

## The 2011 Census, data presentation and BS7581

### A briefing note for local authorities

Local authorities and other organisations publish selected census statistics for local businesses, community groups, citizens, researchers, politicians and others. Adopting advice from British Standard 7581:1992 *A Guide to the Presentation of Tables & Graphs* will ensure the figures easy to read, compare, understand and recall later.

**Why bother?** Reader-friendly figures save time, shorten meetings and improve decision-making because everyone understands the facts. They enhance your reputation as a first class communicator. Also, if you're in the UK, you should be working to the British Standard.

**Good news:** BS7581 sets out in 24 pages the simple rules on how to present census data so it is easy to read and understand.

**Bad news:** The British Standards Institute charges £130 for this short document. At £5.42 per page it was one of the more expensive publications in the English language. (The British Standard Institute is deaf to our accusations of overpricing and highway robbery. We urge others to complain.)

This paper summarises the basics of reader-friendly figures based on BS7581 and good-practice advice from experts Chapman, Ehrenberg, Shriver, Tufte and others.

### Underlying principles

1. Design tables and graphs for the convenience of the intended reader. Think about who they are and what is the easiest way for them to understand the data.
2. Only use a graph when you are sure it will express your ideas more effectively than a table. Graphs excel at illustrating relationships and changes over time. For other tasks, use a table.

### Tables

The heavy formatting in Table A below prevents readers from conveniently reading and comparing the data. Contrast it to Table B where the numbers speak for themselves. There is no shading, bold and few lines. Space, not ink, guides the reader through the data.

Table A (not recommended)

Ward	Population	% of Self-employed who work at home	% in employment who are self-employed working from home
Arnold North	X,XXX	XX	XX
Bigglesgate	X,XXX	XX	X
Charlton	X,XXX	XX	XX
Downton	X,XXX	XX	X
Edgar's Town	X,XXX	XX	XX
etc., etc.			
<b>Total/average</b>	XXXXX	XX	X
<b>West Midlands</b>	X,XXX,XXX	XX	XX

Table B ✓ ✓

Ward	Population	% of self-employed who work at home	% in employment who are self-employed working from home
Arnold North	X,XXX	XX	XX
Bigglesgate	X,XXX	XX	X
Charlton	X,XXX	XX	XX
Downton	X,XXX	XX	X
Edgar's Town	X,XXX	XX	XX
etc., etc.			
Total/average	X,XXXX	XX	X
West Midlands	X,XXX,XXX	XX	XX

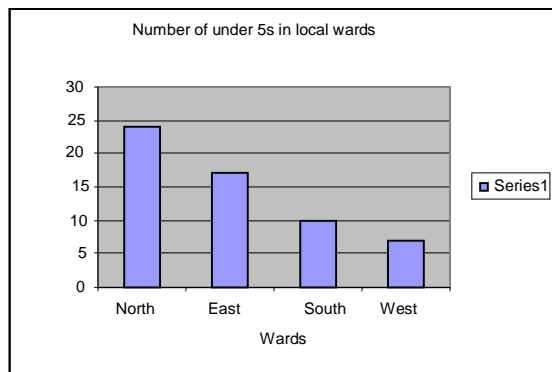
This is only an illustration! Ideally tables should be in an 11 or 12 point font.

## Graphs and charts

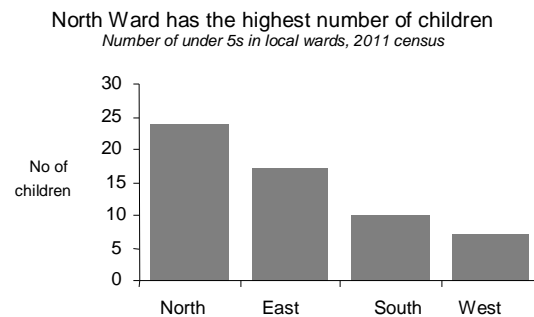
Graph A below is cluttered with “junk” making it harder to read. In Graph B the emphasis is on the data, not the decoration. General points:

- The best graphs – those that communicate with ease – have a single, explicit message.
- Use the simplest type of graph appropriate for your data.
- Avoid 3-d charts as they make data look more complicated than it is.
- Delete “chart junk” from your graph. That includes gridlines, shading, borders and bold.
- Ensure wording is horizontal and large enough to read. Label axes.

Graph A (not recommended)



Graph B ✓✓



## Other points on data presentation

- Order data logically. Often largest to smallest is the most helpful order as it allows readers to compare the figures at a glance.
- Round figures “if appropriate and not misleading” (BS7581). Rounded numbers are easier to read, compare and recall later.
- There are two types of tables. Reference tables contain raw data, e.g. bus timetables, stock marketing listings, budget books. Demonstration tables are succinct and demonstrate a particular point, e.g. the number of people aged over 60 in each ward. Trying to mix the two types of tables usually results in a muddle and lack of clarity.

## Make PLAIN FIGURES your standard

We offer practical one-day courses where participants learn to:

- present figures, tables and graphs in reader-friendly ways
- communicate ideas with persuasive statistics
- write about figures
- speak about figures without losing or confusing the audience
- organise and summarise data for decision-making.

Our courses are informal and friendly. They are based on exercises and learning by doing. Participants are encouraged to bring in “work in progress” for analysis and discussion.

Over 90% of participants report they feel more confident in presenting data after attending one of Plain Figures courses.