Comparison of Dr Walker’s Graph and one that shows the full Overtaking Distance.
First note that I converted Dr. Walker's numbers to feet by reading from his graph located at: http://drianwalker.com/overtaking/overtakingprobrief.pdf

The first pair of graphs show how I reproduced Dr. Walker's graph in Excel and made the conversion from meters to feet.

Now go to the second page and you will notice that the blue lines show the y-axis scale of Dr. Walker's graph, and how this cuts off most of the passing distance in the reproduced version of his skewed graph on the left. The real passing distance is quite generous as shown on the right with the full $y$-axis, with the blue lines showing the deceptive nature of Dr. Walker's graph. One can conclude that any differences in passing distance are second order effects, wit h the main effect to be nearly 4 feet of passing distance on average.




Here is another one of Dr. Walker's Deceptive Graphs. Notice that the vertical axis is cut off and the horizontal axis is plotted as a bar graph. The proper way to show this data is on the next page. On the left is a true $x-y$ plot that reproduces Dr. Walker's skewed result, and to the right is a real x-y plot with the full y axis, with the x and y axes to the same scale. The final graph shows that the main effect is a generous passing distance (over 3.5 feet), and the effects Dr. Walker is describing are really small variations on the large passing distance. This method of truncating a graph axis and using axes of different scales are classic techniques used to make a small effect look larger than it really is, and are talked about in the book: "How to lie with statistics". What Dr. Walker ought to ask himself is why the average passing distance was over 3.5 feet and why the effects he seems excited about are so small (a few inches one way or the other). The other point to be made is that if Dr. Walker had positioned himself further left still, say 7 feet from the curb (in a 12 foot lane), he would have observed lance change behavior from passing motorists, and the passing distances would have been larger than the numbers he measures at lateral positions closer to the curb. Brian DeSousa and Dan Gutierrez are in the process of organizing the data from just such a series of videotaped runs on a major arterial in Los Angeles County, CA.

--- o-- Helmet - No helmet


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