Read Alberto Cairo's work, <u>Graphics Lies</u>, <u>Misleading Visuals</u>

Locate an example of a misleading visual that uses one or more of the mechanisms for misleading that Cairo outlines in his book chapter: (1) Hiding relevant data; (2) Displaying too much data and obscuring reality; (3) Distorting data through visual forms.

Please upload an image of this visual using a widely accessible graphic format (e.g., PDF, .jpg, .png)



Briefly describe the context for the visual by addressing the following questions:

- 1. What is the source of the visual? (e.g., URL or bibliographic citation)
- 2. Who is the intended audience (i.e., decoders)? How do you know this?

1. This visual was taken from a local Fox 31 News broadcast in Colorado. I obtained this visual from the subreddit r/dataisugly URL:

https://www.reddit.com/r/dataisugly/comments/fw1qxa/legit_the_worst_y _axis_values_ive_ever_seen/

- 2. The intended audience is citizens of Colorado who want to learn more about the COVID-19 outbreak in their state. I know that the intended audience is citizens of Colorado because it is from a Fox 31 News broadcast, which is the local news network for Denver. I know it is showing COVID-19 cases because the visual is recent and from a newscast about COVID-19 and I corroborated the numbers with the Colorado Health Department website.
 - 1. Identify the specific component(s) of the visual that is/are misleading
 - 2. For each part(s) of the visualization that is/are misleading, identify the mechanism that is used: hiding relevant data to highlight what benefits us; displaying too much data to obscure reality; using graphic forms in inappropriate ways (distorting the data)
 - 3. Explain how the mechanisms are used to mislead
- 1. The main component of the visual that is misleading is the scale. The scale of the graph is very erratic. The intervals jump from 10 cases, to 30 cases, to even 50 cases. The best example of this is that the interval 190-240, is being shown as the same size as the interval 240-250.
- 2. The mechanism being used here is using graphic forms in inappropriate ways, as the data used in the graph is accurate, but the method of presenting the data makes it distorted as it uses an erratic scale.

3. This mechanism misleads the viewer, as some day to day changes look similar to others but are actually significantly different, and some changes look different than others but are actually similar. For example, the decrease in cases between March 24th and March 25th, appears to be similar to the decrease in cases between March 26th and March 27th, while actually, the former drop was by 18 cases, and the latter drop was by 40 cases. The erratic scale of the graph makes these changes look the same, while in actuality they are significantly different, misleading the viewer.