

- 1.65:** (a): The bar chart allows the reader to get an accurate numerical values of the relative frequencies. The bar plot also makes it clearer that cardiovascular has higher proportion than respiratory.
- (b): Maybe the pie chart makes more obvious that the proportions add up to 1, but you should know relative frequencies add to 1.
- (c): The bar chart!
- 1.66:** (a):  $\frac{372}{910} \approx 40.9\%$
- (b):  $\frac{278}{910} \approx 30.5\%$
- (c):  $\frac{57}{910} \approx 6.3\%$
- (d): We are now calculating part-of-part proportions.

ideology	fraction in favor of citizenship option	percentage in favor of citizenship option
conservative	$\frac{57}{372}$	15.3%
moderate	$\frac{120}{363}$	33.1%
liberal	$\frac{101}{175}$	57.7%

- (e): Ideology and view are not independent. The liberals have a higher proportion in favor than moderates, who have a higher proportion in favor than conservatives. If ideology and view were independent, these part-of-part proportions would be similar.
- 1.67:** Views on DREAM Act and political ideology are not independent. If they were independent, the mosaic plot's horizontal breaks (determining the heights of rectangles) would be continuous across the whole plot.
- 1.68:** Party and views on taxes are not independent. If they were independent, the mosaic plot's horizontal breaks (determining the heights of rectangles) would be continuous across the whole plot.