



[Home](https://www.jotform.com/blog/) / [Data Visualization](https://www.jotform.com/what-is-data-visualization/) / [5 examples of bad data visualization](#)

## 5 examples of bad data visualization



by Jotform Editorial Team (<https://www.jotform.com/blog/author/jotform/>)

### [Bad data visualization: 5 examples](https://x.com/share?u=https://www.jotform.com/blog/bad-data-visualization&ni=true&url=https://www.jotform.com/blog/bad-data-visualization)

<https://www.reddit.com/r/dataviz/> 1. A 3D bar chart gone wrong

[https://facebook.com/sharer.php?](https://facebook.com/sharer.php?u=https://www.jotform.com/blog/bad-data-visualization/)) 2. A pie chart that should have been a bar chart

[https://www.reddit.com/r/dataviz/u=https://www.jotform.com/blog/bad-data-visualization/\)](https://www.reddit.com/r/dataviz/u=https://www.jotform.com/blog/bad-data-visualization/) 3. A continuous line chart used to show discrete data

[https://www.linkedin.com/shareArticle?ni=true&url=https://www.jotform.com/blog/bad-data-visualization/\)](https://www.linkedin.com/shareArticle?ni=true&url=https://www.jotform.com/blog/bad-data-visualization/) 4. A misleading geography visual

[https://www.linkedin.com/shareArticle?ni=true&url=https://www.jotform.com/blog/bad-data-visualization/\)](https://www.linkedin.com/shareArticle?ni=true&url=https://www.jotform.com/blog/bad-data-visualization/) 5. A confusing graphic

<https://www.reddit.com/r/dataviz/> Even when we have the best intentions in communicating data through

<https://www.reddit.com/r/dataviz/>, they don't always turn out the way we want. Sometimes it's the

<https://www.reddit.com/r/dataviz/> result of a mislabeled axis or a poor choice of color. Other times, we may

<https://www.reddit.com/r/dataviz/> choose the wrong type of chart entirely. Whatever the case, a bad data

<https://www.reddit.com/r/dataviz/> visualization can derail the message we want to communicate to the

<https://www.reddit.com/r/dataviz/> audience — or lead them to draw inaccurate conclusions.

<https://getpocket.com/save?u=https://www.jotform.com/Blog/Bad-Data-Visualization/>

<https://getpocket.com/save?u=https://www.jotform.com/Blog/Bad-Data-Visualization/> To help you identify what *not* to do when visualizing data, we've enlisted

<https://getpocket.com/save?u=https://www.jotform.com/Blog/Bad-Data-Visualization/> the help of Ed Cook, Ph.D. He is the president of [The Change Decision](http://www.thechangedecision.com/)

<http://www.thechangedecision.com/>) and a visiting professor at the

<https://www.jotform.com/Blog/WP-content/uploads/rss.xml> University of Richmond, where he teaches analytics and frequently uses reviews visuals of all kinds.

Cook has rounded up several visuals that don't quite hit the mark. See below for his examples and analysis.

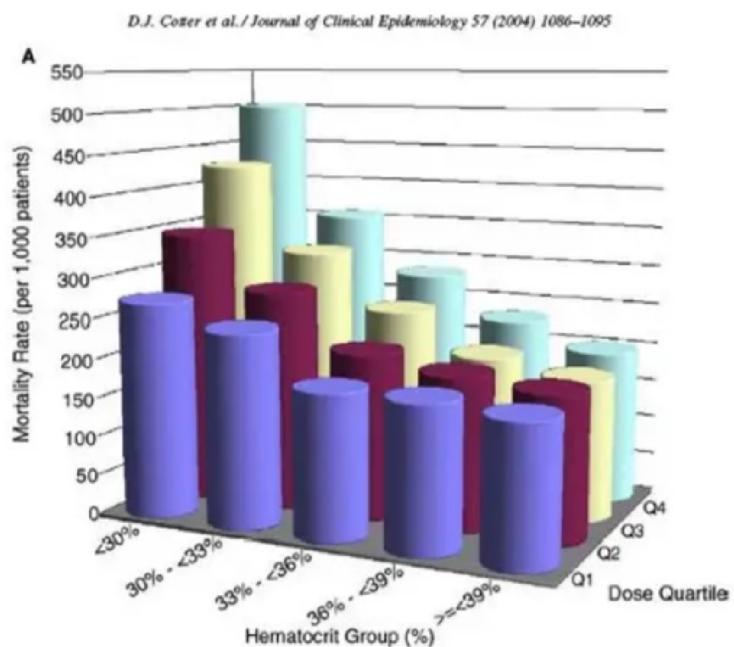
## Pro-Tip

Visualize and present your data in seconds with [Jotform Report Builder](https://www.jotform.com/products/report-builder/?jtm_medium=jotform_blog&jtm_source=https://www.jotform.com/blog/bad-data-visualization/&jtm_campaign=cta) ([https://www.jotform.com/products/report-builder/?jtm\\_medium=jotform\\_blog&jtm\\_source=https://www.jotform.com/blog/bad-data-visualization/&jtm\\_campaign=cta](https://www.jotform.com/products/report-builder/?jtm_medium=jotform_blog&jtm_source=https://www.jotform.com/blog/bad-data-visualization/&jtm_campaign=cta)). It's free to sign up!



## Bad data visualization: 5 examples

### 1. A 3D bar chart gone wrong



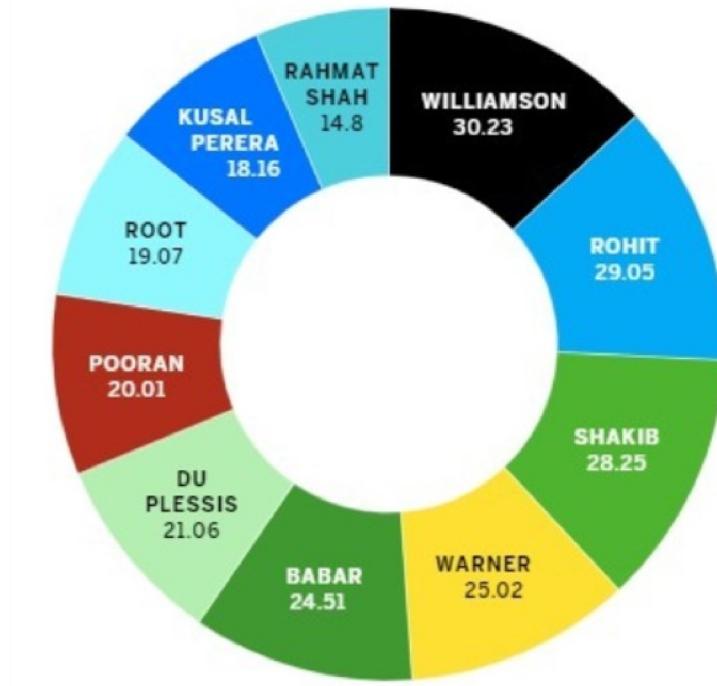
“Don’t ever use 3D bar charts,” says Cook. While they may look flashy, they rarely do a good job of communicating important information to your audience. Past the cool factor, 3D bar charts are often hard to read, making them more trouble than they’re worth.

“I’ve yet to come across a data set where a 3D bar chart was the best approach,” Cook says.

This particular 3D bar chart appears to be making a medical-related comparison, but as Cook noted above about these types of charts, it’s hard to read. You have to tilt the chart (or your head) to assess the data points. And the lines make it hard to draw an accurate comparison because the values and bars are too far apart to see the difference.

“If you compare your visual assumptions to the underlying data table, you’d most likely be incorrect,” Cook says.

## 2. A pie chart that should have been a bar chart



"Pie charts are fairly narrow in their usage. But they're inherently meant to add up to a sum percentage. This one doesn't follow that general rule," says Cook. In fact, the numbers don't appear to add up to any sensible total.

Cook believes the chart is comparing the top 10 salaries of different individuals. If that's the case, then the creator of the bad data visualization should have used a simple bar chart. "Pie charts aren't good for comparing non-summation data, especially if there's an element of time," Cook says. "A bar chart in this case would make for much easier comprehension."

## 3. A continuous line chart used to show discrete data

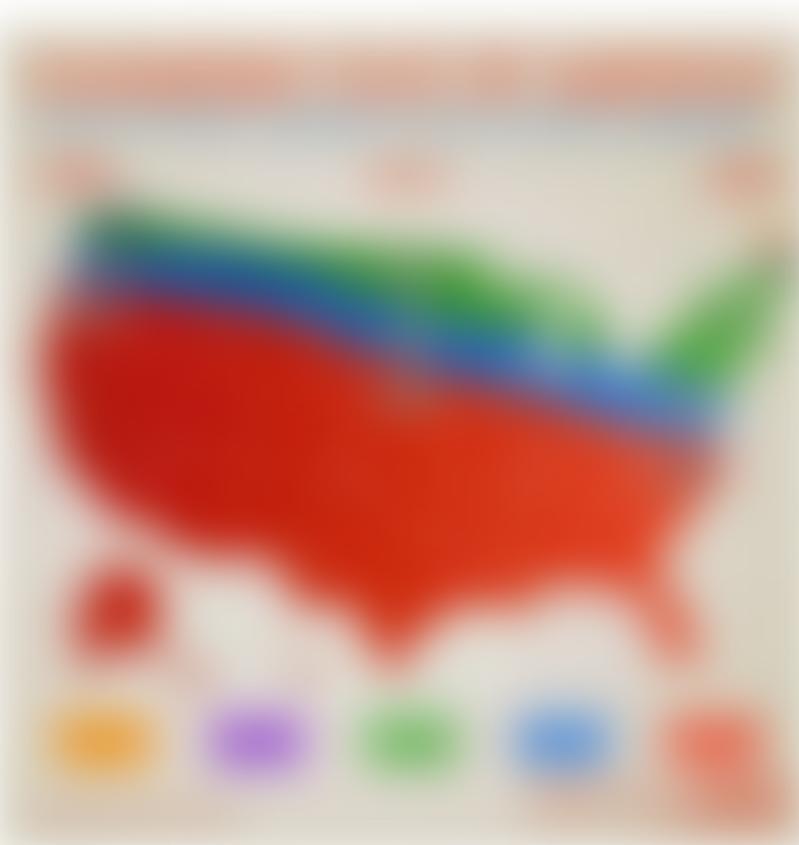


Cook says there are a few things wrong with this chart. For one, it's a line chart that's meant to show continuity, but the data points are discrete — they only have a certain number of values. In this case, the points appear to be marketing share percentages for a certain year.

“The years are also an issue because they appear to be inclusive, which is confusing. How much time does each data point include?” Cook asks.

There’s information between the points, so drawing a line from one data point to the next is misleading. According to Cook, “this data set would be better off as a bar chart. That way, each discrete value would correspond to a particular year.”

#### 4. A misleading geography visual



“While interesting to look at, using a map doesn’t help you understand what’s going on here,” says Cook. For example, the fact that Oklahoma is red or that other states are partially different colors doesn’t really mean anything. In addition, the racial and ethnic differences have no correlation to the states.

The creator is attempting to show a linear value over time but using an area-sized visual. This makes comparison difficult. Beyond that, the size of the color bands and associated percentages aren’t congruent with the geography. The 8 percent figure, for example, doesn’t represent 8 percent of the map.

“Lastly, was there a 0 percent Asian demographic in 2010? The map would lead you to believe so. Though, we can’t be sure, which is the problem,” Cook explains.

## 5. A confusing (and aesthetically unappealing) graphic



“This graphic is too busy. The audience is too overloaded with visual information to figure out anything of substance,” says Cook. It’s also visually unappealing, which by itself is not a major issue, but certainly something that a developer should consider in the design process.

“Overall, it’s just too difficult to read. It should be broken up into at least two visuals so the message isn’t lost,” Cook suggests.

**Was this article helpful?**

Yes

No

### Learn to live & work smarter, not harder!

Get our top articles delivered straight to your inbox each week.

Enter your email address

Join 151,802 Subscribers

Data Analysis (<https://www.jotform.com/blog/tag/data-analysis/>)

Data Management (<https://www.jotform.com/blog/tag/data-management/>)

Datalist (<https://www.jotform.com/blog/tag/datalist/>)

AUTHOR

#### Jotform Editorial Team

(<https://www.jotform.com/blog/author/jotform/>)

Jotform's Editorial Team is a group of dedicated professionals committed to providing valuable insights and practical tips to Jotform blog readers. Our team's expertise spans a wide range of topics, from industry-specific subjects like managing summer camps and educational institutions to essential skills in surveys, data collection methods, and document management. We also provide curated recommendations on the best software tools and resources to help streamline your workflow.

---

## RECOMMENDED ARTICLES

### What Is Data Visualization, and Why Is It Used?

(<https://www.jotform.com/what-is-data-visualization/>)

### How to make explaining data easy

(<https://www.jotform.com/blog/explain-data/>)

---

### Send Comment:

Name Surname

Email

Comment

**Send Comment**

This site is protected by reCAPTCHA and the Google [Privacy Policy](#) (<https://policies.google.com/privacy>) and [Terms of Service](#) (<https://policies.google.com/terms>) apply.

---

### 1 Comments:

**Verma**  
More than a year ago

Hello,

I have seen the number 5 graph (A confusing and aesthetically unappealing graphic) and I feel it is confusing, too. Is there any chance that could explain what the graph is trying to say and how can it be improved?

Thank you,  
Neha

Jotform	Marketplace	Support	Company	Apps
Signup ( <a href="https://www.jotform.com/signup/">https://www.jotform.com/signup/</a> )	Templates ▾ Form Themes ( <a href="https://www.jotform.com/templates/">https://www.jotform.com/templates/</a> )	Contact Us ( <a href="https://www.jotform.com/contact/">https://www.jotform.com/contact/</a> )	About Us ( <a href="https://www.jotform.com/about/">https://www.jotform.com/about/</a> )	( <a href="https://link.jotform.com/Fiz">https://link.jotform.com/Fiz</a> ) data-visualization_&utm_campaign=visualisation_&creative
Create a Form ( <a href="https://www.jotform.com/store/">https://www.jotform.com/store/</a> )	Theme Guide ( <a href="https://www.jotform.com/theme-guide/">https://www.jotform.com/theme-guide/</a> )	Help ▾ Jotform Academy ( <a href="https://www.jotform.com/widgets/">https://www.jotform.com/widgets/</a> )	Media Kit ( <a href="https://www.jotform.com/resources/">https://www.jotform.com/resources/</a> )	( <a href="https://link.jotform.com/C5">https://link.jotform.com/C5</a> ) data-visualization_&utm_campaign=visualisation_&creative
My Workspace ( <a href="https://www.jotform.com/workspace/">https://www.jotform.com/workspace/</a> )	Form Widgets ( <a href="https://www.jotform.com/widgets/">https://www.jotform.com/widgets/</a> )	Help ▾ Jotform Academy Webinars ( <a href="https://www.jotform.com/integrations/">https://www.jotform.com/integrations/</a> )	In the News ( <a href="https://www.jotform.com/resources/in-the-news/">https://www.jotform.com/resources/in-the-news/</a> )	( <a href="https://link.jotform.com/pG">https://link.jotform.com/pG</a> ) data-visualization_&utm_campaign=visualisation_&creative
Pricing ( <a href="https://www.jotform.com/pricing/">https://www.jotform.com/pricing/</a> )	Integrations ▾ ( <a href="https://www.jotform.com/pricing/">https://www.jotform.com/pricing/</a> )	Help ▾ Jotform Academy Webinars ( <a href="https://www.jotform.com/enterprise/">https://www.jotform.com/enterprise/</a> )	Media Kit In the News Newsletters ( <a href="https://www.jotform.com/partnership/">https://www.jotform.com/partnership/</a> )	( <a href="https://link.jotform.com/pt">https://link.jotform.com/pt</a> ) data-visualization_&utm_campaign=visualisation_&creative
Examples ▾		Help ▾ Jotform Academy Webinars ( <a href="https://www.jotform.com/enterprise/">https://www.jotform.com/enterprise/</a> )	Media Kit In the News Newsletters ( <a href="https://www.jotform.com/partnership/">https://www.jotform.com/partnership/</a> )	( <a href="https://link.jotform.com/pt">https://link.jotform.com/pt</a> ) data-visualization_&utm_campaign=visualisation_&creative
Products ▾		Report Abuse ( <a href="https://www.jotform.com/report-abuse/">https://www.jotform.com/report-abuse/</a> )	Media Kit In the News Newsletters ( <a href="https://www.jotform.com/partnership/">https://www.jotform.com/partnership/</a> )	( <a href="https://link.jotform.com/pt">https://link.jotform.com/pt</a> ) data-visualization_&utm_campaign=visualisation_&creative
Features ▾		Report Abuse ( <a href="https://www.jotform.com/report-abuse/">https://www.jotform.com/report-abuse/</a> )	Media Kit In the News Newsletters ( <a href="https://www.jotform.com/partnership/">https://www.jotform.com/partnership/</a> )	( <a href="https://link.jotform.com/pt">https://link.jotform.com/pt</a> ) data-visualization_&utm_campaign=visualisation_&creative
Tools ( <a href="https://www.jotform.com/tools/">https://www.jotform.com/tools/</a> )		Report Copyright Issue ( <a href="https://www.jotform.com/copyright/">https://www.jotform.com/copyright/</a> )	Media Kit In the News Newsletters ( <a href="https://www.jotform.com/partnership/">https://www.jotform.com/partnership/</a> )	( <a href="https://link.jotform.com/pt">https://link.jotform.com/pt</a> ) data-visualization_&utm_campaign=visualisation_&creative
AI Tools ( <a href="https://www.jotform.com/tools/ai-tools/">https://www.jotform.com/tools/ai-tools/</a> )		Report Copyright Issue ( <a href="https://www.jotform.com/copyright/">https://www.jotform.com/copyright/</a> )	Media Kit In the News Newsletters ( <a href="https://www.jotform.com/partnership/">https://www.jotform.com/partnership/</a> )	( <a href="https://link.jotform.com/pt">https://link.jotform.com/pt</a> ) data-visualization_&utm_campaign=visualisation_&creative
Alternatives ▾		Recover Jotform Account ( <a href="https://www.jotform.com/help/how-to-recover-your-jotform-account/">https://www.jotform.com/help/how-to-recover-your-jotform-account/</a> )	Media Kit In the News Newsletters ( <a href="https://www.jotform.com/partnership/">https://www.jotform.com/partnership/</a> )	( <a href="https://link.jotform.com/pt">https://link.jotform.com/pt</a> ) data-visualization_&utm_campaign=visualisation_&creative



4 Embarcadero Center, Suite 780, San Francisco CA 94111

© 2025 Jotform Inc. The name "Jotform" and the Jotform logo are registered trademarks of Jotform Inc.

English

[Terms & Conditions](https://www.jotform.com/terms/) (<https://www.jotform.com/terms/>)      [Privacy Policy](https://www.jotform.com/privacy/) (<https://www.jotform.com/privacy/>)

[Security](https://www.jotform.com/security/) (<https://www.jotform.com/security/>)      [Accessibility Statement](https://www.jotform.com/accessibility-statement/) (<https://www.jotform.com/accessibility-statement/>)

 (<https://www.facebook.com/Jotform>)  (<https://x.com/jotform>)  (<https://www.linkedin.com/company/jotform>)  (<https://stories.jotform.com/>)