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For this project, we chose to create a visualization using the colleges dataset. This data set includes nominal fields such as a college’s name and region, as well as quantitative fields such as a college’s average cost, average family income of students, and median ACT score of students. With this dataset, we decided to create three visualizations that would allow users to explore relations between variables and discover correlations through their own exploratory analysis.

The first of our visualizations is the focus of the user interface and features a scatterplot with an alterable x-axis variable. The y-axis of this scatterplot shows a college’s average cost, while many of the other quantitative variables are options for the user to apply to the x-axis, such as average family income (shown by default), mean earnings 8 years after entry, and median debt after graduation. When the user chooses a new x-axis from the dropdown menu below the x-axis and presses the button to apply changes, the x-axis will rescale and all of the points on the scatterplot will animate and transition to their new appropriate spot. If a data point does not have a proper value for that variable, the point will shrink to a size of zero and animate into the y-axis. When the user hovers over a point on the scatterplot, the border of the point will darken, and the point will fill with a light blue color. When the user clicks on a point, the border will darken, the point will fill with a light green color, and statistics of the selected college will appear to the right of the scatterplot.