Q1. For single variable in the column, I would choose bar chart rather than a stacked bar chart. Because it would be much clear to compare the difference between different value group in the single variable. A picture containing graphical user interface

Description automatically generated Shape

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For serveral varaible in the colunmn, I would choose the pair bar chart to show the different within the group, and with different value in different group.

Application

Description automatically generated with medium confidence

Q2. For proportion, pie chart is a better choice since it can show the angle which make it much easier to show the difference between the group.

Graphical user interface, application

Description automatically generated

Chart, pie chart

Description automatically generated

Graphical user interface, application

Description automatically generated Graphical user interface, application

Description automatically generated with medium confidence

3. Treemaps to show nested proportions.

Chart, treemap chart

Description automatically generated

Chart, treemap chart

Description automatically generated

4. Distribution

I would personally choose the boxplot since it can statistically show the distribution. Compared to bar chart and bubble chart, you can not really get anything else besides the shape and the number of each group.

Chart, bubble chart

Description automatically generated Graphical user interface

Description automatically generated with medium confidence

Chart, bar chart

Description automatically generated

Chart, bubble chart

Description automatically generated

5. As relationship between 2 variables scatter plot is a good choice. Since use nonaggregate data make it so hard to tell the relation ship

Chart

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Chart, scatter chart

Description automatically generated

Chart, scatter chart

Description automatically generated

We can see the fair spend more if the class is higher and the middle age spend more money.