# **Tufte on Graphics**

Edward Tufte is a pioneer in the study graphical design. His books are classics in the field and well worth the read. He begins his book, *The Visual Display of Quantitative Information*, as follows:

"Excellence in statistical graphics consists of complex ideas communicated with clarity, precision, and efficiency. Graphical displays should

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- Be closely integrated with the statistical and verbal descriptions of a data set."



Tufte concludes the first chapter of the book with the following five principles of graphical execellence:

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- And graphical excellence requires telling the truth about the data.

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Regardless of the intention of the purveyor of a statistical graphic, Tufte would say that insofar as the graphic fails to tell the truth about the data, it lacks integrity.

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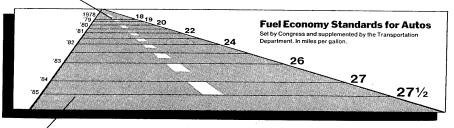
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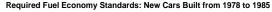
This line, representing 18 miles per gallon in 1978, is 0.6 inches long.

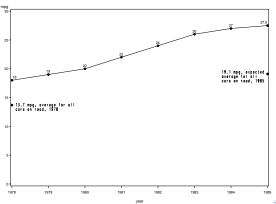


This line, representing 27.5 miles per gallon in 1985, is 5.3 inches long.

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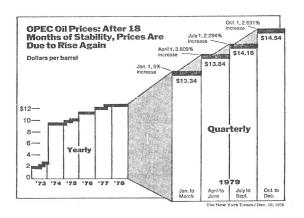
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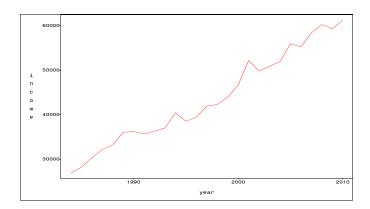
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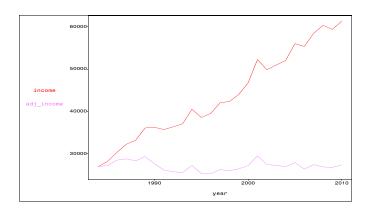
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MA median income looks pretty good:



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Until you adjust it for inflation:



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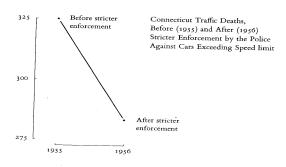
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#### This looks impressive:



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But it doesn't tell the whole story:

A few more data points add immensely to the account:

