Table 1.1 Comparison Female Undergraduate and Graduate Enrolment

	Female Undergraduate	Female Graduate
2012-2013	55	72
2014-2015	84	76
2016-2017	121	97

Source: Dalhousie Analytics, https://www.dal.ca/dept/oiar/Advanced-analysis-planning/enrollment.html
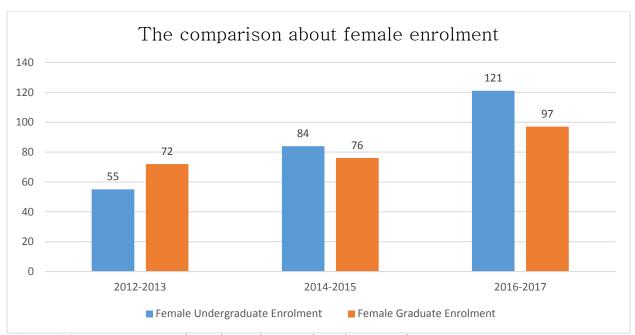

Figure 1.1 Comparison Female Undergraduate and Graduate Enrolment
Source: Dalhousie Analytics, https://www.dal.ca/dept/oiar/Advanced-analysis-planning/enrollment.html

The explanation

Column bar graphs are useful in representing data with distinct units, such as years in this comparison sample. The disadvantage of bar chart is that it often require additional explanation because sometimes bar chart can be easily manipulated to give false impressions. But in this sample, the comparison is simple and data is clear. So the column bar has been chosen for this.

Table 1.2 Comparison Undergraduate Student Enrolment by Place of Residence

	2012-2013	2014-2015	2016-2017
Nova Scotia	232	288	363
Rest of Atlantic Canada (NB, PE, NL)	20	24	20
Other Canadian	63	81	95
International	109	164	253

Source: Dalhousie Analytics, https://www.dal.ca/dept/oiar/Advanced-analysis-planning/enrollment.html
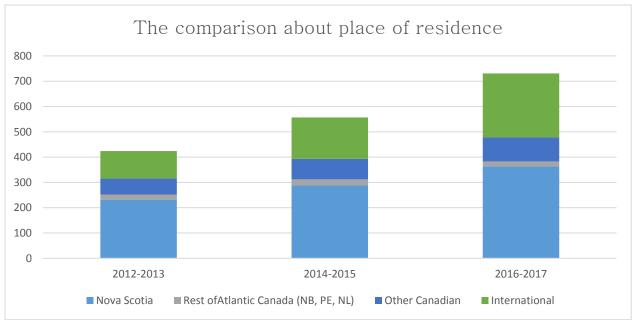

The comparison about place of residence

Figure 1.2 Comparison Undergraduate Student Enrolment by Place of Residence
Source: Dalhousie Analytics, https://www.dal.ca/dept/oiar/Advanced-analysis-planning/enrollment.html

The explanation

Stacked bar charts are sued to show how a larger category is divided into smaller subcategories and what the relationship of each part has on the total amount. For this sample, the enrolment by place of residence can be shown clearly, at the same time, the readers can find the different proportion of different place in each year. So the stacked bar chart has been chosen for this sample.

Table 1.3 Comparison Undergraduate Student Enrolment by Place of Residence

		2012-2013	2014-2015	2016-2017
Canadian	Nova Scotia	232	288	363
	Rest of Atlantic Canada (NB, PE, NL)	20	24	20
	Other Canadian	63	81	95
International		109	164	253

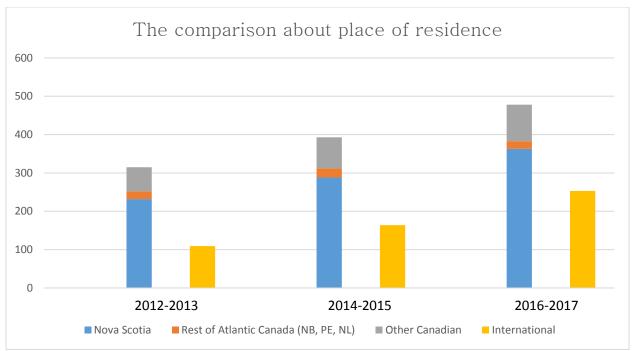Source: Dalhousie Analytics, https://www.dal.ca/dept/oiar/Advanced-analysis-planning/enrollment.html

Figure 1.3 Comparison Undergraduate Student Enrolment by Place of Residence
Source: Dalhousie Analytics, https://www.dal.ca/dept/oiar/Advanced-analysis-planning/enrollment.html

The explanation

The challenge for this sample is that there are two groups: Canadian/international students and in Canadian student, there are three subtypes. So the basic bar chart is not suitable for this sample because the author would like to show the two difference in one chart. As a result, the grouped stacked bar chart is good option. There are two bars for each year. The left is Canadian, the right is international. At the same time, the Canadian bar is stacked, so it's convenient for the readers to learn the whole scope of the raw data.