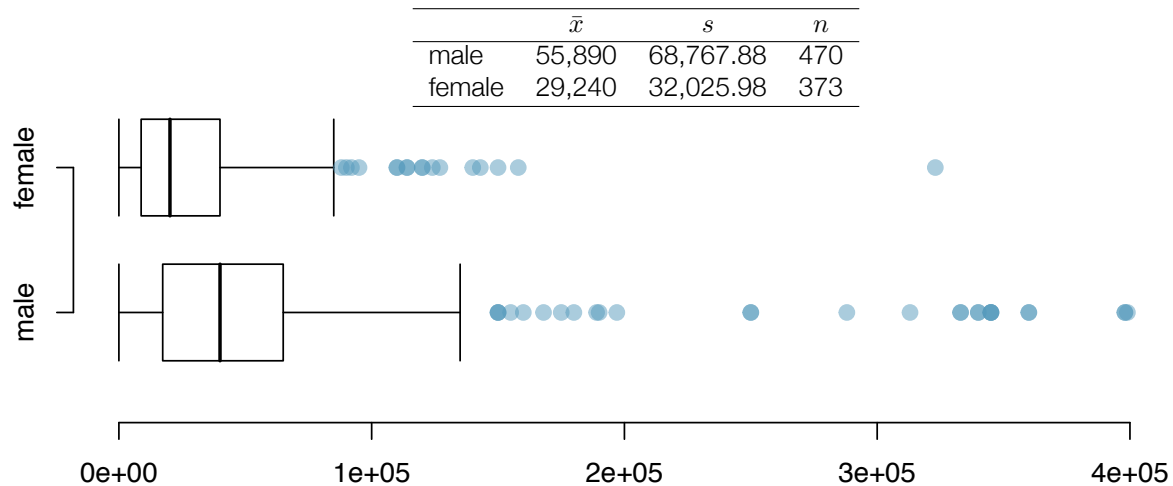


## Application exercise 4.4: Comparing two means, Part 2

Submit your responses on [Sakai](#), under the appropriate assignment. Only one submission per team is required. One team will be randomly selected and their responses will be discussed.

Since 2005, the American Community Survey polls ~3.5 million households yearly. The following summarizes distribution of salaries of males and females from a random sample of individuals who responded to the 2012 ACS:



We want to evaluate whether salaries of men and women are different, on average.

1. Define the parameter of interest and the point estimate and calculate the point estimate.
2. Conduct a hypothesis test answering the research question. Don't forget to check conditions first. Use  $\alpha = 0.10$ . Make sure to frame your conclusion in context of the data and the research question.
3. Calculate a confidence interval for the parameter of interest at the confidence level equivalent to the previous hypothesis test. Make sure to interpret the interval in context of the research question.