Definition of Tools

These definitions provide a general overview and only a small sample of the most common visual statistical tools. Learn more at Statistics Canada at http://www.statcan.ca/english/edu/power/glossary/dictionaries/dic-tionaries.htm

Bar Graph: A bar graph is a visual display used to compare two or more variables in terms of amount, frequency, or magnitude. A bar graph has two axes plus the necessary number of bars. One axis represents the range of frequency, amount, or magnitude, while the other axis corresponds to the type of data being compared, often called the grouped data. The bars can have their base at either the vertical axis or horizontal axis. Labels are necessary for each to describe what information is provided.

Constant: In mathematics, the term constant is a fixed but possibly unspecified value.

Graph: A visual representation of a relationship between two variables, x and y. Graphs have two axes, one horizontal called x, and one vertical called y. Each axis should be adequately labeled. The term origin refers to where the two axes intersect, often identified as the point (0, 0). Each point on a graph is defined by a pair of numbers, referred to as coordinates. The first coordinate in the pair corresponds to the x axis, and the second corresponds to the y axis. Line graphs, area graphs, and scatterplots are all types of graphs widely used in science and other fields.
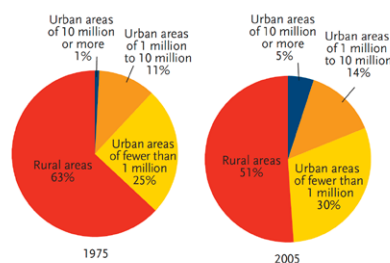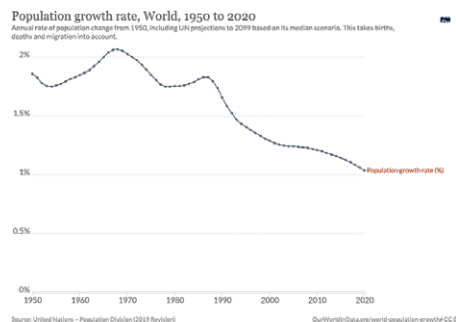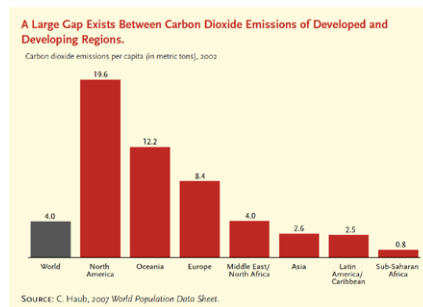
Map: A visual representation of an area with any of a variety of objects displayed upon it to convey information to its reader.

Model: A representation of a concept, system, or object. Models can be simple or exceedingly complex, depending on what they seek to represent and the detail sought. A climate model is a program, usually run on a supercomputer, that uses quantitative methods to simulate the interactions of the atmosphere, ocean, land surface, and ice. They are used for a variety of purposes including projections of future climate.

Pie Chart: A pie chart is a circular chart, divided into pie-shaped wedges, each of which represents relative size, magnitude, frequency or percent of a given variable in proportion to the whole. It is called a "Pie Chart" because it does in fact resemble a pie cut into slices.

Table: A mode of visual communication and a way to arrange data via a matrix or database. Tables vary significantly and are widely used in both professional and everyday life.

Variable: An unknown quantity that has the potential to change. Variables are often contrasted with constants, which are fixed and unchanging. Height, age, school grades, and amount of income are all examples of variables.

A Large Gap Exists Between Carbon Dioxide Emissions of Developed and Developing Regions.
Carbon dioxide emissions per capita (in metric tons), 2003

SOURCE: C. Haub, 2007 World Population Data Sheet.

Population growth rate, World, 1950 to 2020
Annual rate of population change from 1950, including UN projections to 2099 based on its median scenario. This takes births, deaths and migration into account.

Source: United Nations – Population Division (2019 Revision)   OurWorldInData.org/world-population-growth CC BY

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