1. The probability a random person responded yes to the question is the number of people who said yes divided by the total number of people:
2. Given we know that the chosen person is a female the probability she said yes is the number of females who said yes divided by the total number of females:
3. Given we know that the chosen person is a male the probability he said yes is the number of males who said yes divided by the total number of males:
4. They are probabilistically dependent because there is 91% chance a male will be in favor of marijuana legalization whereas the same probability for a woman is only 59%. If they where probabilistically independent then the percentages for the two genders would be much closer together.
5. I would say moderate because while there is definitely a correlation that’s more than just weak. In my mind for it to be strong it should be possible to guess a subject’s gender with relative accuracy given their opinion, however in this data set that isn’t the case.