Age at first marriage in 1972

Chriss Jordan Oboa

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Load `tidyverse`

```
library(tidyverse)
```

```
## -- Attaching packages ------------------------------------- tidyverse 1.3.1 --
```

```
## v ggplot2 3.3.5     v purrr   0.3.4
## v tibble  3.1.6     v dplyr   1.0.7
## v tidyr   1.1.4     v stringr 1.4.0
## v readr   2.1.1     v forcats 0.5.1
```

```
## -- Conflicts ---------------------------------------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

Read in the data

```
age_wed <- read_csv("data/ageWed_72.csv")
```

```
## Rows: 1395 Columns: 1
```

```
## -- Column specification ------------------------------------------------------
## Delimiter: ","
## dbl (1): agewed
```

```
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

The dataset contains data from 1972, the first year of the General Social Survey (GSS), about the age at which US residents were first married. Remember that the GSS surveys a representative sample of US residents each year. In the survey sample from that year, there were 1395 people who were currently married, widowed, divorced, or separated. These people responded to the question "How old were you when you first married?"

What is the sample mean age at which people got married in 1972? (Show the R code you used.)

The sample mean age at which people got married in 1972 is 22 years old.

```
age_wed %>%
  summarize(age_wed_mean = mean(agewed))
```

```
## # A tibble: 1 x 1
```

```
##    age_wed_mean
##          <dbl>
## 1        22.1
```

What is the corresponding parameter (in words)?

Knowing that the parameter is a number that describes some particular aspect of the population (mean in this case), the corresponding parameter should be roughly at 22 years old.

How can we use the sample data to make an estimate for the average age at first marriage among all US residents? (Describe, generally, what we can do.)

To make an estimate for the average age at first marriage among all US residents, we will divide the sample standard deviation by the square root of the sample size. However, it gets smaller as the sample size gets bigger; so, having a very large N, the sample mean approaches the population mean.

Use an R command to produce such an estimate and write a sentence of interpretation for your estimate.

```
t.test(agewed ~ 1, data = age_wed, conf.level = 0.95)
```

```
##
##  One Sample t-test
##
## data:  agewed
## t = 164.74, df = 1394, p-value < 2.2e-16
## alternative hypothesis: true mean is not equal to 0
## 95 percent confidence interval:
##  21.88607 22.41357
## sample estimates:
## mean of x
##  22.14982
```