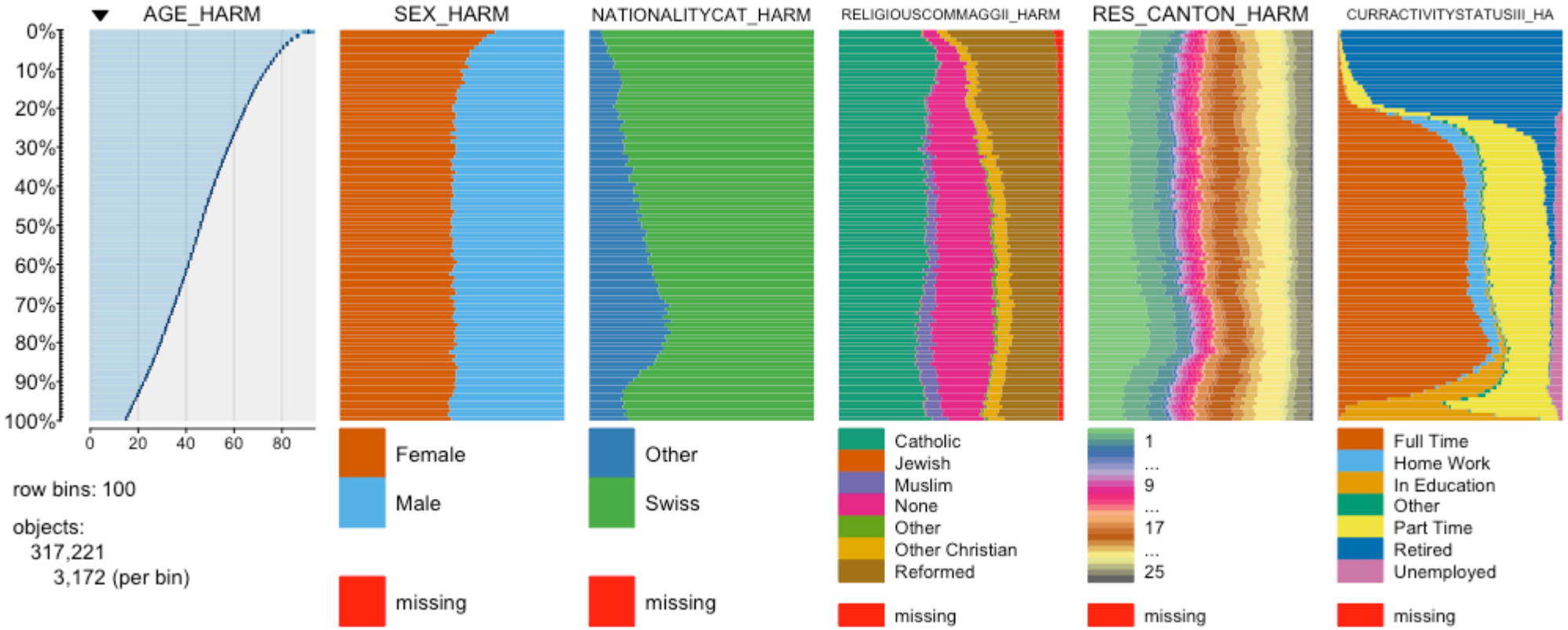
Exploratory Visualization Using Table Plots




```
library(tabplot)
tableplot(data, sortCol=AGE_HARM)
```

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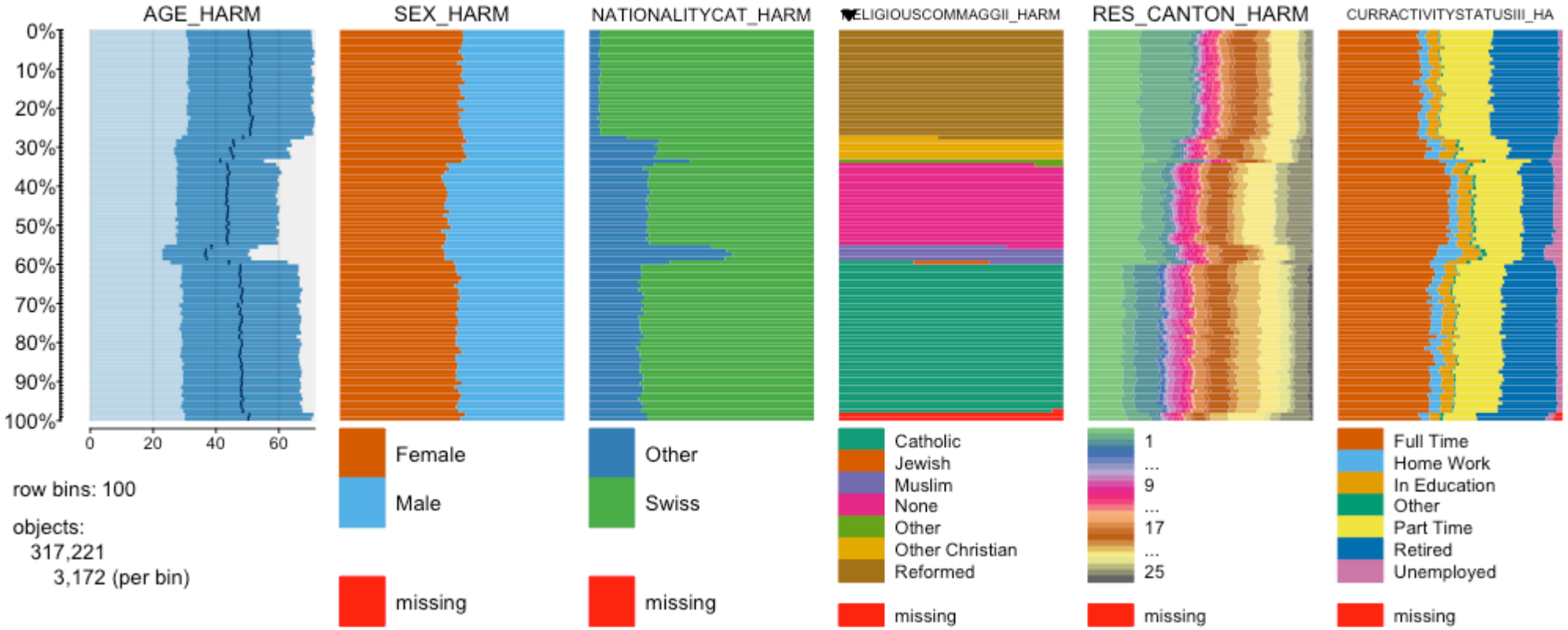

Sort by religious group

```
tableplot(data, sortCol=RELIGIOUSCOMMAGGII_HARM)
```

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Decrease number of bins: more smoothing.

```
tableplot(data, sortCol=RELIGIOUSCOMMAGGII_HARM, nBins=10)
```

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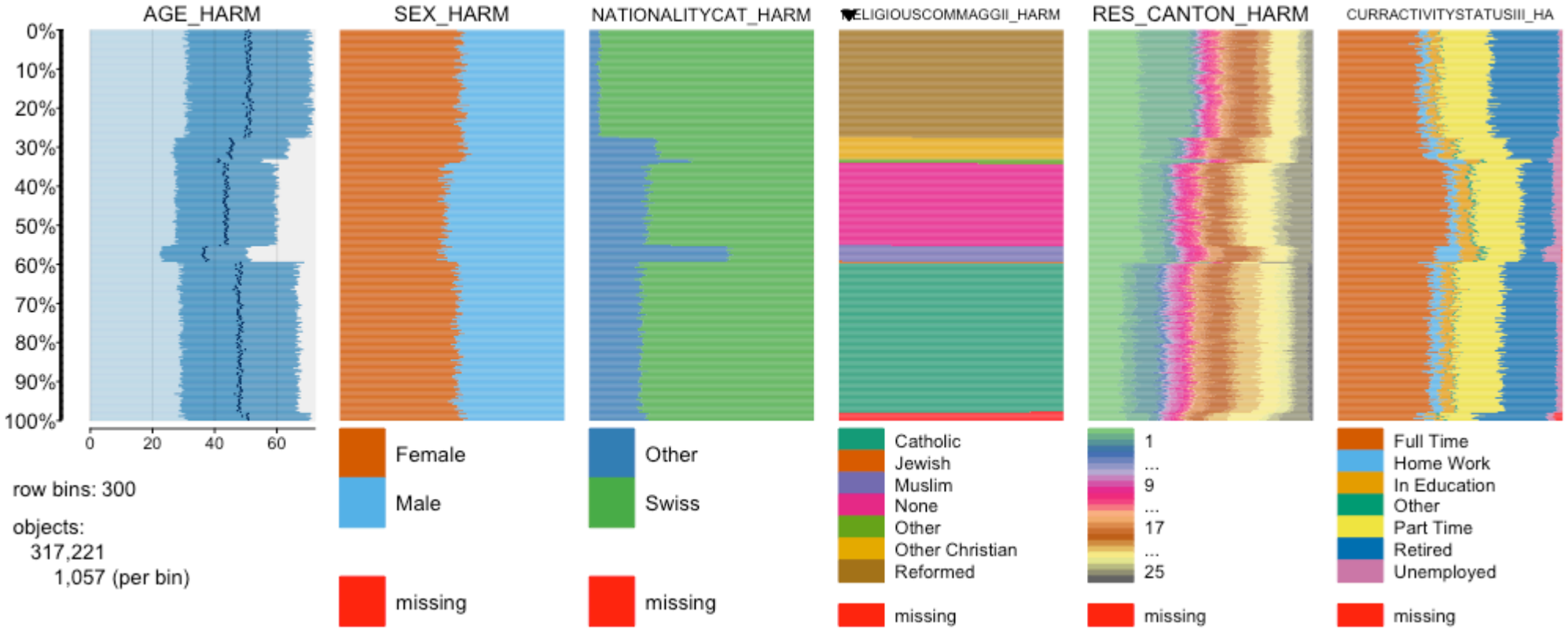

Increase number of bins: more variation and detail.

```
tableplot(data, sortCol=RELIGIOUSCOMMAGGII_HARM, nBins=300)
```

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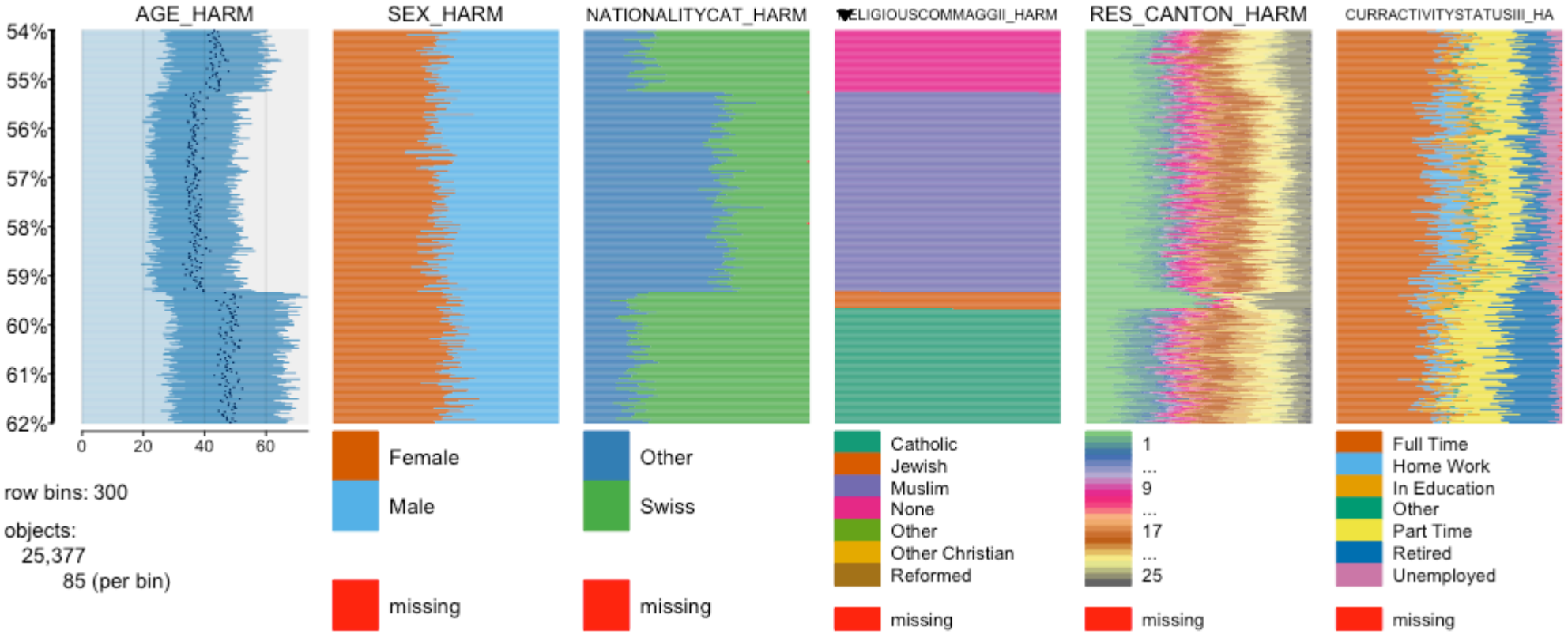

Zoom in.

```
tableplot(data, sortCol=RELIGIOUSCOMMAGGII_HARM, from=54, to=62, nBins=300)
```

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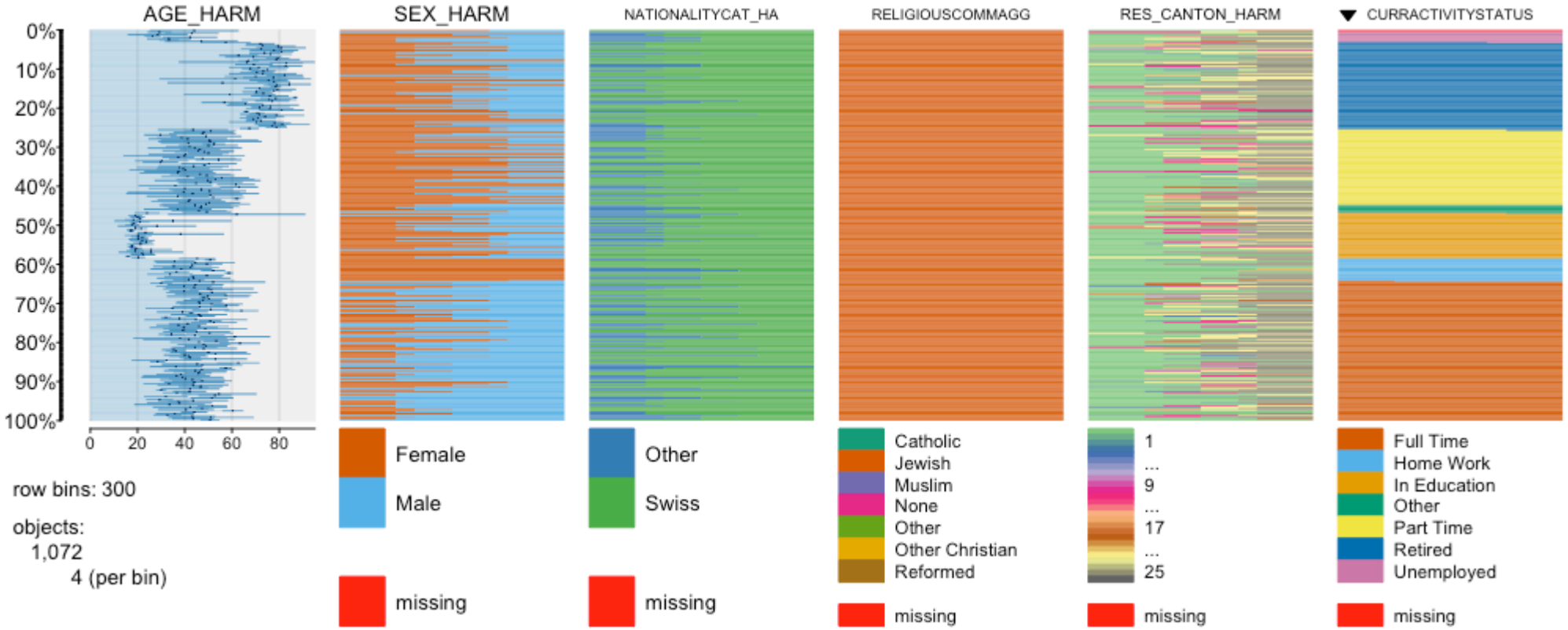

Filter and focus.

```
tableplot(data, sortCol=CURRACTIVITYSTATUSIII_HARM,
subset=RELIGIOUSCOMMAGGII_HARM=="Jewish", nBins=300)
```

For comparisons across plots keep the scales constant – not like this example here!

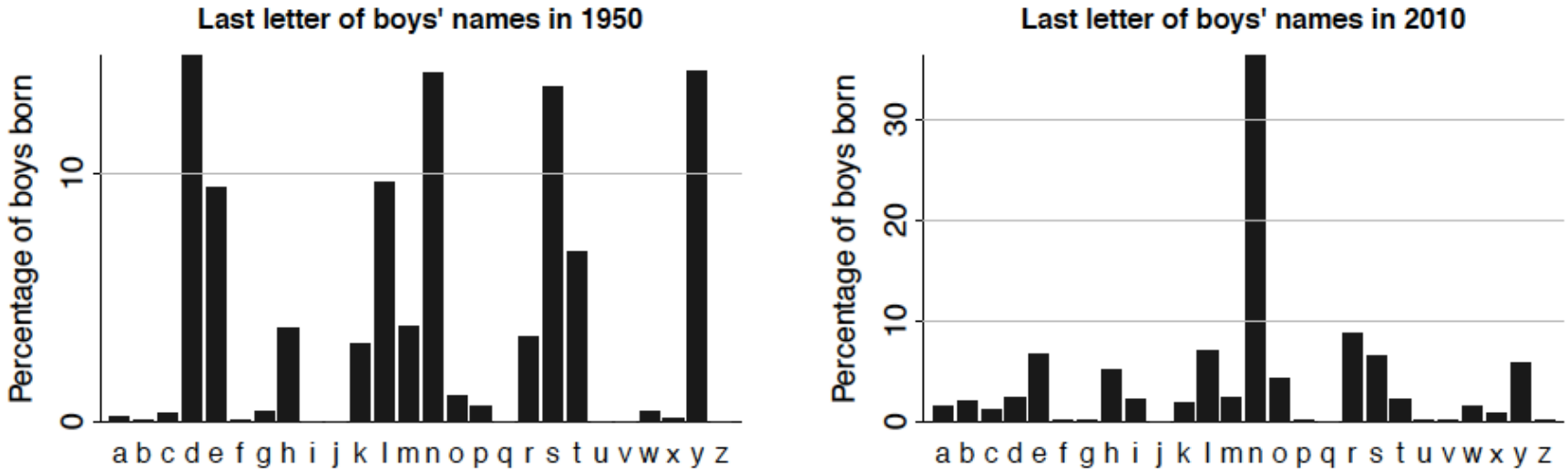

Figure 20. Histograms from the baby name database (adapted from Wattenberg, 2007), showing a dramatic change in boys' names in the past sixty years. These bare-bones graphs are effective in revealing and displaying a fascinating and unexpected pattern in the data and illustrate that the goals of exploratory and presentation graphics can often overlap.

For barcharts the scales have to start at zero!

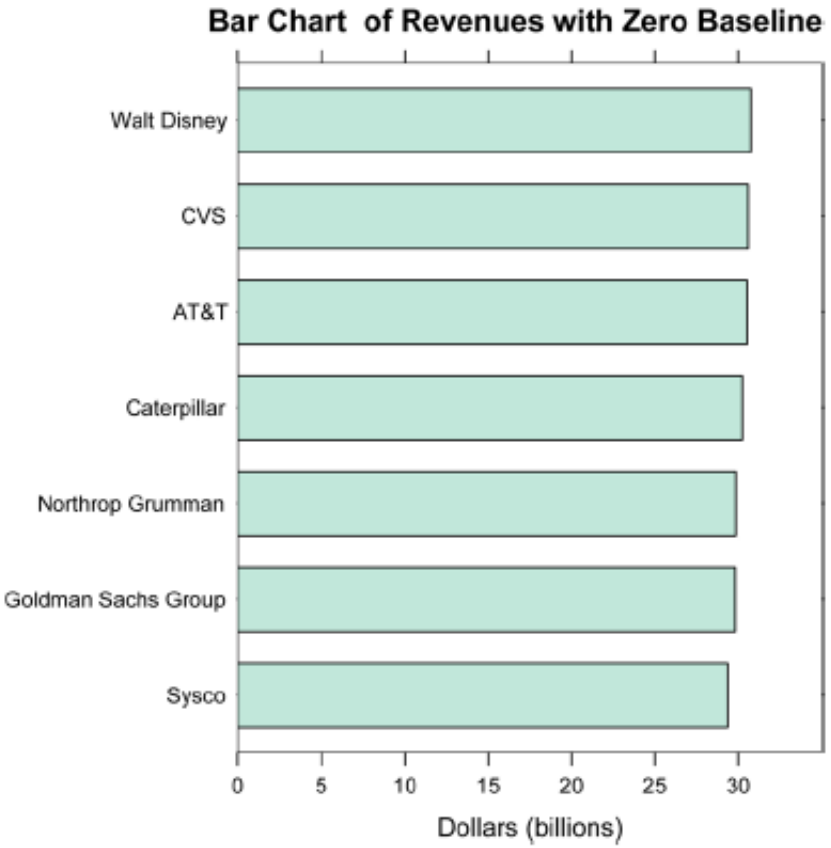

Figure 7: This shows the revenues of seven of the companies displayed in the first four figures. The bar chart has a zero baseline. We see that the revenues are similar to one another, but it is difficult to get more detail.

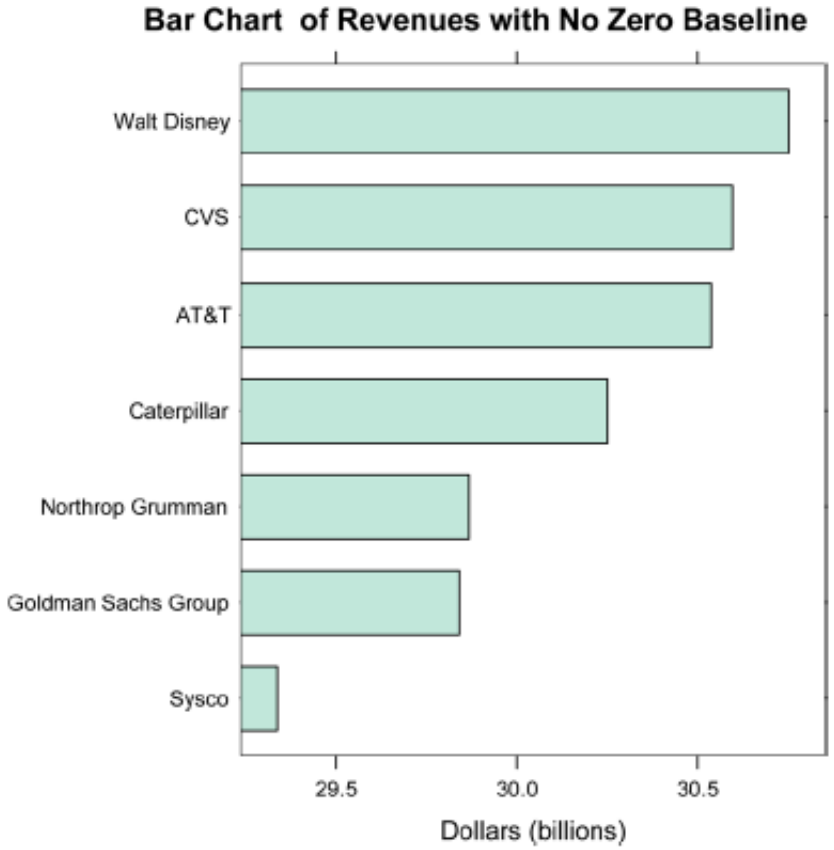

Figure 8: This graph does not use a zero baseline so that detail can be seen. This figure is a visual lie since it makes the revenues of Walt Disney appear many times those of Sysco.

In scatterplots with larger scales (left plot) correlations are subjectively judged to be higher!

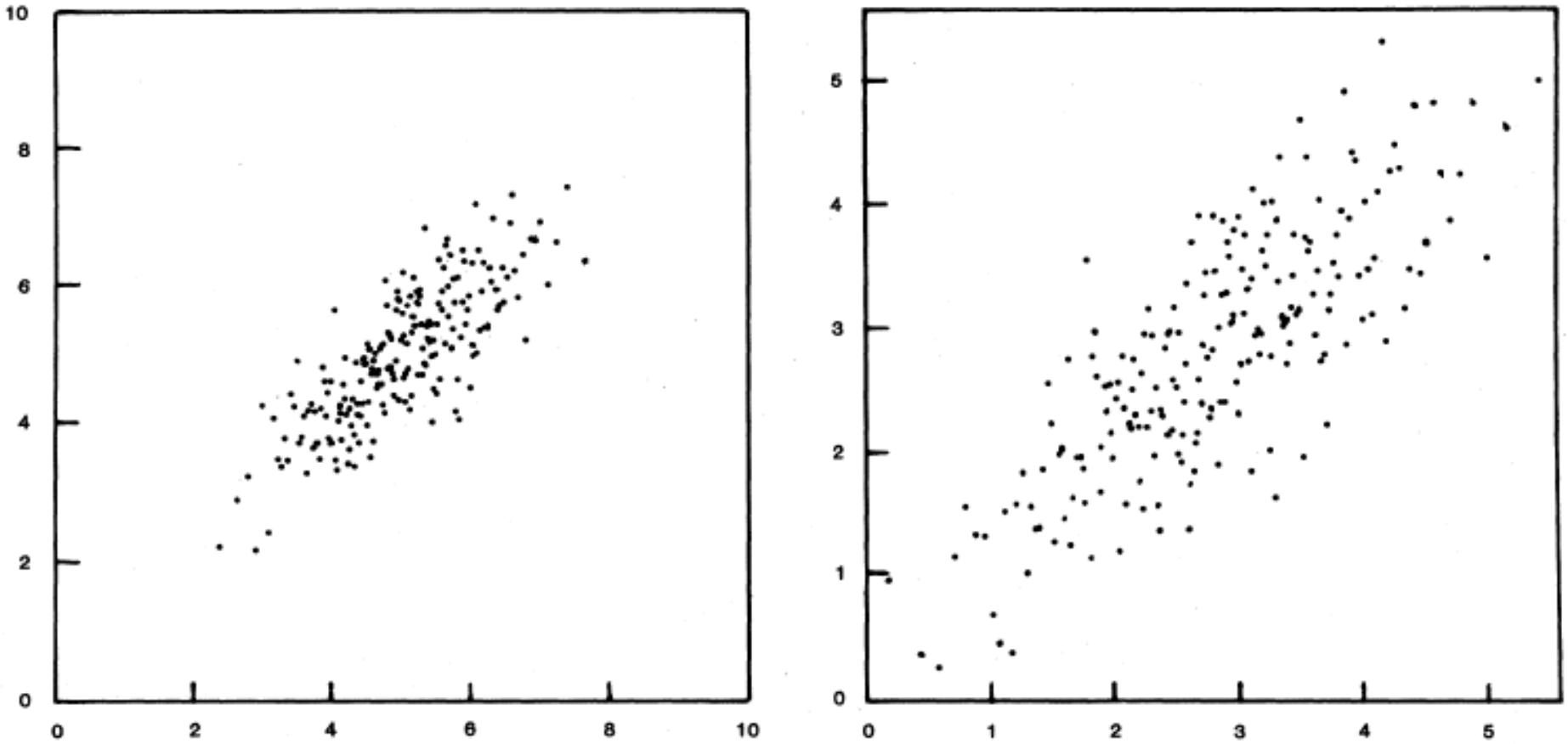

Fig. 1. Reductions of two scatterplots used in the three types of experiments. The left panel is point-cloud size 2 and the right panel is point-cloud size 4. In both panels $w(r) = .4$ and $r = .8$.