

Day 2: Introduction to Visualizations

matplotlib

Visualization != Sexy Pictures

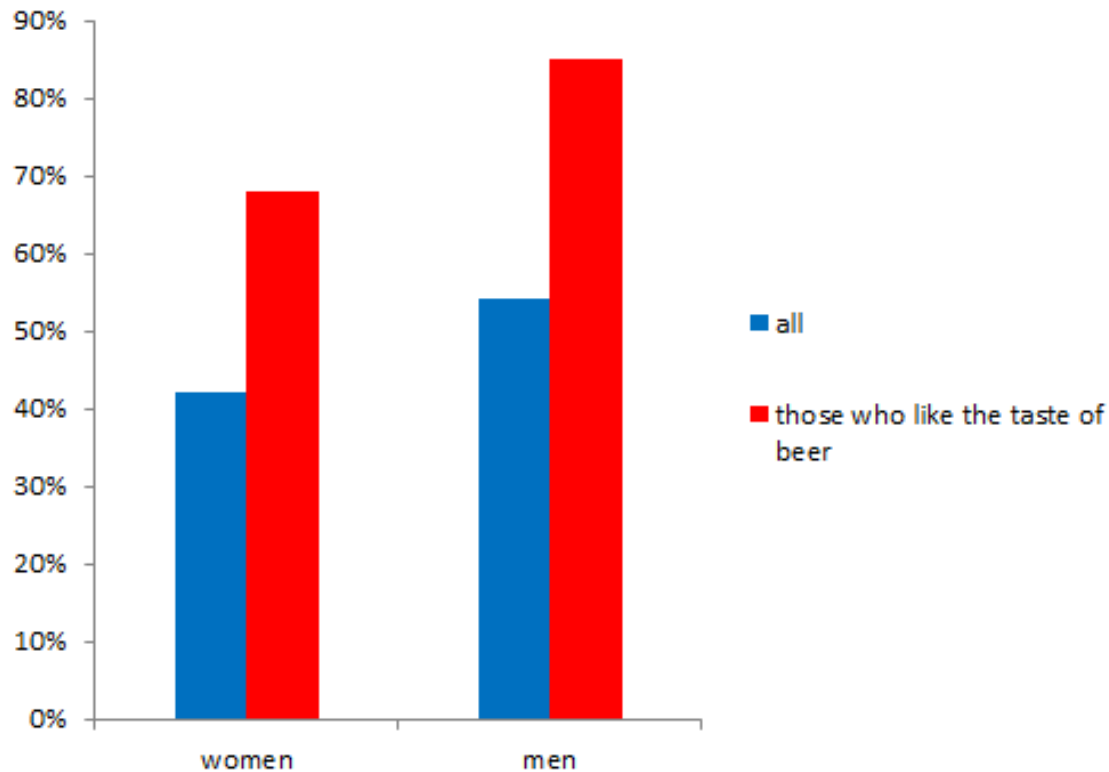
The Basics

blog.okcupid.com

Bar Graph

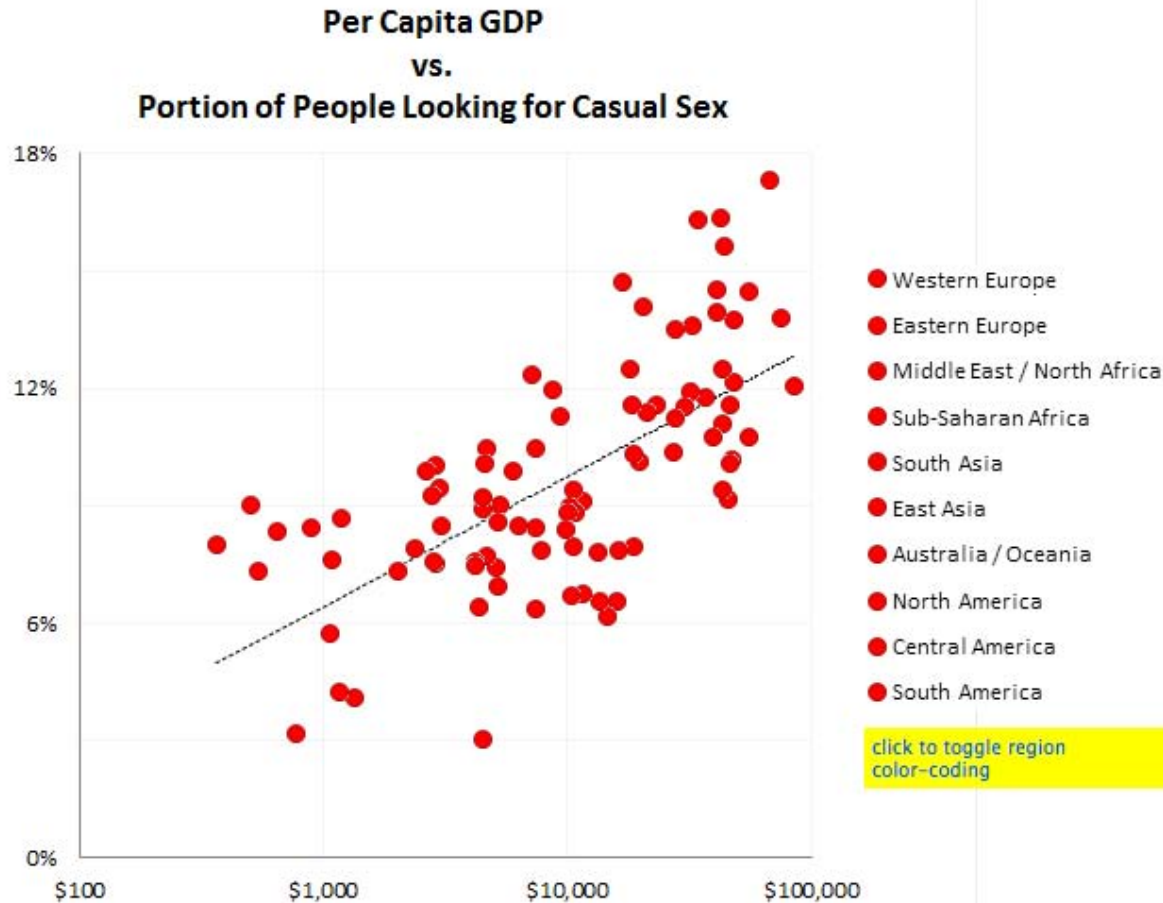
Would you consider sleeping with someone on the first date?

- % answering yes -



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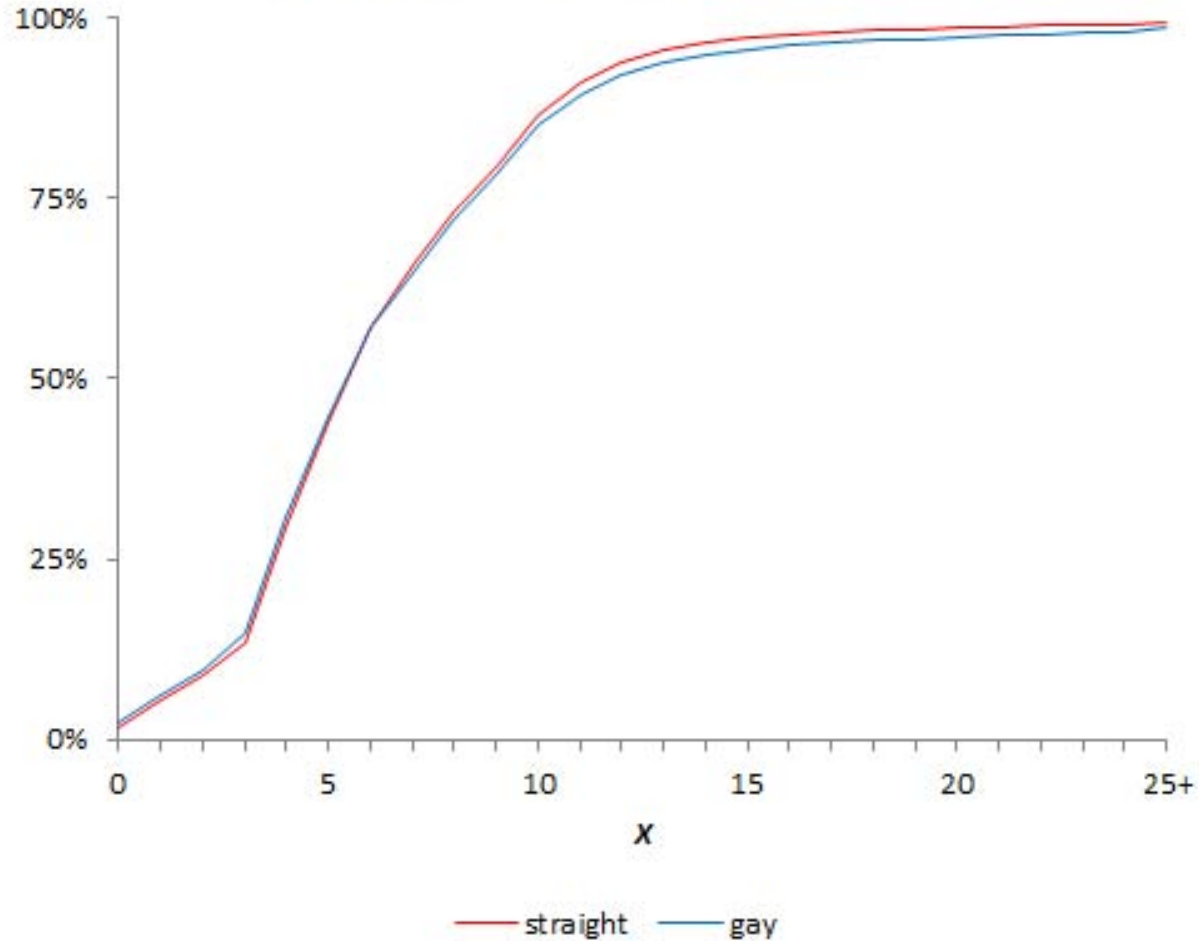
Scatter Plot



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Line Graph

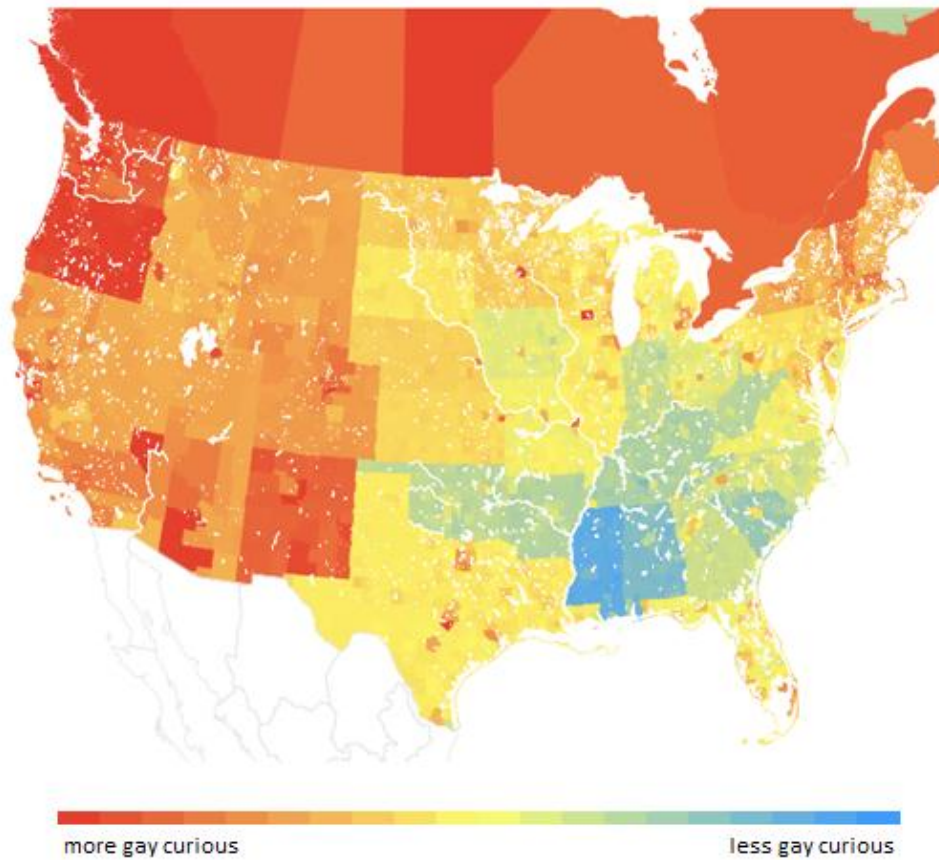
people with X or fewer sex partners



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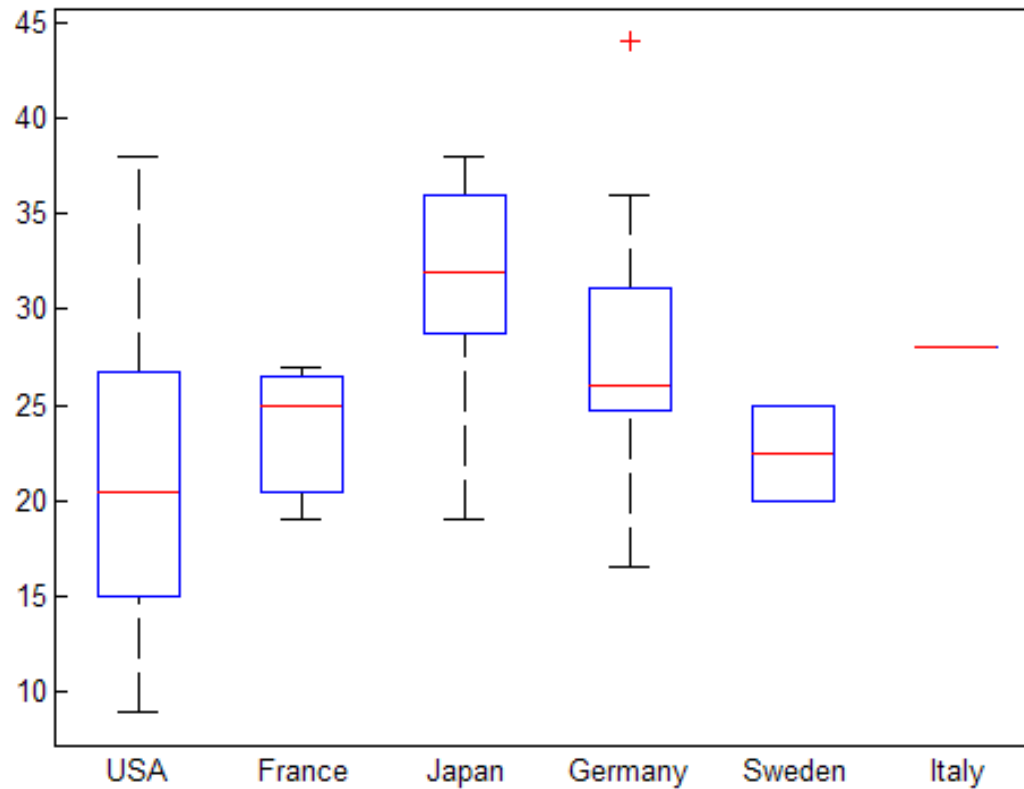
Choropleth Plots

Who's Gay Curious in the U.S. & Canada



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Box Plots

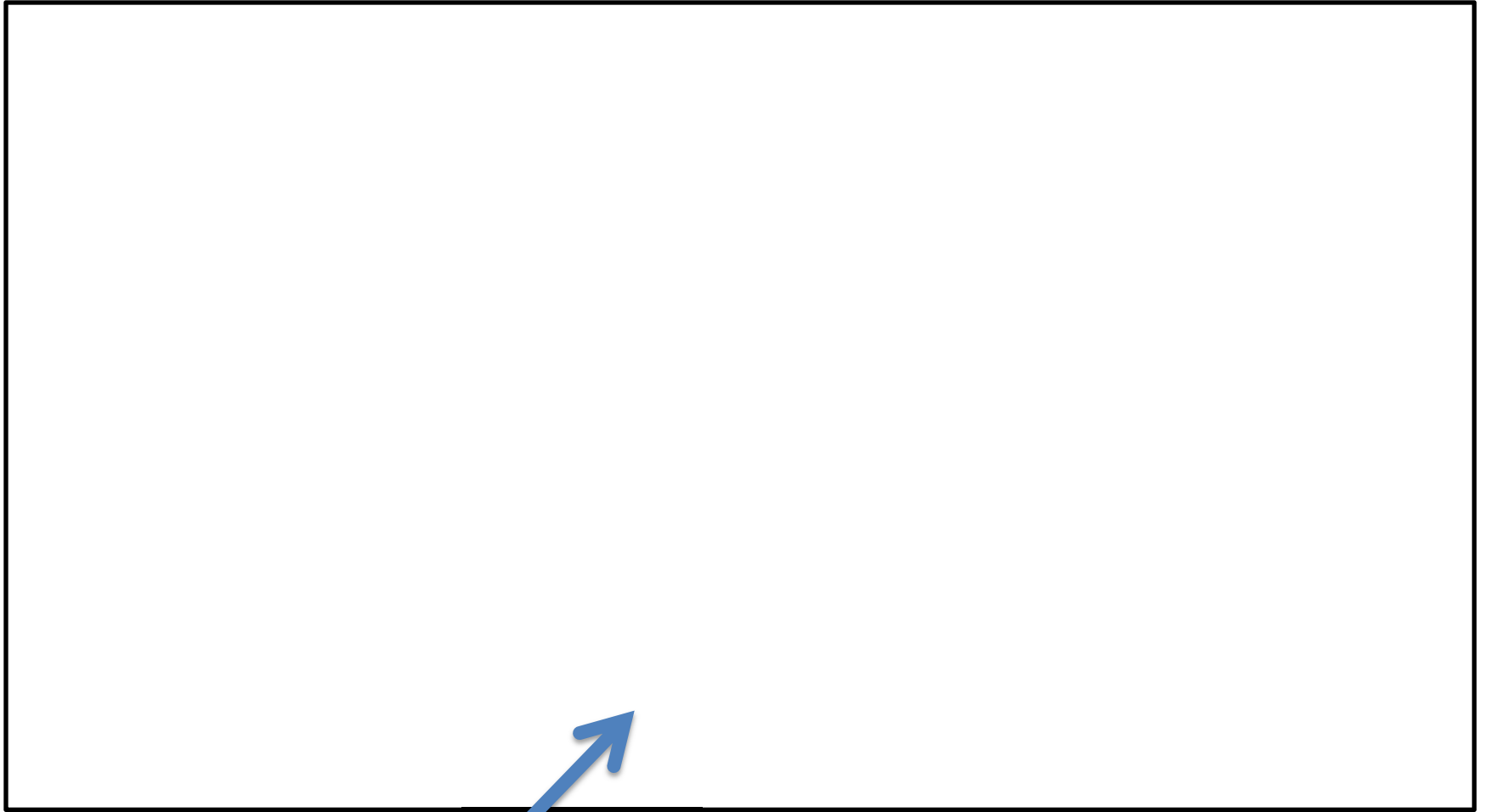


matplotlib

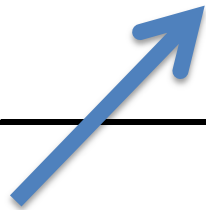
Python's version of Matlab plotting

How `matplotlib` Draws

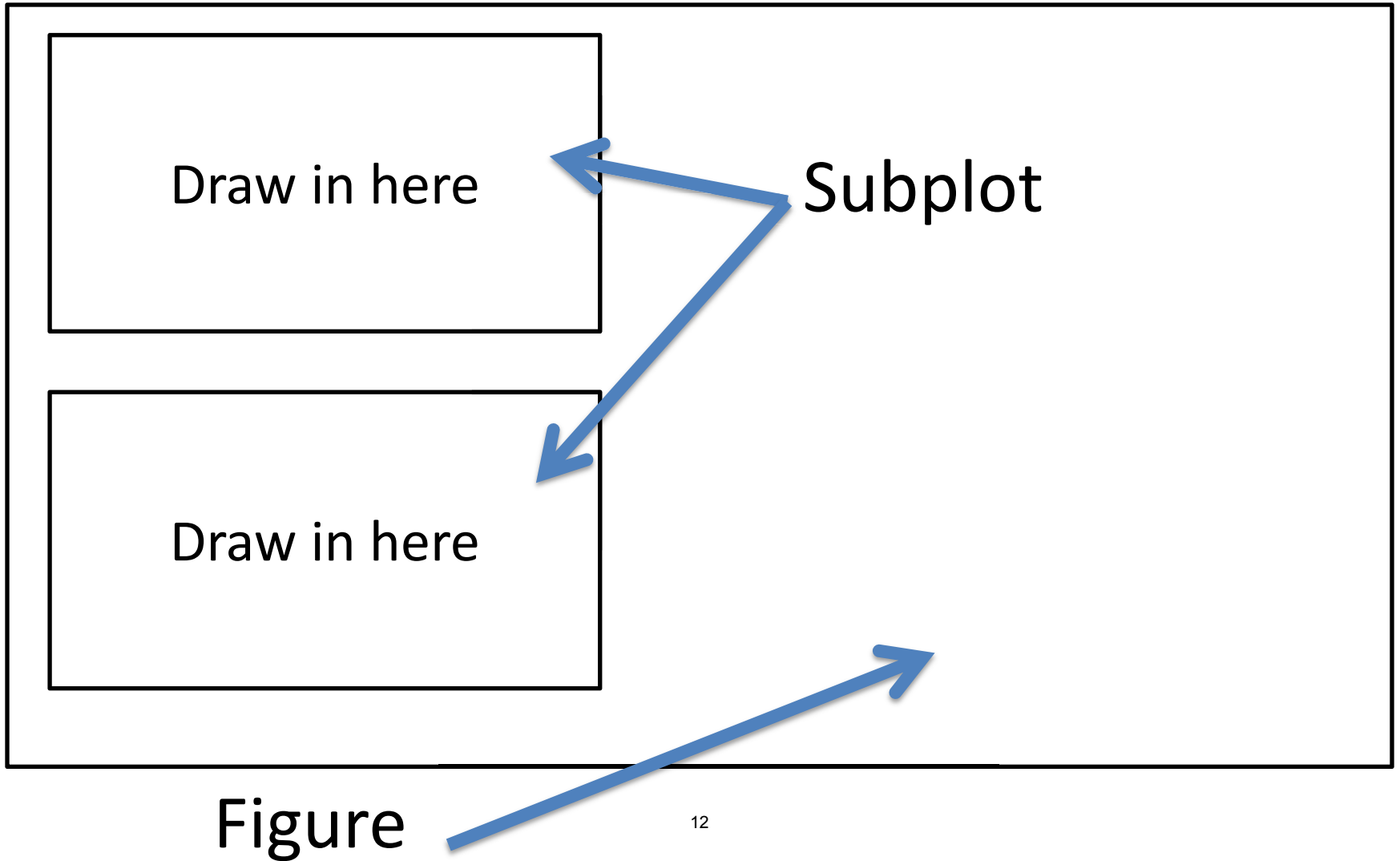
Figure object



Figure



Subplot object



`figure.add_subplot(2, 3, 1)`

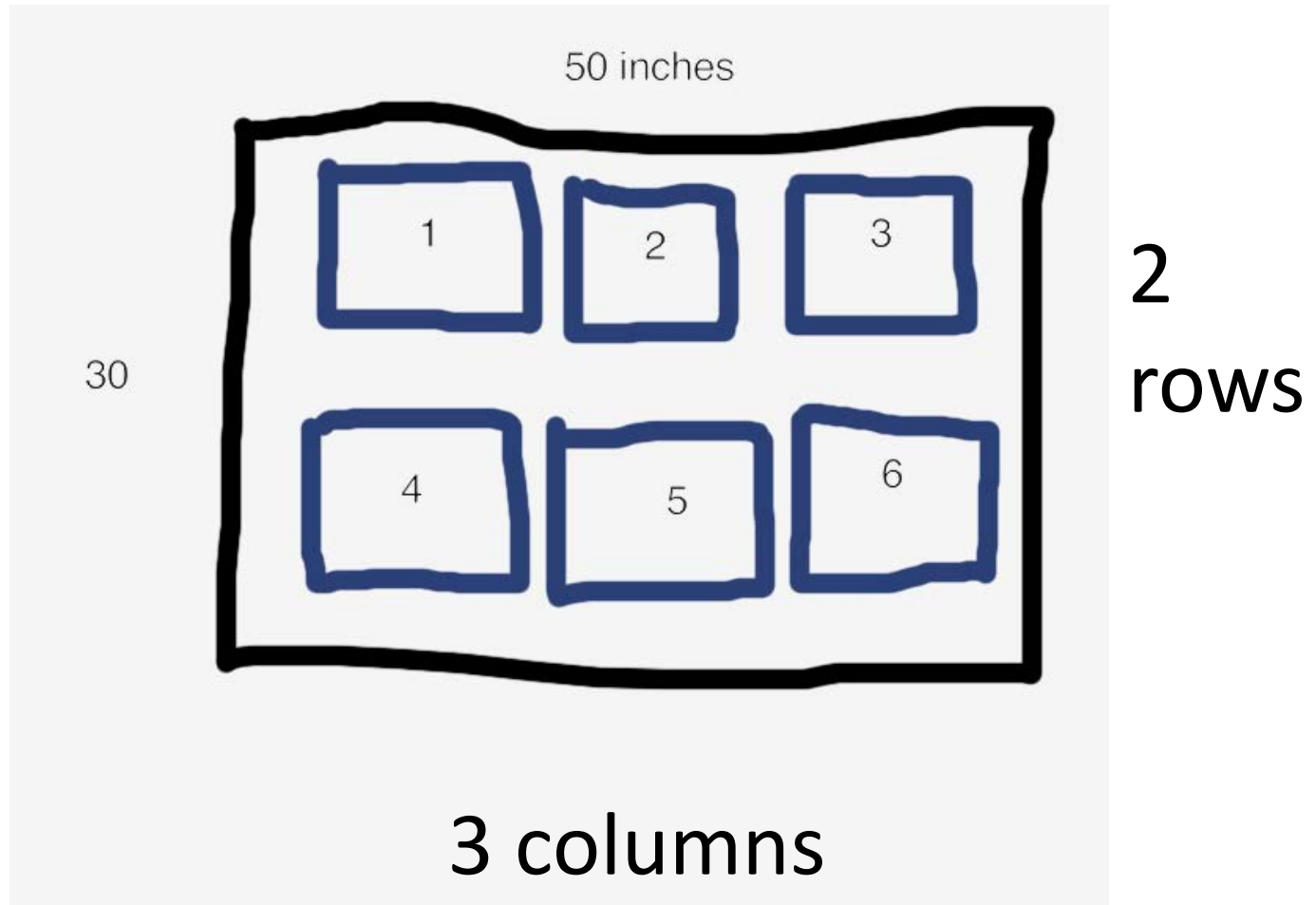


figure.add_subplot(2, 3, 1)

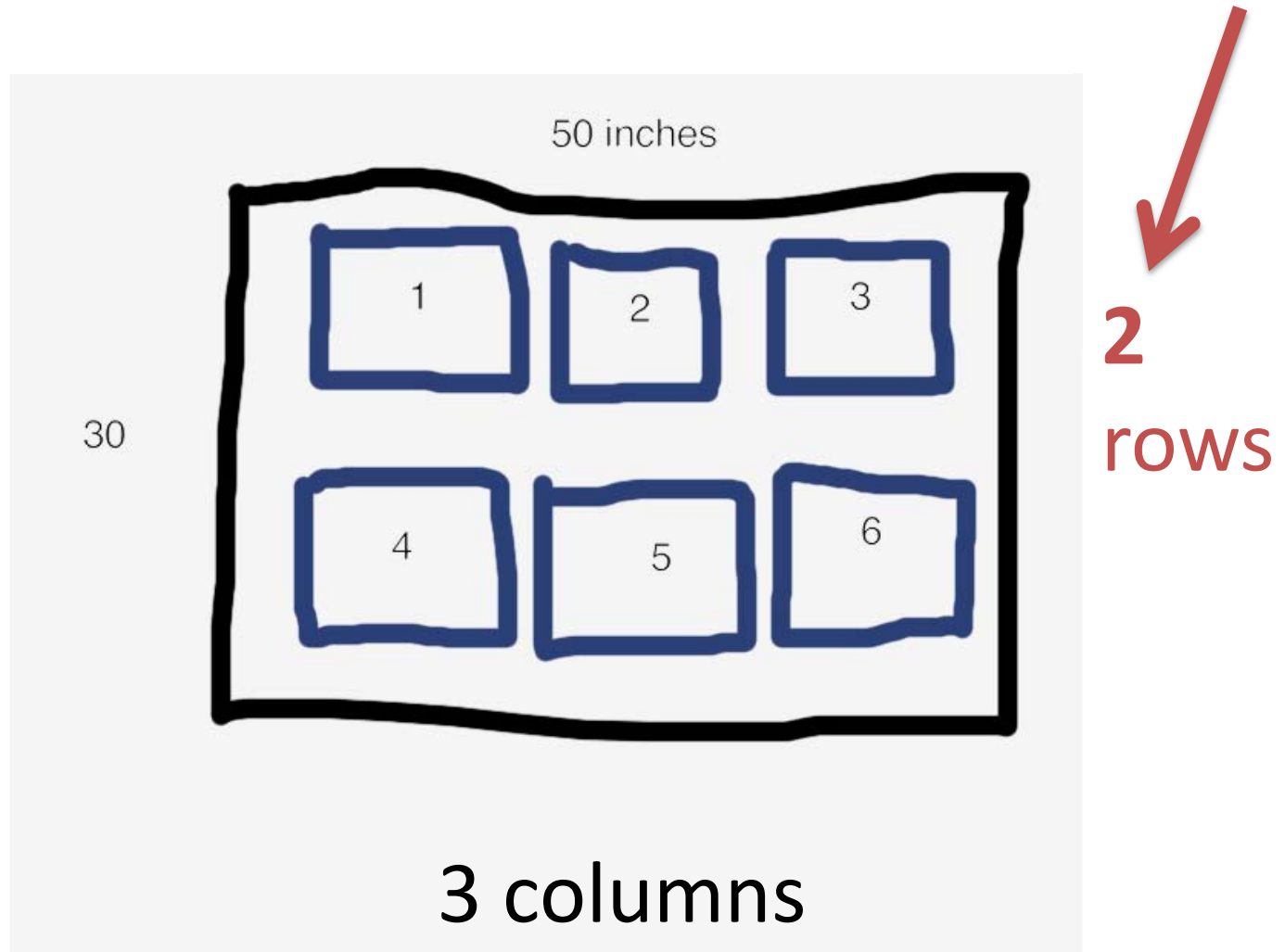
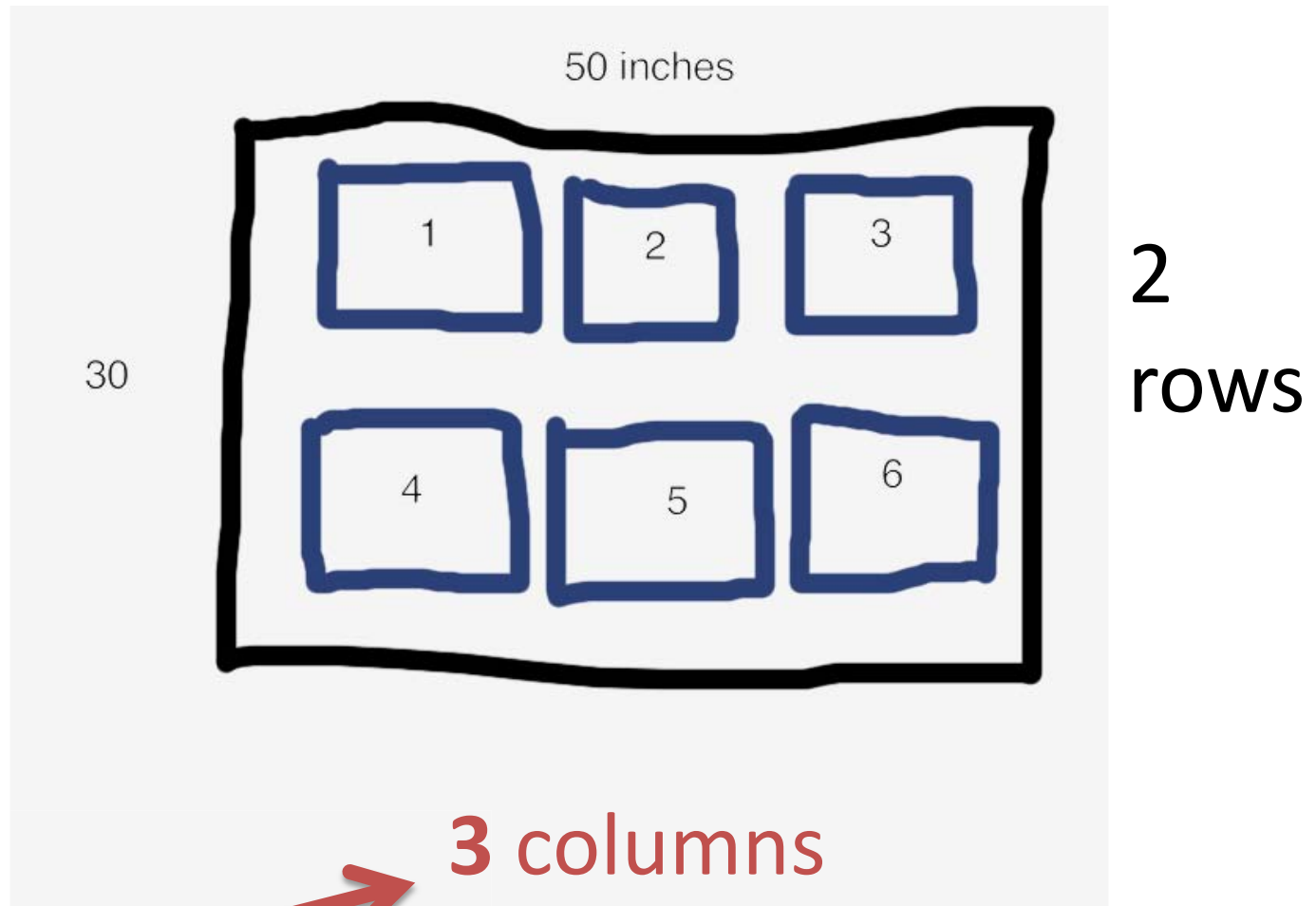
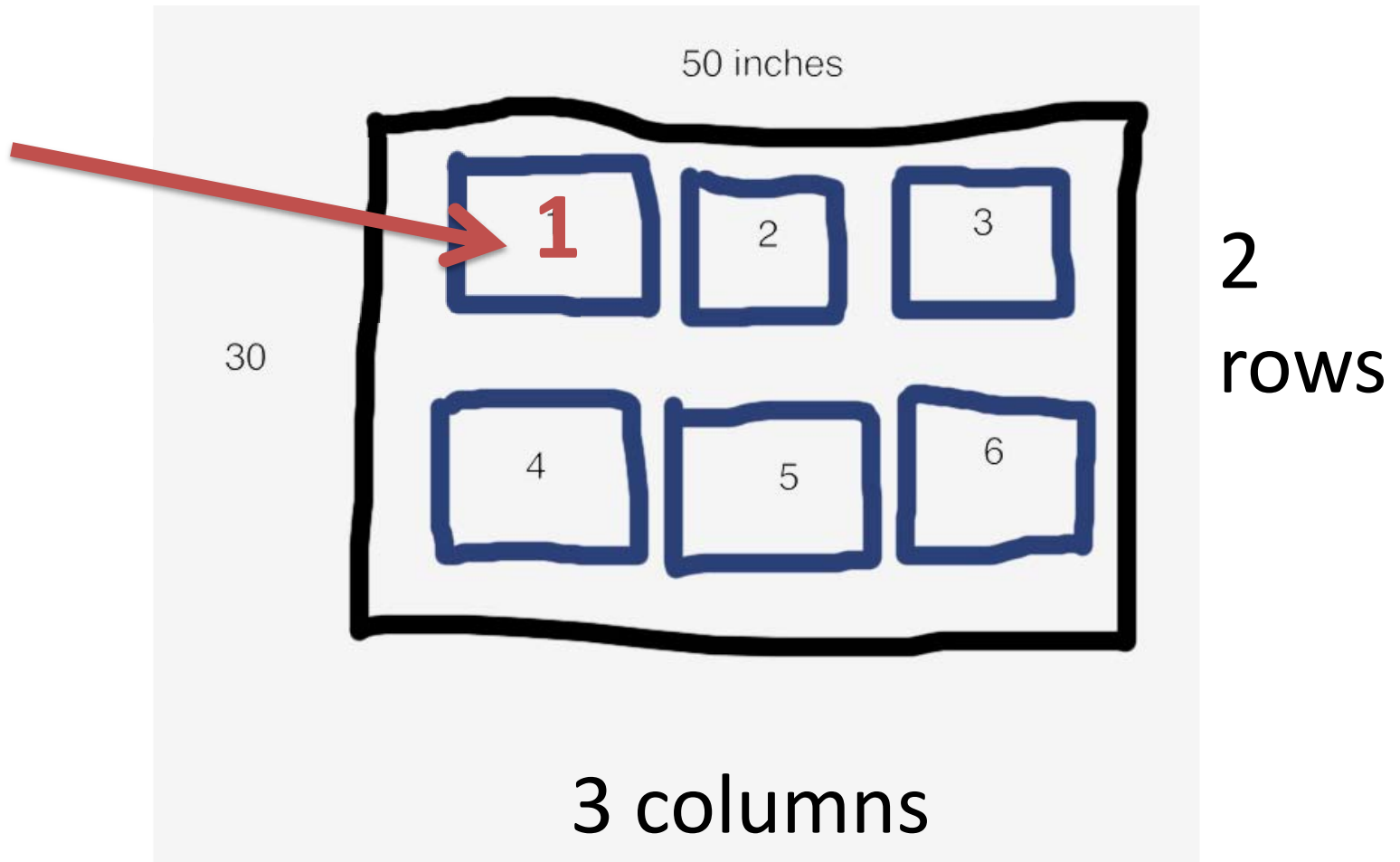


figure.add_subplot(2, **3**, 1)



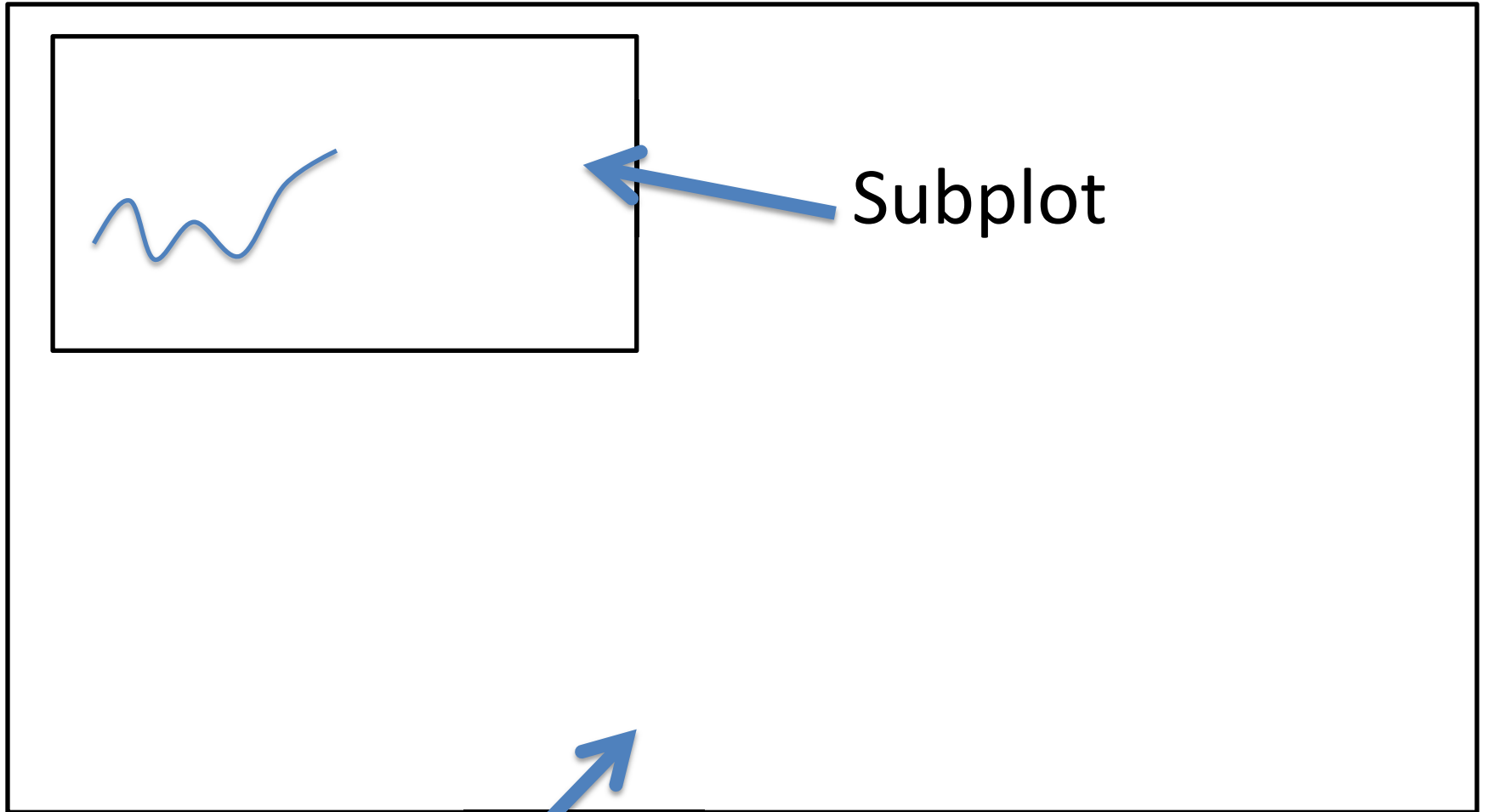
`figure.add_subplot(2, 3, 1)`



Charting Library

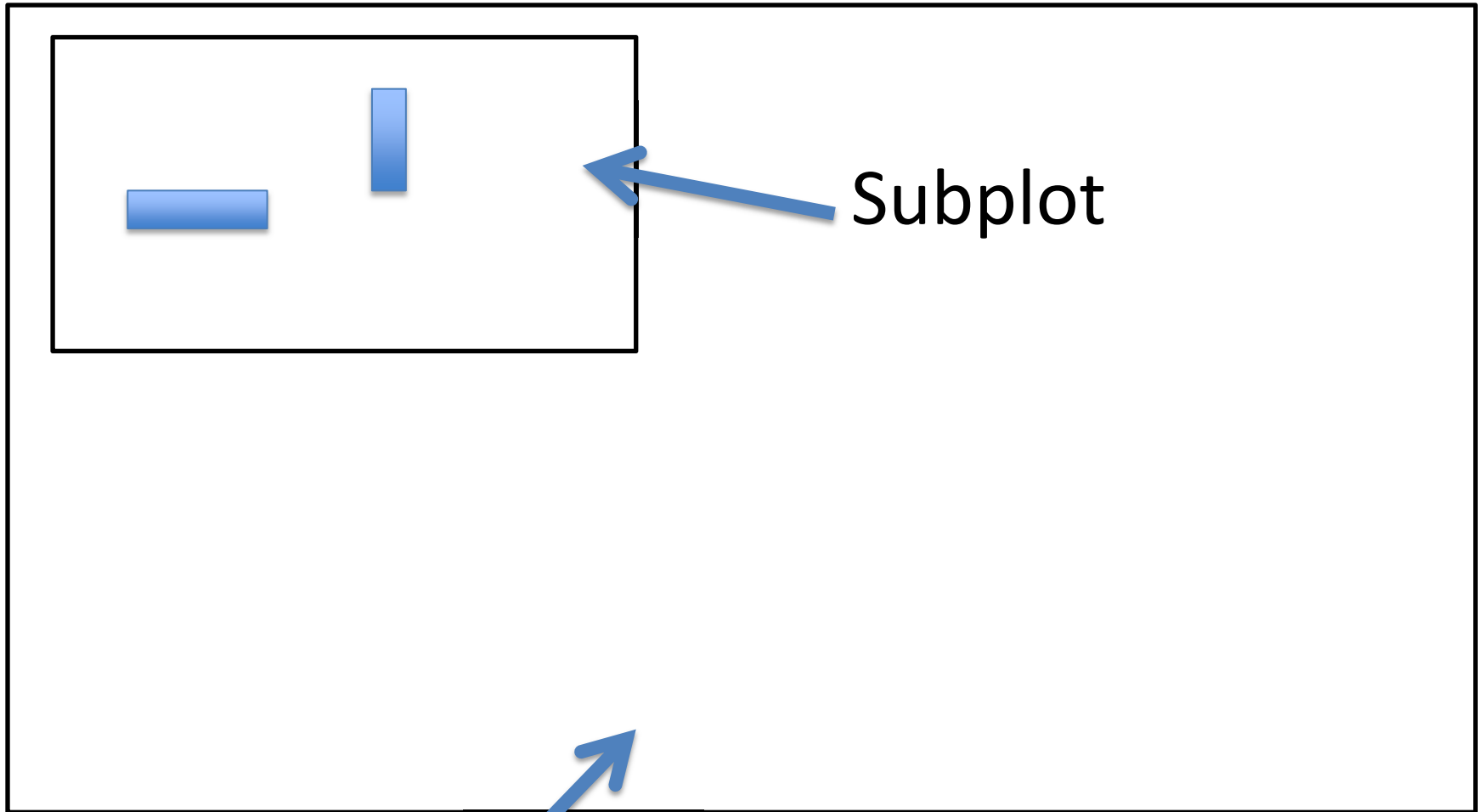
- `subplot.bar()`
- `subplot.plot()`
- `subplot.scatter()`
- `subplot.boxplot()`

Lines



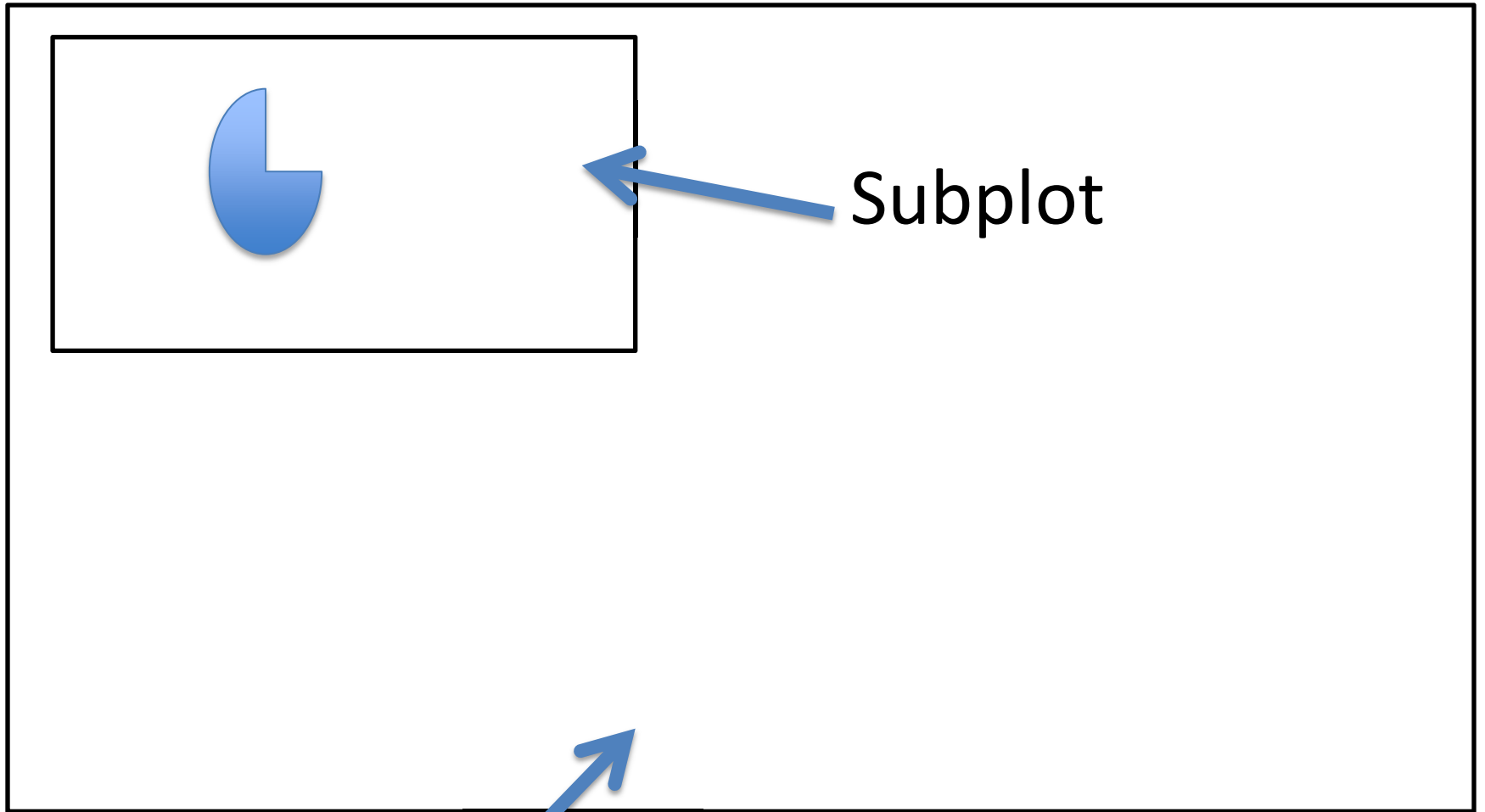
Figure

Boxes



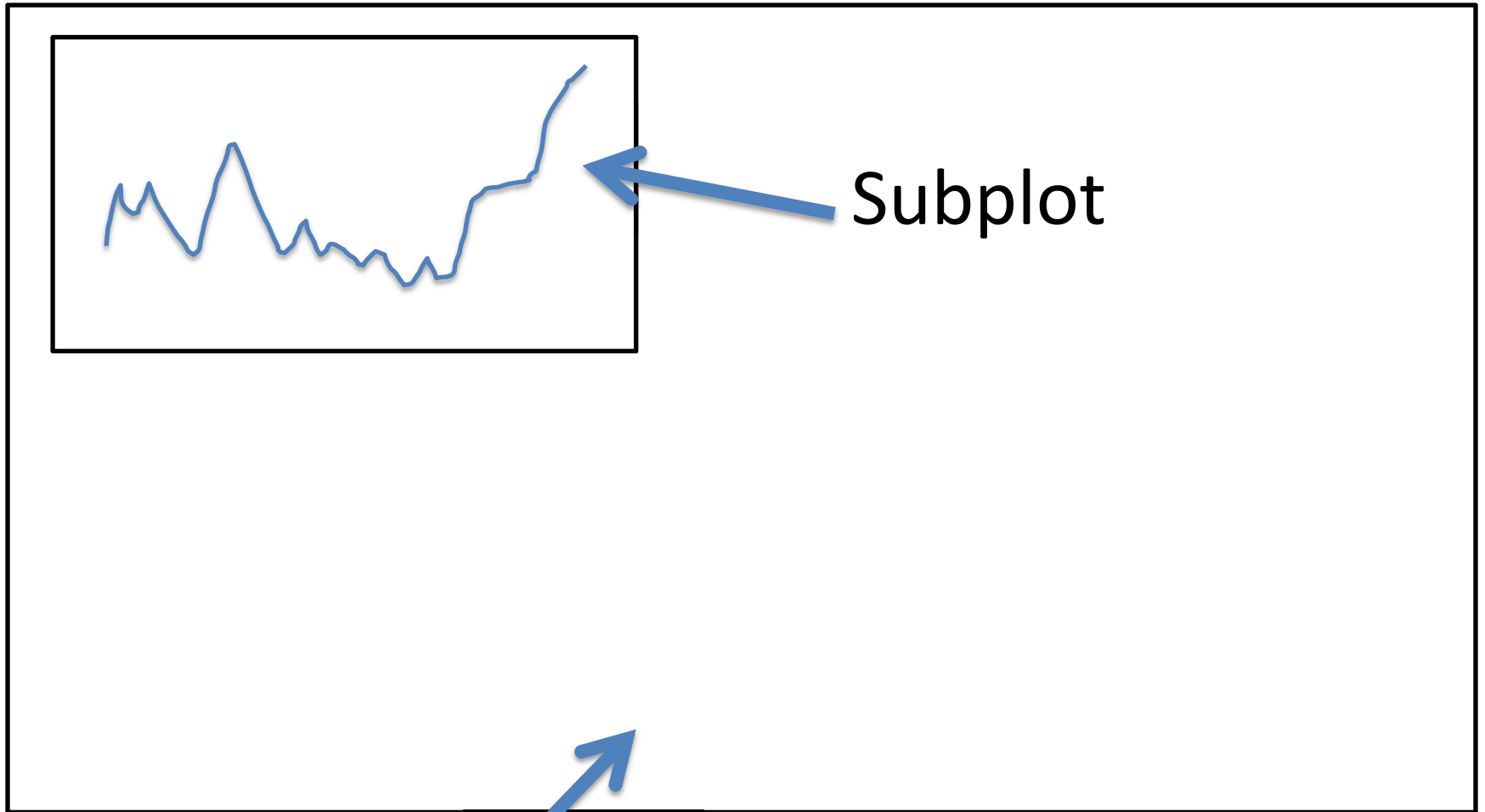
Figure

Polygons



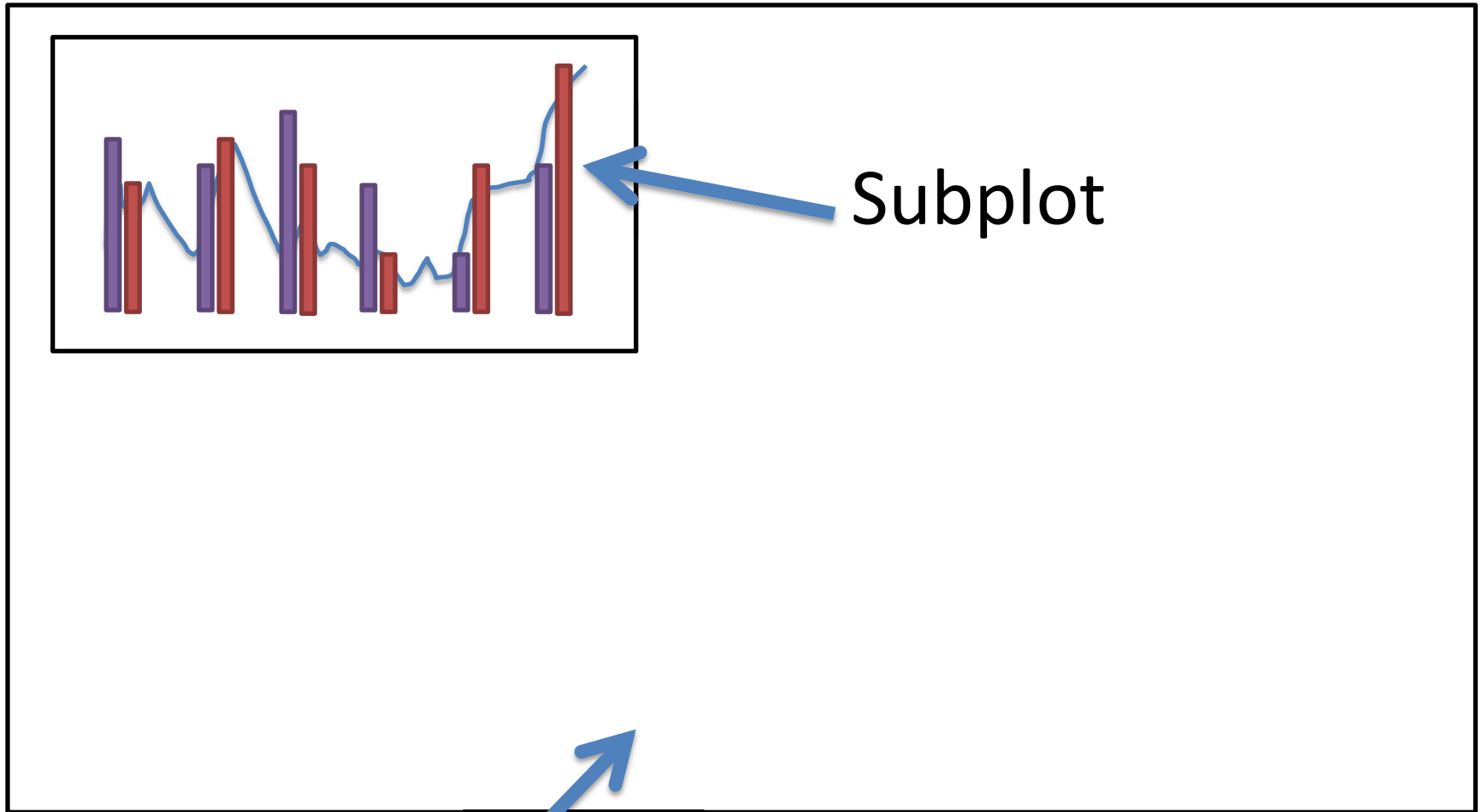
Figure

Overlaps



Figure

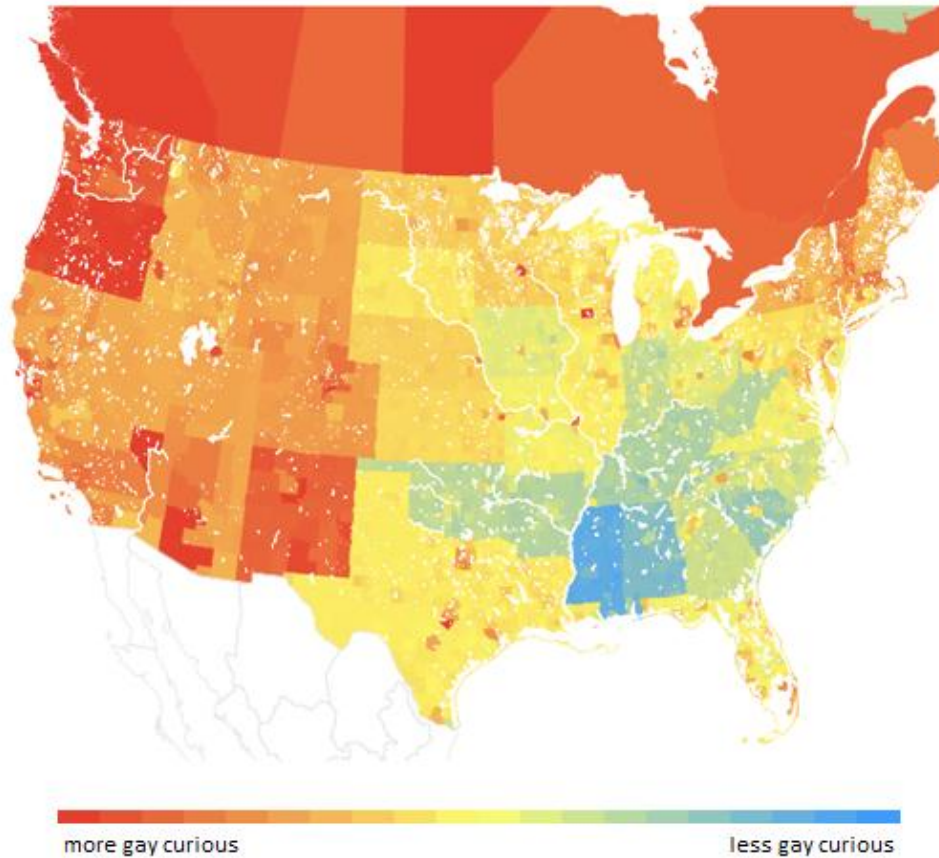
Overlaps



Figure

Choropleth Plots

Who's Gay Curious in the U.S. & Canada



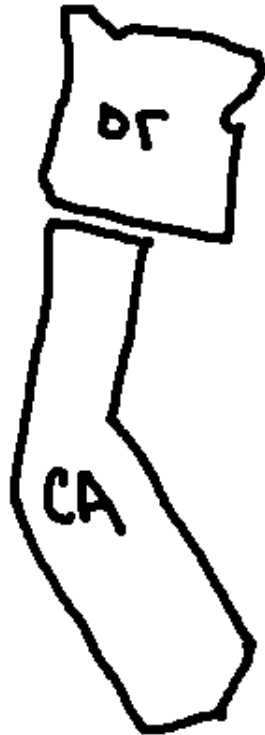
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No Easy Way

How Maps are Drawn



How Maps are Drawn



Helper Functions

FIPS


`draw_county(subplot, county_id, color)`

`draw_state(subplot, state, color)`

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Resource: How to Process, Analyze and Visualize Data
Adam Marcus and Eugene Wu

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