

5. Visualization for communication

Lecture learning goals

By the end of the lecture you will be able to:

1. Follow guidelines for best practices in visualization design.
2. Avoid overplotting via 2D distribution plots.
3. Adjust axes extents and formatting.
4. Modify titles of several figure elements.
5. Visualize trends using regression and loess lines.

Required activities

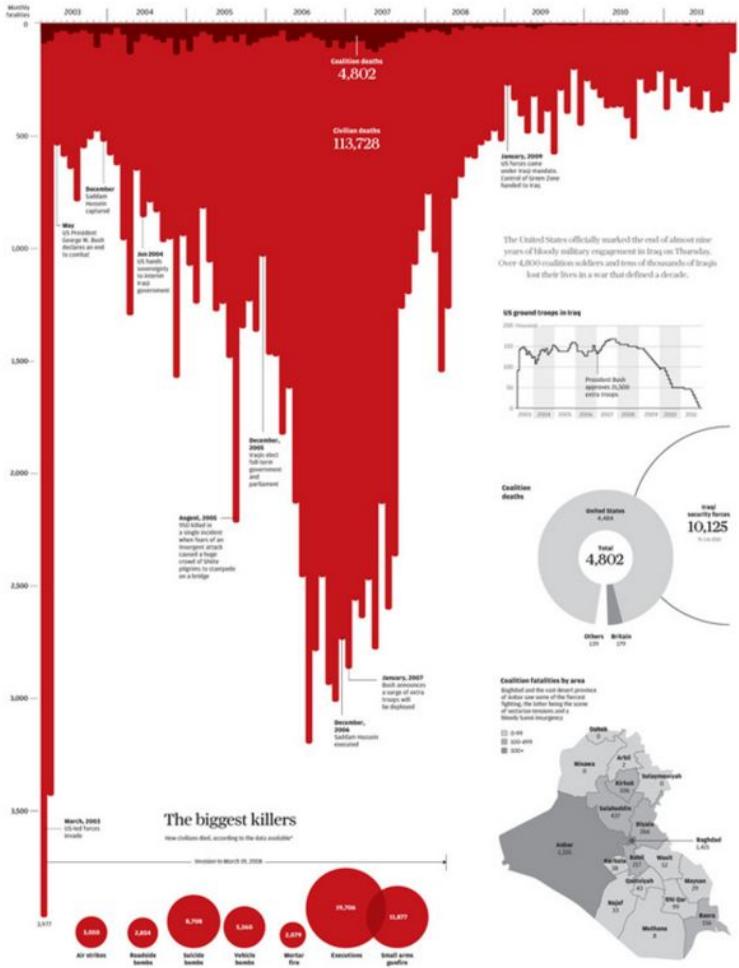
Before class:

- Watch these videos:
 - Overplotting (9 min)
 - Axes extents (8 min)
 - Axis value formatting (4 min)
 - Figure titles (11 min)

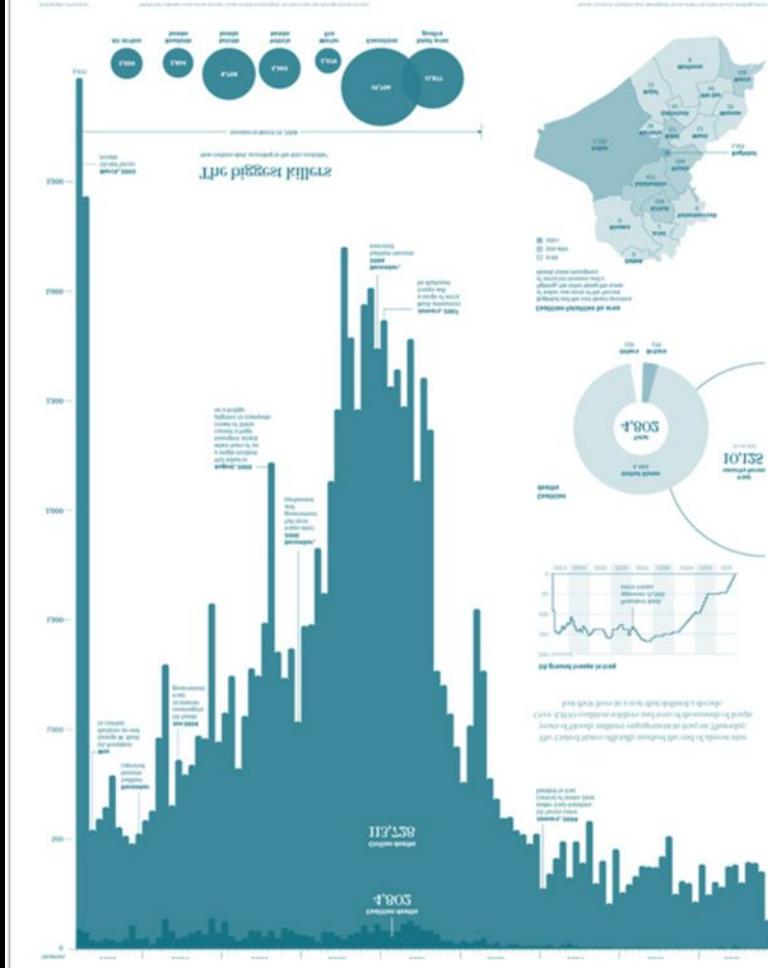
After class:

- Review the lecture notes.
- [Section 18 on overplotting](#)
- [Section 22 - 22.2 on titles and captions](#)
- [Section 24 on font sizes in axis labels](#)
- [Section 14 - 14.2 on visualizing trends.](#)

Iraq's bloody toll

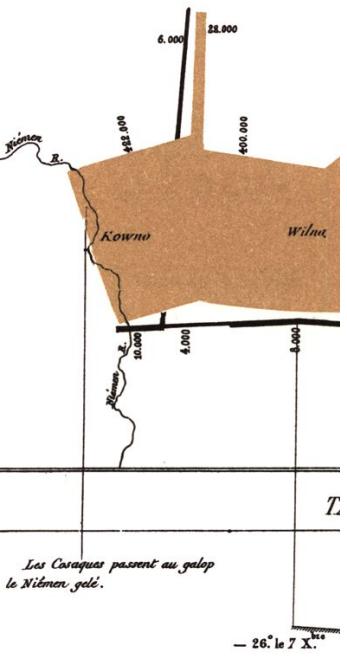


Iraq: Deaths on the decline

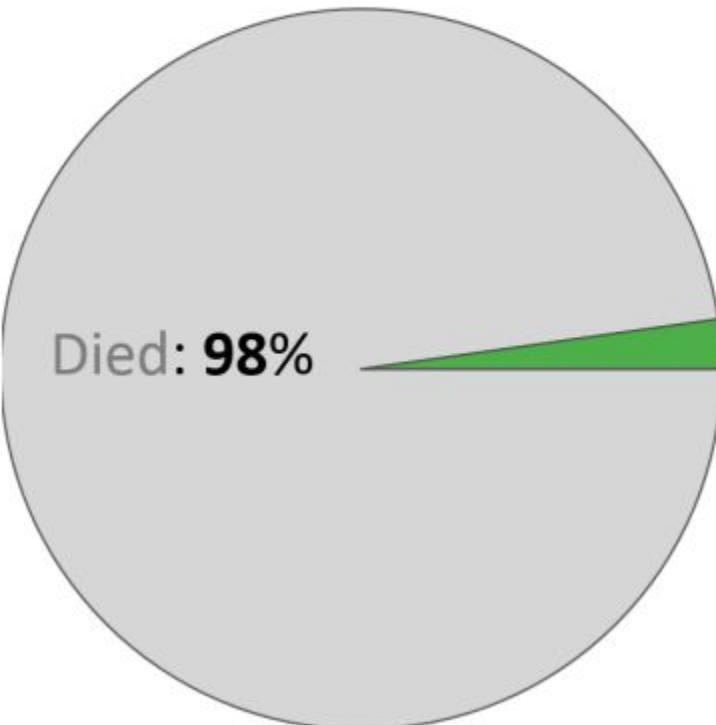


Carte Figu

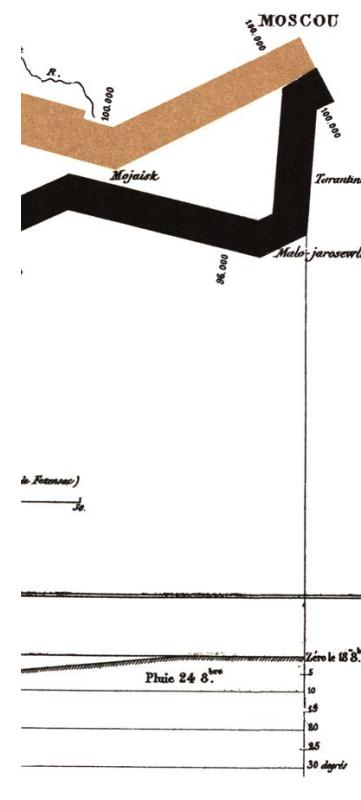
Les nombres d'hommes
des zones. Le rouge des
sous les ouvrages de l'art.
Qui mieux juge



Napoleon's Russian Campaign



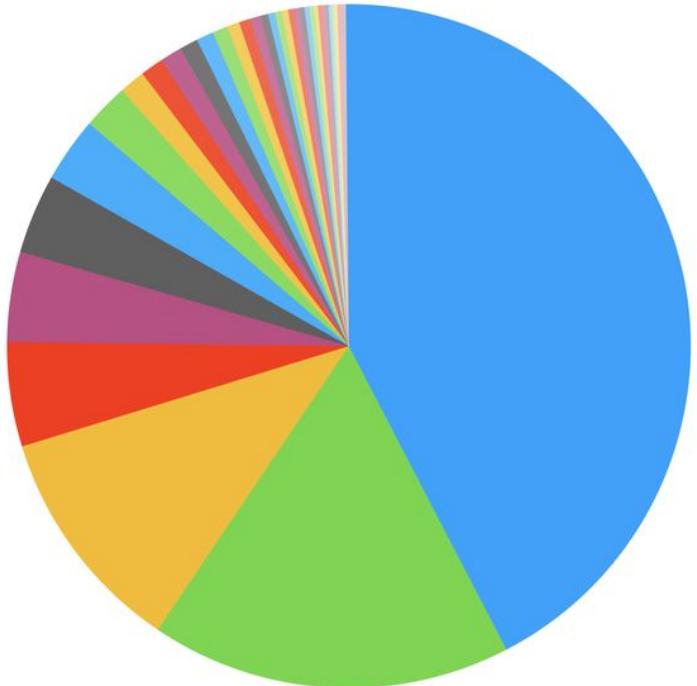
Survived: 2%



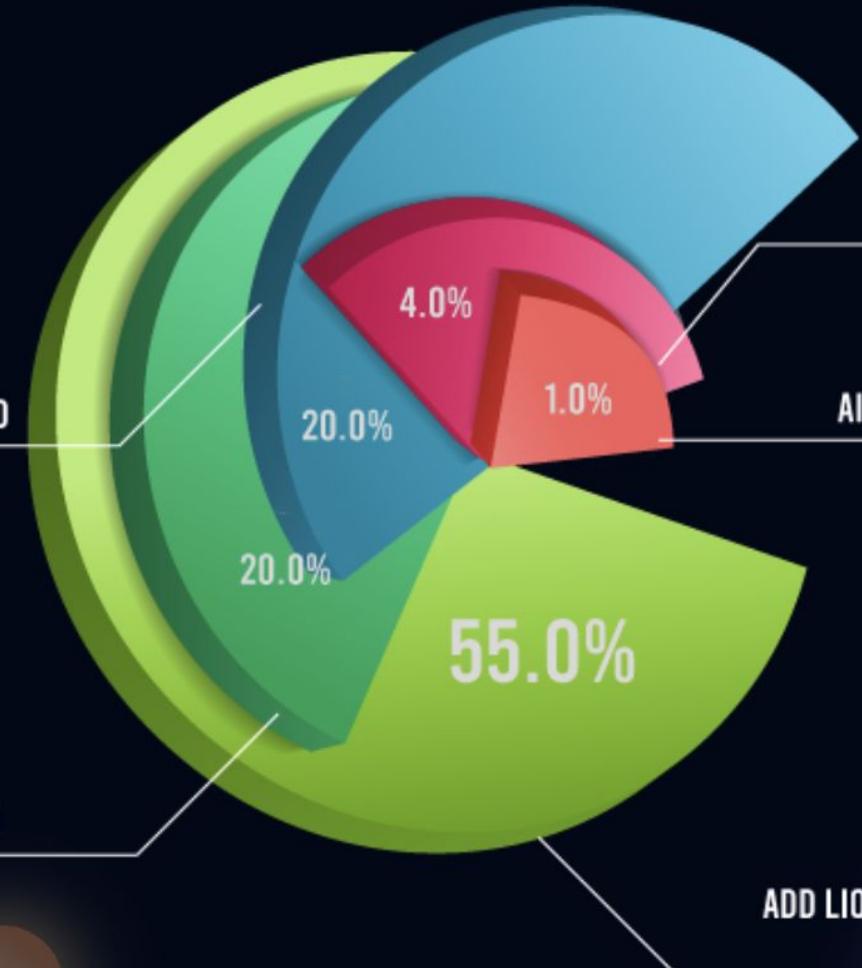
Imp. Léon Regnier et Bourdet

Which game(s) have you played the most?

3,994 responses



- Zelda
 - The Legend of Zelda: B
 - Breath of the Wild
 - BOTW
 - Botw
 - Breath of the wild
 - BoTW
 - zelda
 - Legend of Zelda: Breath
 - Legend of Zelda
 - Zelda BOTW
 - BoTW
 - botw
 - Zelda: Breath of the W
 - Zelda BotW
 - Zelda Breath of the Wi
 - The Legend of Zelda
 - Breath of The Wild
 - The Legend of Zelda B
 - Zelda: BOTW
 - Zelda: BotW
 - Breath of the Wild
 - Zelda breath of the wild
 - Breath Of The Wild
 - Legend of Zelda Breath
 - LoZ
 - LoZ: BotW
 - Zelda botw
 - zelda botw
 - breath of the wild
 - Legend of zelda
 - legend of zelda
 - LoZ BOTW
 - The Legend of Zelda: B
 - The legend of Zelda: b
 - ZELDA
 - Zelda: BoTW

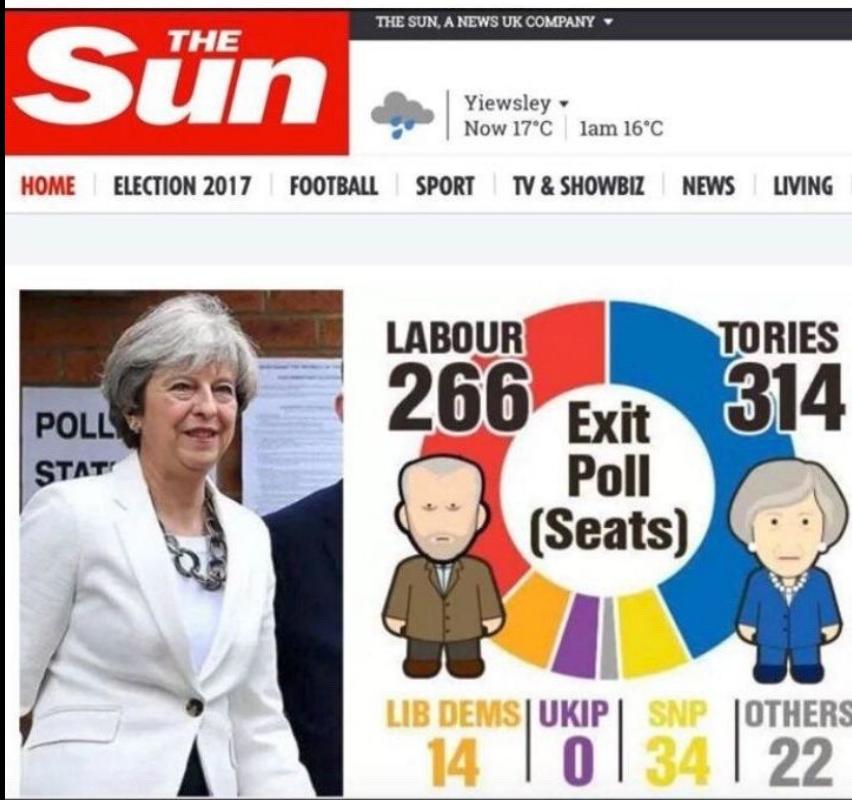


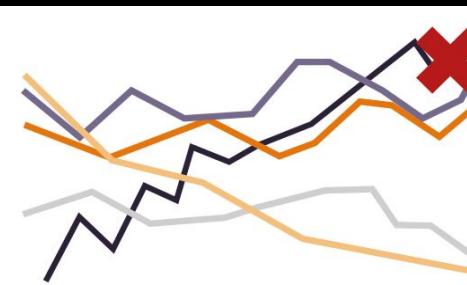
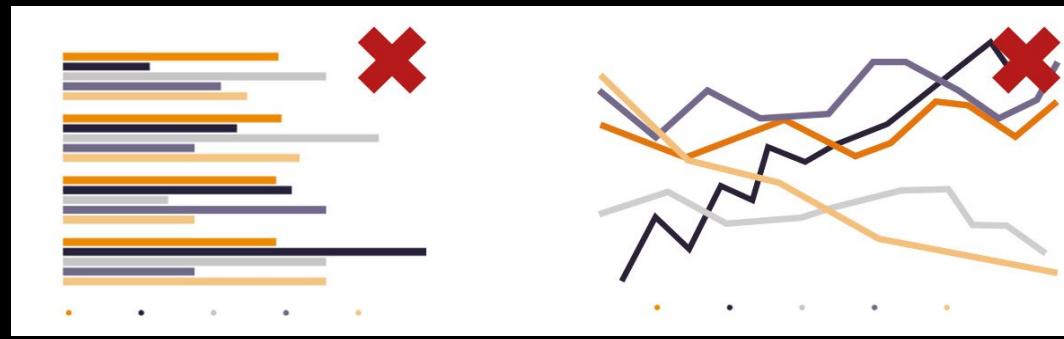
Graphic designer: "Is 34 bigger or smaller than 14?"

Editor: "Smaller. Definitely smaller"

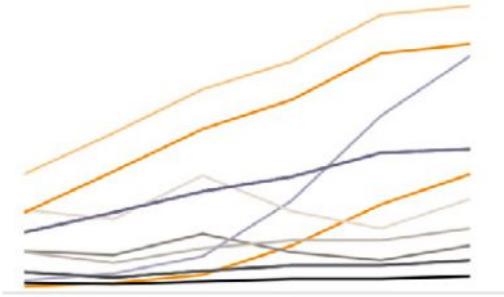
Graphic designer: "What about zero?"

Editor: "Zero's a bit less than 34 but it's much more than 22"





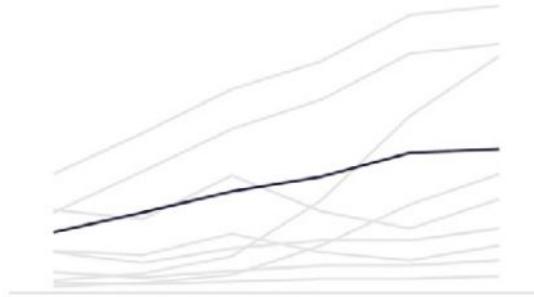
NOT IDEAL



NOT IDEAL



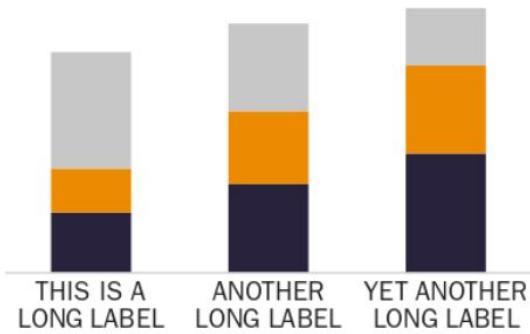
BETTER



BETTER



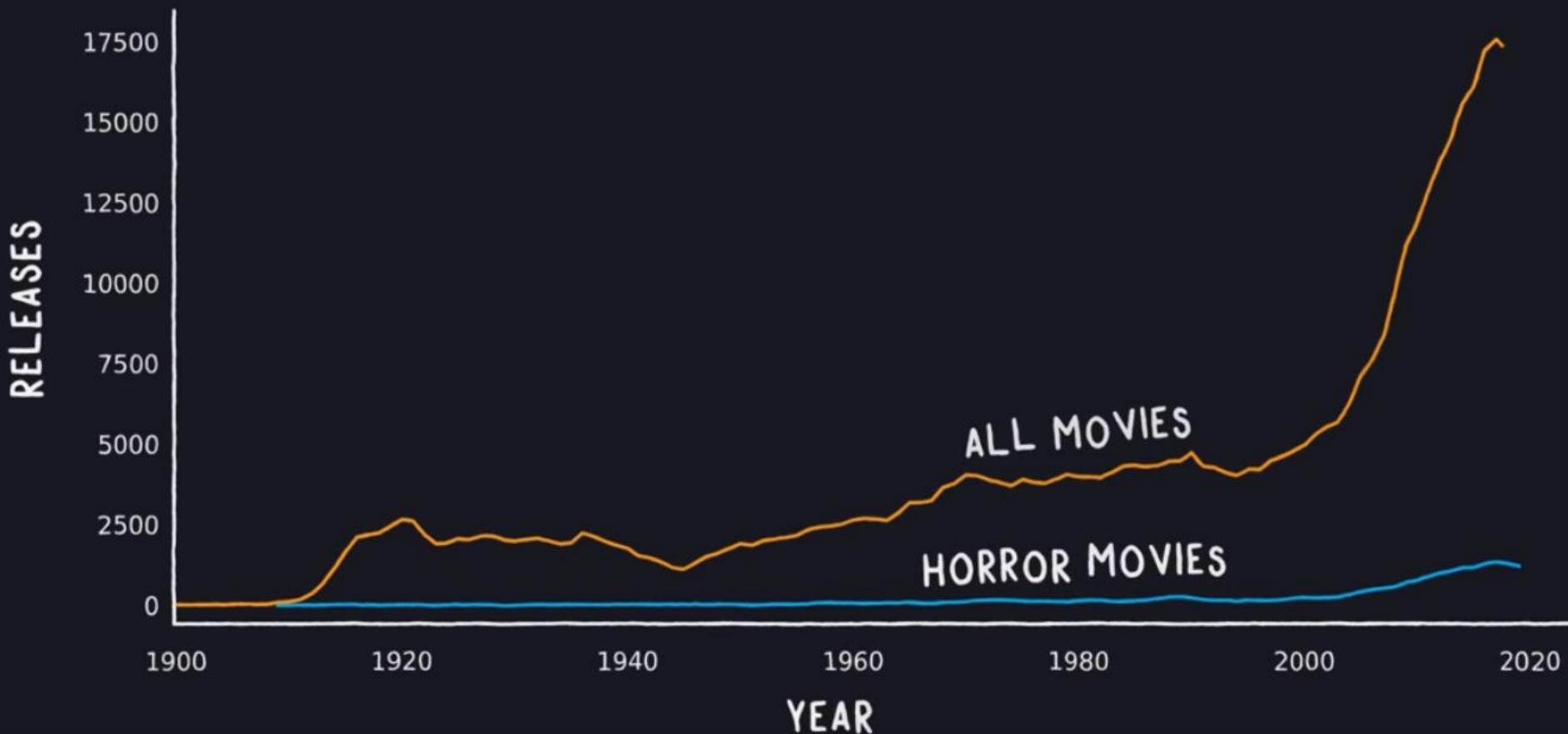
NOT IDEAL

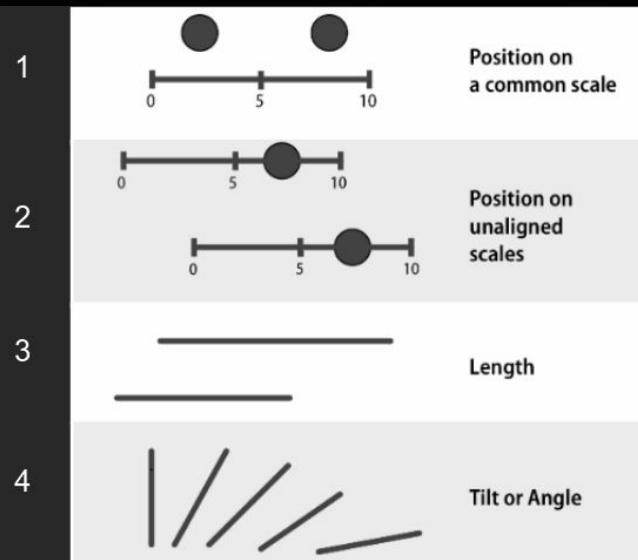


BETTER

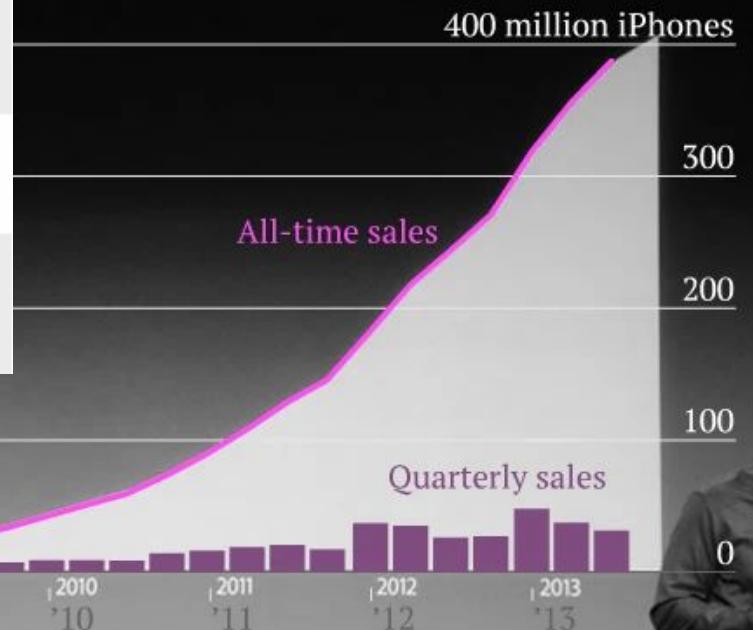


MOVIE RELEASES BY YEAR



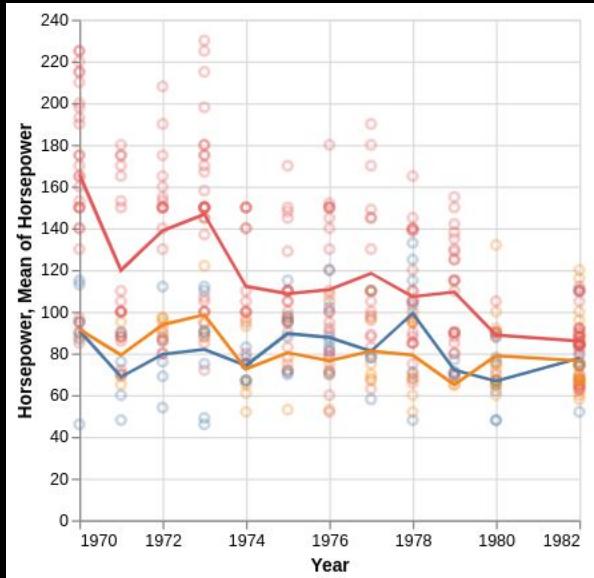


Cumulative iPhone sales

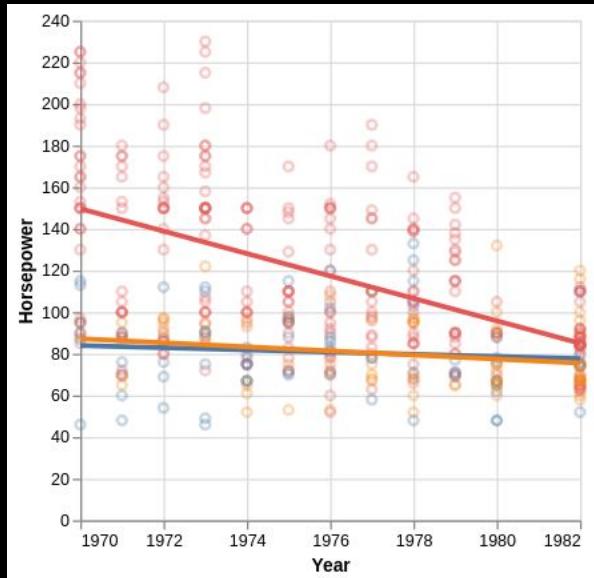


Trendlines

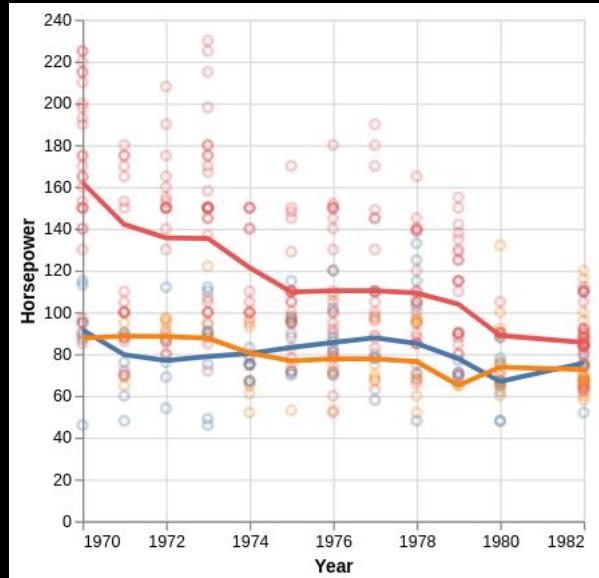
(Rolling) Mean



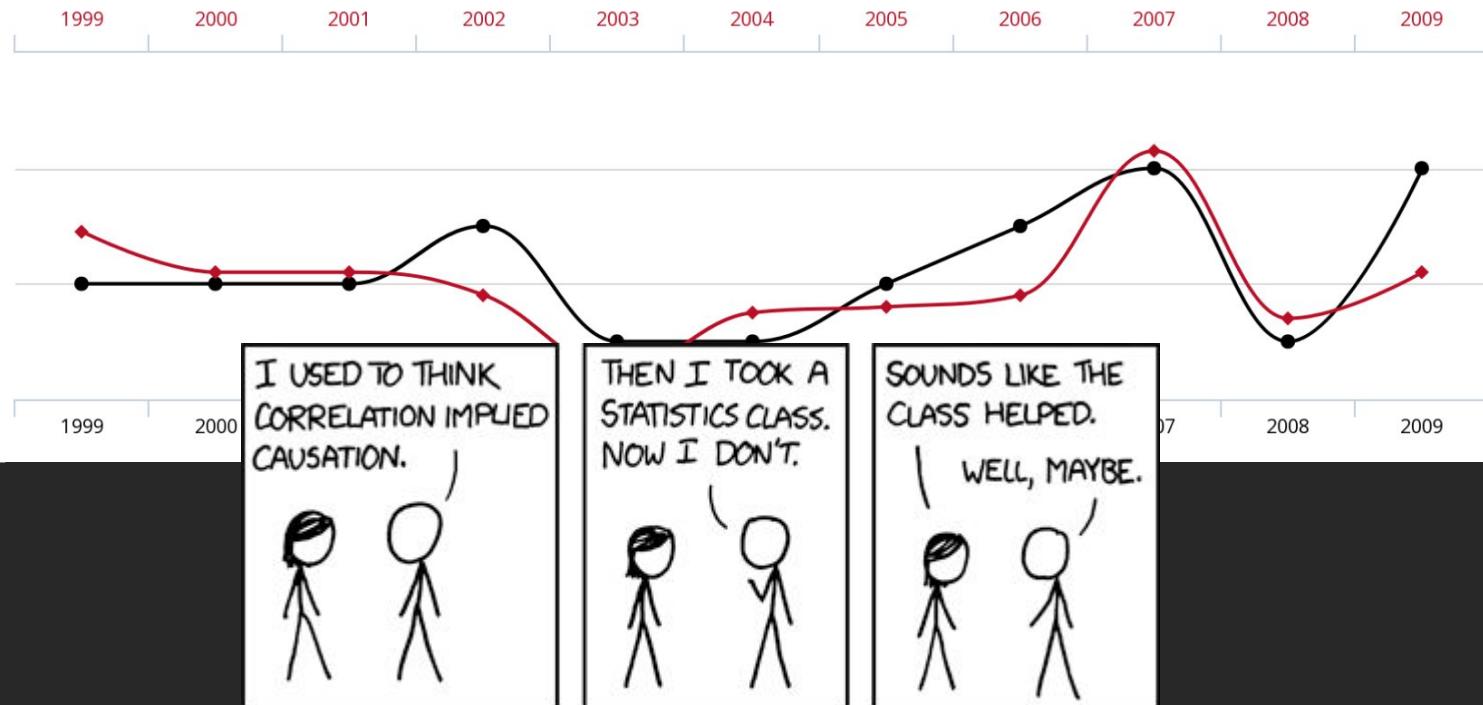
Linear Regression



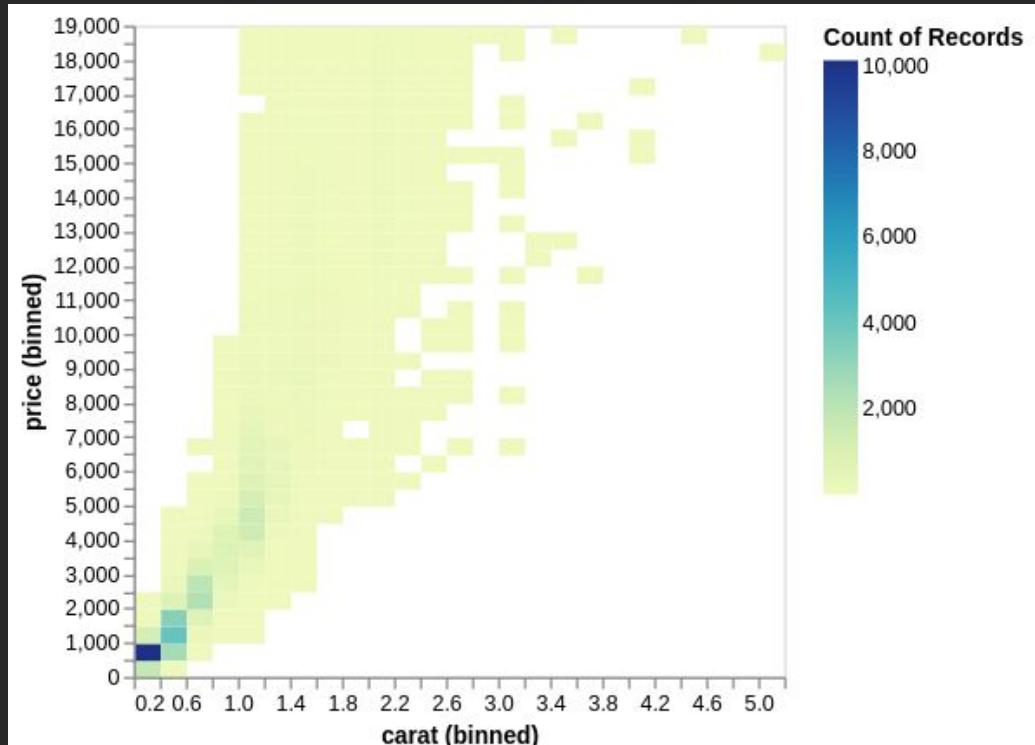
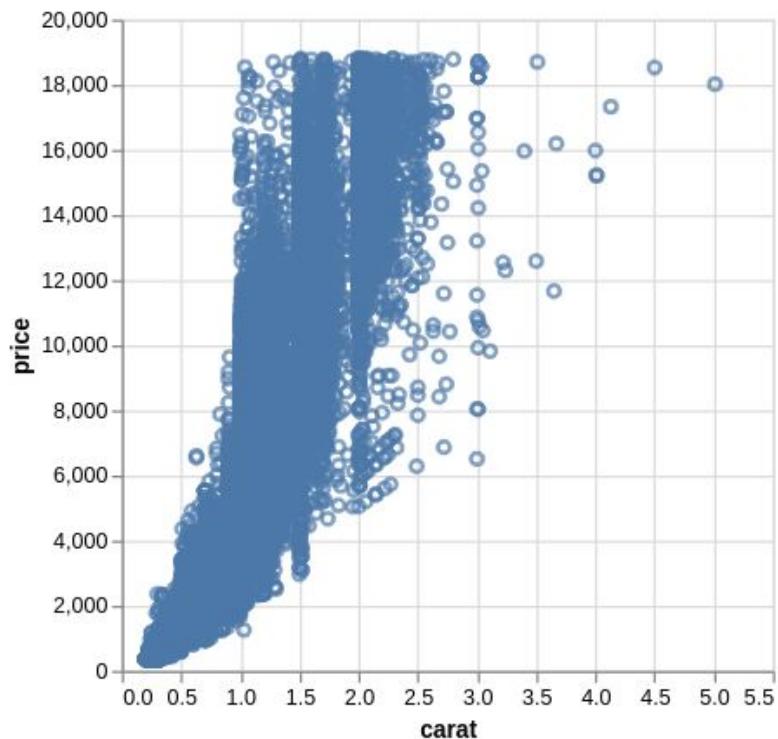
Loess

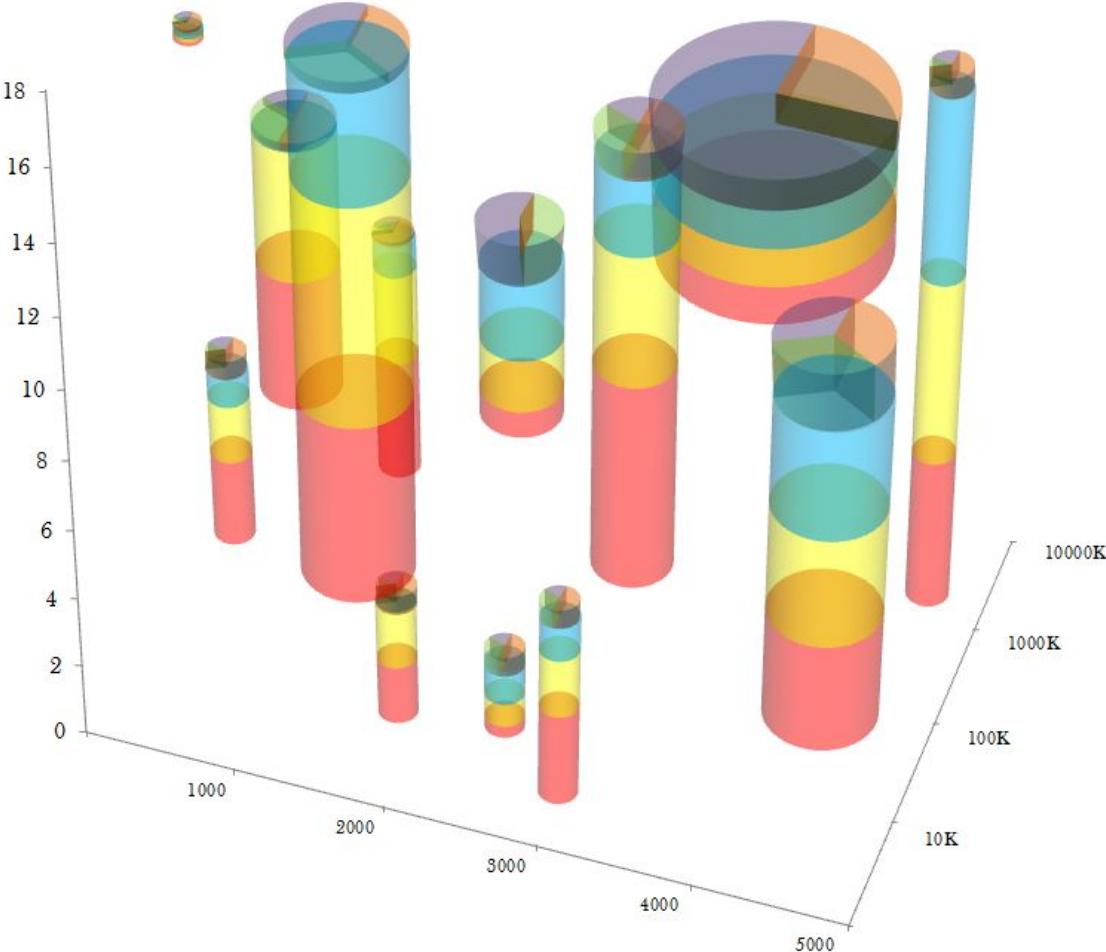


Correlation != Causation

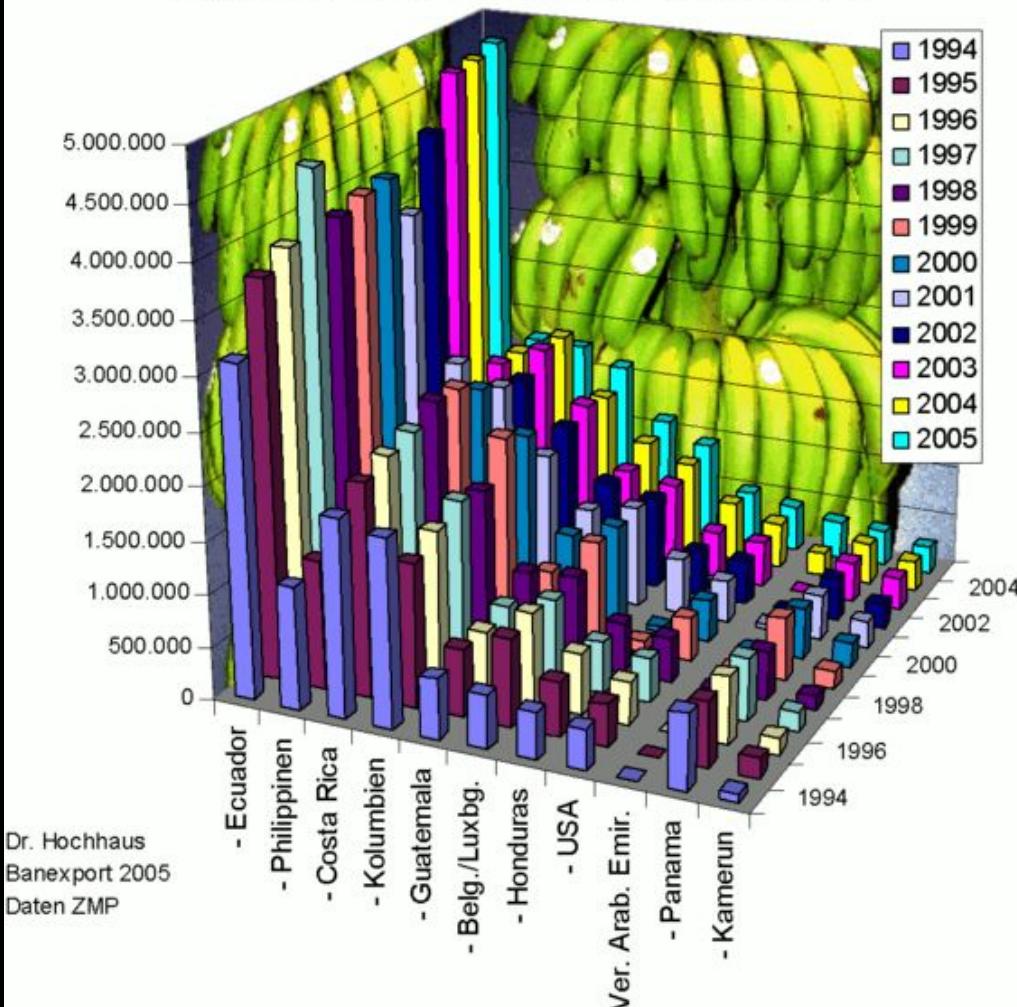


Overplotting





Export von Bananen in Tonnen von 1994-2005



Dr. Hochhaus
Banlexport 2005
Daten ZMP

