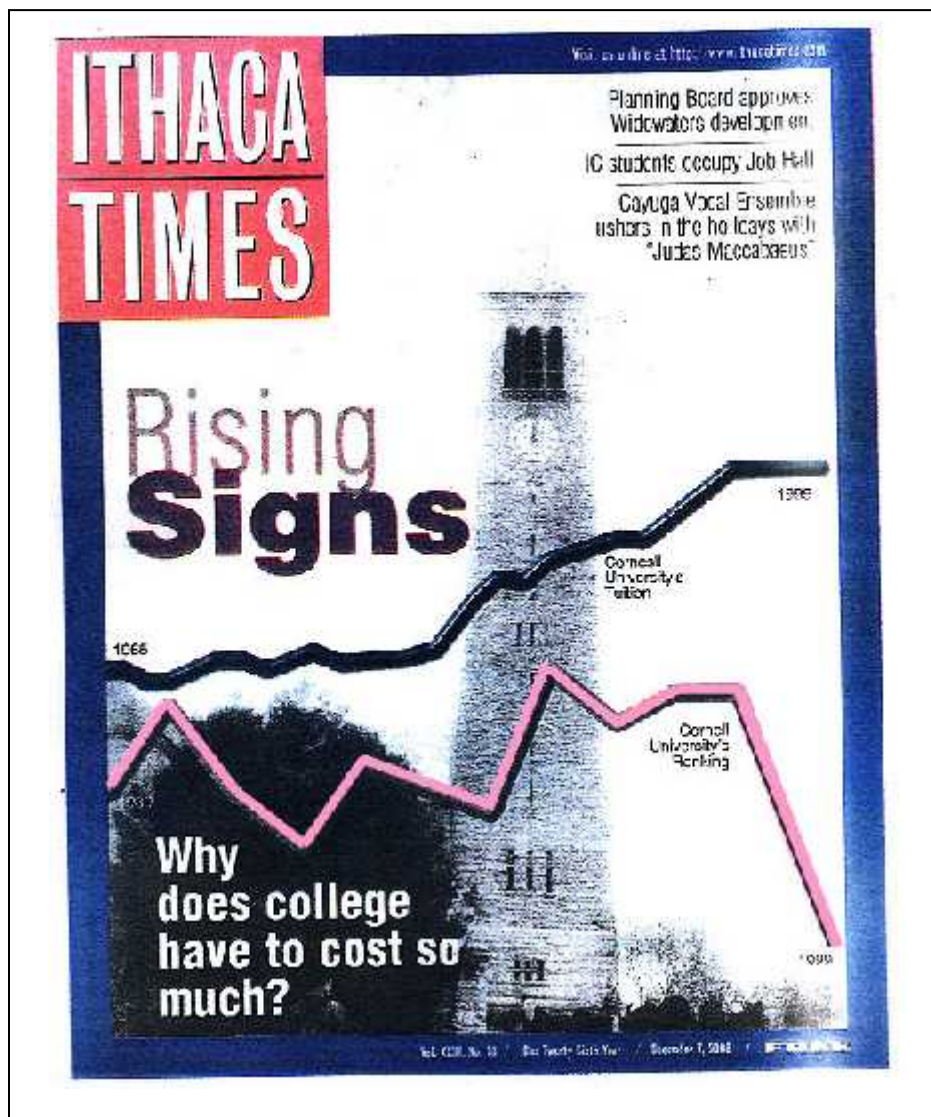


## Most Misleading Graphs

**The road to hell is paved with bad graphic designers!**

This image, from the cover of the *Ithaca Times* (Dec. 7, 2000) may well be **the most misleading graph ever published**. It provides a spectacular example of more graphical sins than I have ever seen in one image.

The cover story, "Why does college have to cost so much?" shows a large graph superimposed on a scene from the Cornell campus. There are two jagged lines running across the graph, one labeled "Cornell's Tuition" and the other "Cornell's Ranking". The tuition graph shows a steady rise, and the ranking graph, after some early meandering, plummets to an all time low. The clear impression is that students are paying more for far less.

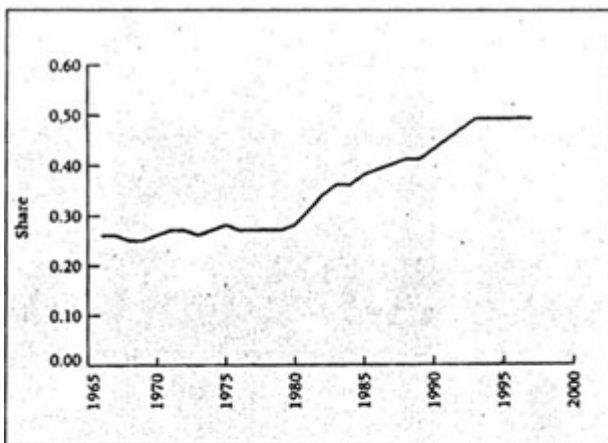


What's wrong with this graph? What's missing?

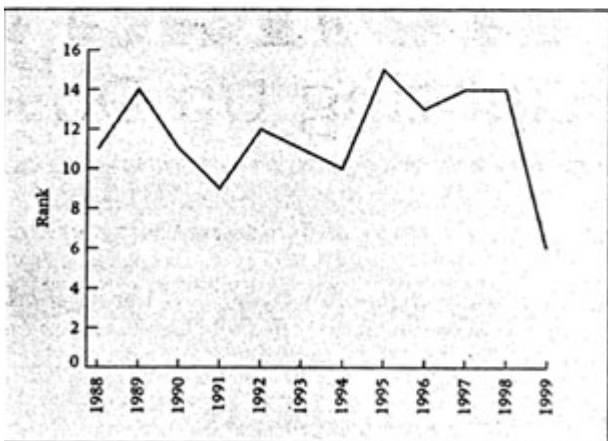
More careful reading of the whole article (buried several pages into the paper) reveals a different story:

- (1) The ranking graph covers an 11 year period, the tuition graph 35 years, yet they are shown simultaneously (the same apparent width) on the same horizontal "scale".
- (2) The vertical scale for tuition and ranking could not possibly have common units, but the ranking graph is placed under the tuition graph creating the impression that cost exceeds quality.
- (3) The differing time units are cleverly disguised by printing them rotated 90°.
- (4) And here is the masterstroke: the sharp "drop" in the ranking graph over the past few years actually represents the fact that Cornell's rank has IMPROVED from 15th TO 6th ...

[**Credits:** Dave Bock, from Ithaca, NY provided these graphs, and most of the accompanying text. He says: "Egad. There must be an award this newspaper deserves." Yes, and now they've gotten it!]



BY THE NUMBERS: OVER 35 YEARS, CORNELL'S TUITION HAS TAKEN AN INCREASINGLY LARGER SHARE OF ITS MEDIAN STUDENT FAMILY INCOME.



PECKING ORDER: OVER 12 YEARS, CORNELL'S RANKING IN US NEWS & WORLD REPORT HAS RISEN AND FALLEN ERRATICALLY.