Today: Time Series

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Today: Longitudinal Data and Time Series Analysis

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Longitudinal Data and Time Series (4/17/2017)

Examples:

Time Series: Measuring a single variable over points in time

Can be regularly or irregularly spaced time intervals:

Can have more than one variable:

Analyzing and Comparing Time Series

What are we interested in seeing with time series?

What if we have multiple time series? How to compare?

Moving Average Plots

Moving Average: Want to visualize how the trend changes over time.

Can downweight older observations in your moving window:

Lags and Autocorrelation

Lags: Does one time point influence future time point(s)?

Autocorrelation: Correlation between a time series and a lagged version of itself