



Data Visualization Practices in Education

Recommendations for Philanthropic Efforts

Tianyi (Diana) Feng
Harvard University



BILL & MELINDA
GATES foundation

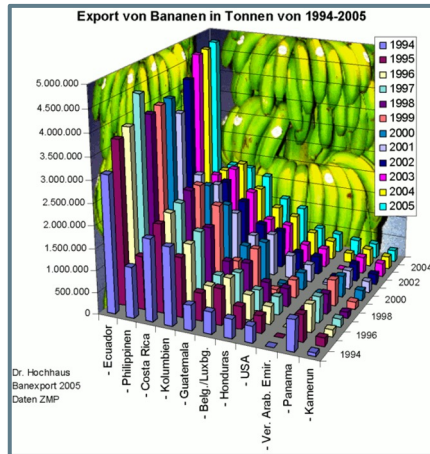


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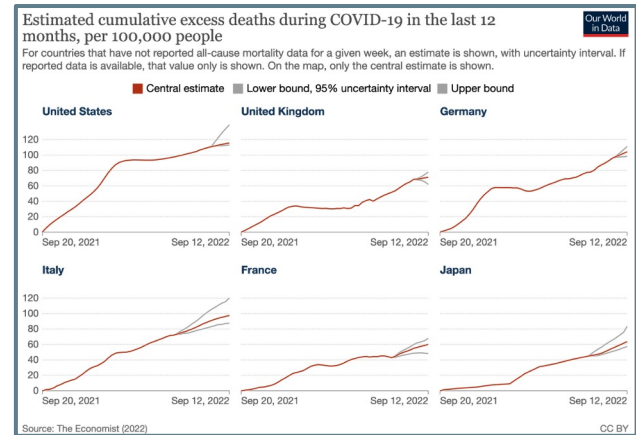


What makes some data visualizations good?

How can we create *better* visualizations *more often*?



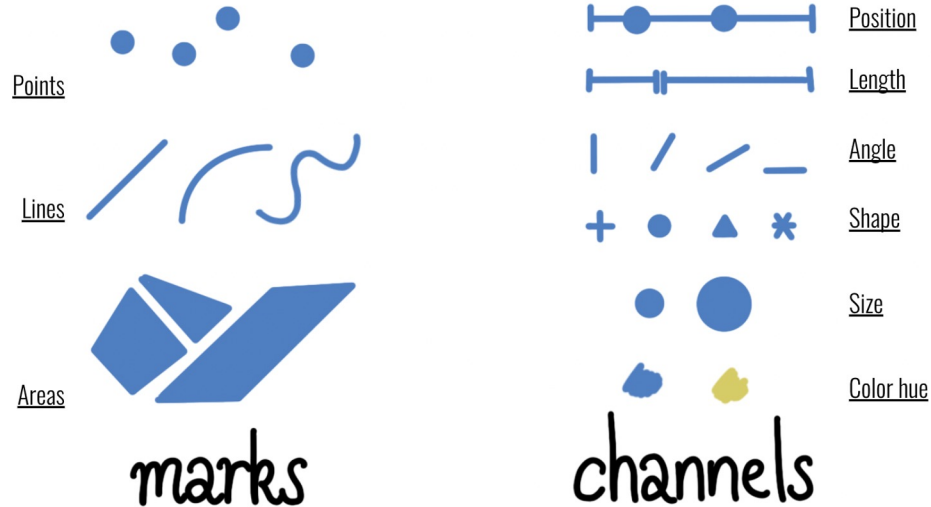
vs.



Findings

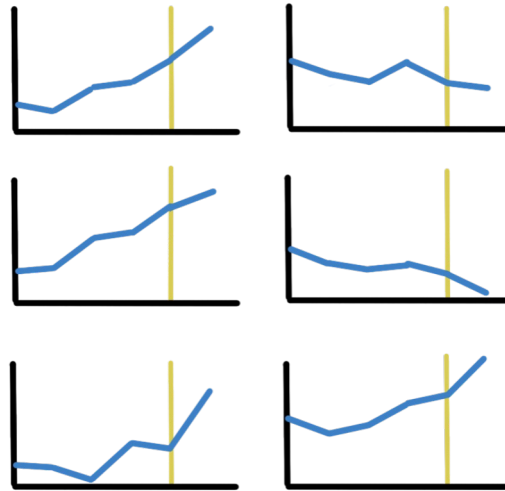
- ▼ There are guidelines and principles for good data visualization design

- ◎ Use the appropriate marks and channels



Findings

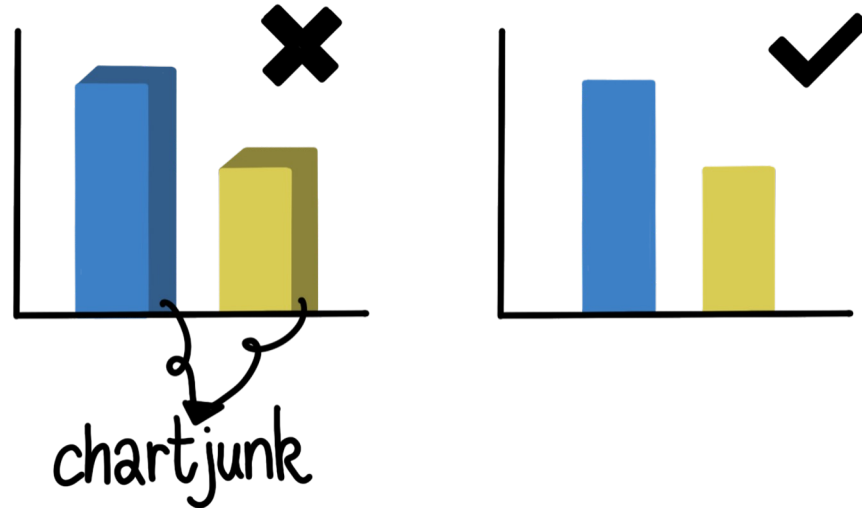
- ▼ There are guidelines and principles for good data visualization design
 - ◎ Use the appropriate marks and channels
 - ◎ Take advantage of layouts and structure



small multiples

Findings

- ▼ There are guidelines and principles for good data visualization design
 - ◎ Use the appropriate *marks and channels*
 - ◎ Take advantage of *layouts and structure*
 - ◎ Avoid *chartjunk*



Findings

- There are guidelines and principles for good data visualization design
- ▷ User research on educational data visualization is insufficient to support good practice



Parent Engagement

ESSA requires States to consult with parents as States develop their report cards. States may do this in a variety of ways, including the following:

- Holding meetings with parents
- Creating a report card committee that includes parents
- Publishing drafts for feedback

Through this consultation, parents are able to advise States on the best way to display the required information. Parents can also explain what information parents need in order to understand how schools are doing.

If you want to get involved in your State's report card feedback process, contact your [State ESSA coordinator](#)

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Findings

- There are guidelines and principles for good data visualization design
- User research on educational data visualization is insufficient to support good practice
- ▷ Academic researchers usually target a different set of audiences than practitioners



Practitioners



Academics

Recommendations

- ◎ Easy-to-Access Resources for User Research
- ◎ Let people talk: collaboration across sectors
- ◎ Disruptive innovation: eliminating constraints
 - ◎ Visualization capacity building
 - ◎ Technology that automates visualization with human insight
 - ◎ Democratizing data visualization

Takeaways from the experience

- Exposure to a whole new world
- Importance of cross-sector and interdisciplinary conversation
- Accessibility of academic research and discourse

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Recommendations

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