

# BAD VISUALISATIONS

### **BAD VISUALISATION: 1**

#### **Visual Overload:**

Changes in voting margins are represented by a jumble of **red** and **blue** arrows on the map, with the **red arrows** taking center stage. It is challenging to analyze shifts between regions or identify specific shifts for distinct places due to the overwhelming quantity of arrows. Without comprehending the subtleties of the changes, the primary conclusion may be that "everything turned red" due to the visually stunning impact created

## Usage of Arrow style:

It isn't easy to understand the arrows at a glance because they <u>fluctuate in size</u> and <u>direction</u> to <u>show</u> the <u>shift's magnitude and direction</u>. Particularly in areas with high population density, it can be <u>challenging to discern</u> between <u>smaller and bigger alterations</u>. Furthermore, using arrows as symbols is ineffective at conveying precise values; a heat map with color coding or another technique might be a better way to depict the data.

## Inefficient Legend and scale:

The <u>color legend</u> for <u>"More Dem." and "More Rep."</u> is visible, but it <u>doesn't explain</u> what the <u>arrow sizes</u> mean regarding vote margins. <u>Without a scale or set of values</u>, viewers are unable to determine the precise magnitude of the shift or perform reliable cross-map comparisons.

## Suggested improvements:

# Usage of Heat maps:

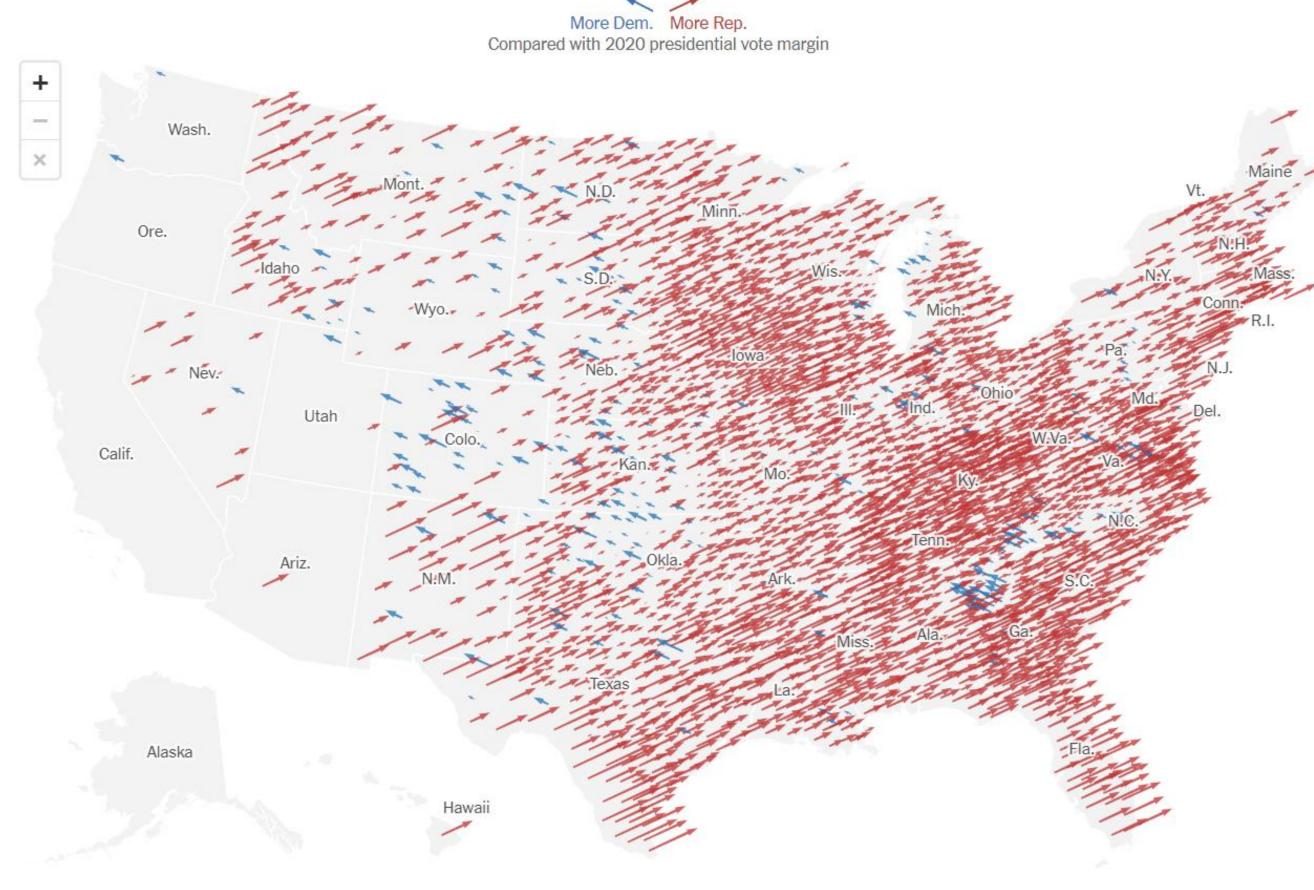
Using color intensity rather than arrows to indicate shifts could provide a clearer view of where larger shifts happened. This would reduce visual clutter and make regional comparisons easier.

# Addition of Clear legend and scale:

Including a scale that explains the magnitude of shifts would help viewers better understand what each visual element represents.

#### Inclusion of different shifts:

A clearer understanding could be obtained without packing a single map with too many areas by grouping areas with comparable shift intensities.



By The New York Times

#### **BAD VISUALISATION: 2**

#### Overuse of colors and lines

The graph uses many colors and line types (curves, solid, dashed) to represent different data types, including temperature, precipitation, daylight hours, wind speed, and frost days. The sheer number of overlapping lines creates a confusing and cluttered look, which makes it hard for viewers to follow individual data trends or compare related variables.

## Complicated legend and color coding

The legend includes ten different categories, each with a unique color, which requires the viewer to constantly refer back to the legend. Additionally, some colors are hard to distinguish, especially where lines overlap, creating ambiguity. When too many colors are used, it becomes difficult for the viewer to keep track of which line represents which variable

## Multiple Y-axes

This chart includes two Y-axes with different units, one for temperature and another for humidity/precipitation-related metrics. Viewers need to look back and forth between axes to interpret each line, which adds cognitive load and can lead to misinterpretation of data relationships.

# Suggested improvements:

# Breaking down the graphs

Breaking this graph into multiple, smaller charts, would make it easier for viewers to understand each variable independently.

## Usage of distinct colors or signage:

Using distinct, bold colors only for key variables and relegating others to grayscale or a secondary chart could improve readability

# Separating the metrics:

Separate the metrics onto different charts, each with a single Y-axis and a consistent scale.

