

# gss\_cat.R

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```
library(tidyverse)

## Warning: package 'tidyverse' was built under R version 4.4.3
## Warning: package 'ggplot2' was built under R version 4.4.3
## Warning: package 'tidyr' was built under R version 4.4.3
## Warning: package 'readr' was built under R version 4.4.3
## Warning: package 'purrr' was built under R version 4.4.3
## Warning: package 'dplyr' was built under R version 4.4.3
## Warning: package 'forcats' was built under R version 4.4.3
## Warning: package 'lubridate' was built under R version 4.4.3

## — Attaching core tidyverse packages — tidyverse
2.0.0 —
## ✓ dplyr      1.1.4      ✓ readr      2.1.5
## ✓ forcats   1.0.0      ✓ stringr    1.5.1
## ✓ ggplot2   3.5.1      ✓ tibble     3.2.1
## ✓ lubridate 1.9.4      ✓ tidyr      1.3.1
## ✓ purrr     1.0.4
## — Conflicts —
tidyverse_conflicts() —
## ✗ dplyr::filter() masks stats::filter()
## ✗ dplyr::lag()     masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all
conflicts to become errors

library(forcats)
library(ggplot2)
View(gss_cat)

#marital

my_data <- gss_cat %>%
  select(marital) %>%
  filter(marital %in% c("Married", "Never married", "Divorced")) %>%
  mutate(marital = fct_drop(marital))

my_table <- table(my_data)
```

```

View(my_table)

#use chi -squared goodness of fit test

chisq.test(my_table)

##
## Chi-squared test for given probabilities
##
## data:  my_table
## X-squared = 3784.1, df = 2, p-value < 2.2e-16

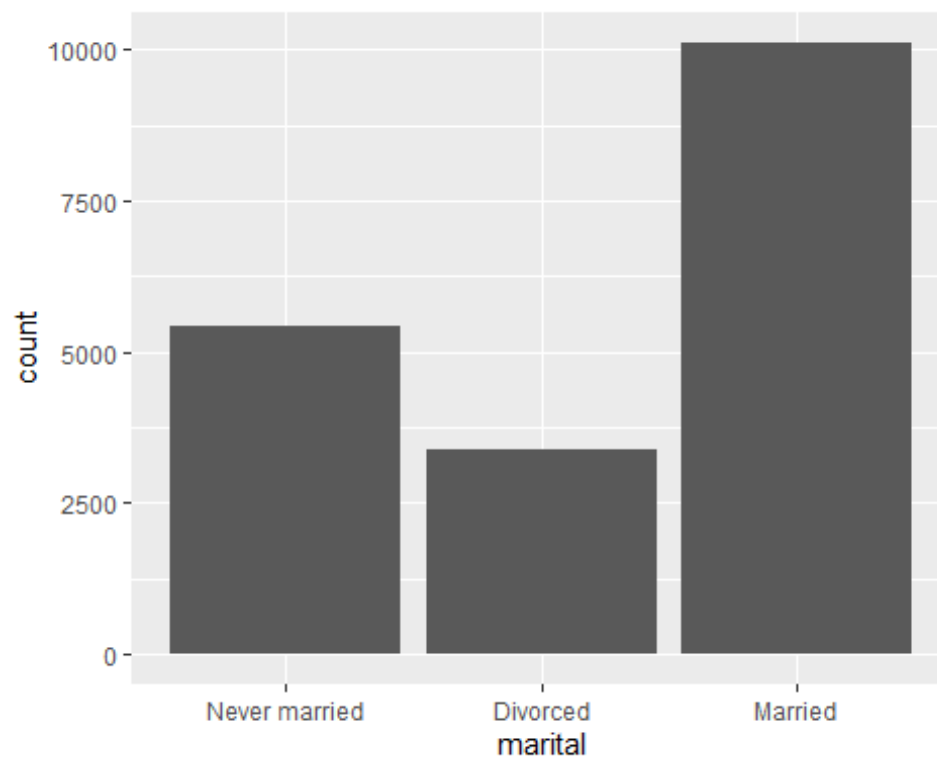
my_data%>%
  table()%>%
  chisq.test()

##
## Chi-squared test for given probabilities
##
## data:  .
## X-squared = 3784.1, df = 2, p-value < 2.2e-16

#graphics

my_data%>%
  ggplot(aes(marital))+geom_bar()

```



```

#use chi -squared goodness of Race
my_data <- gss_cat %>%
  select(marital) %>%
  filter(marital %in% c("Married", "Never married", "Divorced")) %>%
  mutate(marital = fct_drop(marital))

my_table <- table(my_data)
View(my_table)

#use chi -squared goodness of fit test

chisq.test(my_table)

##
## Chi-squared test for given probabilities
##
## data: my_table
## X-squared = 3784.1, df = 2, p-value < 2.2e-16

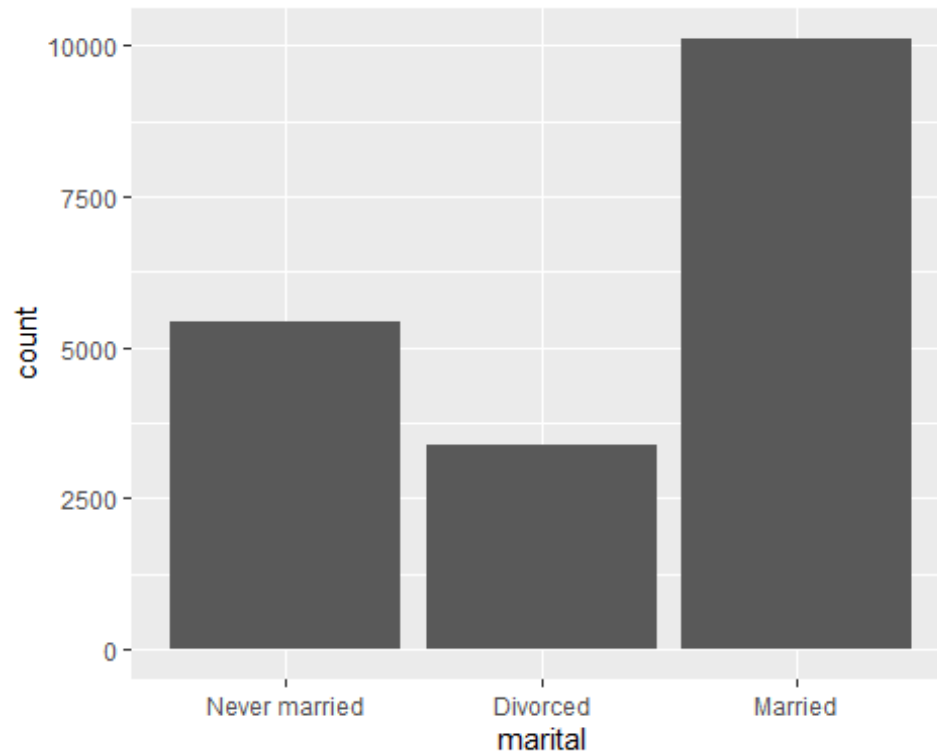
my_data%>%
  table()%>%
  chisq.test()

##
## Chi-squared test for given probabilities
##
## data: .
## X-squared = 3784.1, df = 2, p-value < 2.2e-16

#graphics

my_data%>%
  ggplot(aes(marital))+geom_bar()

```



*#for race*

```
my_data <- gss_cat %>%  
  select(race) %>%  
  filter(race %in% c("White", "Black", "Other")) %>%  
  mutate(race = fct_drop(race))
```

```
my_table <- table(my_data)  
View(my_table)
```

*#use chi -squared goodness of fit test*

```
chisq.test(my_table)
```

```
##  
## Chi-squared test for given probabilities  
##  
## data: my_table  
## X-squared = 17956, df = 2, p-value < 2.2e-16
```

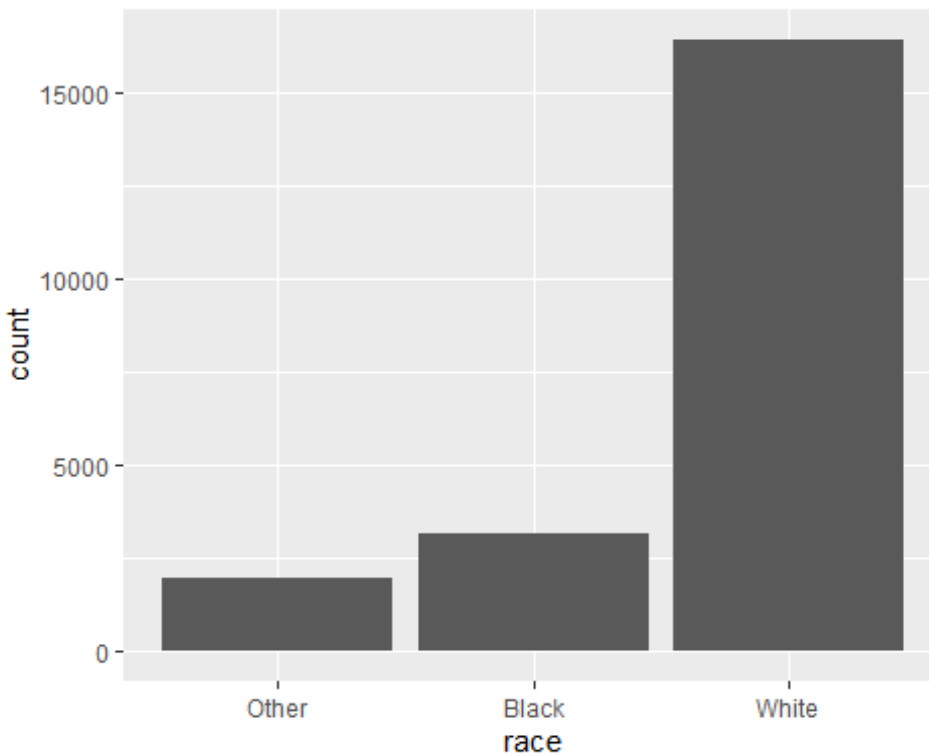
```
my_data%>%  
  table()%>%  
  chisq.test()
```

```
##  
## Chi-squared test for given probabilities
```

```
##
## data: .
## X-squared = 17956, df = 2, p-value < 2.2e-16
```

```
#graphics
```

```
my_data%>%
  ggplot(aes(race))+geom_bar()
```



```
#use chi -squared goodness of Race
```

```
my_data <- gss_cat %>%
  select(race) %>%
  filter(race %in% unique(race)) %>%
  mutate(race = fct_drop(race))
```

```
my_table <- table(my_data)
View(my_table)
```

```
#for partyid
```

```
my_data <- gss_cat %>%
  select(partyid) %>%
  filter(partyid %in% unique(partyid)) %>%
  mutate(partyid = fct_drop(partyid))
```

```
my_table <- table(my_data)
```

```
View(my_table)
```

```
#use chi -squared goodness of fit test
```

```
chisq.test(my_table)
```

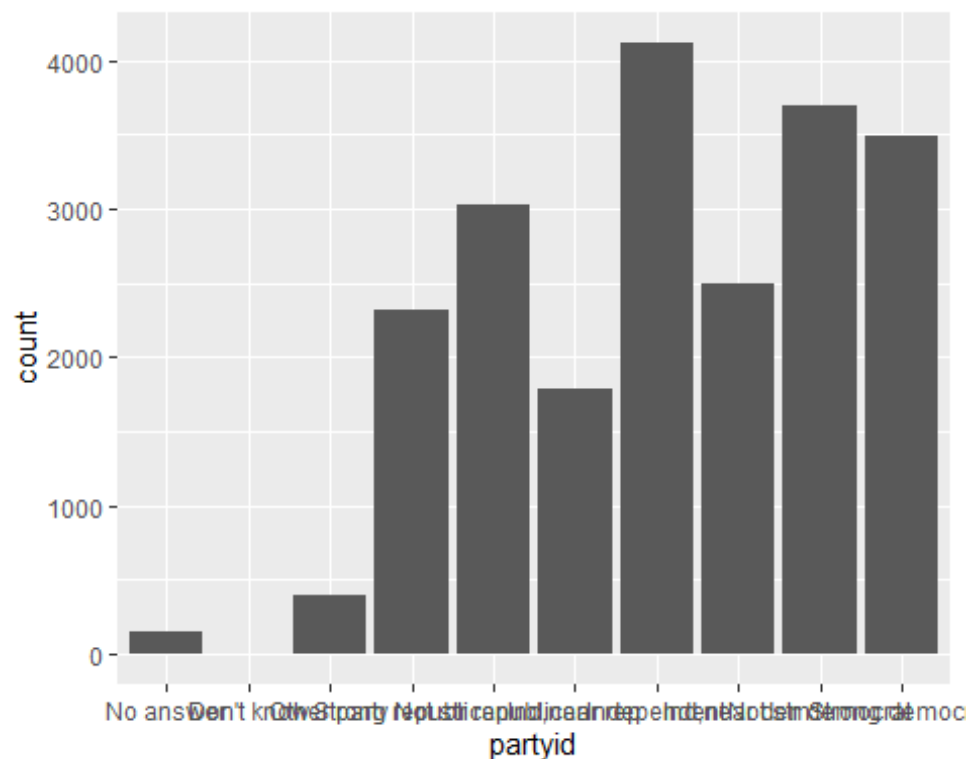
```
##  
## Chi-squared test for given probabilities  
##  
## data: my_table  
## X-squared = 9676.9, df = 9, p-value < 2.2e-16
```

```
my_data%>%  
  table()%>%  
  chisq.test()
```

```
##  
## Chi-squared test for given probabilities  
##  
## data: .  
## X-squared = 9676.9, df = 9, p-value < 2.2e-16
```

```
#graphics
```

```
my_data%>%  
  ggplot(aes(partyid))+geom_bar()
```



```

#use chi -squared goodness of partyid
my_data <- gss_cat %>%
  select(partyid) %>%
  filter(partyid %in% unique(partyid)) %>%
  mutate(partyid = fct_drop(partyid))

my_table <- table(my_data)
View(my_table)

#Relig

my_data <- gss_cat %>%
  select(relig) %>%
  filter(relig %in% unique(relig)) %>%
  mutate(relig = fct_drop(relig))

my_table <- table(my_data)
View(my_table)

#use chi -squared goodness of fit test

chisq.test(my_table)

##
## Chi-squared test for given probabilities
##
## data: my_table
## X-squared = 88171, df = 14, p-value < 2.2e-16

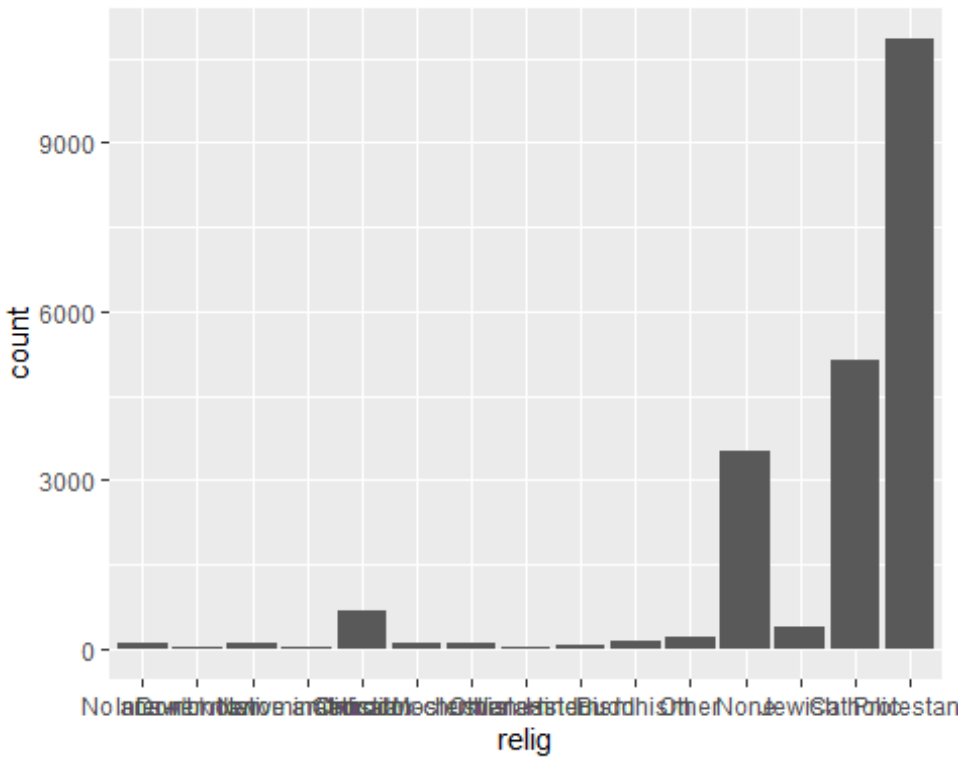
my_data%>%
  table()%>%
  chisq.test()

##
## Chi-squared test for given probabilities
##
## data: .
## X-squared = 88171, df = 14, p-value < 2.2e-16

#graphics

my_data%>%
  ggplot(aes(relig))+geom_bar()

```



*#use chi -squared goodness of Religion*

```
my_data <- gss_cat %>%
  select(relig) %>%
  filter(relig %in% unique(relig)) %>%
  mutate(relig = fct_drop(relig))
```

```
my_table <- table(my_data)
View(my_table)
```

*#denom*

```
my_data <- gss_cat %>%
  select(denom) %>%
  filter(denom %in% unique(denom)) %>%
  mutate(denom = fct_drop(denom))
```

```
my_table <- table(my_data)
View(my_table)
```

*#use chi -squared goodness of fit test*

```
chisq.test(my_table)
```



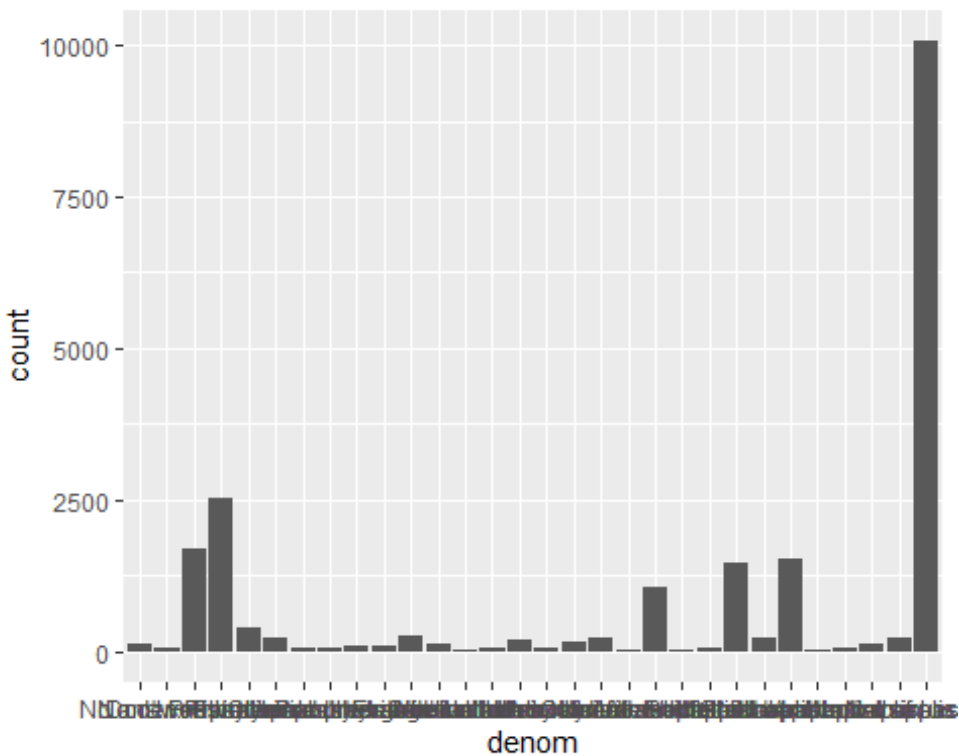
```
##
## Chi-squared test for given probabilities
##
## data: my_table
## X-squared = 141814, df = 29, p-value < 2.2e-16

my_data%>%
  table()%>%
  chisq.test()

##
## Chi-squared test for given probabilities
##
## data: .
## X-squared = 141814, df = 29, p-value < 2.2e-16

#graphics

my_data%>%
  ggplot(aes(denom))+geom_bar()
```



```
#use chi -squared goodness of denom
my_data <- gss_cat %>%
  select(denom) %>%
  filter(denom %in% unique(denom)) %>%
  mutate(denom = fct_drop(denom))
```

```
my_table <- table(my_data)
View(my_table)
```