

Dynamic Small Multiples

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Time Series Visualization

Often cyclic, calls for visualizing one data set at multiple scales

month



year



Small Multiples

Easier for large-scale trends

Can't visualize too much data at once

Less detail per visualization

Lower accuracy when users analyze data

Animated Data

Easier for smaller-scope findings

Can't view all the data at once

Difficult to compare non-adjacent points

Slower response time when users analyze data

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Previous Work

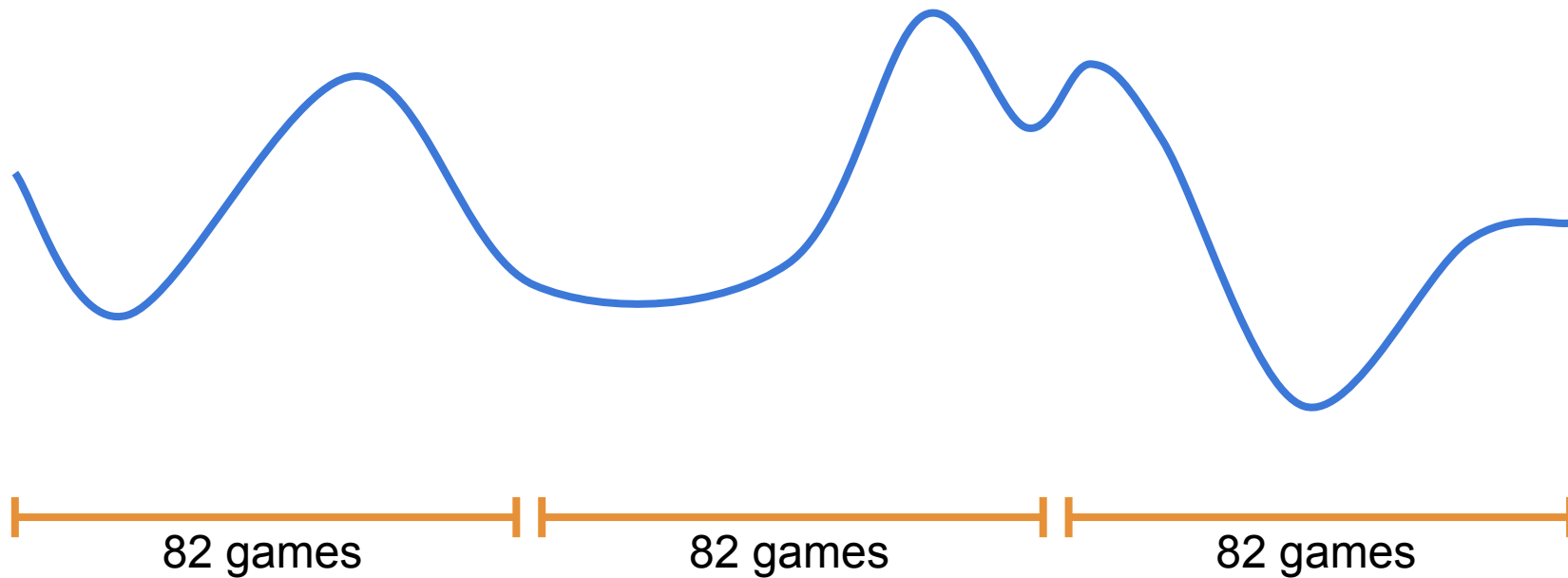
Interactive multiple scale small multiples. J. Chen, A. S. Forsberg, S. M. Swartz and D. H. Laidlaw

Interactive, pre-specified, small multiples.

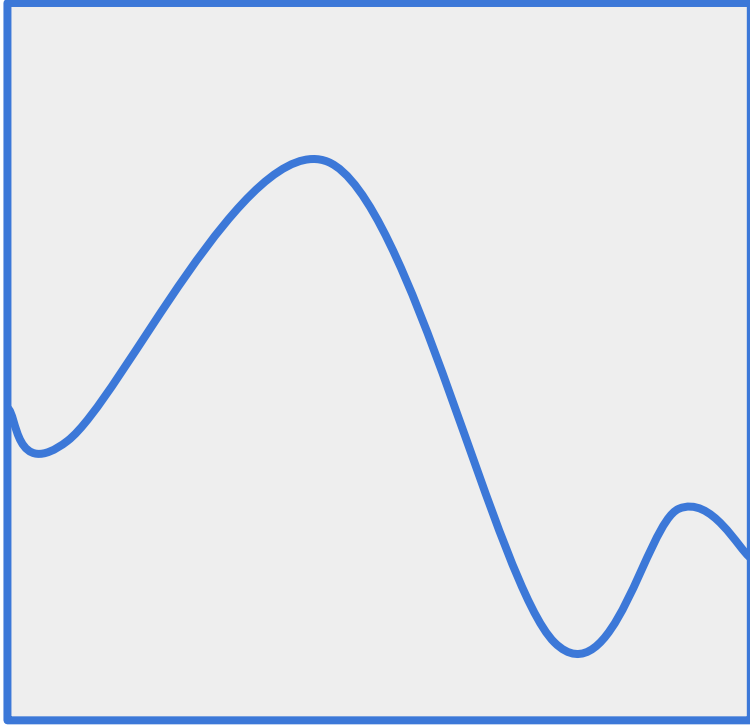
Small multiples, large singles: a new approach for visual data exploration. S. van den Elzen and J. J. van Wijk.

Allows users to zoom in and explore one multiple in detail

Domain: Hockey Seasons

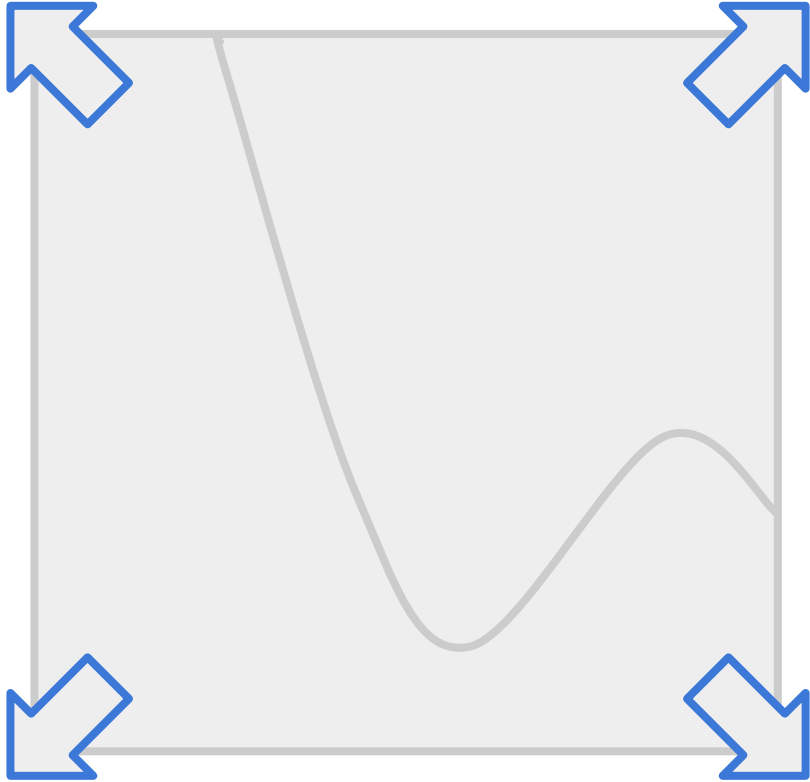


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Large graph of one season

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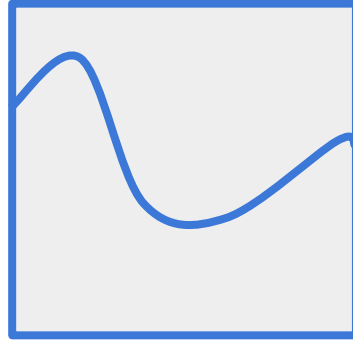
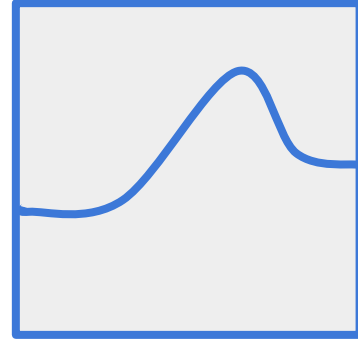
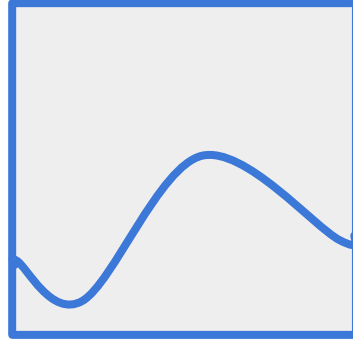
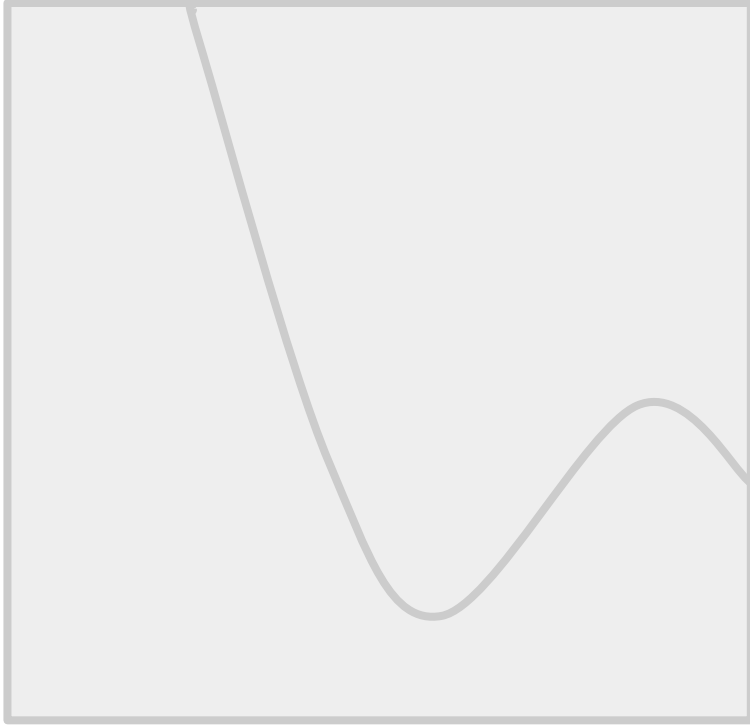


Scroll to zoom

Left-click to pan

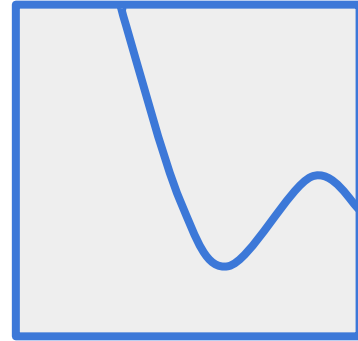
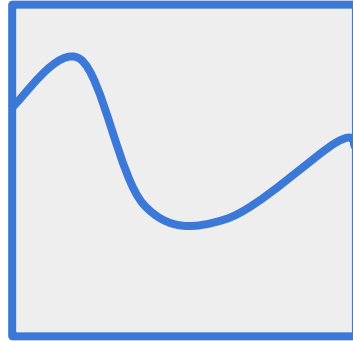
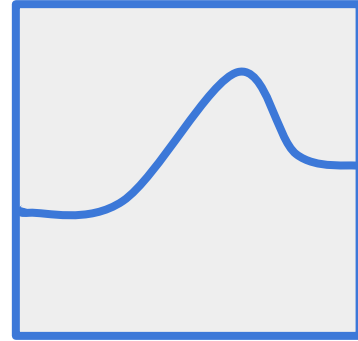
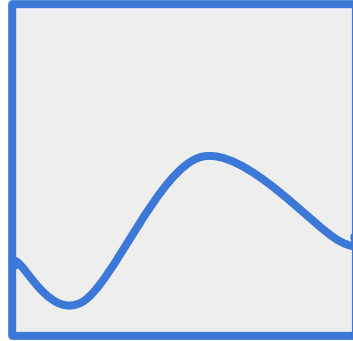
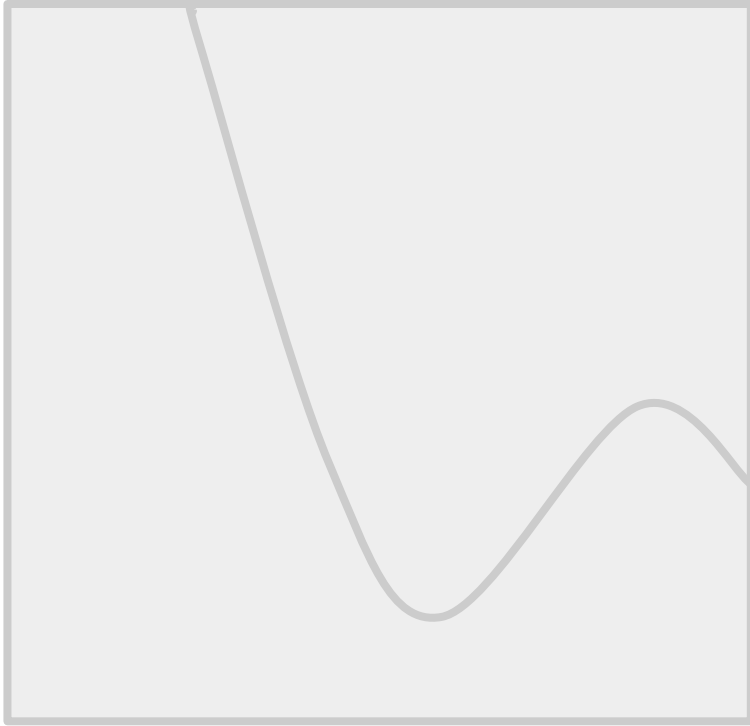
Right-click to move in time

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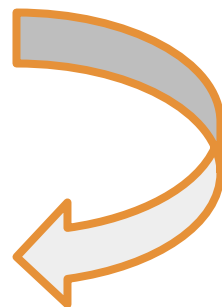
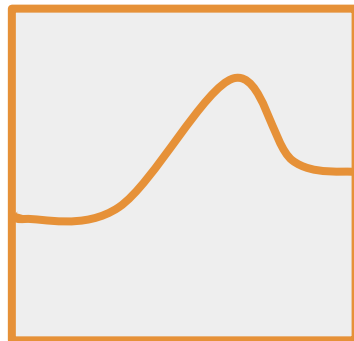
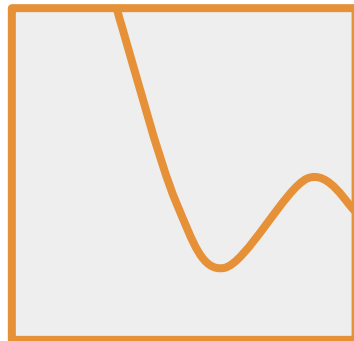
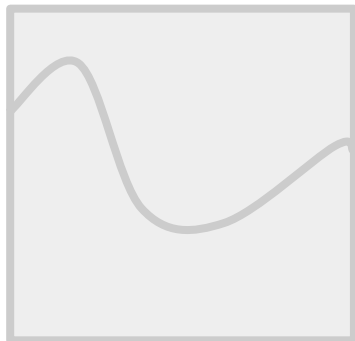
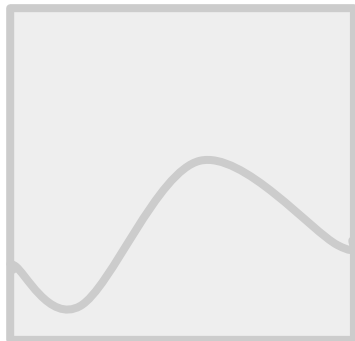
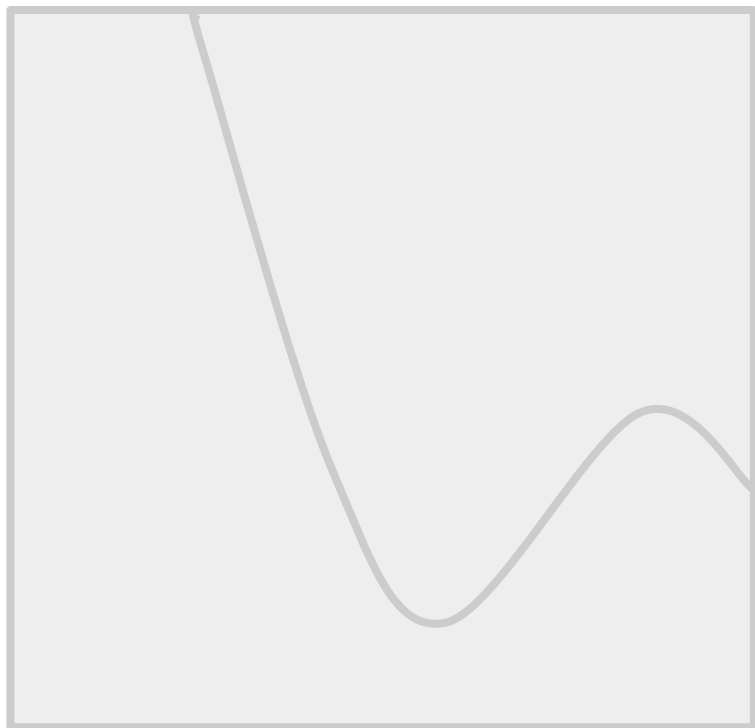
Save current view in small multiples

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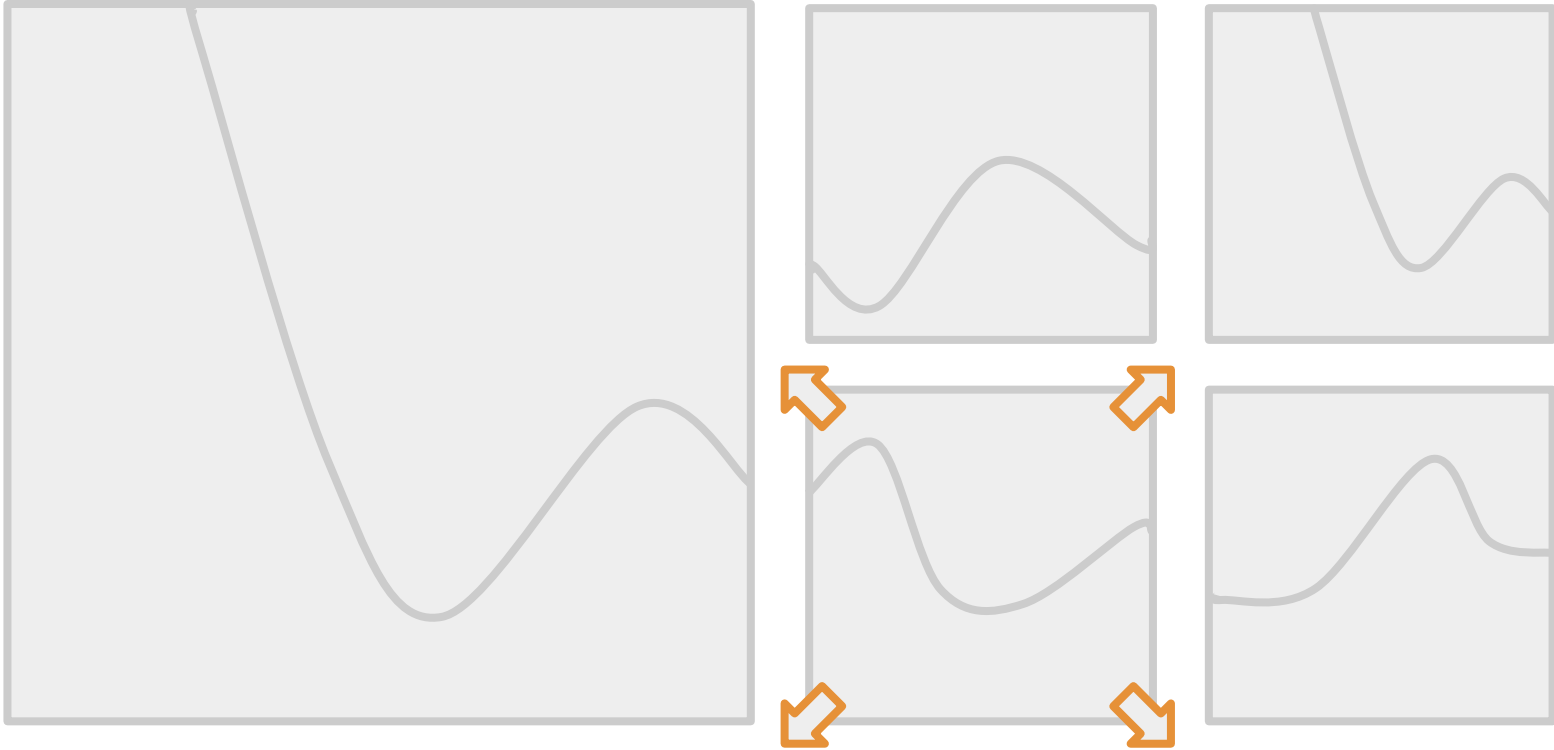
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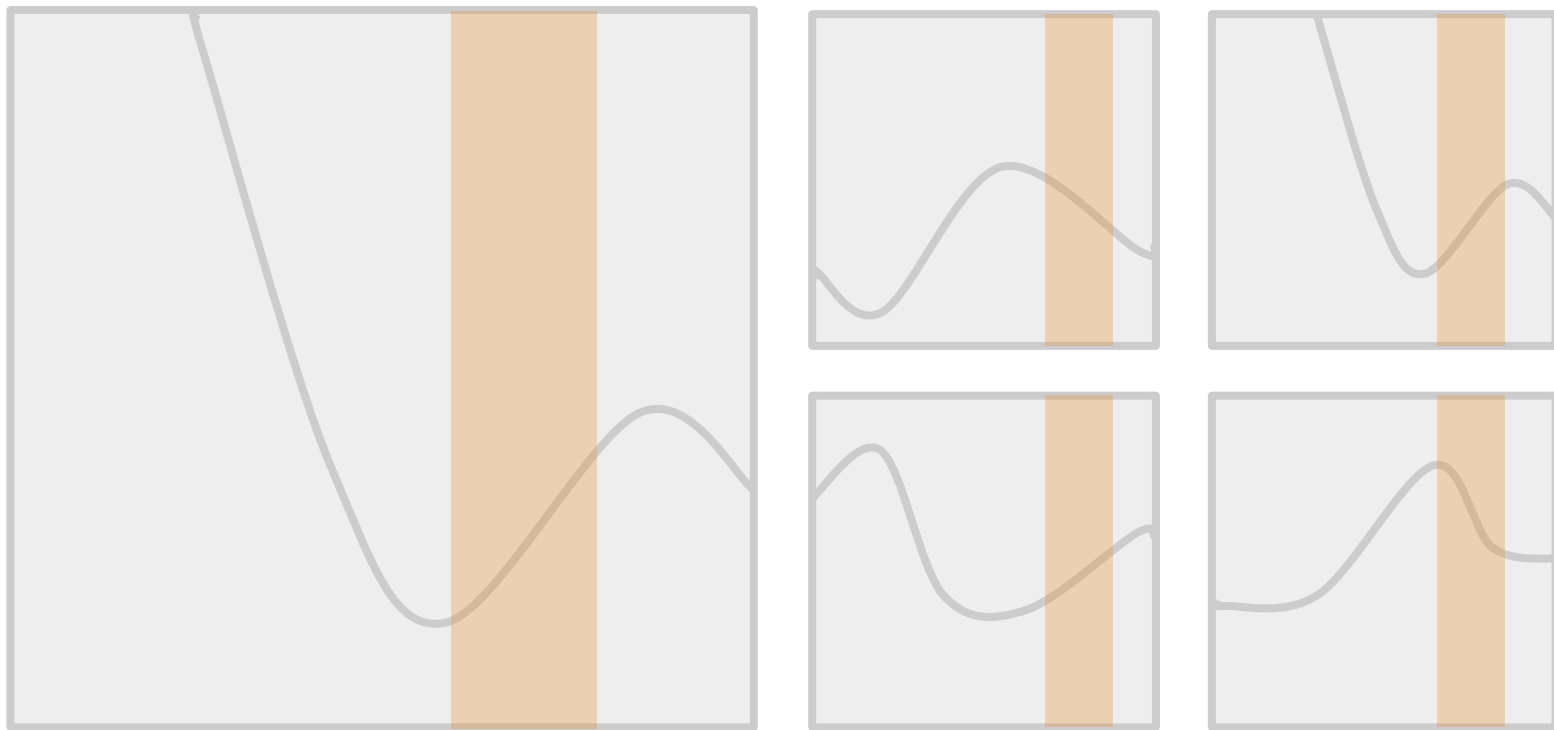
Reorder multiples

Dynamic Small Multiples



Match axes across small multiples

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Linked data selection

Questions

Feedback on general navigation mechanics (right-drag and left-drag)

Rescaling axes on zoom (preserve aspect ratio or minimize blank space)

Should zooming reveal more detail/information about the dataset?

Any additional or more useful features than the ones listed