

CS&SS 569 Visualizing Data and Models

Lab 5: Intro to `tile`

Ramses Llobet

Department of Political Science, UW

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Introduction

- ▶ Overview of tile

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- ▶ Installing `tile` and `simcf`

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 - ▶ Scatterplot: HW1 example
 - ▶ Expected probabilities and first differences: Voting example
 - ▶ Ropeladder: Crime example
- ▶ Installing `tile` and `simcf`
- ▶ Walking through examples

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 - ▶ Could be a set of points, or text labels, or lines, or a polygon
 - ▶ Could be a set of points and symbols, colors, labels, fit line, CIs, and/or extrapolation limits
 - ▶ Could be the data for a dotchart, with labels for each line
 - ▶ Could be the marginal data for a rug
 - ▶ All annotation must happen in this step
 - ▶ Basic traces: `linesTile()`, `pointstitle()`, `polygonTile()`, `polylinesTile()`, and `textTile()`
 - ▶ Complex traces: `lineplot()`, `scatter()`, `ropeladder()`, and `rugTile()`

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 - ▶ `scatter()`: Plot scatterplots with text and symbol markers, fit lines, and confidence intervals

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 - ▶ Set up the rows and columns of plots
 - ▶ Titles of plots, axes, rows of plots, columns of plots, etc.
 - ▶ Set up axis limits, ticks, tick labels, logging of axes

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 3. **Examine output and revise:** Look at the graph made in step 2, and tweak the input parameters for steps 1 and 2 to make a better graph

Three examples

- ▶ Scatterplot: HW1 example

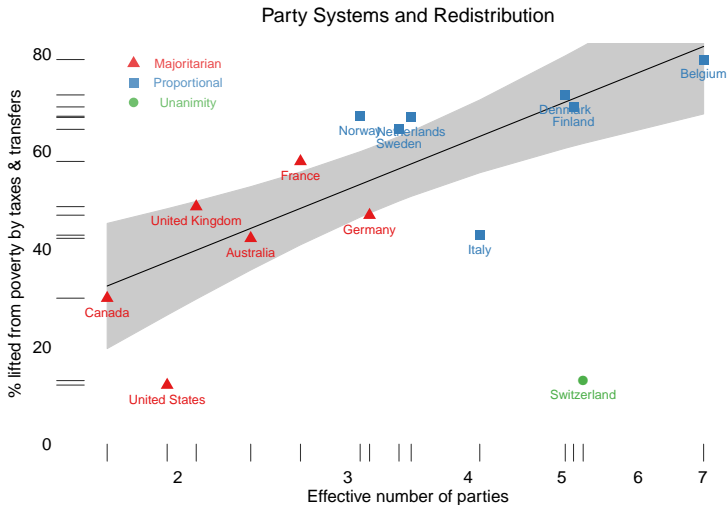
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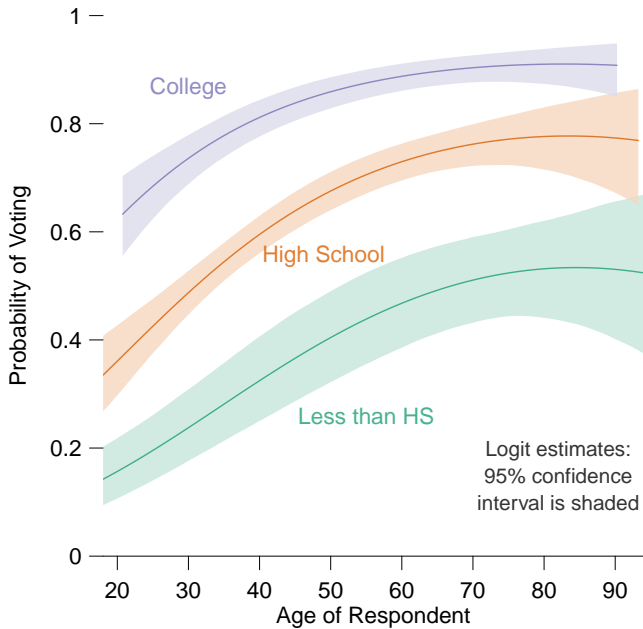
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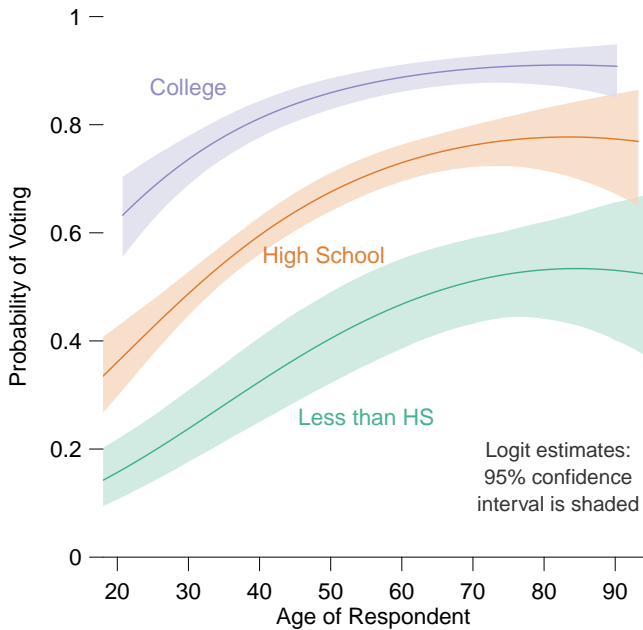
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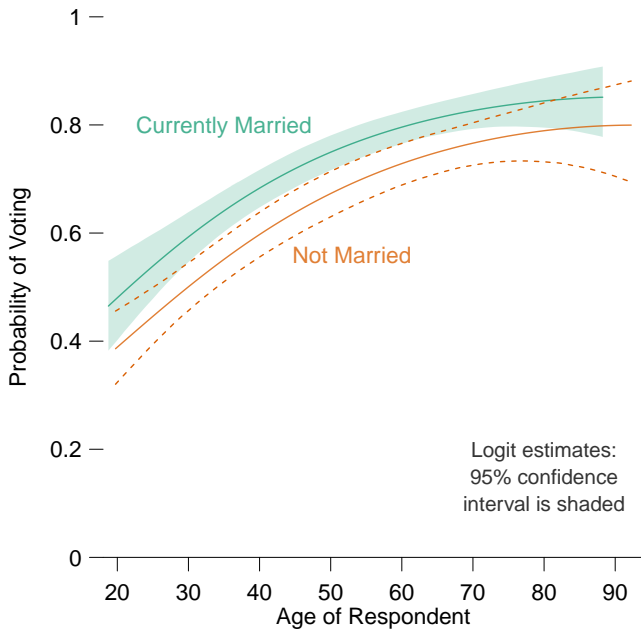
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 - ▶ Then compute average (point estimate) and appropriate percentiles (confidence intervals)

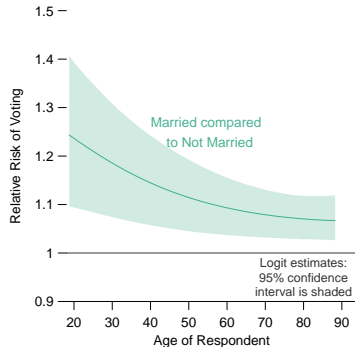
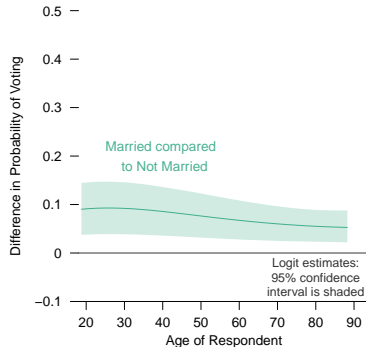
Expected probabilities and first differences: Voting example



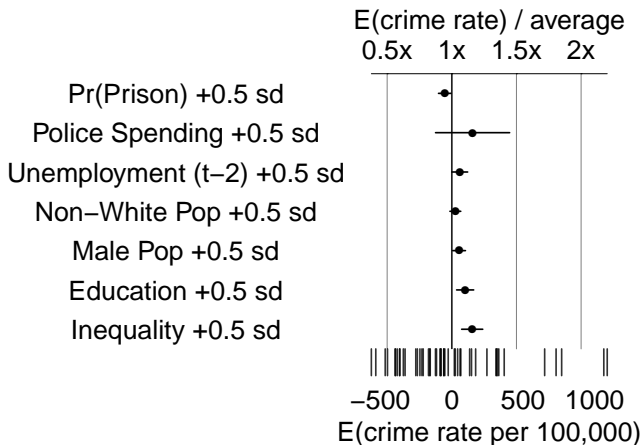
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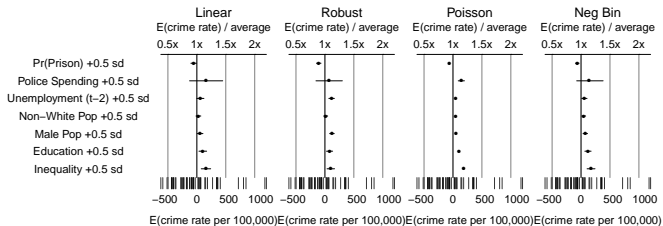
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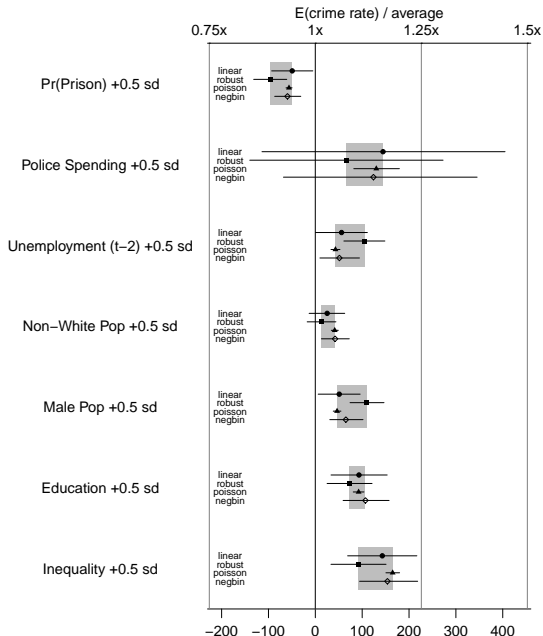
Ropeladder: Crime example (if time permits)



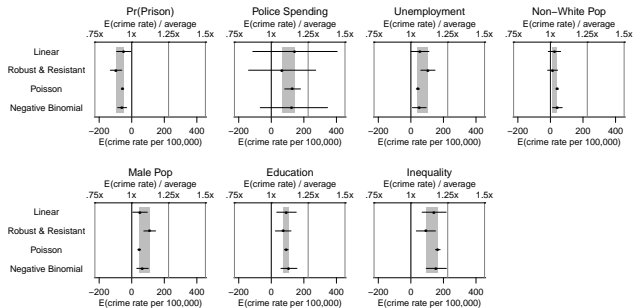
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Installing tile and simcf

- ▶ Go to Chris's website, [Software section](#)
- ▶ Also download all R scripts and data under today's Lab section