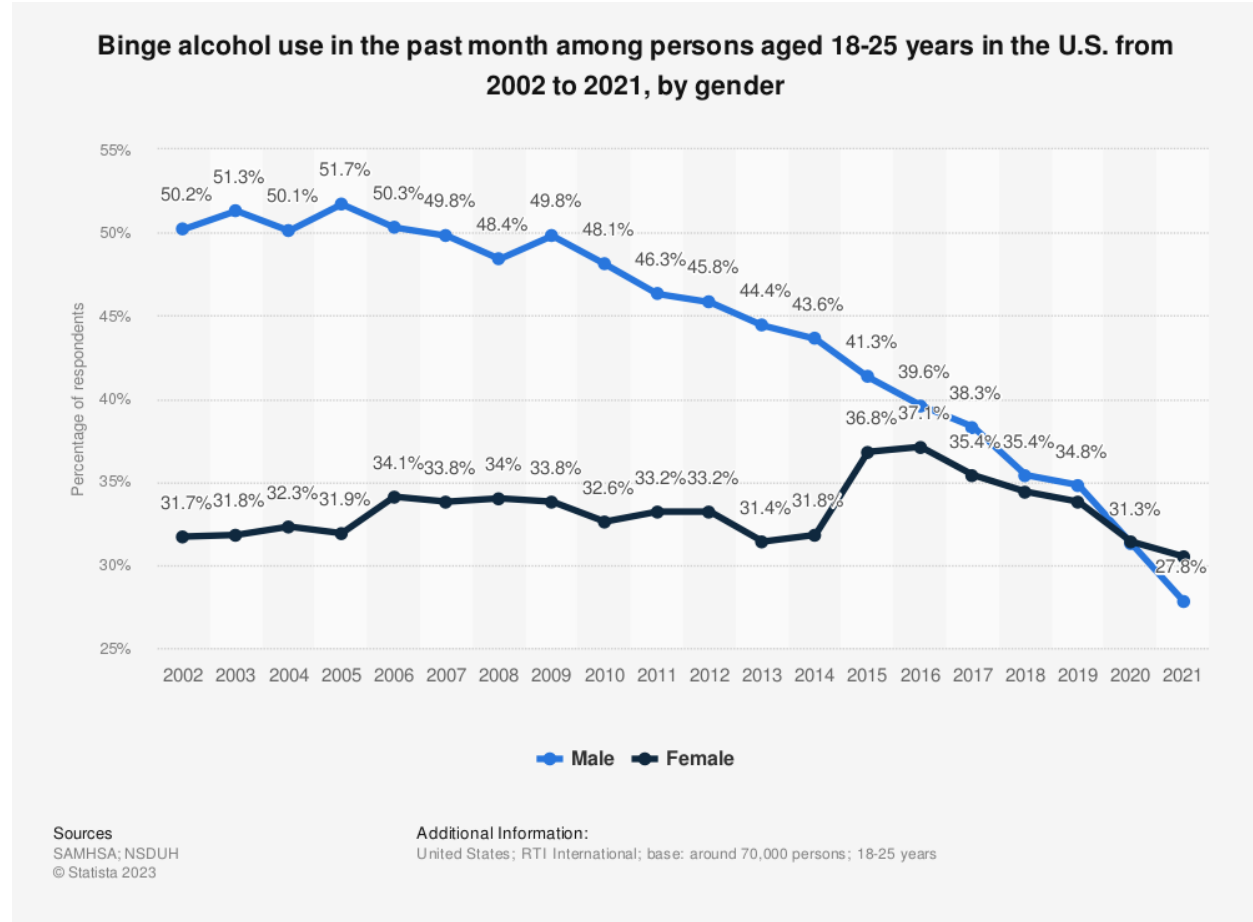


Part 1 – Binge alcohol use in persons aged 18-25 years in US

Alcohol use has always been an issue with older teens and younger adults. They tend to binge drink at parties and on weekends rather than daily use. The following chart illustrates this phenomena during the early part of this century and up to and including the Covid-19 pandemic in the US.



This chart suggests a story, what story would you tell? One can probably safely say that a greater percentage of males participate in this type of behavior than females. This is certainly true in 2002. Yet, by 2020 the two groups have nearly identical percentages. Choose appropriate statistical methods for answering the following.

1. When is the earliest that the percentage of binge drinking is statistically the same for both genders?
2. What is the data suggesting in terms of binge drinking after 2016? Can you think of a statistical method to help with your case?¹
3. Hint: consider the percentages as rates or probabilities and look at relative rates or ratios. At each year, you have a 2 x 2 table for gender and binge drinking (yes or no).

¹It may appear that I want a yes or no response, I don't. Demonstrate and justify everything that you do!