HW2: Data Visualization - CSE 6242

mmendiola3

1. Professional Employment by State

Figure 1 shows the percentage of each state's adult population with professional employment. This shows that IL has the highest percentage at 7.5%, while WI has the lowest at 5.6%.

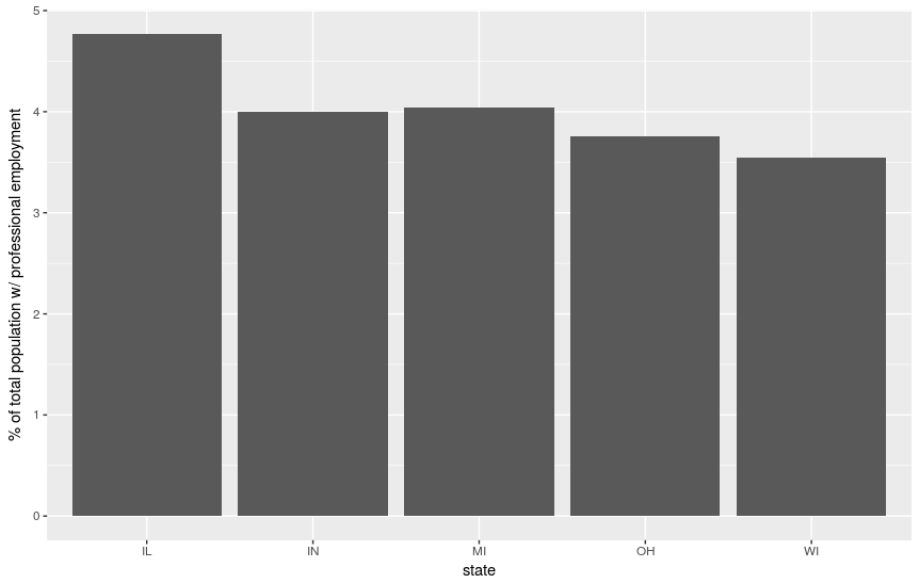

Figure 1: percprof

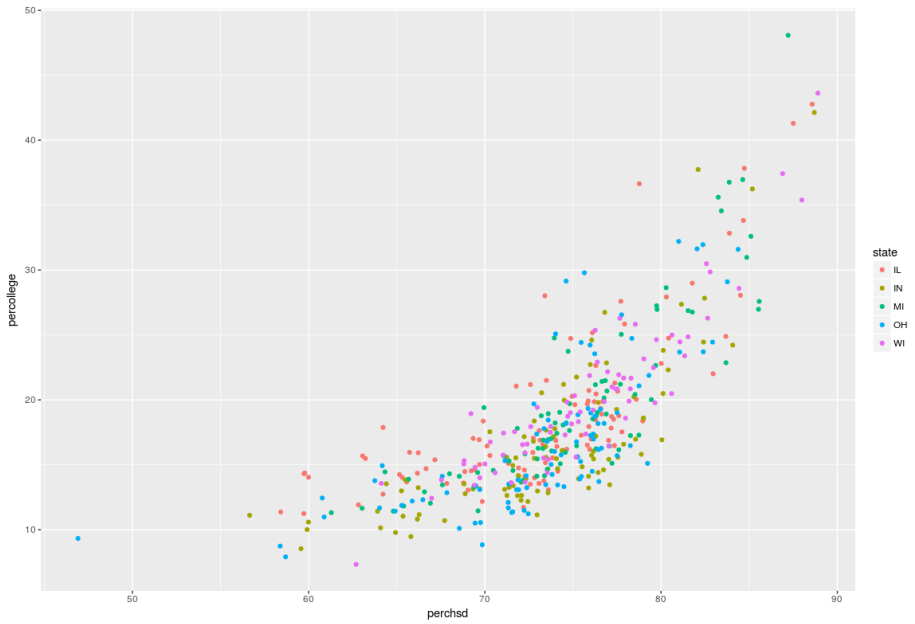

Figure 2: college_hsd

2. School and College Education by State

Relationship between HS diploma % and College diploma %

Figure 2 shows the relationship between the percentage of each county's adult population with a high school diploma and the percentage of those with a college diploma. Visually, we can observe a positive correlation in total and as well as for counties within each state. The correlation coefficient is 0.78 across the full dataset.

Relationship between HS diploma and state

The distribution of high school diploma percentages within each state is shown in Figure 3. We see that IL has the lowest median, WI has the highest, and each state has a similar distribution of values across their counties. OH seem to have some counties with significantly lower values (<25%).

Figure 4 shows the data aggregated at the state level. This view shows us much less information and makes each state's high school diploma percentages almost equal (all between 75% and 79%). Here WI has the highest overall value (78.6%)

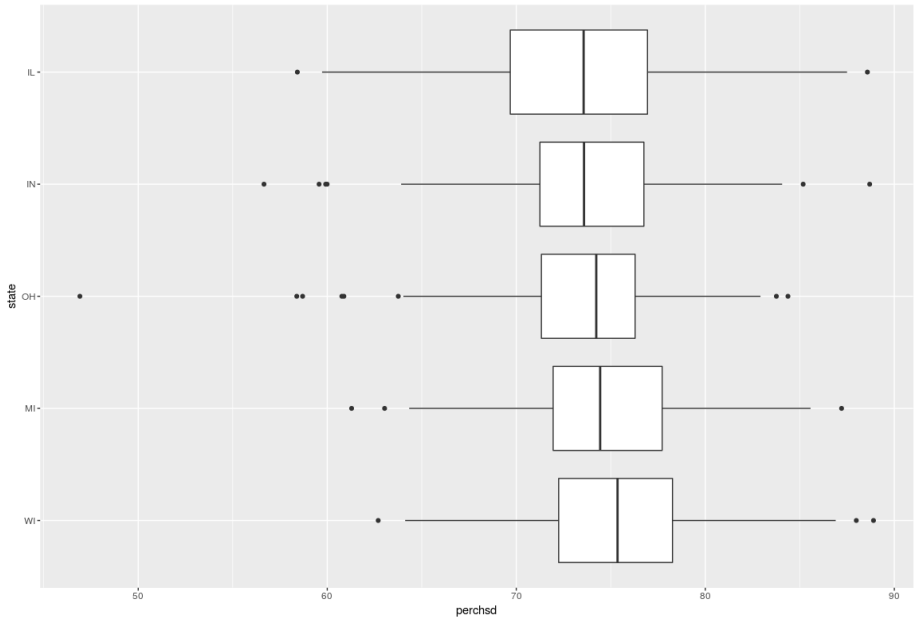

Figure 3: hsd_box

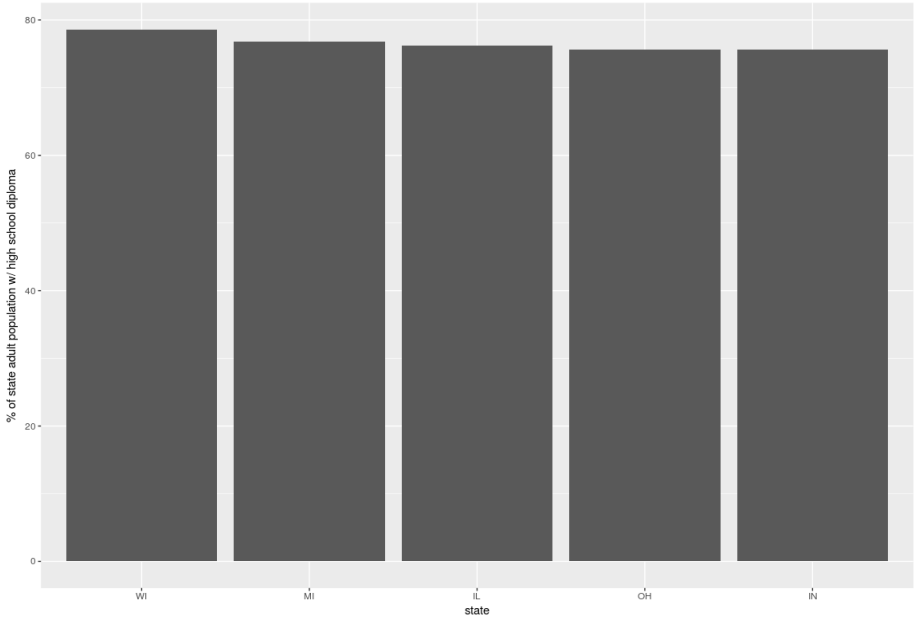

Figure 4: hsd_bar

and IN the lowest (75.6%)

Relationship between College diploma and state

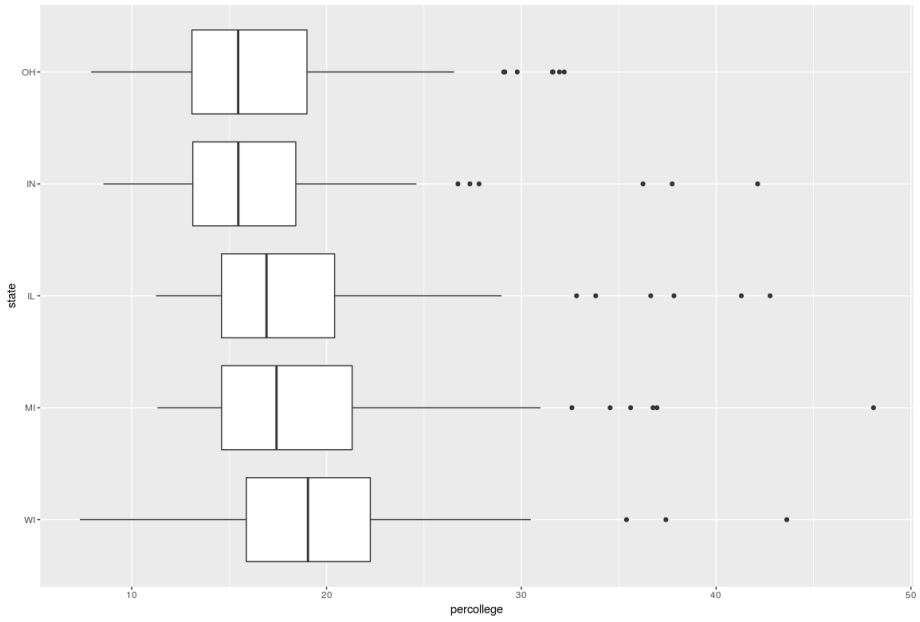

Figure 5: college_box

The distribution of college diploma percentages within each state is shown in Figure 5. OH has the lowest median (~16%) and WI has the highest (~19%). Each state has many outlier counties with significantly higher values (between 30% and 50%).

Figure 6 shows the data aggregated at the state level. IL has the highest overall value (27%) and IN the lowest (21%). Comparing the aggregated values to the distributions shows that the outlier values pull the aggregated college percentages up significantly.

3. Comparison of Visualization Techniques

4. Random Scatterplots

5. Diamonds

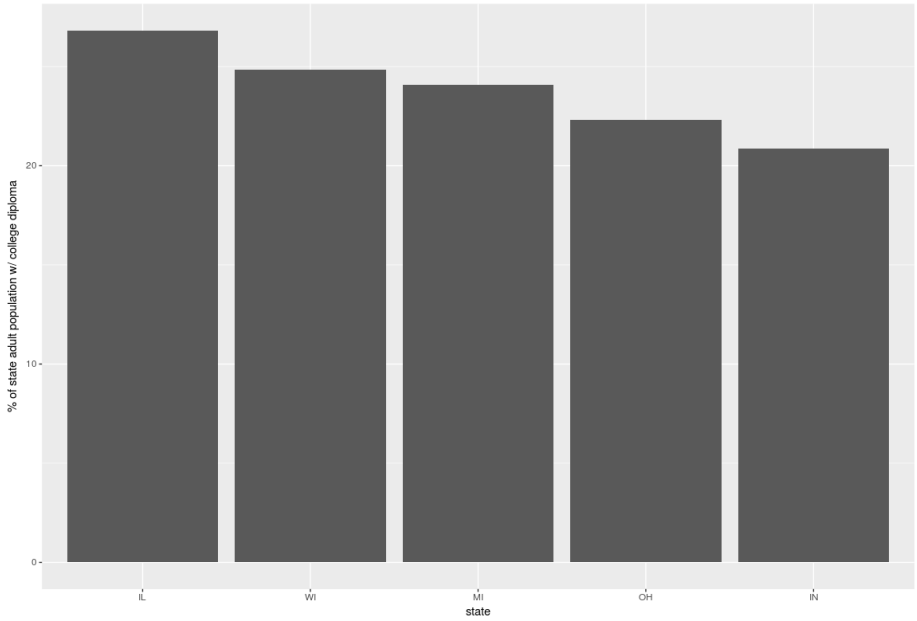

Figure 6: college_bar