

The art of data visualization

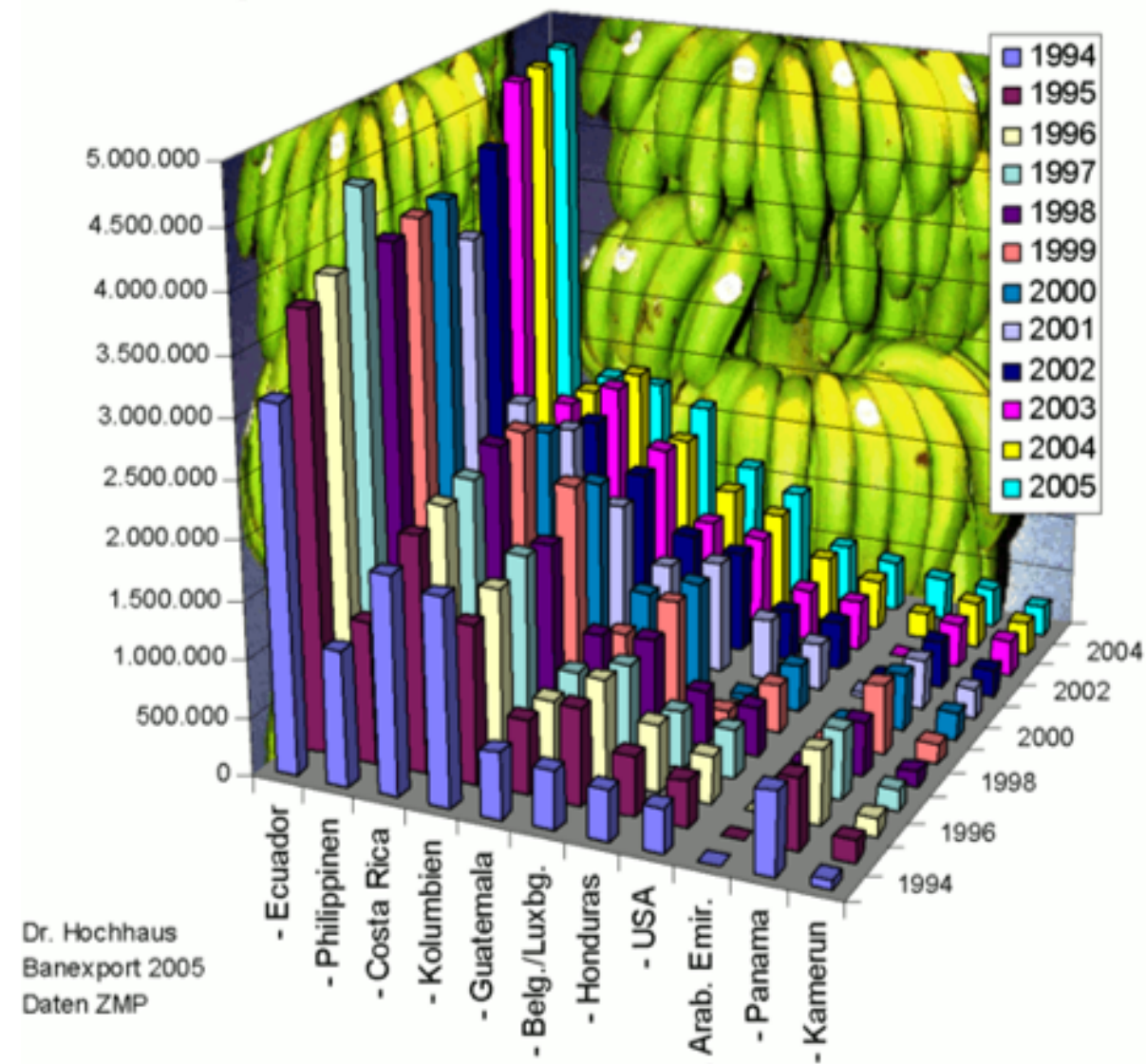
DATA VISUALIZATION IN EXCEL



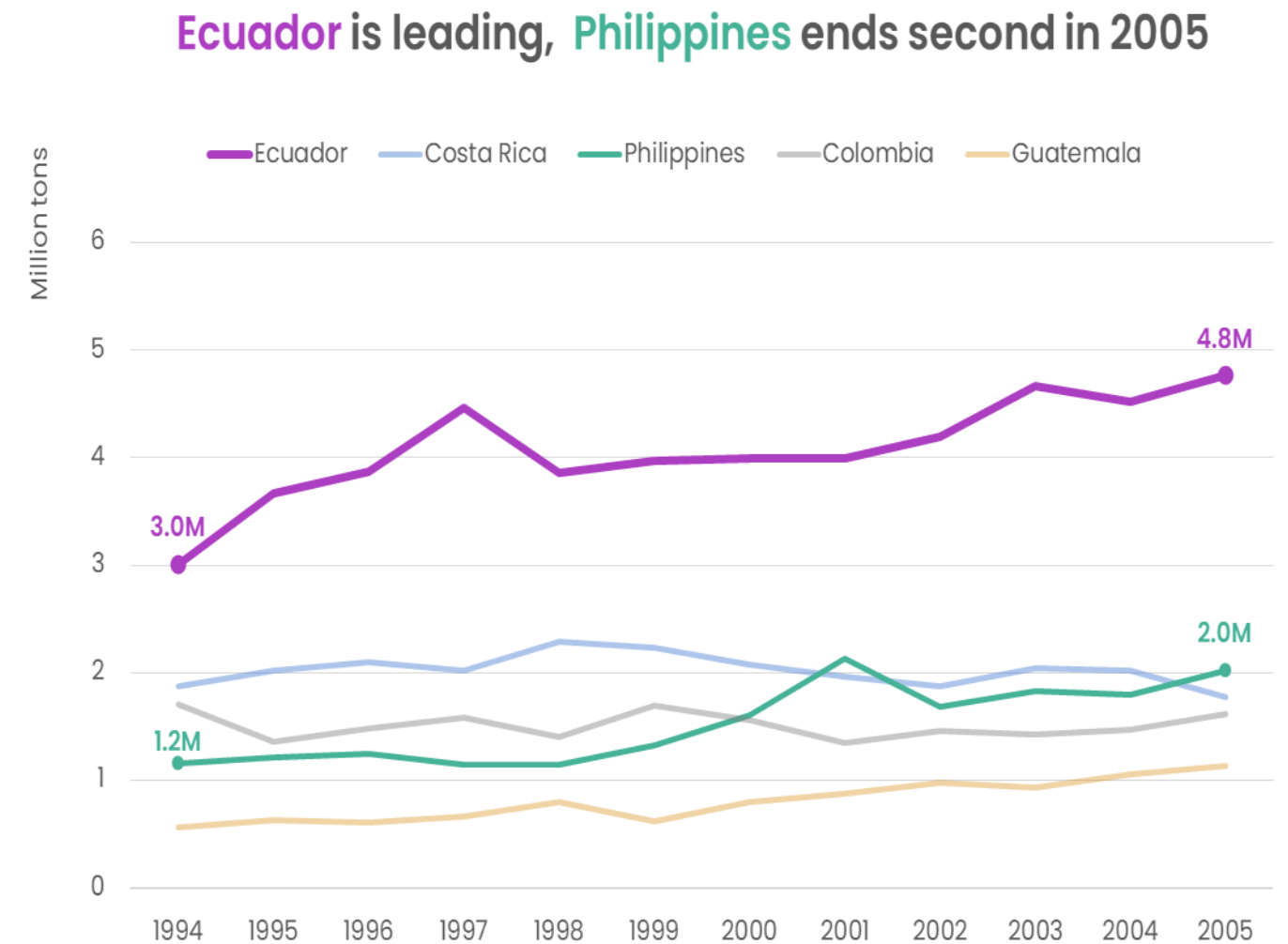
Agata Bak-Geerinck
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When less is more

Banana export 1994-2005, version 1

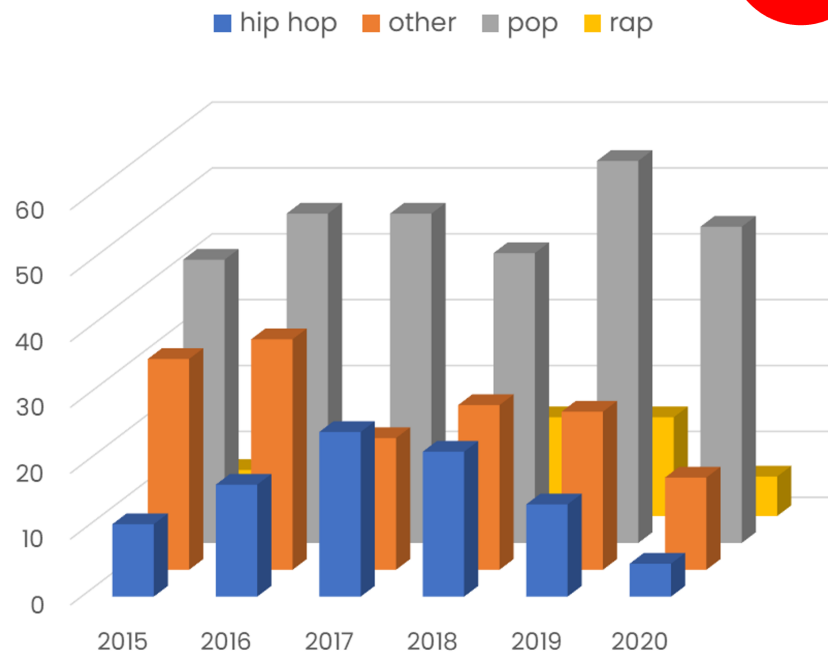


Banana export 1994-2005, version 2

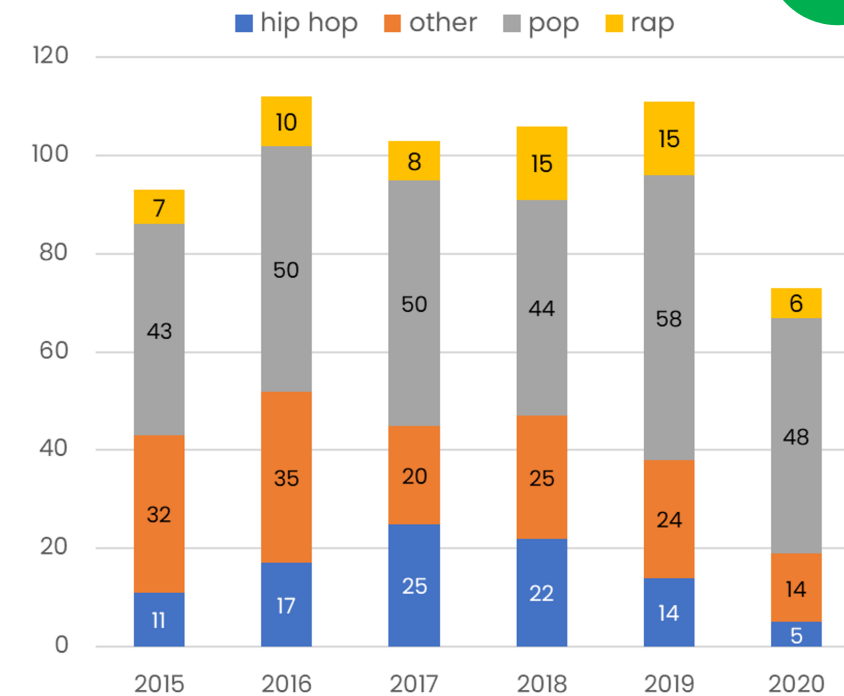


Two dimensions OR three dimensions?

of Songs per year and genre



of Songs per year and genre

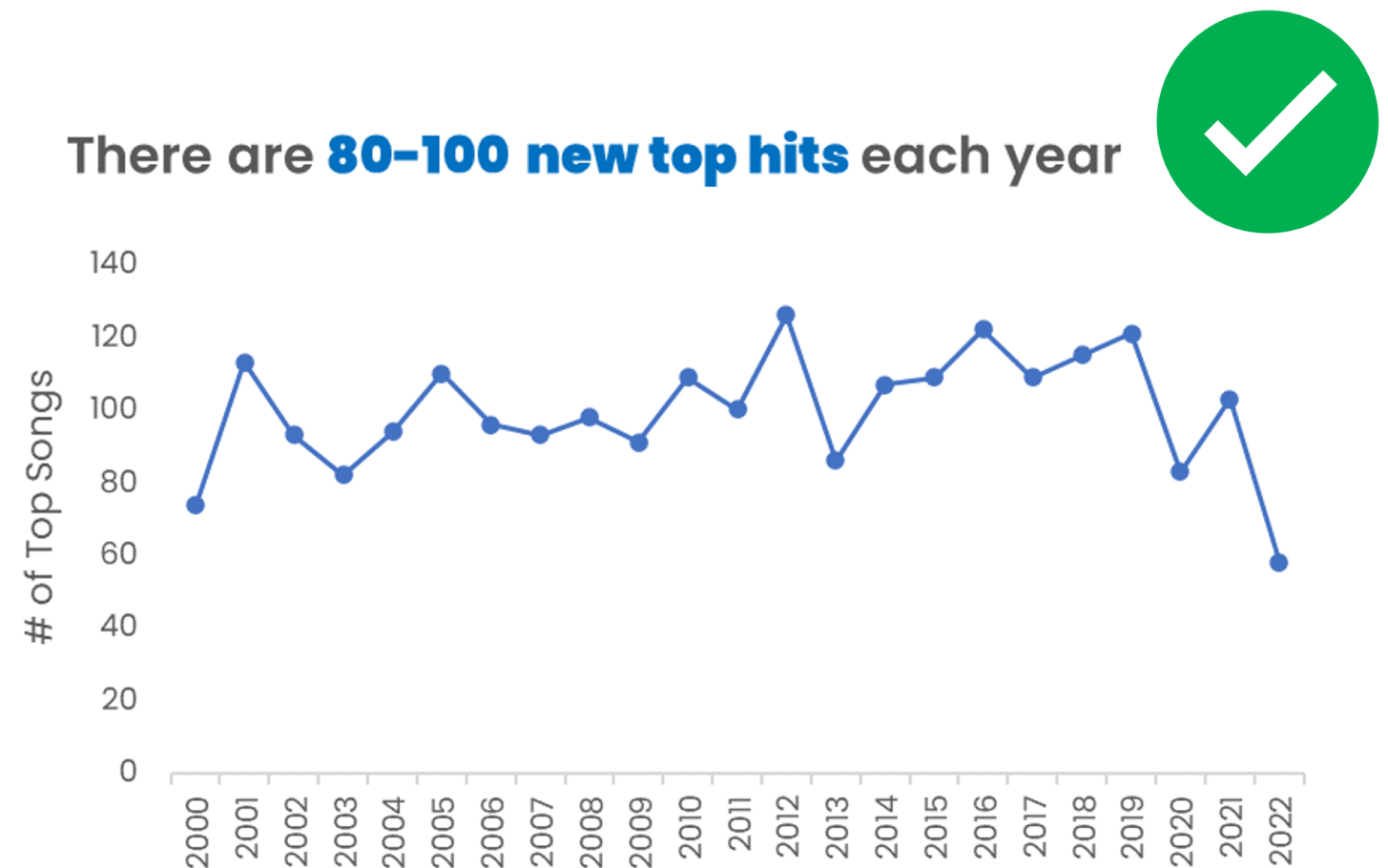


- Hard to read the correct values
- Perspective distorts the chart and confuses the eye
- Easy to interpret
- Versatile and distraction-free

Labels, legends, and titles



- Not self-explanatory
- Axis does not start at 0 and is misleading



- Clear axes, labels, and informative title
- Y-axis starting at 0 is the best practice

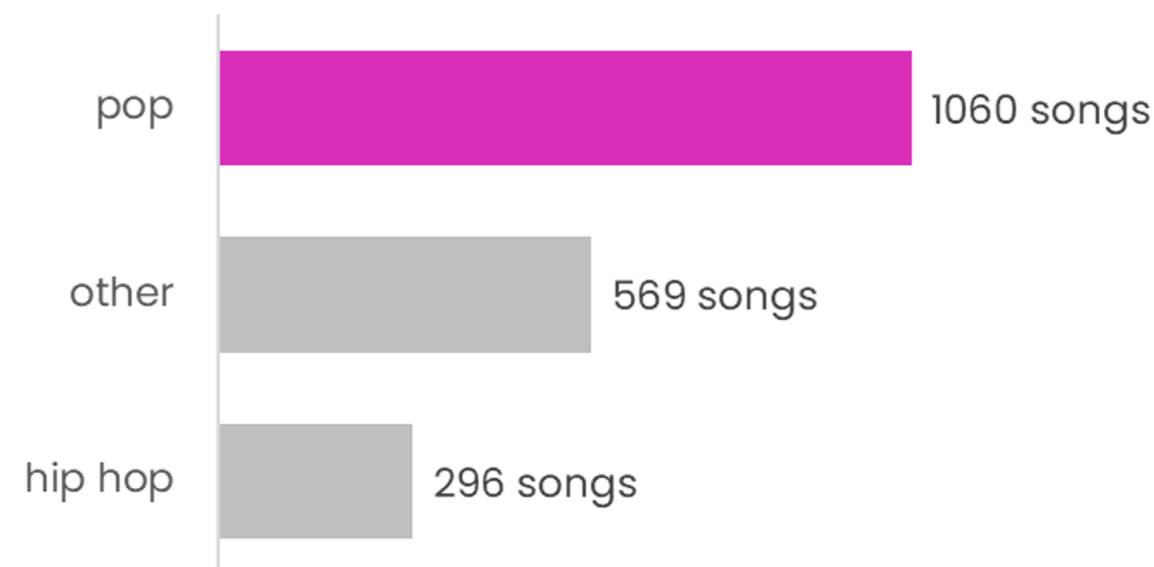
Color: an ally or enemy?

Songs per genre



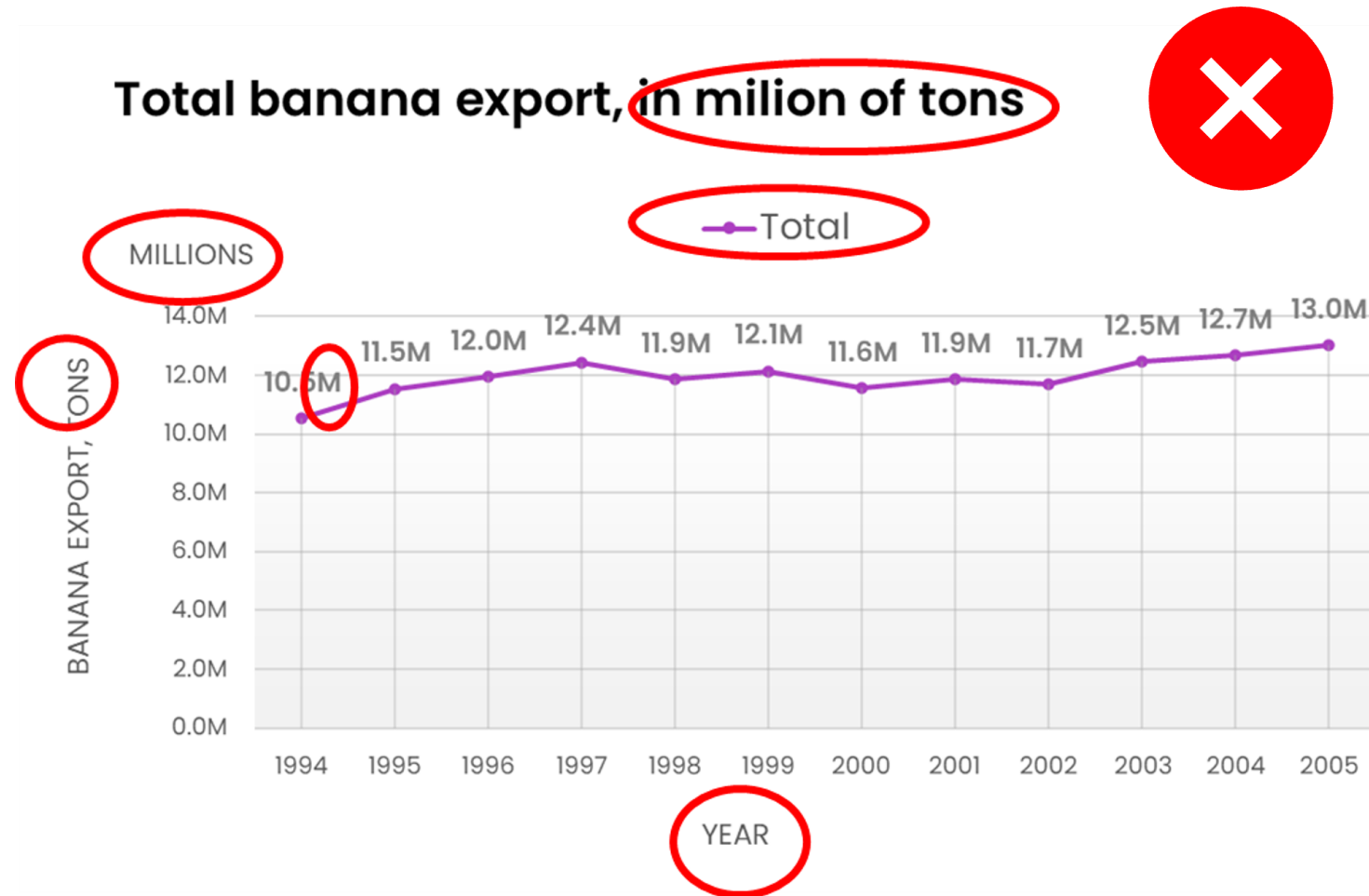
- "Rainbow" charts - colors bring no value
- Avoid using red/amber/green in categorical legends

Pop songs most popular

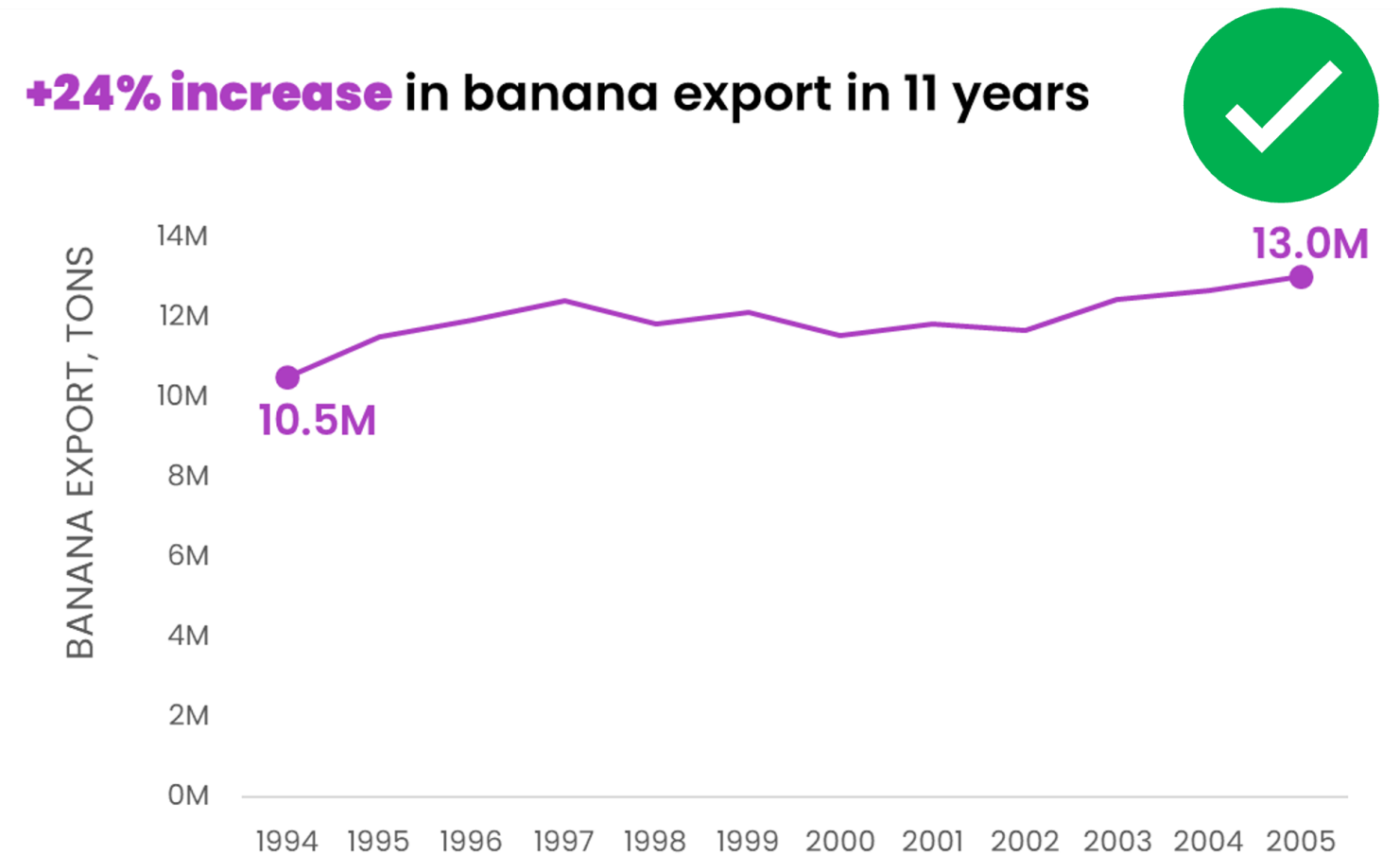


- Use color to draw attention to a data point
- Repetition of color highlight in title strengthens the message

The Great Chart Cleanse - decluttering of charts

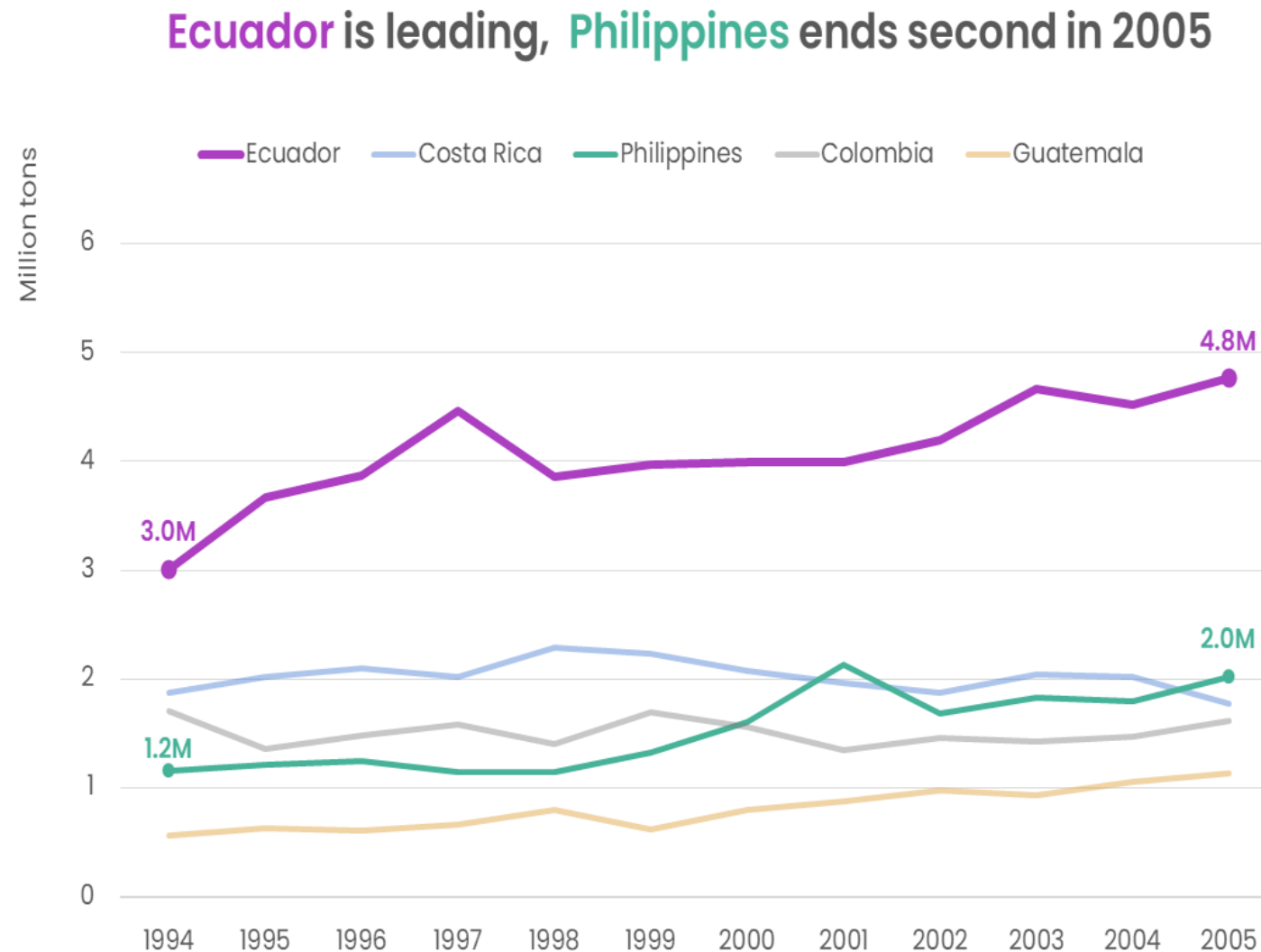


- Redundant axes and chart titles
- Unnecessary legends



- Evaluate each chart element
- "Less is more"

Accentuating the main message like a pro

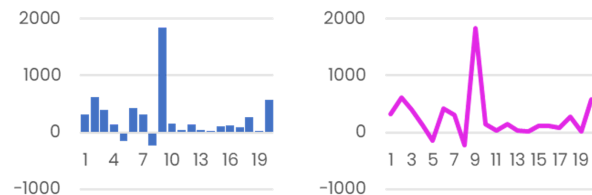


- Bring focus to selected chart elements
- Use title and color to draw attention to the main message
- Use labels sparingly to highlight main data points
- Consider graying out or increasing the transparency of less important data points

The lost art of "chartology": choosing the perfect graph

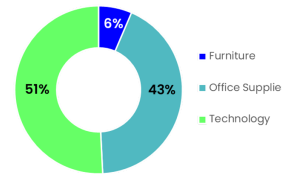
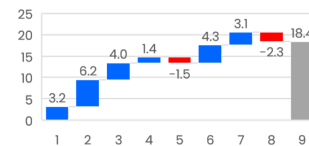
Comparison & evolution:

- Clustered bars and columns
- Line and Area charts
- Radar chart



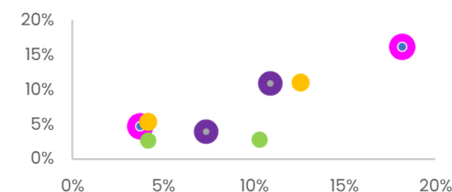
Composition:

- 100% stacked bar, column, area charts
- Pie and doughnut charts
- Waterfall chart



Relationships:

- Scatter plots
- Bubble charts



Distribution:

- Histograms
- Box plots
- Heat and density maps



- Each use case has a chart type (or two)
- Experiment until chart looks good
- Consider chart variants
- Get inspiration:
 - DataCamp data viz cheat sheet
 - Storytelling with Data blog and book

¹ <https://www.datacamp.com/cheat-sheet/data-viz-cheat-sheet> and <https://www.storytellingwithdata.com/>

Let's practice!
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Chart Clinic 1 on 1

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