Probability and Conditional Probability: R functions

Introduction to Quantitative Social Science

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Current Q4 does not have qss-tidyverse version -> make one

Student's t-test?

```
t.test()
tidy() #Tidy the result of a test into a summary data.frame
```

prop.test?

```
prop.test() #testing the null that the proportions (probabili
```

For loop

```
for (i in seq_along(years)){
  conf.level <- 0.05
  # subset the data for the correct year and variables
  # then calcuate difference in mean and se
  data.temp  <- chinawomen %>%
                filter(biryr == years[i]) %>%
                group_by(tea) %>%
                select(sex, tea) %>%
                summarise(mean = mean(sex), var = var(sex),
                    nobs = n()) %>%
                summarise(diff_mean = diff(mean),
                    se = sqrt(sum(var / nobs)))

  # record the difference in means
  diffs[i, 1] <- data.temp[["diff_mean"]]

  # calculate and record differencee in CIs
```

regression and use it to estimate DiD

```
lm()
```

Todyverse Functions

```
mutate()
gather()
unite()
spread()
summarise() # supersede do()
```

ggplot functions

```
geom_ribbon() # displays y interval defined by ymin and ymax
ggtitle("Difference in Mean Sex Ratio, Tea versus non-Tea, 95%
```