Table design

Design considerations; Why; Rounding numbers

Data looks better naked: data tables

Darkhorse analytics

How to improve it?

Remove

- Remove the colours
- Remove gridlines
- Remove fills
- Remove the border
- Remove bolding

Layout

- Left align text
- Right align numbers
- Align titles with data
- Resize columns to data
- Put whitespace to work

How to improve it? (2)

Data	Design
Numbers	• Please, no more Calibri
• Use consistent precision	
• Round the numbers	• Add back the Emphasis
Text	
• Remove repetition	

Initial (default) table

Role	Name	Year of the...	Debut	Number of Fans	Takedown Rate
Face (The Hero)	The Ultimate Warrior	Tiger	May-2011	97320.00	86.2
Face (The Hero)	Hulk Hogan	Oxen	Jan-2008	988551.00	61.978
Face (The Hero)	Macho Man Randy Savage	Monkey	Feb-2008	157618.00	59.29
Face (The Hero)	Hacksaw Jim Duggan	Pig	Mar-2008	30300.00	53.4332
Heel (The Bad Guy)	Superfly Jimmy Snuka	Dragon	Mar-2008	12341.00	52.7
Heel (The Bad Guy)	Rowdy Roddy Piper	Rooster	Jun-1968	71645.00	45.4
Heel (The Bad Guy)	The Million Dollar Man Ted DiBiase	Rat	Apr-1975	449342.00	43.7689
Heel (The Bad Guy)	Mr. Perfect Curt Henning	Rat	May-1980	13773.00	38
Heel (The Bad Guy)	Jake the Snake Roberts	Snake	Jul-1975	5609-00	37.99
Jobber (The Unknown)	Brad Smith	Sheep	Aug-2008	1103.00	36.316
Jobber (The Unknown)	Ted Duncan	Sheep	Aug-2008	200.00	33.61
Jobber (The Unknown)	Joey the Uber Nerd Cherdarchuk	Snake	Agu-2008	5.00	21.0196

Cleared table

Role	Name	Year of the...	Debut	Thousands of Fans	Takedown Rate
Face (The Hero)	The Ultimate Warrior	Tiger	May-2011	97.3	86.2
	Hulk Hogan	Oxen	Jan-2008	988.6	62.0
	Macho Man Randy Savage	Monkey	Feb-2008	157.6	59.3
	Hacksaw Jim Duggan	Pig	Mar-2008	30.3	53.4
Heel (The Bad Guy)	Superfly Jimmy Snuka	Dragon	Mar-2008	12.3	52.7
	Rowdy Roddy Piper	Rooster	Jun-1968	71.6	45.4
	The Million Dollar Man Ted DiBiase	Rat	Apr-1975	449.3	43.8
	Mr. Perfect Curt Henning	Rat	May-1980	13.8	38.0
	Jake the Snake Roberts	Snake	Jul-1975	5.6	38.0
Jobber (The Unknown)	Brad Smith	Sheep	Aug-2008	1.1	36.3
	Ted Duncan	Sheep	Aug-2008	0.2	33.6
	Joey the Uber Nerd Cherdarchuk	Snake	Agu-2008	0.0	21.0

In PowerPoint (menus and options)

- General style
  - Font family, font size, font colour, font weight
  - Text align
- Table style
  - Design options
  - Borders
- Size of columns and rows
  - Manually set

Design considerations + legislation

Source: [Data visualisation: tables](#) Gov.UK

Why use tables?

- (Cons) Charts are betters to show patterns, trends and relationships

- (Pros) Help users to compare values
- (Pros) Useful to include metrics and measures such as percentages or indices
- (Pros) Useful to include summary statistics such as average or totals
- (Pros) Useful if the values are of very different scales

- (Acc) Complement to charts for visual disabilities

Types of tables

- Demonstration table
  - Fact data which supports textual commentary

- Reference table
  - Users need detailed data (in an appendix)

Layout

Comparing numbers

To help the reader make comparisons:

- present the numbers close together

- present the numbers in columns, not rows

- use the same level of precision within each column

- separate thousands

- right align the figures and the column headings

- start numbers of less than one with a zero, not a point

People employed at each Civil Service grade, UK, 2018

Grade	Headcount	Percentage of total headcount
Administrative Assistant	18,750	4.5%
Administrative Officer	132,540	31.9%
Executive Officer	125,420	27.8%
Higher Executive Officer	63,210	15.2%
Senior Executive Officer	42,150	10.1%
Grade 7	29,460	7.1%
Grade 6	12,540	3.0%
Senior Civil Service	1,630	0.3%

Titles and headers

- All tables should have a title.

- Column headings should describe the data in each column. Units should also be described

- Provide source information underneath the table in the following format: [organisation] – [publication or source of data]
    - example "Office for National Statistics – Annual Survey of Hours and Earnings".

- Do not merge cells

- Footnotes should be avoided whenever possible

Summary rows and columns

- Traditionally at the bottom right

- If it's important to see totals first: place at the top or left

- Consider using bold text, do not overuse

People employed at each Civil Service grade, UK, 2018

Grade	Headcount	Percentage of total headcount
Administrative Assistant	18,750	4.5%
Administrative Officer	132,540	31.9%
Executive Officer	125,420	27.8%
Higher Executive Officer	63,210	15.2%
Senior Executive Officer	42,150	10.1%
Grade 7	29,460	7.1%
Grade 6	12,540	3.0%
Senior Civil Service	1,630	0.3%
Total	**415,700**	**100%**

Source: Introduction to visualization gov.uk

Precision and rounding

Source: [Tutorial rounding of numbers](#)

Precision – tables

Use only the **number of digits which are necessary and make sense** for the purpose of a clear communication

Rounding of numbers should take place at the latest phase of data processing and analysis.

- Tables with percentages: general rule is to **round to one decimal**

- For tables with absolute numbers, identify **the smallest number**, decide **how many digits to keep** for this number and then round all other entries to those digits

Precision – tables (II)

- For **target indicators** always use the **full precision** of the indicator to **assess whether the target has been met**. The rounding should not change the situation

- **Big numbers are difficult** to grasp. It may be reasonable to round them and use the words **millions, billions**, etc.

Example of rounding

GEO/TIME	1970
Belgium	9660154
Germany (until 1990 former territory of the FRG)	61194591
France	:
Italy	53685300
Luxembourg	338500
Netherlands	12957621

Member State	Population in 1970
BE	9 660 000
DE	61 190 000
FR	:
IT	53 690 000
LU	340 000
NL	12 960 000

Implementation of tables

Source: several

Tables in …

- HTML [W3C Tables tutorial](#)

- Latex [Overleaf tables tutorial](#)

- Accessibility and design considerations with examples: [gov.uk](#)

- Utility [Online tables generator](#)