

Instructional Computing Facility

Use Simple Tables to Present Numbers

	Use Tables	For Your Numbers	But Not too Many
This row	10	90	100
This row	0.6	0.4	1
This row	1	2	3
That row	1	2	3

Try not to make footnotes too small

Harvard School of Public Health

The stylesheet goes on to victimize statistical data, the fundamental evidence of public health. The table shows 12 numbers which is lousy for science, sports, weather, or financial data but standard for PowerPoint.²² Table design is a complex and subtle matter in typographic work, but there is nothing thoughtful about design here. The unsourced numbers are not properly aligned, the row and column labels are awful, the units of measurement not given. This stylesheet of pseudoscience displays a flippant smirky attitude toward evidence. That attitude—*what counts are power and pitches, not truth and evidence*—also lurks within PowerPoint.

Consider now a real table. Bringing scientific methods to medical and demographic evidence, John Graunt's *Bills of Mortality* (1662) is the foundation work of public health. Graunt calculated the first tables of life expectancy, compared different causes of death, and even discussed defects in the evidence. His renowned "Table of Casualties" (at right) shows 1,855 different counts of death from 1629 to 1659. How fortunate that Graunt did not have PowerPoint and the assistance of the Harvard School of Public Health Instructional Computing Facility. Their silly guidelines above suggest the construction of 155 separate PowerPoint slides to show the data in Graunt's original table!

For tables, the analytical idea is to make comparisons. The number of possible pairwise comparisons in a table increases as the square of the number of cells.²³ In Graunt's table, 1,719,585 pairwise comparisons, of varying relevance to be sure, are within the eyespan of the inquiring mind. In contrast, the 155 tiny tables on 155 PP slides would offer only 10,230 pairwise comparisons, about 6 in 1,000 of those available in Graunt's original table. These PP tables would also block all sorts of interesting comparisons, such as time patterns over many years. What Graunt needs to do for his presentation at Harvard is simply to provide printed copies of his original table to everyone in the audience.

²² Some 39 tables appear in our collection of 28 PP textbooks. These tables show an average (median) of 12 numbers each, which approaches the *Pravda* level. In contrast, sports and financial pages in newspapers routinely present tables with hundreds, even thousands of numbers. Below, we see a conventional weather table from a newspaper. The Harvard School of Public Health PP guidelines inform presenters that this data set will require 31 PP slides:

Africa	Yesterday	Today	Tomorrow
Algiers	82/ 66 0.55	85/ 60 S	85/ 61 S
Cairo	99/ 70 0	101/ 76 S	96/ 76 S
Cape Town	64/ 54 0.16	63/ 49 PC	60/ 50 Sh
Dakar	87/ 77 0.75	86/ 81 PC	85/ 81 PC
Johannesburg	69/ 42 0	73/ 42 S	71/ 47 S
Nairobi	75/ 55 0	78/ 56 PC	78/ 56 PC
Tunis	80/ 69 -	87/ 73 PC	85/ 71 PC
Asia/Pacific	Yesterday	Today	Tomorrow
Auckland	59/ 45 0.12	58/ 44 Sh	58/ 44 Sh
Bangkok	91/ 82 0	91/ 79 Sh	91/ 77 Sh
Beijing	85/ 57 0	84/ 60 S	78/ 65 PC
Bombay	88/ 75 0.28	87/ 77 T	88/ 78 T
Damascus	96/ 55 0	98/ 59 S	96/ 62 S
Hong Kong	91/ 77 0	88/ 81 PC	92/ 78 PC
Jakarta	89/ 77 0	90/ 77 PC	89/ 77 PC
Jerusalem	87/ 64 0	88/ 66 S	88/ 69 S
Karachi	86/ 80 0	92/ 78 PC	92/ 79 S
Manila	86/ 75 -	84/ 75 R	87/ 78 R
New Delhi	89/ 80 Tr	88/ 76 Sh	92/ 76 Sh
Riyadh	98/ 69 0	102/ 74 S	101/ 75 S
Seoul	78/ 64 2.09	83/ 65 PC	77/ 66 R
Shanghai	75/ 69 0.06	86/ 76 Sh	86/ 73 PC
Singapore	87/ 78 Tr	89/ 76 R	89/ 78 Sh
Sydney	68/ 53 0	71/ 51 PC	71/ 48 PC
Taipei	84/ 77 2.28	87/ 73 PC	88/ 72 PC
Tehran	93/ 73 0	87/ 73 S	87/ 73 S
Tokyo	89/ 77 0	91/ 79 Sh	83/ 80 Sh
Europe	Yesterday	Today	Tomorrow
Amsterdam	56/ 50 0.39	66/ 51 PC	64/ 52 Sh
Athens	87/ 75 0	90/ 75 S	88/ 71 S
Berlin	64/ 55 0.31	61/ 49 R	68/ 52 PC
Brussels	62/ 54 Tr	66/ 53 PC	65/ 52 Sh
Budapest	72/ 59 0	75/ 55 S	67/ 53 Sh
Copenhagen	59/ 51 0.08	63/ 51 Sh	63/ 52 PC
Dublin	66/ 54 0.12	66/ 55 Sh	63/ 47 PC
Edinburgh	63/ 46 0.02	63/ 46 R	64/ 48 PC
Frankfurt	65/ 54 0.01	65/ 54 Sh	66/ 50 PC
Geneva	69/ 57 0.04	64/ 56 Sh	65/ 50 PC
Helsinki	63/ 45 0	62/ 46 PC	63/ 45 PC
Istanbul	84/ 60 0.01	79/ 69 Sh	78/ 67 S
Kiev	66/ 46 0	64/ 47 S	64/ 46 S
Lisbon	84/ 62 0	91/ 65 S	90/ 67 S
London	71/ 53 0.08	66/ 53 Sh	69/ 55 PC
Madrid	86/ 46 0	87/ 55 S	87/ 57 S
Moscow	55/ 41 0	64/ 40 S	62/ 44 S
Nice	78/ 62 0.01	78/ 65 S	78/ 63 S
Oslo	62/ 48 0	57/ 47 PC	59/ 45 PC
Paris	68/ 57 0	69/ 56 PC	68/ 57 PC
Prague	64/ 55 0.04	56/ 49 T	63/ 49 Sh
Rome	75/ 62 -	79/ 61 S	76/ 60 Sh
St. Petersburg	59/ 39 0	66/ 46 S	65/ 47 PC
Stockholm	64/ 46 0	61/ 49 PC	63/ 45 PC
Vienna	64/ 59 0.16	65/ 53 PC	66/ 52 Sh
Warsaw	69/ 46 0	62/ 51 Sh	65/ 49 PC

²³ A table with n cells yields $n(n - 1)/2$ pairwise comparisons of cell entries.

John Graunt, *National and Political Observations mentioned in a following index, and made upon the Bills of Mortality. With reference to the Government, Religion, Trade, Growth, Ayre, Diseases, and the several Changes of the said City* (London, 1662); "The Table of Casualties" follows folio 74.