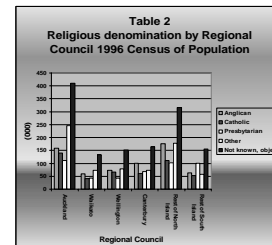


GRAPHS



Topics to be covered

1. Using graphs
2. Basic components of a graph
3. Types of graph
4. What to watch when designing a graph
5. Factors that will influence the type of graph to be used
6. Software that can be used when setting up a graph

1. Using graphs

- **Graphs are visual and easily followed**
- **Ideal for quick reference on trends etc**
- **Used by statistical agencies in yearbooks and annual reports to support written commentary and tables**
- **Ideal for press or media releases**
- **Customised graphs are ideal for customers wishing to make visual presentations or to be included in reports**

2. Basic components of graphs

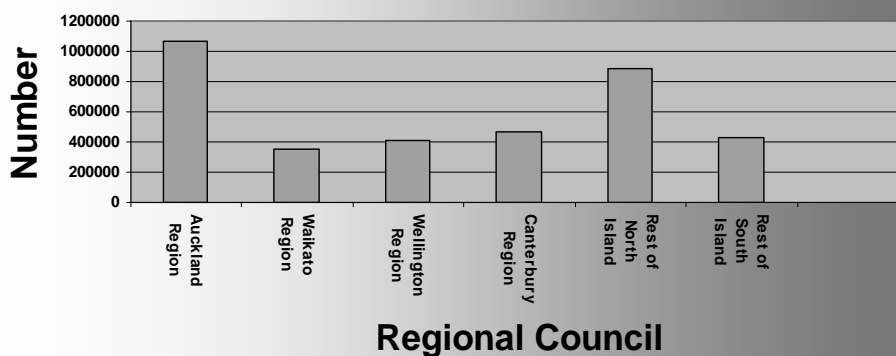
- **Graph number for reference purpose**
- **Title-to describe data**
- **Source-Origin of the data**
- **Legend-explanation of symbols, bars, lines etc**
- **Horizontal X axis-represents one variable. The variable description is usually placed below the axis**
- **Vertical Y axis-This represents a second variable. The variable description is placed alongside the axis**
- **Arrangements-should be left to right and from top to bottom**
- **Scale-Will depend on the values of the variables to be represented**

3. Types of graphs

- **Vertical Bar Graph**-Used to show relative magnitude(numbers,proportions and ratios).
- **Horizontal Bar Graph**-Similar to vertical bar graph. Used when there are many variable values
- **Multiple Bar Graph**-Consists of two or more bars adjoining one another. Used to allow comparisons between variables
- **Line graphs**-Used to show developments over time. Gives a quick overall impression of the movement in a statistic
- **Pie graph**- Used to show relevant share(percentages or proportions. Good for the general public.

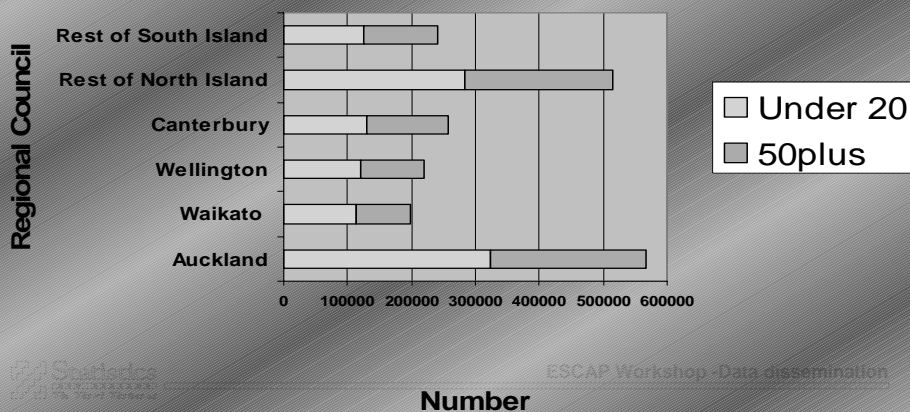
Vertical Bar Graph

Table 1
1996 Census of population by Regional Council



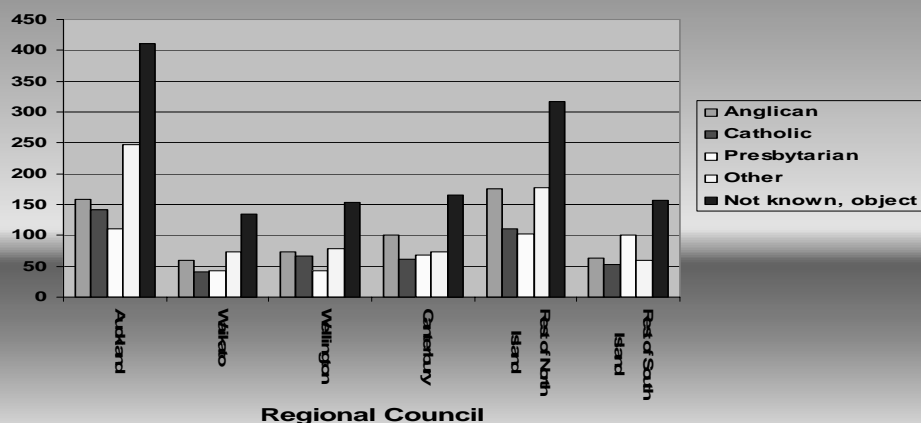
Horizontal Bar Graph

Table 4 1996 Census of population age groups by Regional Council



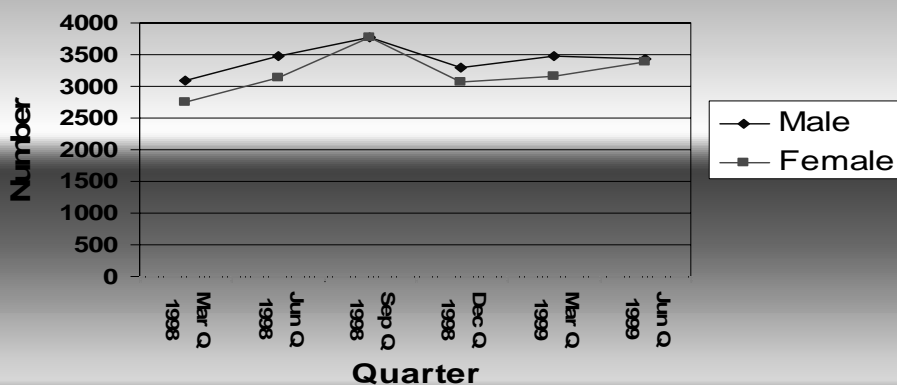
Multiple Bar Graph

Table 2 Religious denomination by Regional Council 1996 Census of Population



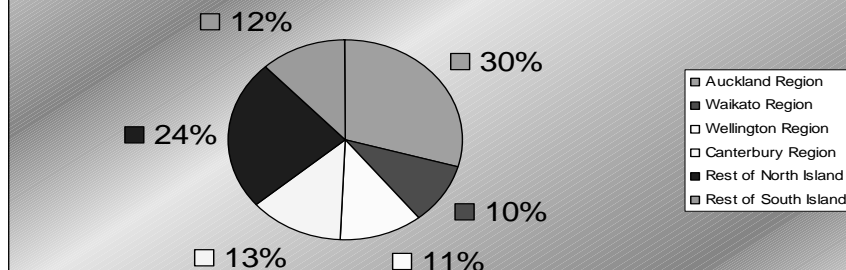
Line Graph

**Table 5 Deaths by male and female,
 March Quarter 1998 to June Quarter
 1999**



Pie Graph

**Table 1A
 1996 Census of Population by
 Regional Council**



4 What to watch for when designing a graph

- Vertical scale should include the zero value
- Provide sufficient data for the graph to be identified
- Graph lines should be clearly distinguished from other readings
- The numerals defining each scale should clearly indicate the values
- Use solid, dotted or colour lines to distinguish between variables
- Do not clutter a graph with excessive series

5. Factors that will influence the type of graph to be used

- Does the graph selected give a comprehensive picture of the data?
- Does the graph accurately present the facts?
- Can it be used in a printed report?
- Does the size of the graph satisfy all the uses it will be put to?
- Is it an effective visual aid?
- Is it the best way of presenting facts to your audience? A statistical table may be better?

6. Software that can be used when setting up a graph

- Excel
- SAS
- Harvard Graphics
- Lotus 123
- IMPS
- POPGRAPH
- Supercross

Graphing using Excel Software

