

# descriptive statistics

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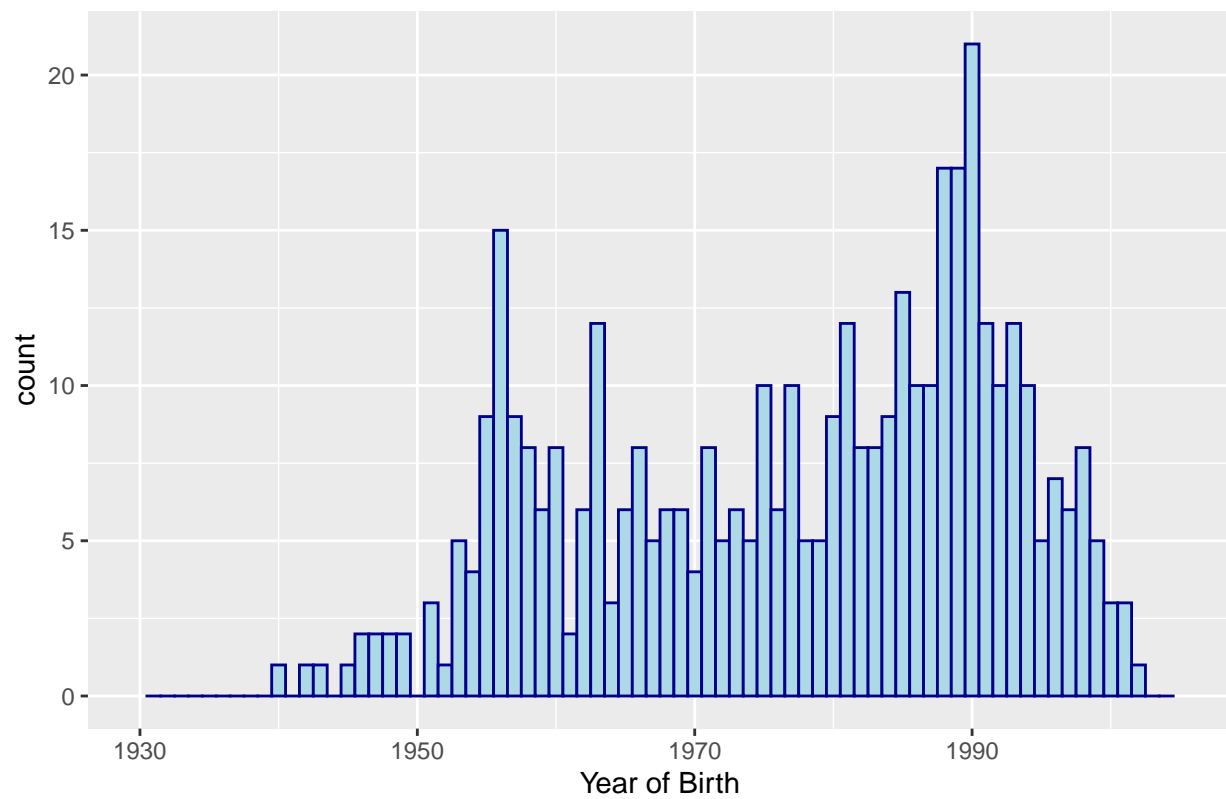
*2/25/2021*

```
make_plots = function(dat,breakdown){  
  for (col in dat){  
    #mfrow=c(2,1)  
    title_1 = name(col) + "for All Participants"  
    ggplot(clean_dat, aes(x=col)) + geom_histogram(binwidth = 1,color="darkblue", fill="lightblue") + xlab(title_1)  
    title_2 = col+"by" + breakdown  
    ggplot(clean_dat, aes(x=col, color=breakdown, fill=bucketed_gender)) + geom_histogram(binwidth = 1,position="dodge",color="darkblue", fill="lightblue") + xlab(title_2)  
  }  
}
```

## Descriptive Statistics

```
#age stuff  
#View(clean_dat)  
clean_dat$yob = strtoi(clean_dat$birth.year)  
#View(clean_dat$yob)  
ggplot(clean_dat, aes(x=yob)) + geom_histogram(binwidth = 1,color="darkblue", fill="lightblue") + xlim(18,80)  
  
## Warning: Removed 65 rows containing non-finite values (stat_bin).  
## Warning: Removed 2 rows containing missing values (geom_bar).
```

Year of Birth for All Participants

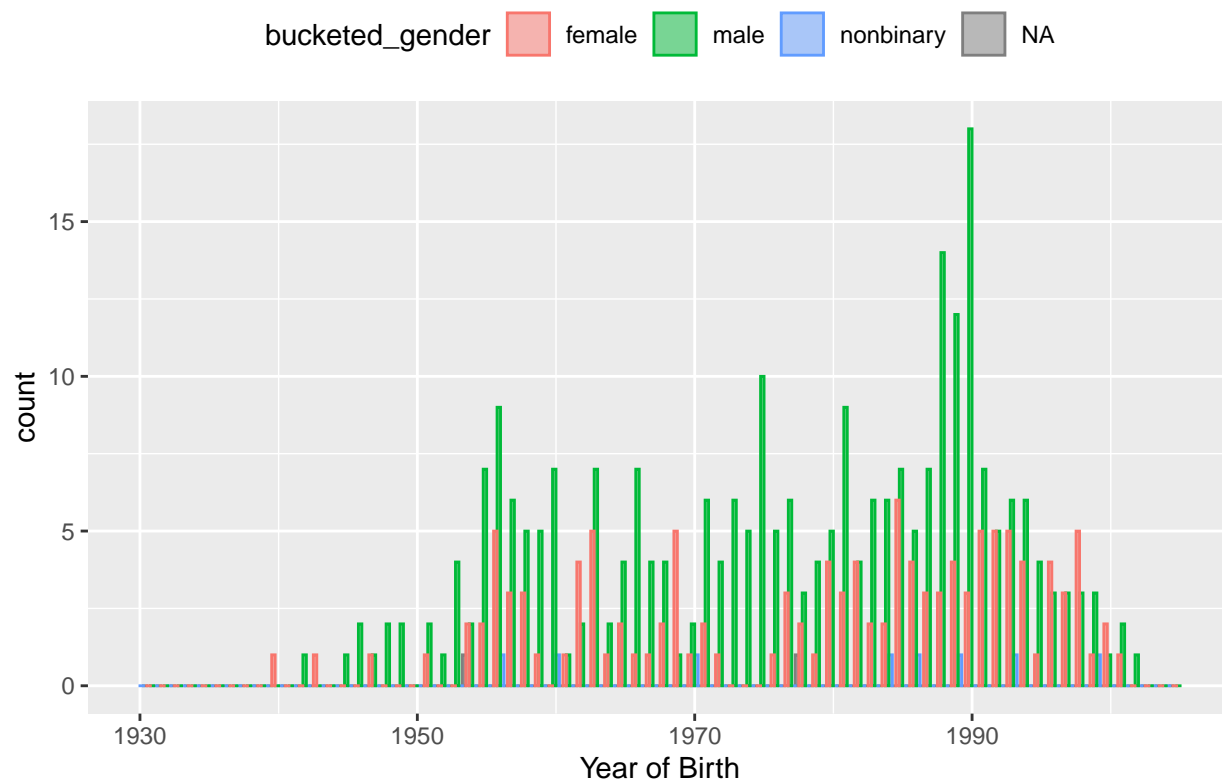


```
ggplot(clean_dat, aes(x=yob, color=bucketed_gender, fill=bucketed_gender)) + geom_histogram(binwidth = 1)
```

```
## Warning: Removed 65 rows containing non-finite values (stat_bin).
```

```
## Warning: Removed 4 rows containing missing values (geom_bar).
```

## Year of Birth by Gender for Participants

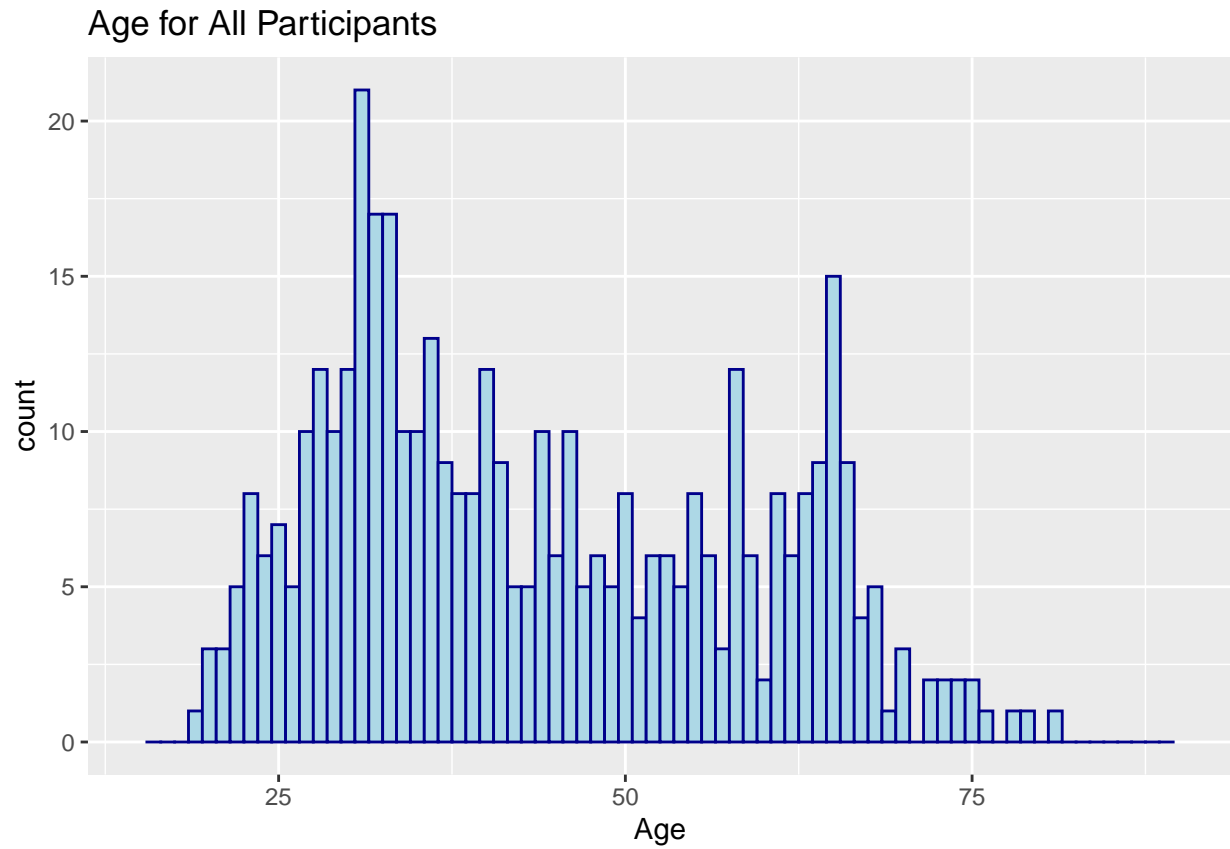


```
#make_plots(clean_dat,bucketed_gender)
```

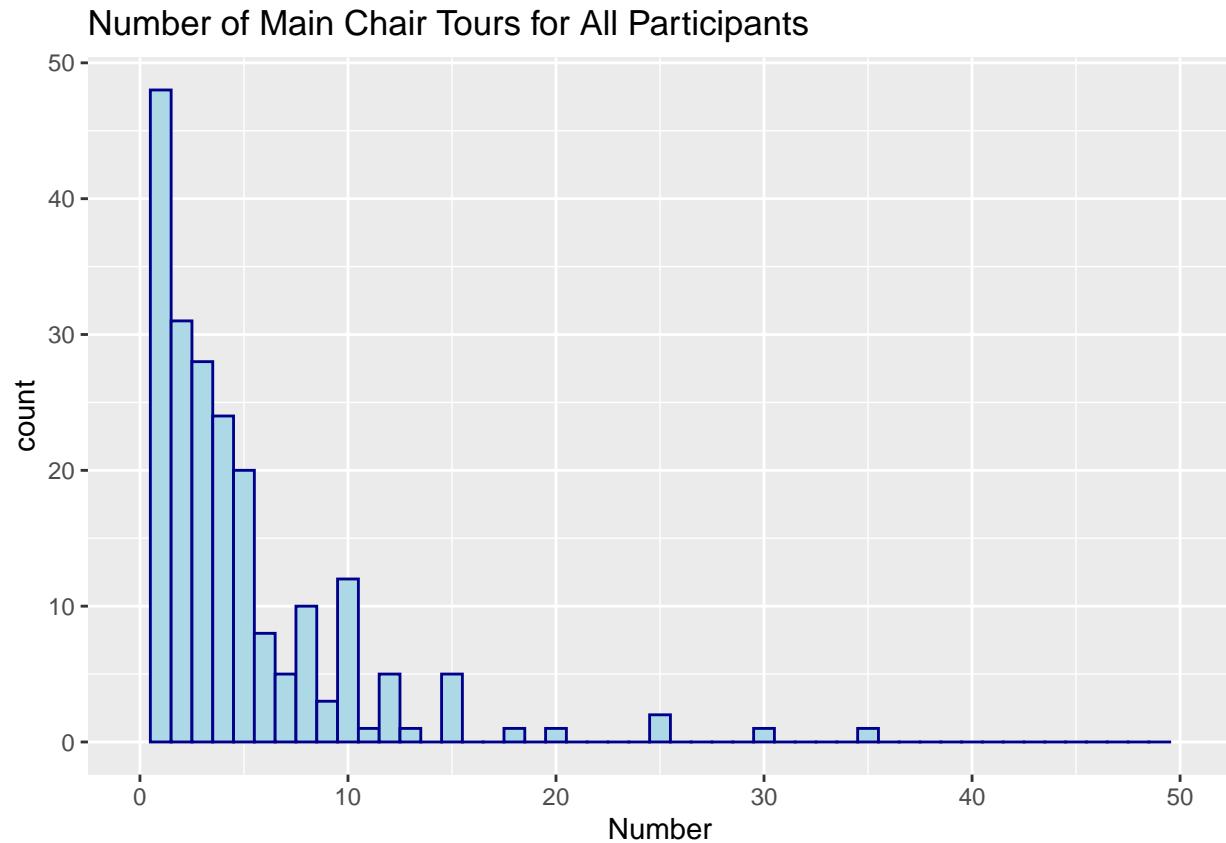
```
ggplot(clean_dat, aes(x=age)) + geom_histogram(binwidth = 1,color="darkblue", fill="lightblue") + xlim(
```

```
## Warning: Removed 65 rows containing non-finite values (stat_bin).
```

```
## Warning: Removed 2 rows containing missing values (geom_bar).
```



```
ggplot(clean_dat, aes(x=main.chair)) + geom_histogram(binwidth = 1,color="darkblue", fill="lightblue") +  
## Warning: Removed 264 rows containing non-finite values (stat_bin).  
## Warning: Removed 2 rows containing missing values (geom_bar).
```



```
library(Amelia)
```

```
## Warning: package 'Amelia' was built under R version 3.5.2
```

```
## Loading required package: Rcpp
```

```
## Warning: package 'Rcpp' was built under R version 3.5.2
```

```
## ##
```

```
## ## Amelia II: Multiple Imputation
```

```
## ## (Version 1.7.6, built: 2019-11-24)
```

```
## ## Copyright (C) 2005-2021 James Honaker, Gary King and Matthew Blackwell
```

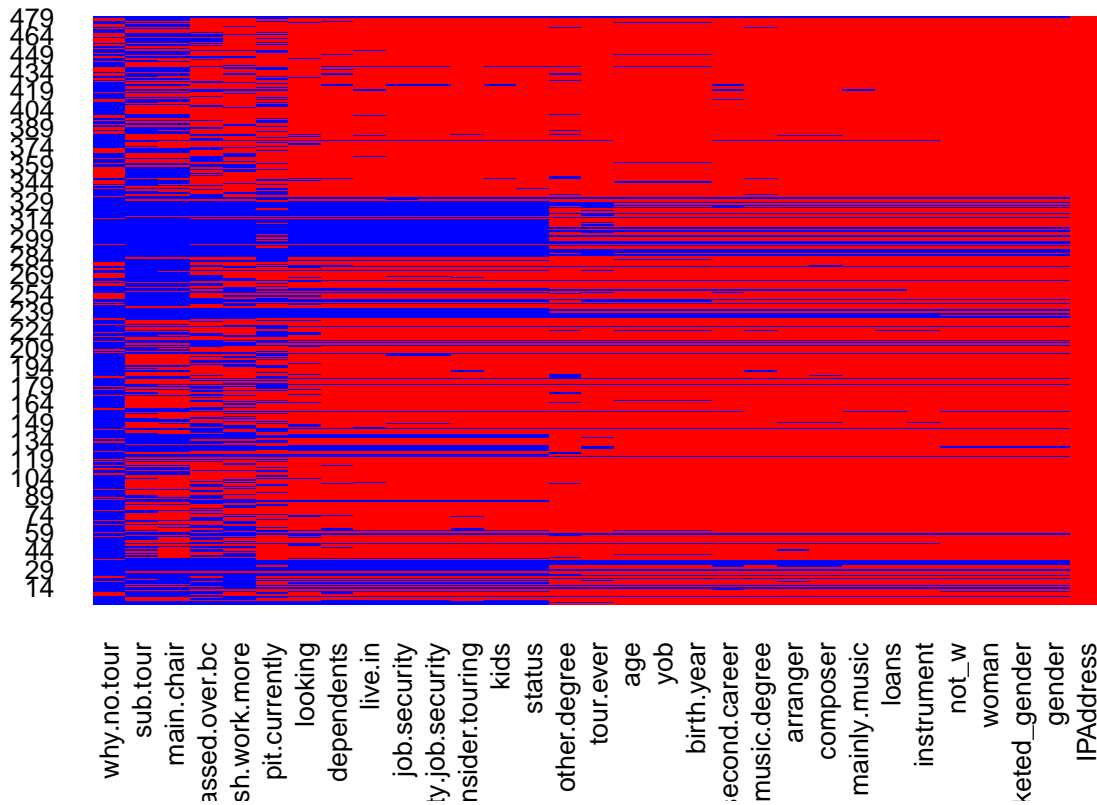
```
## ## Refer to http://gking.harvard.edu/amelia/ for more information
```

```
## ##
```

```
library(mlbench)
```

```
missmap(clean_dat, col=c("blue", "red"), legend=FALSE)
```

## Missingness Map



## Instrument Breakdown

```
ins = poi %>% group_by(violin,viola) %>% summarize(count = n())
ins
```

```
## # A tibble: 3 x 3
## # Groups:   violin [2]
##   violin viola count
##   <dbl> <dbl> <int>
## 1     0     0  1003
## 2     0     1    11
## 3     1     0    23
```