

Brief Guide to Visual Analytics Using Power BI

When a Power BI report is opened a home screen will appear like the one below, with a list of all of the pages within the report.

1. Click on the page names to navigate to a section or click on the tabs along the bottom of the report (examples are displayed in the red circles below).

The screenshot shows the home screen of a Power BI report titled "Student Enrolments Time Series". The header includes the Australian Government logo and the Department of Education and Training. The main content area displays five report pages, each with a bar chart icon and a title: "Student Enrolments Comparative Graphs", "Student Enrolments by Equity Groups", "Student Enrolments by Field of Study and Field of Education", "Definitions and Notes", and "Student Enrolments by Special Interest Course". The "Student Enrolments Comparative Graphs" page is circled in red. At the bottom, a navigation bar contains tabs for "Home Page", "Comparative Graphs", "Enrolments by FOS/FOE", "Special course", "Equity Groups", and "Definitions and Notes". The "Comparative Graphs" tab is also circled in red.

2. Each page has a black home button in the top left hand corner. Click this button to navigate back to the home page.



Commencing

Gender

Citizenship

Course Level

Provider Type

Course Level

Postgraduate research

Sub-Bachelor

Postgraduate other

Enabling

Bachelor

Non-award

Provider Type

Table A providers

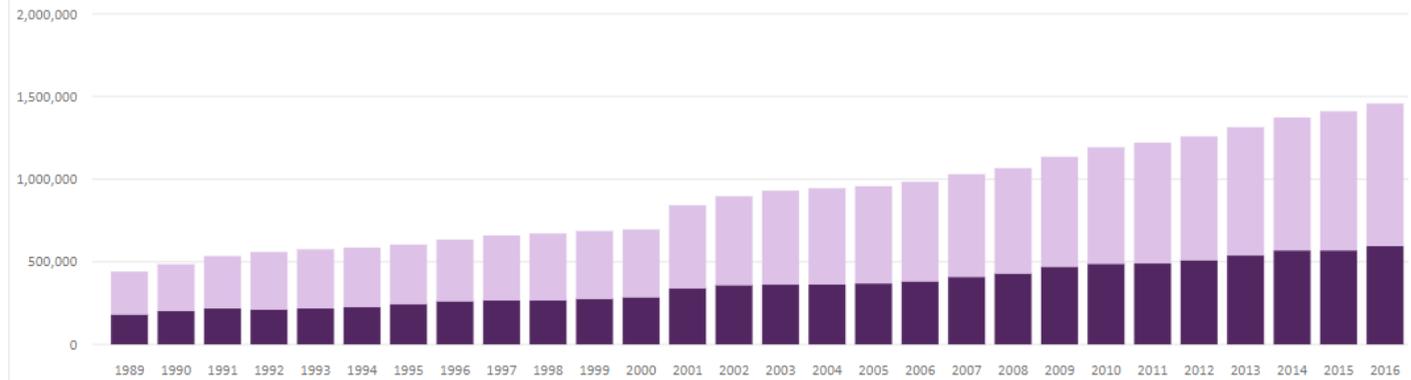
Table C and Non-Univ...

Table B providers

Other institutions prov...

Commencing Students

● Commencing students ● Not commencing students



Click arrows for drill-through

Year	1989		1990		1991		1992	
	Commencing students	Not commencing students						
New South Wales	56,117	83,248	60,564	90,042	67,019	96,441	65,752	
Victoria	52,246	75,561	56,372	81,762	61,426	91,705	56,661	
Queensland	26,731	39,456	33,759	43,565	35,094	51,082	34,175	
Western Australia	18,507	25,972	19,823	28,651	21,204	32,367	20,134	
South Australia	15,401	20,807	16,582	23,340	16,979	26,312	15,469	
Tasmania	3,916	5,230	4,605	5,788	4,893	6,582	4,484	
Northern Territory	1,588	1,022	1,704	1,358	2,199	1,562	2,214	
Australian Capital Territory	6,586	8,686	8,030	9,121	9,105	10,540	8,136	
Multi-State							3,578	

Citizenship

Domestic Students

Overseas Students

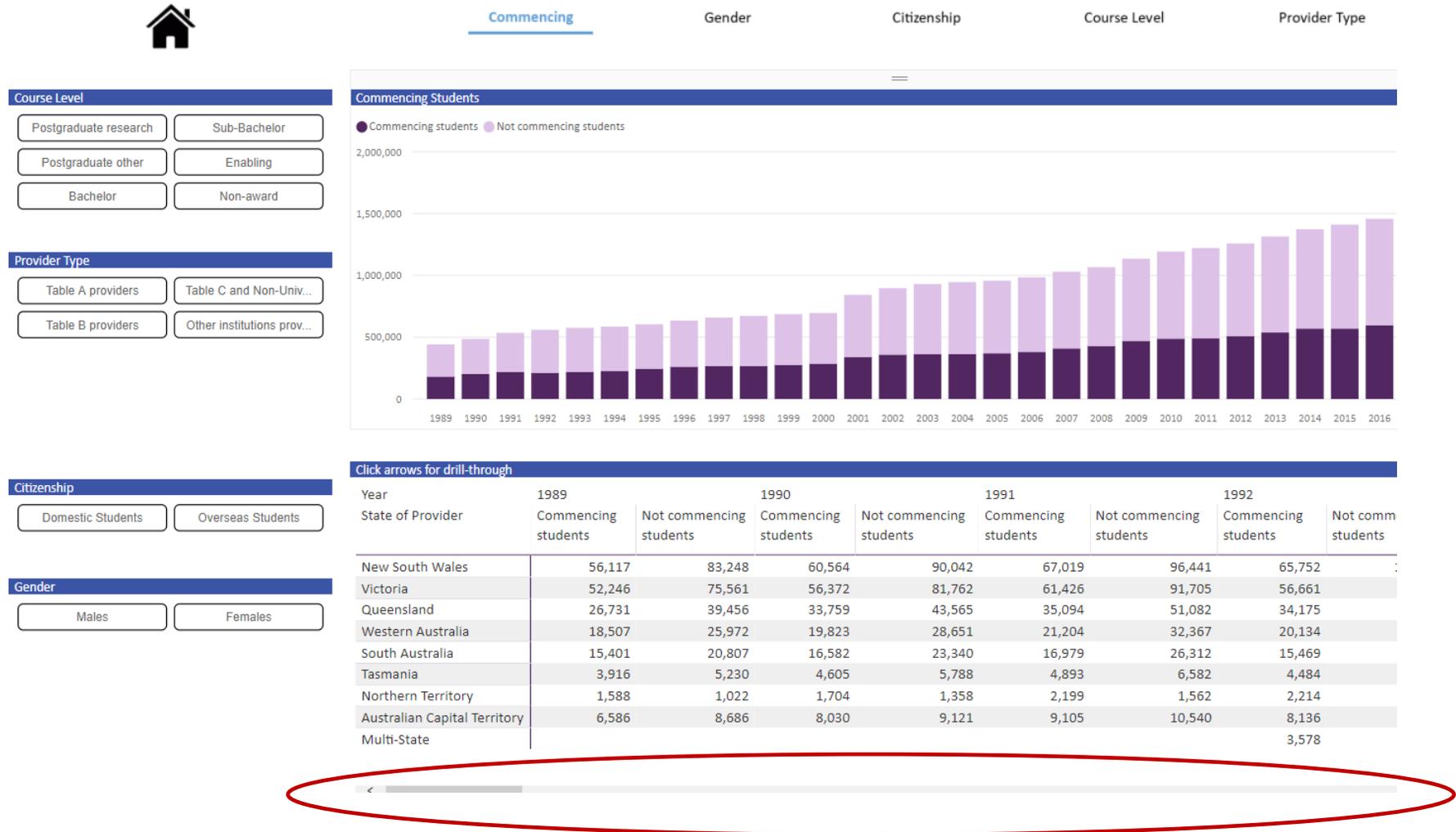
Gender

Males

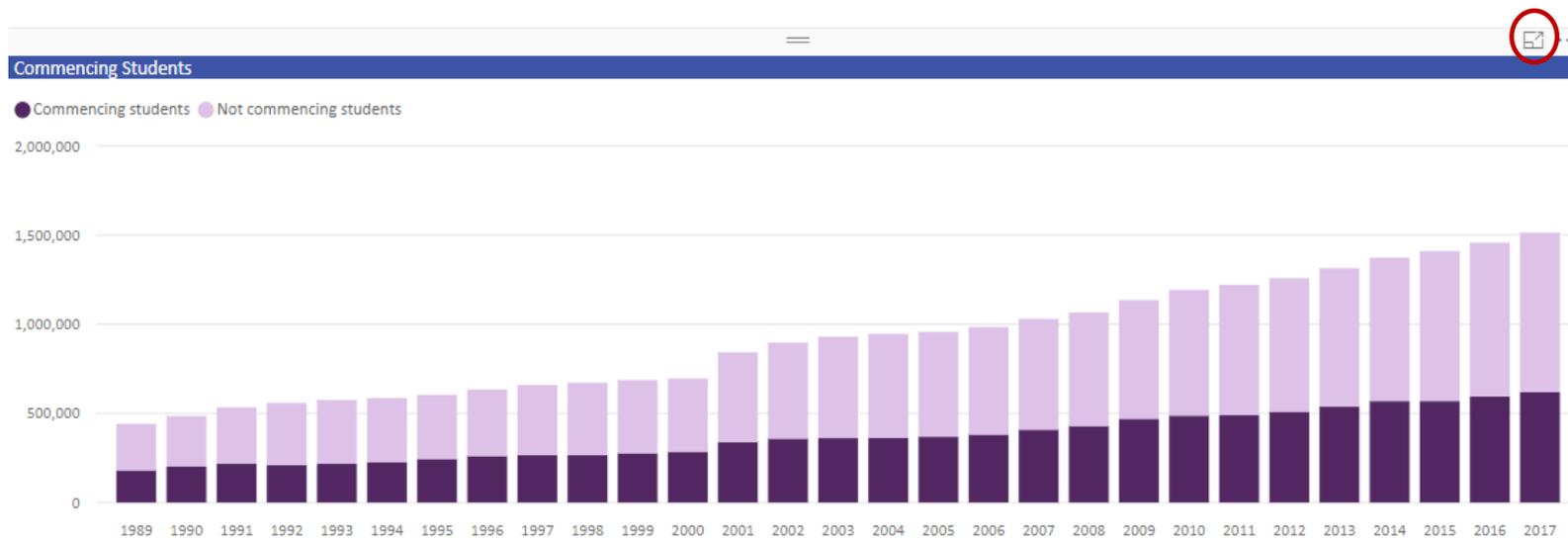
Females

Using Power BI reports

1. Below is a typical example of what a Power BI report page may look like, including a chart; table; and a number of filters/options on the left and at the top. On some pages you may need to use the scroll bar to see all of the data (shown in the red circle below).

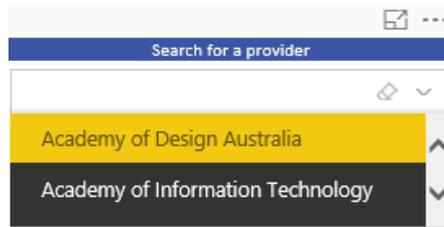


2. Individual charts, tables and filter menus can be made larger by selecting the focus mode. To do this, hover the mouse pointer over the target object and then click on the focus mode button in the top right corner (examples are shown in the red circles below). The chart, table or filter menu will expand to the whole window pane. To restore the original view, click on '< Back to Report' shown in the top left hand corner of the report page.



- All students
- Mode of Attendance
- Type of Attendance
- Gender
- Age Groups
- Basis for Admission
- ATAR (school leavers)
- Indigenous Indicator

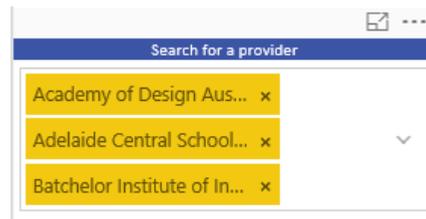
3. Data are automatically displayed for all providers, however, information can be limited to one or more providers. To do this, either use the drop-down menu from the filter (shown below) or search for the provider using the search box. Provider selection is easiest using the focus mode (described on the previous page), so that more providers are shown at once.



Click the arrow to display the drop-down menu



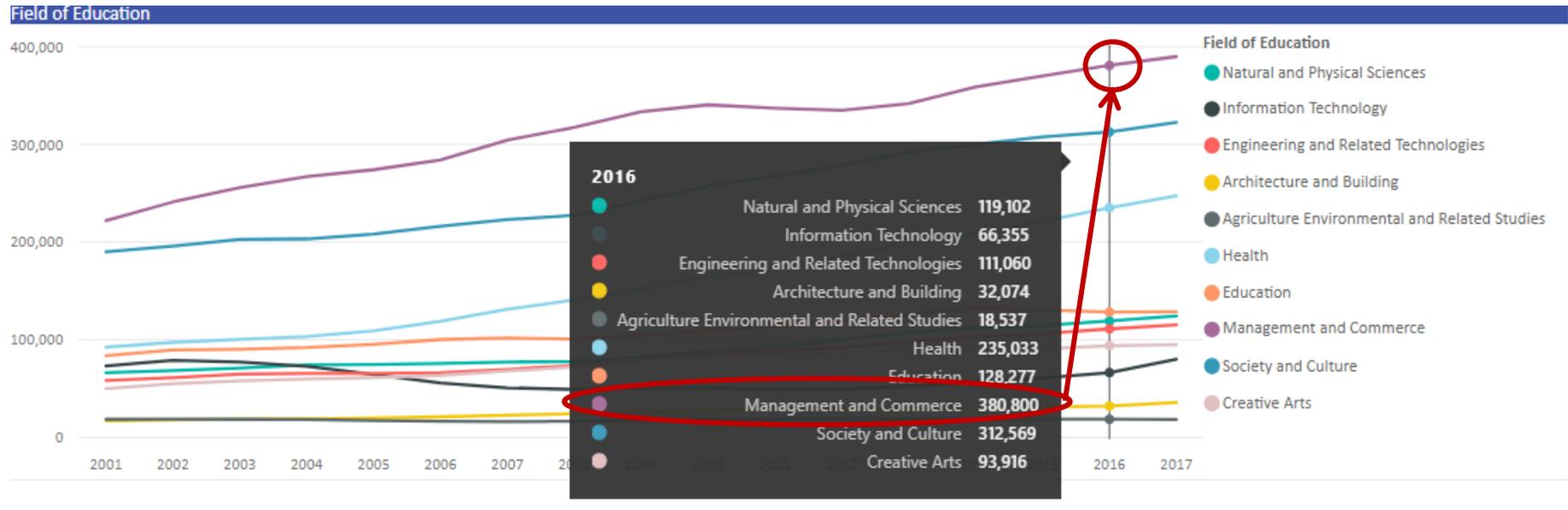
Showing multiple provider selections



Focus Mode- remember the drop down arrow (shown in the red circle)



4. By hovering over a data point in a chart with the mouse pointer, the exact number can be displayed (an example is shown below). This function works on both line charts and bar charts.



5. There are a few features to be aware of in Power BI to obtain more customised data.

Firstly, chiclet filters (1) and slicers (2) allow the tables and charts to be filtered to required specifications. Secondly, some tables can be drilled down into for further information using the  function (3, over page).

(1) Chiclet filters: Click the boxes to filter the table and charts to the required data. The choices selected will be coloured purple. Where possible, multiple filters within a category will be able to be selected (the 'Ctrl' key may need to be held to do this in some reports). In the example below, data will be displayed for Bachelor and Sub-Bachelor students at Table A providers.

Click on the purple highlighted boxes to turn off the filters.

Course Level

Postgraduate research	Sub-Bachelor
Postgraduate other	Enabling
Bachelor	Non-award

Provider Type

Table A providers	Table C and Non-Univ...
Table B providers	Other institutions prov...

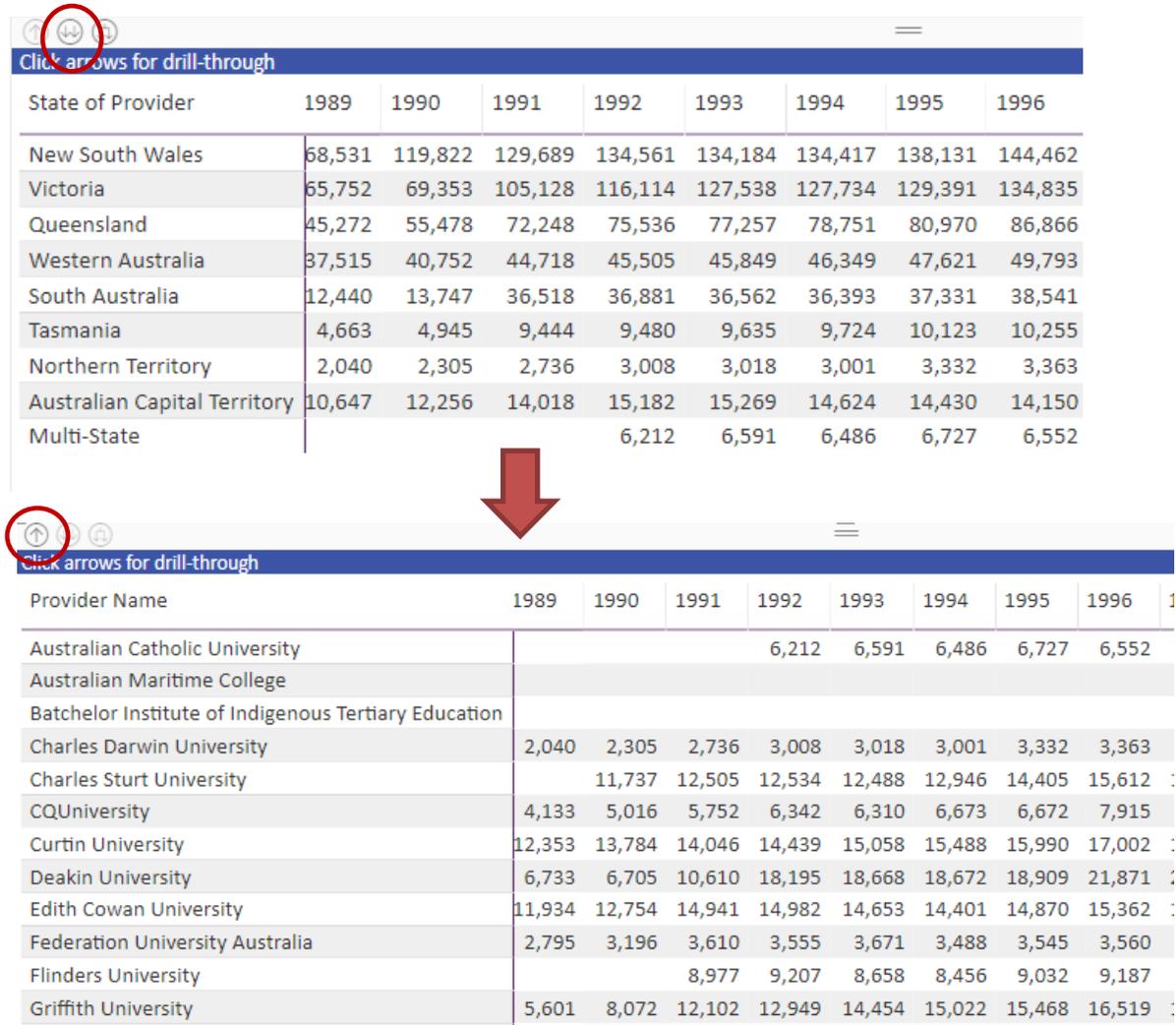
(2) Slicer: Click the boxes next to the options required. Multiple options can be selected at once. To display all data again, select 'All students' only.

Category

- ▶ All students
- ▶ Mode of Attendance
 - External
 - Internal
 - Multi-modal
- ▶ Type of Attendance
- ▶ Gender
- ▶ Age Groups

(3)  symbols: Click this symbol on tables (where available) to drill down into more detail. For example, below, state based data is expanded into provider data.

The  symbol will return the table to its original format.



Click arrows for drill-through

State of Provider	1989	1990	1991	1992	1993	1994	1995	1996
New South Wales	68,531	119,822	129,689	134,561	134,184	134,417	138,131	144,462
Victoria	65,752	69,353	105,128	116,114	127,538	127,734	129,391	134,835
Queensland	45,272	55,478	72,248	75,536	77,257	78,751	80,970	86,866
Western Australia	37,515	40,752	44,718	45,505	45,849	46,349	47,621	49,793
South Australia	12,440	13,747	36,518	36,881	36,562	36,393	37,331	38,541
Tasmania	4,663	4,945	9,444	9,480	9,635	9,724	10,123	10,255
Northern Territory	2,040	2,305	2,736	3,008	3,018	3,001	3,332	3,363
Australian Capital Territory	10,647	12,256	14,018	15,182	15,269	14,624	14,430	14,150
Multi-State				6,212	6,591	6,486	6,727	6,552

Click arrows for drill-through

Provider Name	1989	1990	1991	1992	1993	1994	1995	1996
Australian Catholic University				6,212	6,591	6,486	6,727	6,552
Australian Maritime College								
Batchelor Institute of Indigenous Tertiary Education								
Charles Darwin University	2,040	2,305	2,736	3,008	3,018	3,001	3,332	3,363
Charles Sturt University		11,737	12,505	12,534	12,488	12,946	14,405	15,612
CQUniversity	4,133	5,016	5,752	6,342	6,310	6,673	6,672	7,915
Curtin University	12,353	13,784	14,046	14,439	15,058	15,488	15,990	17,002
Deakin University	6,733	6,705	10,610	18,195	18,668	18,672	18,909	21,871
Edith Cowan University	11,934	12,754	14,941	14,982	14,653	14,401	14,870	15,362
Federation University Australia	2,795	3,196	3,610	3,555	3,671	3,488	3,545	3,560
Flinders University			8,977	9,207	8,658	8,456	9,032	9,187
Griffith University	5,601	8,072	12,102	12,949	14,454	15,022	15,468	16,519

6. 'Bookmarks' are an additional function used in some of the Power BI reports offered. By clicking on the bookmarks (see red circle below), different charts and tables will be displayed in the same place, based on the bookmark that was selected. In the example below, data can be displayed as a breakdown between commencing and non-commencing students; or data can be split based on gender, citizenship, course level or provider type. The following page shows the visualisation when 'Gender' is selected.



Course Level

Postgraduate research Sub-Bachelor

Postgraduate other Enabling

Bachelor Non-award

Provider Type

Table A providers Table C and Non-Univ...

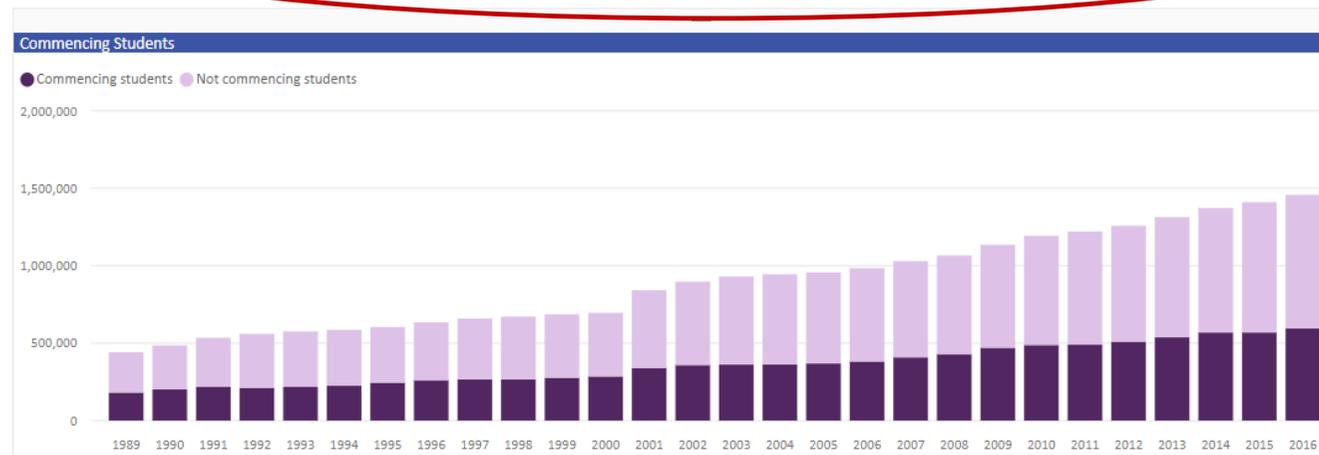
Table B providers Other institutions prov...

Citizenship

Domestic Students Overseas Students

Gender

Males Females



Click arrows for drill-through

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State of Provider	Commencing students	Not commencing students						
New South Wales	56,117	83,248	60,564	90,042	67,019	96,441	65,752	
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Multi-State							3,578	



Commencing

Gender

Citizenship

Course Level

Provider Type

Course Level

Postgraduate research

Sub-Bachelor

Postgraduate other

Enabling

Bachelor

Non-award

Provider Type

Table A providers

Table C and Non-Univ...

Table B providers

Other institutions prov...

Commencing Indicator

Commencing students

Not commencing stud...

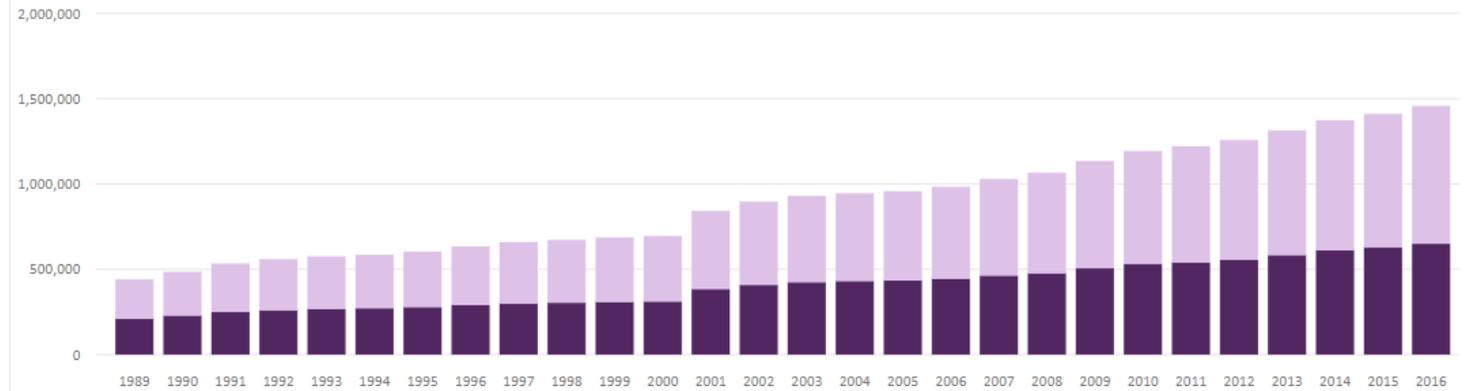
Citizenship

Domestic Students

Overseas Students

Gender

● Males ● Females



Click arrows for drill-through

Year	1989		1990		1991		1992		1993		1994		1995		1996
	Males	Females	Males												
New South Wales	66,512	72,853	71,398	79,208	76,856	86,604	80,547	89,858	83,134	91,193	84,509	93,487	87,799	98,197	91,067
Victoria	59,895	67,912	63,766	74,368	70,093	83,038	71,964	84,091	74,253	87,738	75,436	88,418	76,920	90,606	79,593
Queensland	33,931	32,256	38,527	38,797	41,980	44,196	43,921	46,285	45,428	48,527	46,370	50,667	47,074	52,957	50,266
Western Australia	20,703	23,776	22,344	26,130	24,209	29,362	24,783	29,950	25,151	30,309	25,515	30,925	26,051	32,243	27,254
South Australia	16,960	19,248	18,551	21,371	19,793	23,498	20,038	23,797	20,164	24,281	20,357	24,662	20,852	25,379	21,329
Tasmania	4,591	4,555	5,081	5,312	5,519	5,956	5,667	6,011	5,810	6,264	5,847	6,247	6,055	6,339	6,250
Northern Territory	1,007	1,603	1,184	1,878	1,453	2,308	1,651	2,517	1,676	2,503	1,619	2,735	1,770	3,054	1,867
Australian Capital Territory	7,685	7,587	8,565	8,586	9,762	9,883	10,145	10,175	10,270	10,453	10,101	10,101	9,881	10,131	9,861
Multi-State							1,850	6,131	2,100	6,362	2,233	6,206	2,417	6,451	2,385

Extracting Charts and Tables from Power BI reports

It is recommended that the 'Snipping tool' (or similar) is used to cut and paste charts and tables as pictures if required. It is best to use the focus mode option (described above) before snipping for the best resolution. If desired, a picture of the filters can also be snipped, so that a record is maintained of what filters were applied to the data.