

CMPU 100 · Programming with Data

Advanced Visualization

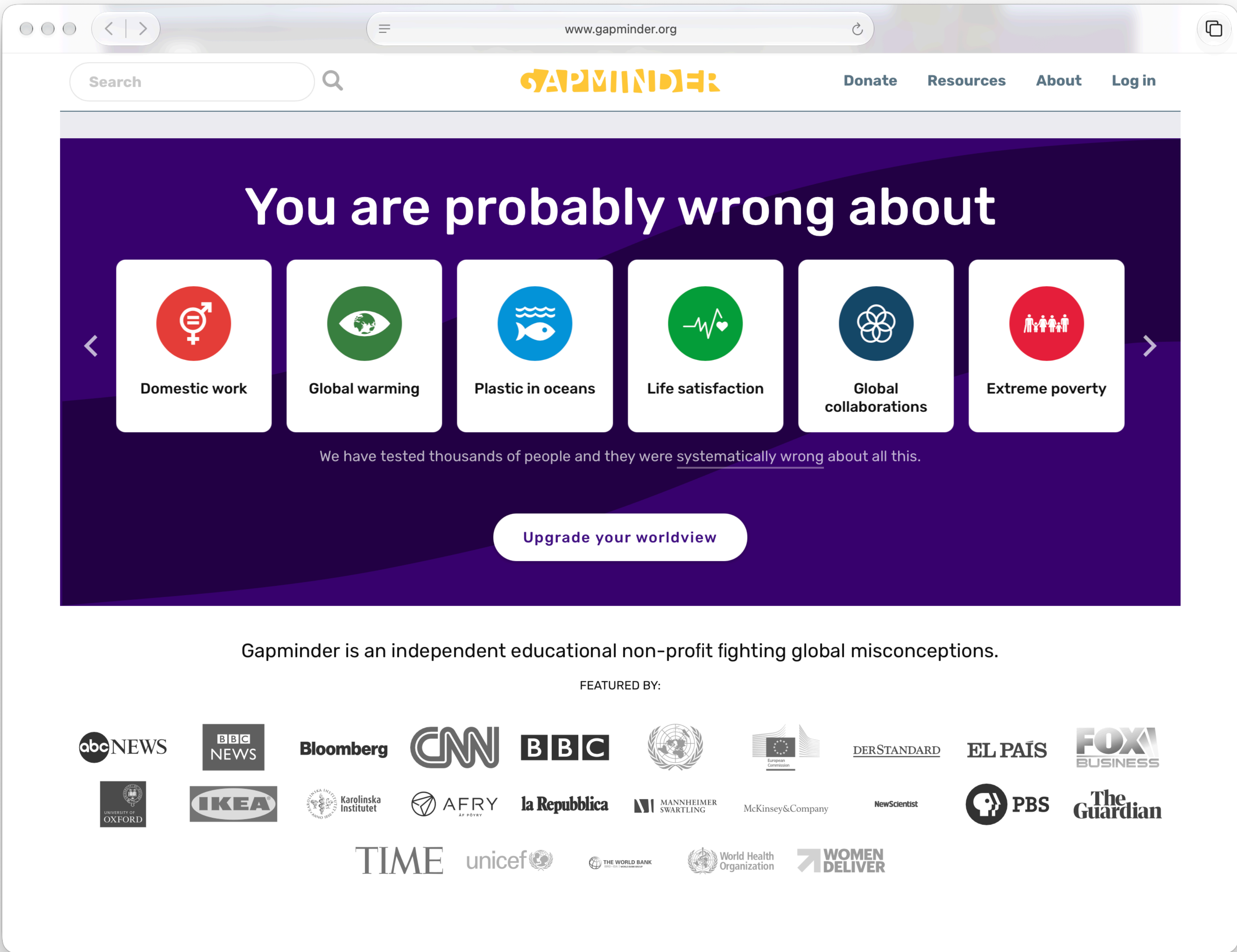
Class 15



Plotly is a popular Python library for visualization. It has a lot of options, which makes it powerful – but also a bit confusing when you're just starting out.

You're not required to know Plotly for this class – specifics about it won't be on next week's exam – but we want to give you a taste of what it can do!





→ Notebook: *Gapminder*



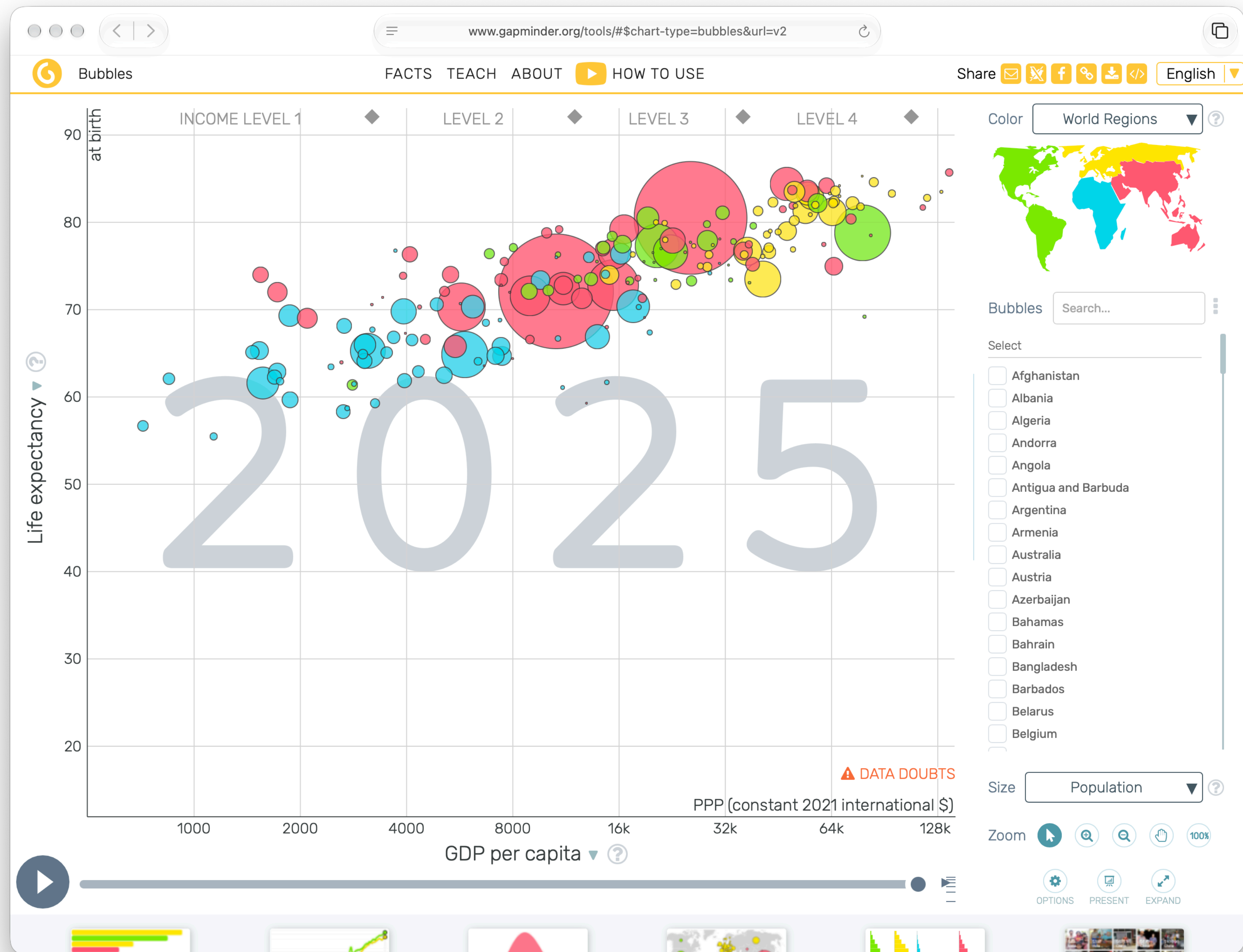
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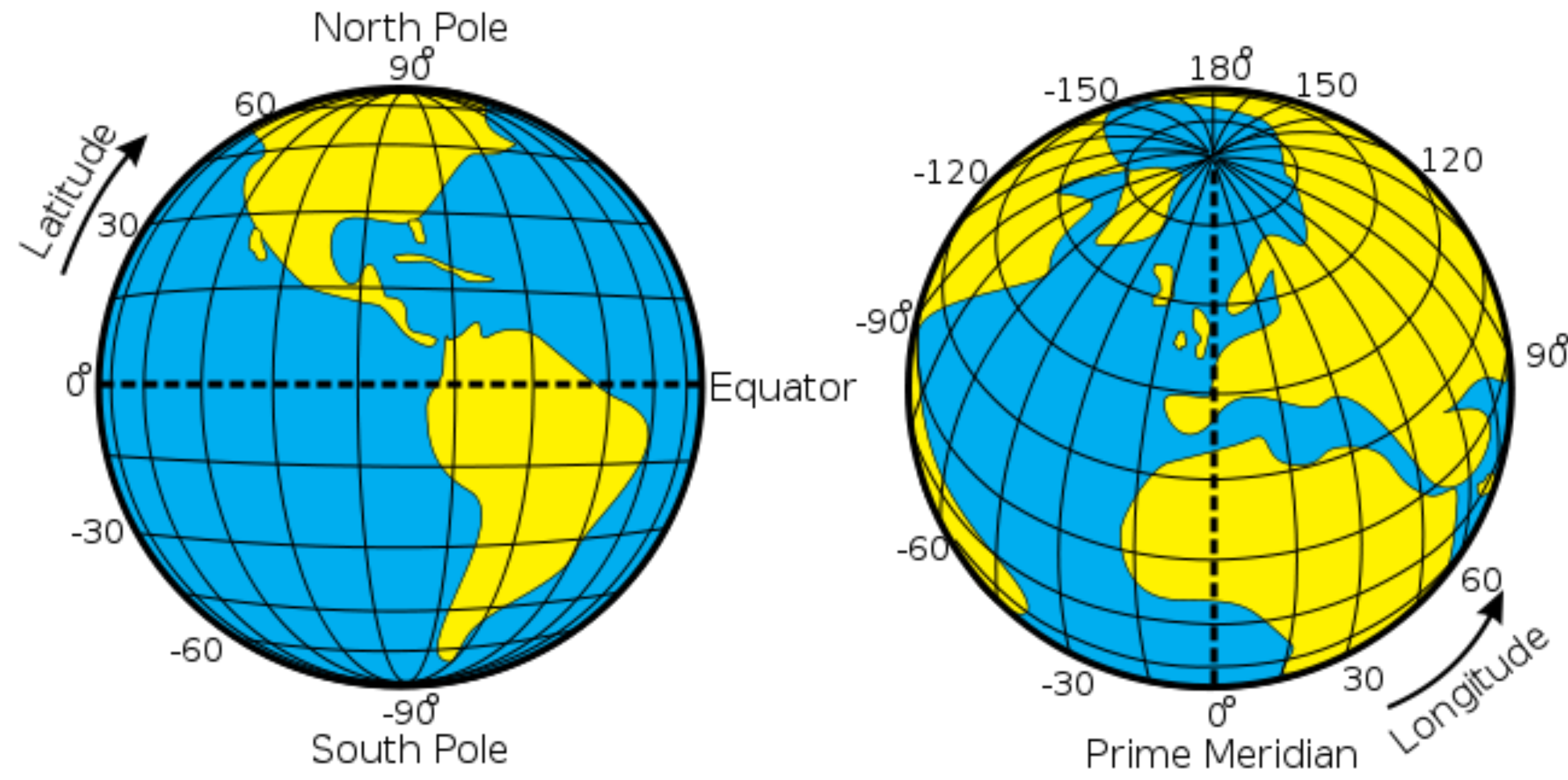
Scatter plots revisited

→ Notebook: *Scatter plots revisited*



gapminder.org/tools

Scatter plot maps revisited

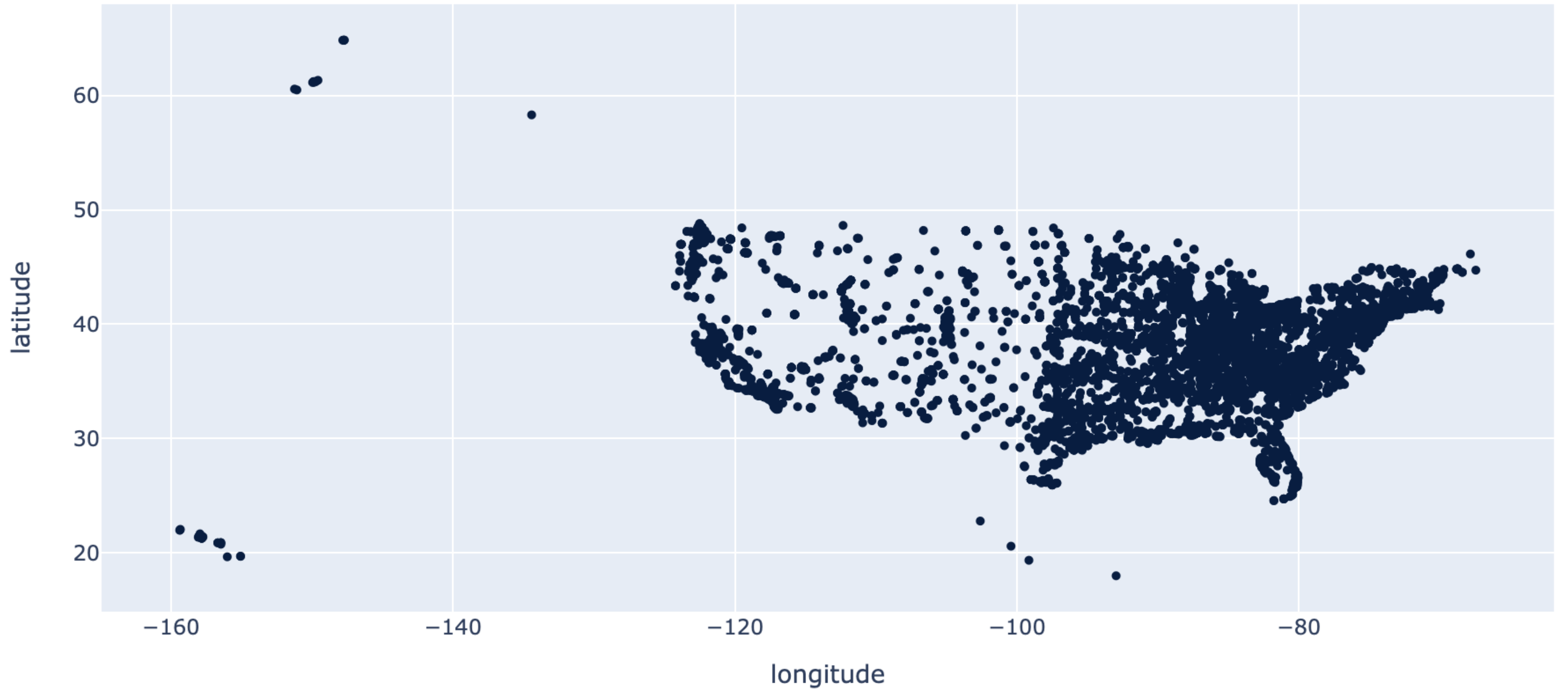


Any point on Earth can be described by its

latitude – the vertical (y) position – and

longitude – the horizontal (x) position.

What's wrong with just plotting latitude and longitude using a scatter plot?



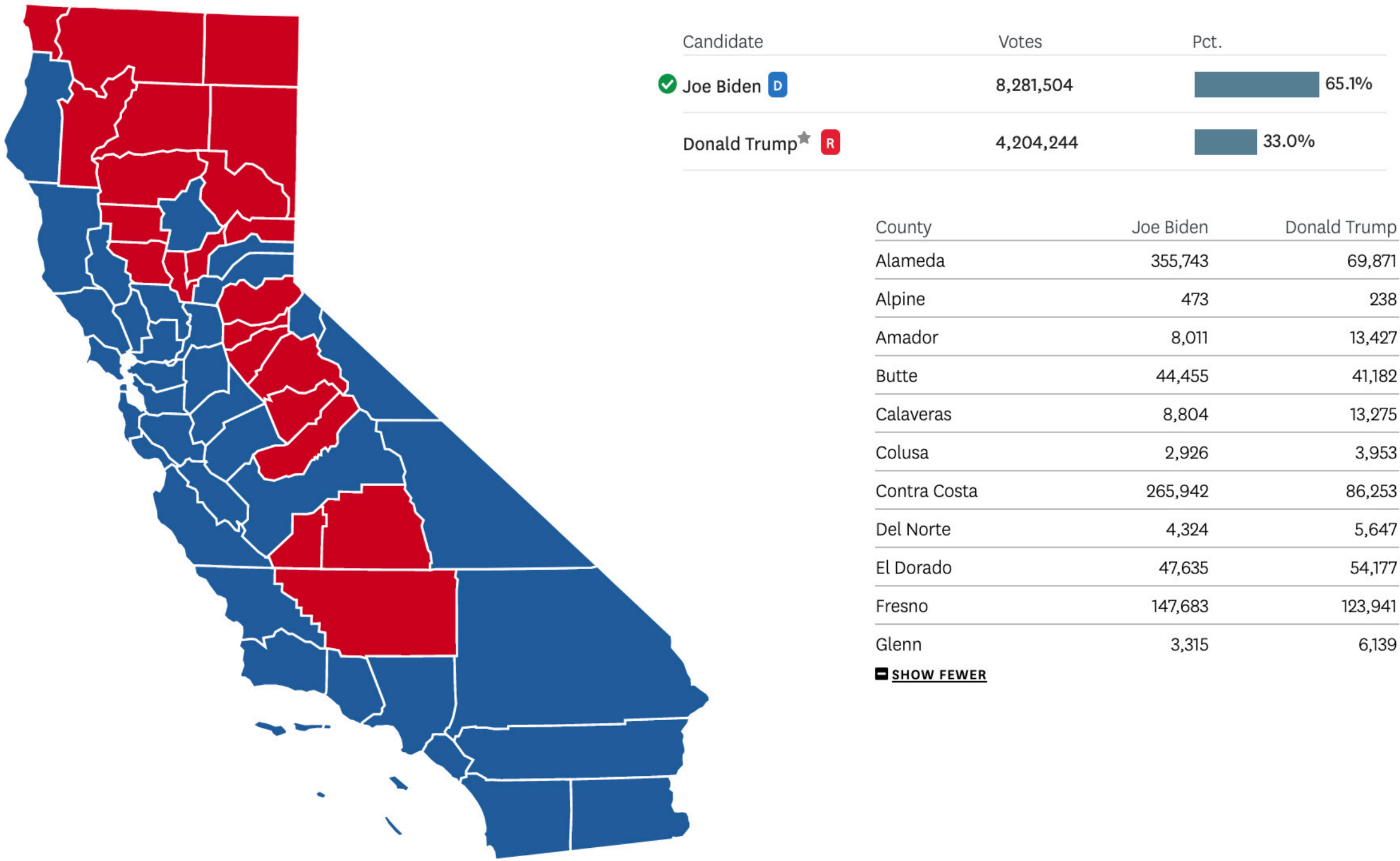
→ Notebook: *Scatter plot maps revisited*

Choropleth maps

Choropleth maps are useful for visualizing numerical variables across different regions (e.g., municipalities, counties, states, countries).

In this sense, they're analogous to bar charts since they encode one categorical variable (the region) and one numerical variable.

Example: Election mapping



San Francisco Chronicle

→ Notebook: *Choropleth maps*

