data through the PRISMS system would also deliver better outcomes. Enhancing the current system to allow providers to see when visa application documentation is lodged and monitor its progress would support an increased understanding of turnaround times for visa applications. This may inform which markets providers prioritise.

#### Explore opportunities to capture data on the behaviour of students in non-student visa enrolments

Emerging modes of delivery include courses of study which may not require a student visa, due to their nature and duration. This includes students on short courses, executive education and non-traditional online modules. Current access is via discreet surveys, or manual course filtering following a paid request through HEIMS (including a *course name* field in the request).

#### Seek to provide more detailed data on the international student experience

There are a range of disparate data sources which provide insight into the international student experience in Australia. These sources are detailed in Appendix B and include information on student learning experience, cost of living and livability rating for particular locations. These are all valuable sources of consumer information, but largely do not distinguish between the experience of international and domestic students (or often do not distinguish the 'city livability' experience of students from the experience of the broader community).

It is suggested that student experience indicators (such as Quality Indictors for Learning and Teaching in higher education) should include differentiation between the experience of domestic students and international students. Development of other more comprehensive data sets on student experience across the international student lifecycle should be considered.

#### Continue to strengthen data on various forms of value in international education

Across the IET sector, information is collected and analysed on a range of issues relating to calculating and/or estimating various forms of value provided. This includes:

- Value to the economy the IET sector's value to the economy (to the broader economy and for discreet regions)
- 2. Value for students including employment outcomes relative to education costs
- 3. **Value to providers** including revenue from international students and other reputation-related benefits

It is recommended that these studies and models are continually built upon and strengthened to ensure all relevant measures of value are captured and accurately estimated. Current information is available through the ABS on the value of IET imports, but this cannot be disaggregated based on multiple variables – for example value by sector and source country.

#### Collection and dissemination of data on post-study behaviour

Beyond existing enrolment data, relatively little information is available on the behaviour of students post-study on a student visa. In particular, the way in which students transition to other visas post-completion of study is a strong opportunity for improvement in data. This includes

- Data on transitions to employment visas (and permanent residency)
- Data on employment outcomes post-study, including employment in Australia or overseas (incl. data on occupation, salary etc.)
- Data on transition to enrolment in further study in Australia

While some of this information is available at a source country level through reporting from the Department of Home Affair on visa last reported and post study work visa, improved information would allow assessment of trends based on level of study, or field of study. From a public policy perspective, this information would serve to demonstrate the post-study behaviour of students and inform the skills requirements of the Australian economy. From an operational efficiency perspective, providers would value access to post-study transition information to guide improvements in their attraction and retention strategies.

#### 4.2 There are opportunities to improve IET data accessibility

Beyond discussion on improving the collection of IET data in Australia, there are apparent opportunities to improve access to existing collections of enrolment data.

As the Productivity Commission noted on the collection and use of data in the broader economy:

An enormous range of information is collected by governments, researchers and businesses about individuals and their activities, institutional and economic structures, and the built and natural environments. However, there is less publication — or controlled sharing — of this information than would help achieve widespread benefits for the community.

Opportunities for improved accessibility of existing IET data include:

- **Improving and simplifying access** to the Department of Education and Training's Higher Education Information Management System (HEIMS)
- Providing greater access to visa application data by source city / region and destination city / region
- Providing more comprehensive publicly available data via Austrade's MIP as well as by source city / region and destination city / region

### Improving and simplifying access to the Department of Education and Training's Higher Education Information Management System (HEIMS)

As identified in Section 2, a major barrier to simple detailed analysis on international higher education data in Australia is the sophistication and resources required to submit a data request to HEIMS and complete the subsequent analysis of the data provided.

In its discussion paper and request for submissions on the <u>Redevelopment and Audit of the Higher Education Data Collection</u>, the Department has acknowledged the opportunity for improvement in data and will be simplifying and refining the system in the coming months. This will be a positive move for access to international education data in Australia. Challenges identified in the discussion paper which are relevant to this analysis include:

#### 1. Identifying students - adoption of the Unique Student Identifier

A unique identifier for all higher education students will enhance understanding of students' study patterns and behaviours, support more comprehensive analysis on higher education in Australia and enable more effective, targeted support for students.

#### 2. Relevance – reducing the size of the Collection

The Department is proposing to remove elements from the Collection that no longer meet the purpose for which they were originally designed or do not provide historical or statistical value.

Duplication of information also adds unnecessary clutter to the Collection. The paper proposes eliminating the need to report the same set of student data more than once during a student's course.

#### 3. Low quality data

Low quality reporting impacts on the usability of the Collection and the robustness of statistical output because it creates unreliable and unrepresentative data. The paper invites discussion on how low quality data can be improved.

#### Providing greater access to visa application and grant data by source city / region

As outlined in Section 2, there exists a largely untapped pool of data on home region for international students. Home address data is likely collected in some form by the Department of Home Affairs in the visa process and has been published on rare occasions (for China) by home region, in report form via Austrade. Allowing access to this information in a detailed and timely fashion as part of the pivot tables would allow a depth of insights from policy makers and research bodies and provide invaluable market intelligence to providers, further building upon the strong presence of Australian providers in key markets. It would also inform provider level marketing activities delivering increased enrolments and value to the Australian economy.

#### Providing more comprehensive publicly available data via Austrade's MIP

Austrade provides a rich source of data through its Market Information Package. As discussed in earlier sections, the 'Basic' data set, available to the general public, is limited in its scope, while the 'Full' data set provides more detailed data, breaking down enrolments by Field of Education and Level of Study.

While acknowledging there are some restrictions on allowing full availability and access to the Market Information Package data, due to Austrade's subscription-based service, any addition of further detail to the 'Basic' data set would provide clear benefits, particularly from a public policy effectiveness and market efficiency perspective. Access to insights on trends in demand by Field of Education and Level of Study would no doubt deliver improved understanding of market trends and student behaviour to providers and the broader sector.

### 4.3 There are opportunities for greater consistency in data collection and dissemination

#### Seek to address integration issues and discrepancies between key data sets

Given the range of data sources on IET explored in this paper, it is pertinent to ensure that all data published is consistent and easily cross-referenced.

A key starting point to reconciliation could include inclusion of an offshore/onshore campus indicator in uCube publications and a focus on consistency between onshore figures for uCube and equivalent figures for Austrade's MIP.

#### Provider consistency in the treatment of providers across data sources

Another point of difficulty lies in the lack of integration and consistency between Higher Education datasets and VET data in VOCSTATS, as well as consistent treatment of TAFE institutes and private RTOs. On the point of integration of key datasets, the Mitchell Institute proposed:

A tertiary education dataset that integrates university and vocational education sectors, and tracks pathways into and out of tertiary education.

#### Update existing datasets to provide distinction between domestic and international student figures

Beyond enrolment data specifically relating to international students, there is a wealth of data covering other aspects of the student journey. In most cases, this data is reported as *citizenship-agnostic*, i.e. not providing a split between domestic and international students.

Opportunities to distinguish key data sets for results between domestic and international students could include:

- 1. Quality Indicators for Learning and Teaching (QILT) student satisfaction and employability measures
- 2. Reporting on applications, offers and acceptances
- 3. Reporting on student completions and transitions across various levels of study.

# 5 When and where should international education and training data be made available?

## 5.1 Explore means to reducing the lag time in production of Department of Education and Training datasets

Given IET's value as an export to the Australian economy, and the policy and risk implications of emerging trends in the sector, it is worthwhile considering the timeliness of Department of Education and Training HEIMS and uCube data releases. The Department should seek to produce these publications early in the third quarter of the following year, reducing the existing lag time of up eleven months.

It is likely this would require prioritisation, in order to expedite data collation and other activities required before publication. However, given the value of timely data to all interested parties, giving priority to this cause is seen as a worthwhile consideration. As final verification of data collected from providers is completed in May, publication in July to September would seem achievable.

Periodic publication of data is also an opportunity; high level data is collected from providers three times per year. This provides an avenue for releasing high level estimates of rolling data and is worthy of further exploration and would be highly valued by the sector.

## 5.2 Further effort should be devoted to producing easily consumable reports

It is worth noting that there exists a large group of users who may never be in a position to undertake detailed research and analysis, as a result of shortages in resourcing, capability or other constraints. For this group, the key to understanding notable trends in IET data lies in short and easily digestible data snapshots.

The Department of Education and Training, along with other bodies, produces short and easily consumable snapshots on international education data. It is recommended that these be continued, and indeed increased, in a regular and consistent fashion, allowing the sector to quickly glean insights from the latest trends in IET. This is particularly relevant from a market efficiency perspective, ensuring a strong understanding of available information across the sector leads to an improved allocation of resources.

### 5.3 Explore opportunities for greater detail on interactive pivot tables

As the Department of Education and Training's uCube is an easily accessible, interactive and fully public source of data, it presents a strong existing platform to provide further data accessibility. Immediate opportunities for greater detail in data being provided on uCube should be explored, such as:

- Campus location (onshore vs offshore, campus state)
- Course of study (acknowledging privacy concerns for low-enrolment courses)
- Detailed level of study
- Source country.

There are also opportunities to improve granularity in visa application/grant pivot tables, including:

- Student source city/region within source country
- Campus location (onshore vs offshore, campus state)

# 5.4 Work towards a consistent and integrated platform in the long term

In the longer term, aspirational goals should include working towards a consistent and integrated platform incorporating Higher Education, VET and ELICOS enrolments, as a single source of truth on IET data in Australia. This would require a number of earlier points on consistency and reconciliation across data sets to be addressed prior to implementation.

#### 6 How can these improvements be implemented?

#### 6.1 Successful implementation will require prioritisation

The successful implementation of these opportunities will require adequate resourcing and priority, driven by clear enunciation of their multiple benefits.

On the broader benefits of greater data access in any context, the Productivity Commission found:

Opportunities to make more productive use of datasets — such as by applying analytical algorithms or linking them to other datasets — and the benefits that could be achieved, are largely unknown until the data sources themselves are made known and a wide range of users have had opportunities to investigate the data. This underscores the substantive argument in favour of greater data access.

The distribution of benefits from greater access to data would be widespread, but the Commission is of the view that it is individual consumers who have the most to gain, collectively, from action on Australia's data sharing and release arrangements.

For IET specifically, the scale of the industry and its significance to the Australian economy warrant investment in adequate data. From a public policy perspective, greater understanding of student behaviour and risk drivers is a critical consideration.

#### 6.2 There are options available to improve IET data governance

The focus for any data dissemination should be on the needs and requirements of its range of end users. In this case, data in IET should be meaningful and accessible to bodies such as academia, think tanks, government agencies and education providers, and suitably cater to their needs. To that end, it is recommended that appropriate governance arrangements be in place to prioritise and enact identified improvement opportunities, and monitor developments in future-focused data opportunities.

Data governance determines who decides the data rules, what data is collected and how, the way user needs are met, and how to maintain and improve customer satisfaction. It also determines who is accountable for data quality and accuracy, sustainability, and outcomes. A mature governance arrangement will ensure that there is accountability with processes in place to make and track critical decisions, which are subsequently translated to clear responsibilities and delivery.

The Productivity Commission concluded that, for broad improvements in data access in Australia:

Marginal changes to existing structures and legislation will not suffice. Recommended reforms are aimed at moving from a system based on risk aversion and avoidance, to one based on transparency and confidence in data processes, treating data as an asset and not a threat. Significant change is needed for Australia's open government agenda and the rights of consumers to data to catch up with achievements in competing economies.

... A key to achieving the many potential benefits of data use will be building and retaining community trust in how data is managed and used and building a shared understanding of the benefits that flow from better data access and use, including by consumers themselves.

...A lack of national leadership has contributed to piecemeal bureaucratic processes for data sharing and release. Sharing of restricted access data between government agencies and certain trusted parties has been limited at best. There are numerous examples of data siloing, despite the obvious benefits of data sharing.

With the above points in mind, implementation of the various recommendations in this paper would require appropriate governance, collaboration and consultation across the industry. Responsibilities of the appropriate governance body could include:

- Identifying key stakeholders and end users as the focus of requirements for data collection and dissemination
- Monitoring the adequacy of existing data sets to meet identified user needs, for the purposes of public policy effectiveness, market efficiency and operational efficiency
- Ensuring reconciliation between figures in the various major data sources, to reduce discrepancies and improve consistency
- Identifying and pursuing opportunities to provide improved accessibility to existing datasets
- Identifying further data points for release and/ or collection
- Assessing privacy and confidentiality concerns of proposed data releases

In seeking to improve data governance, it is worth noting that significant reorganisation to improve cross-agency alignment comes at a high cost and will not automatically deliver improved governance maturity. The recommended approach to implementation is to start with a governance focus to be followed by cross-agency and whole-of-sector data focused realignment only where necessary.

There are a number of appropriate vehicles to drive the recommended actions in this paper, with an initial focus on governance maturity. These range from:

- 1. **An adjunct to current arrangements**, whereby a data and analysis committee advises the Department of Education and Training, the Department of Home Affairs and Austrade on data issues
- 2. **A whole-of-government and whole-of-sector working group**, whose terms of reference are focused on driving improvements in IET data, along with an external reference group of key industry stakeholders
- 3. **A comprehensive data repository and data analysis agency** responsible for broader IET data, similar to the National Council for Vocational Education or Tourism Research Australia

International Education and Training is a data-rich environment with enormous untapped potential for the sector. Ensuring the appropriate data stewards are working effectively together to meet the purposes of public policy effectiveness, market efficiency and operational efficiency is vital to improved data collection and dissemination in Australia.

# Appendix A Detailed current state data analysis

Detailed information on currently available enrolment data sources is provided in Table 7

Table 7: Available data on international student enrolments

Author	Data source	Overview	Release frequency	Access
Austrade	International Education Student data – Market Information Package (MIP)	The MIP basic pivot table is publicly available and includes information on international student commencements and enrolments in onshore courses by state/territory, sector, nationality, and year based on student visa information.	Monthly – year-to- date and full year by March the following year	Public resource
		More detailed information is available through the standard and detailed pivot tables which include further information on Field of Education (broad, narrow, detailed), level of study, region and provider type.(government, non-government). Information is not available for specific provider enrolments and commencements.	Monthly – year-to- date and full year by March the following year	Paid subscription to Austrade MIP – for those in industry
Commonwealth Department of Education and Training	Higher Education, UCube	Data cube with information on enrolments and commencements by citizenship category (overseas and domestic), course level, Field of Education, state, and institution. Information is not available on the source country for students. Note the data includes onshore and offshore enrolments.	Annual	Public resource
National Centre for Vocational Education Research	Multiple data sets presented on apprenticeships, trainees, governmen funded students and courses, total VE students and VET in-schools – including level of study of internation students and Field of Education.	apprenticeships, trainees, government funded students and courses, total VET students and VET in-schools – including level of study of international	Apprentices and trainees (Quarterly/Annual)	Registration required – no cost
(NCVER)			Government funded students and courses (Quarterly/Annual)	Registration required – no cost
		Information is not available for specific provider enrolments and	Total VET students and courses (Annual)	Registration required – no cost
		"	Student outcomes survey (Annual)	Registration required – no cost
Tourism Research Australia	International Visitor Survey	Information on visitor nights and trip expenditure by country of origin, state and purpose of visit – providing information on for those in Australia for educational or conference purposes.	Annual	Public resource

Author	Data source	Overview	Release frequency	Access
		Summary report or excel tables are available for download.		
English Australia	Survey of major ELICOS regional markets	Information on student numbers by nationality, visa type, number of individual and group enrolments, length of enrolments, and enrolments by state/territory.	Annual	Summary – public resource More detailed information – paid member resource
Commonwealth Department of Education and Training	Higher Education Information and Management Systems (HEIMS)	Significant level of information on applications and enrolments for international and domestic students. Detailed information related to international education available includes citizenship status (overseas), home country, Field of Education, university, qualification level, term time address and attendance type.	Accessible on request	Tailored data tables are accessible on request at fee-for- service arrangement
Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS)	CRICOS data base	Lists all Australian education providers that offer courses to people studying in Australia on student visas and the courses offered.	Regular	
Commonwealth Department of Foreign Affairs and Trade	Information on relevant scholarships	Information on Australia Awards scholarships and New Colombo Plan Scholarships by state, level of study and nationality.	Quarterly	
UNESCO Institute for Statistics	UIS Data Centre	Inbound internationally mobile students by country	Annual	
Commonwealth Department of Home Affairs	Study in Australia student visas	Student visa and Temporary Graduate visa applications lodged and granted by citizenship status, past visa held, lodgement location and provider state	Bi-annual	Public access to summary reports and pivot tables

# Appendix B Key datasets in other stages of the student journey

Detailed information on currently available data sources for other stages of the student journey is outlined in the tables below.

#### **Application**

Author	Data source	Overview
Commonwealth Department of Education and Training	Provider Registration and International Student Management System (PRISMS) Education Agent Performance data Accessible on request	For information on proportion of international students recruited to a given provider involved in the use of agents, the number of agents used by a given provider, level of reliance on one or more agents by a given provider, and the number of agents and their throughput into Australian providers.
		Also provides detailed information on student visa locations, in regions. TIQ to request regional data with Gold Coast separated and additional information on each regional location (see DET Research Snapshot in Table 1).

#### **Student experience**

The data sources below focus on the student experience and student satisfaction for international students studying in Australia. This includes satisfaction feedback, information on scholarship numbers and livability measures for cities and regions.

Author	Data source	Overview	Release frequency	How to access
Commonwealth Department of Foreign Affairs and Trade	Information on relevant scholarships	Information on Australia Awards scholarships and New Colombo Plan Scholarships by state, level of study and nationality.	Quarterly	Public resource
Commonwealth DET	QILT	QILT provides information on universities for key benchmarking data such as satisfaction for current students and recent graduates, employment outcomes following graduation and median salary for recent graduates. Currently includes but does not disaggregate domestic and international students.	Annual	Public resource
QS	Best Student Cities	Ranking of the world's leading urban destinations for international students considering university rankings, affordability, student mix, desirability and employer activity. Note limited information for regional areas of Australia.	Annual	Public resource
The Economist	Worldwide Cost of Living Survey	Cost of living index for 133 Global cities – including Brisbane. Note	Annual	Public resource

Author	Data source	Overview	Release frequency	How to access
		limited information for regional areas of Australia.		
Mercer	Cost of Living Rankings	Cost of living ranking for 209 Global cities – including Brisbane. Note limited information for regional areas of Australia.	Annual	Public resource
Commonwealth DET	International Student Survey	National survey of international students across Australia's major education sectors. The survey covers students in Higher Education, Vocational Education and Training and English language institutions, with a separate smaller survey covering international students in secondary school. Covers international student satisfaction with study and life in Australia.	Every two years	Public resource
Subscription services on student experience	e.g. iGraduate	Benchmarking reports on student experience.  Private (by subscription)		Private (by subscription)

#### **Pathways**

· umayo				
Author	Data source	Overview		
Commonwealth Department of Home Affairs	Study in Australia student visas  Data can be viewed in pivot tables – limited ability to easily extract data for analysis	Student visa and Temporary Graduate visa applications lodged and granted by citizenship status.  Further information requested on location of visas by state and region.		
Commonwealth Department of Home Affairs	Relevant visa uptake  Data can be viewed in pivot tables that are locked – no ability to easily extract data for analysis	Data and information on the number and proportion of international graduates taking up relevant visas, including:  • Graduate Skills Visa  • Professional Year Visa  • 417 Internship Visa.  Comparison data for other states and jurisdictions.		
Commonwealth Department of Home Affairs	Pathways metrics  Data available but not sufficiently detailed	Available data and information on non-student visas and pathways to study by region. Further data on pathways from schools to other IET sectors; and from ELIOCS to other IET sectors. Comparison to other state/comparison regions, where possible.		
Queensland Department of Education and Training	Next Steps Survey	State wide and 17 regional data reports. State wide report includes information on post-school destinations for students on International student visas.  Note: this information at a regional level is likely available on request.		