

Measure category	Description														
CAGR	<p>Compounded Annual Growth Rate represents the annualized growth rate. In the context of enrolments, suppose we start with 100 enrolments in 2015 and end with 250 enrolments in 2024.</p> <p>Then the CAGR is that % which, had it been achieved each year as the growth rate over the prior year, would have the outcome of ending with 250 enrolments. There is a mathematical formula to work out the CAGR provided we know the starting value, the ending value and the number of periods.</p> <table> <tr> <th>Year</th><th># Enrolments</th></tr> <tr> <td>2015</td><td>100</td></tr> <tr> <td>2024</td><td>250</td></tr> </table> <table> <tr> <td># Years</td><td>10</td></tr> <tr> <td>Starting Value</td><td>100</td></tr> <tr> <td>Ending Value</td><td>250</td></tr> <tr> <td>CAGR</td><td>9.60%</td></tr> </table>	Year	# Enrolments	2015	100	2024	250	# Years	10	Starting Value	100	Ending Value	250	CAGR	9.60%
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Enrolment growth rate related measures	<ul style="list-style-type: none"> Measure to help calculate the year on year change in enrollments of boys and girls respectively. Also used to help calculate year on year change in enrolments by school type and school sector categories. 														
Enrolment number related measures	<ul style="list-style-type: none"> Measures typically helping aggregate enrolment by year and then reporting them by school type or school sector categories. 														
Percentage Metrics	To help obtain percentages – for example, boys' enrolments as % of total enrolments.														

Visuals and Insights

Here is a summary of the visuals created, and insights or findings gathered

Tab	Details + Insights, Observations
School Statistics	<ul style="list-style-type: none"> This tab provides an overview of the school related metrics as of 2024. There are 3035 schools under consideration as of 2024 and 147 of them are special schools. Majority of the schools, 71% are government schools, followed by 17% catholic schools and 12% independent schools. 68% of the schools are primary schools, followed by 19% secondary schools and 13% combined schools Majority of the schools are in major cities or inner regional areas. There are no special schools in remote/very remote areas. 68 % of the special schools are government schools 32% are independent schools, with only a handful as catholic schools.
Demography	<ul style="list-style-type: none"> This tab provides an overview of enrollment related metrics for 2024. There were about 1.218 million enrolments, with 51.1% being boys and 48.9% being girls. About 7.5% of the enrolments were from the indigenous community. Government schools lead with a share of 62% of the enrolments, followed by independent schools at 20% and catholic schools at 18%.

	<ul style="list-style-type: none"> • 37% of the enrolments were for primary school and 35% for secondary schools. 18% of enrolments were for combined schools • The % of girl's enrolment is slightly higher in non-major city areas compared to major cities. • 63% of Indigenous enrolments were fulfilled by government schools, with the share of independent schools being least at 6.6% • Schools in Major city locations show diversity in terms of the highest % of enrolments from non-native English speakers.
Geography	<ul style="list-style-type: none"> • Here the top 50 LGA (Local Government Area) in terms of number of schools and enrolments are shown as of 2024. • When a particular LGA is selected from either of the top two table visuals, the details of associated suburbs can be seen in the bottom two visuals. • While the top 4 LGAs are relatively similar in terms of number of schools, the top LGA – Blacktown, clearly has a significant lead in terms of enrolments (69k versus 54k for the second highest LGA – Canterbury-Bankstown)
Latest Enrolment	<ul style="list-style-type: none"> • Using an Azure map visual, the total enrolments as of 2024 are shown, with darker color corresponding to higher enrolments. Since the map is dense, it would be easier to select a particular LGA. This will zoom the visual to show the associated suburbs & their enrolments.
Enrolments Trends by Demography	<ul style="list-style-type: none"> • Here, the last 10 year trend in enrolment are presented, primarily by considering gender and indigenous enrolments. • There has been a steady growth in indigenous enrolments over the past decade. • On an overall level, the year on year enrolment growth rates for boys and girls is seen to be miniscule. However, if we filter for independent schools – we note a better growth rate, with more favorable growth rate for girls. Compared to overall Year over year growth rates of less than 1%, for independent schools, the rates are in the range of 2% - 4% year on year. • If we filter for government schools, we can see a downtrend in the aggregate enrolments and consequently, the growth rates since 2021.
Primary Enrolment Trends	<ul style="list-style-type: none"> • This tab considers trends in primary enrolments over the period 2015-2024. • Government school primary enrolments have had de-growth since 2024, while independent school enrolments have been positive throughout. • The year on year growth trend in catholic schools has been quite inconsistent, with growth mostly being anemic, with a marginal improvement in latest 2 years.
Secondary Enrolment Trends	<ul style="list-style-type: none"> • This tab considers trends in secondary enrolments over the period 2015-2024. • The trends are like what was seen for primary enrolments – with growth being good for independent school secondary enrolments & negative recently for government schools. • Unlike primary school enrolments, the secondary school enrolment growth rates are seen to be better for catholic schools since 2020.
Senior Secondary Enrolment Trends	<ul style="list-style-type: none"> • This tab considers trends in senior secondary enrolments over the period 2015-2024. • Like before, independent schools have had growth, which has improved after 2020. • For government schools, there was a growth spurt in 2020, but the COVID situation turned it to negative growths in 2021-2022. There is an improvement in growth rate seen in 2023 & 2024. • The enrolment growth rate for catholic schools had been inconsistent, with some improvement since 2023.
CAGR	<ul style="list-style-type: none"> • In this tab, the objective is to show the CAGR (compounded annual growth rates) by LGA, with the growth rate being considered separately for each of the three school sectors.

	<ul style="list-style-type: none"> • The insight that stands out is that across many LGAs, the CAGR in enrolments in government schools & catholic schools is negative – which means continued de-growth over time. • On the other hand, independent schools are showing positive CAGRs in most of the LGAs. • To further understand, it would be necessary to establish whether independent schools are slowly capturing all the new enrolments and/or students switching over from government schools. • Similarly, I have looked at CAGR by suburbs, within each of the three school type categories. Combined schools are showing positive CAGRs across LGAs, with primary schools showing a lot of negative CAGR across LGAs, followed by secondary schools. • What needs to be understood is whether there is an increasing preference for parents to ensure their children study in combined schools over primary/secondary schools. This preference is understandable as it implies a child does not need to switch schools, and for the parent, it could also mean not having to relocate/make property investment decisions, for the sake of switching from primary to secondary school.
ICSEA	<ul style="list-style-type: none"> • Some statistical data analysis is done using ICSEA values over time. • The ICSEA values are expected to be in the range of 500-1300. • The box plot visual created using Python is helpful in showing the distribution of the ICSEA values. While the ICSEA values are expected to be largely stable over time, comparing the distributions across the school sector shows differences with independent schools having a higher range of ICSEA values compared to government schools. Also, more schools with lower ICSEA values are seen typically for government schools versus the other school types, indicating that while government schools are accessible by students from all economic backgrounds, it is not the case for independent schools or catholic schools.