**Dashboard Interpretation Summary**

The bar graph better represents numerical data that splits into different categories (Sharda et al., 2018, p. 199), and I believe that it was the best representation for the kind of data that we used that is, the age groups were split into categories.

The pie chart is a good-looking type of graph/chart and represents data in a visually appealing way, but it should only be used when representing data with not more than four categories (Sharda et al., 2018, p. 200). In our case, the categories were five and in fact, using the pie chart was challenging because it did not display the fifth category.

The line graph better represents time series data and is used to track changes/trends over time (Sharda et al., 2018, p. 199). It was a good representation for our data because the number of ER Visits is computed as the number of times the patients visited the ER, therefore, there’s a time variant in play.

Compare and contrast Excel and Tableau for data visualization.

Software ease of use

I found Tableau is easier to use than Excel from the way an excel file is imported into Tableau, to creating sheets and formatting them, and making dashboards by dragging and dropping sheets, using the floating method, and how easy it is to beautifully fit all the sheets into a pre-selected layout (web browser dimension). It’s easier to make dynamic labels in Tableau than in Excel (it’s a long and tedious process). Tableau displays a more attractive dashboard than Excel.

Software visualization capabilities

Tableau is smarter than Excel about the type of visualization to use for example, after selecting the row and column data, the tool immediately represents for you the data on the graph it deems best-fit. It’s up to the user to change to any graph within their best interest.

Software limitations

Excel has the most software limitations than Tableau. It has no capabilities for drag and drop, the use of slicers does not compare to the use of filters in terms of simplicity and being dynamic, which is a strength in Tableau. Also, certain chart elements like the axis titles must be manually created. Tableau automatically inserts the correct axis titles for you.

When Excel or Tableau is appropriate for use

Excel can be used for data visualization when performing a simple and quick analysis of a relatively smaller batch of data while Tableau is great for larger batches of data requiring advanced analytics and ad-hoc reporting for business professionals.

Excel can be used by analytics professionals while Tableau can be used by executives and other users without technical expertise.

References

Sharda, R., Delen, D., & Turban, E. (2018). *Business intelligence, analytics, and data science: A managerial perspective*(4th ed.). Pearson.