1st-year-survey

Preetha

12/7/2020

Load Packages

```
library(tidyverse)
```

```
## -- Attaching packages -----------------------------------------------------------
## v tibble  3.0.3      v purrr   0.3.4
## v tidyr   1.1.1      v dplyr   1.0.1
## v readr   1.3.1      v forcats 0.5.0

## -- Conflicts --------------------------------------------------------------------
## x lubridate::as.difftime() masks base::as.difftime()
## x lubridate::date()        masks base::date()
## x dplyr::filter()          masks stats::filter()
## x readr::guess_encoding()  masks rvest::guess_encoding()
## x lubridate::intersect()   masks base::intersect()
## x dplyr::lag()             masks stats::lag()
## x purrr::pluck()           masks rvest::pluck()
## x lubridate::setdiff()     masks base::setdiff()
## x lubridate::union()       masks base::union()
```

Load Data

```
first <- readr::read_csv('data/survey.csv')
```

```
## Parsed with column specification:
## cols(
##   .default = col_character(),
##   `How many in-person classes are you in this semester?` = col_double(),
##   `How many of your FOCUS classes are in-person (not including the FOCUS "dinner")?` = col_double(),
##   `What was your high school GPA (scaled on a 0 to 4.00 scale)?` = col_double(),
##   `What was your SAT combined score?` = col_double(),
##   `What was your ACT composite score?` = col_double(),
##   `How many colleges and universities did you apply to?` = col_double(),
##   `How many colleges and universities were you accepted to?` = col_double()
## )
```

```
## See spec(...) for full column specifications.
```

Data Cleaning

```
newfirst <- first %>%
  mutate(college = `Are you enrolled in Trinity College of Arts and Sciences or the Pratt School of Eng:
```

```
        hispanic = `Are you of Hispanic/Latino/Spanish origin?`,
        race = `How would you best describe yourself?`,
        gender = `What is your gender?`,
        sexor = `What is your sexual orientation?`,
        firstgen = `Are you a first-generation college student?`,
        athlete = `Are you a recruited varsity athlete?`,
        int = `Are you an international student?`,
        state = `Which state do you live in (please enter the postal abbreviation)?`,
        zip = `What is the ZIP Code of your home address?`,
        city = `What is your home city?`,
        country = `What is your home country?`,
        community = `What type of community are you from?`,
        income = `What do you estimate is your immediate family's total annual income?`,
        finaid = `Do you receive financial aid from Duke?`,
        major = `Which major are you most inclined towards?`,
        whyduke = `Which of the following most influenced your decision to attend Duke?`,
        greek = `How interested are you in Greek life at Duke?`,
        slgs = `How interested are you in non-Greek selective living groups at Duke?`,
        rush = `Are you more or less likely to rush if the recruitment process were to be online?`,
        whyrush = `What is your primary motivation for wanting to rush?`,
        livingwhere = `Which of the following best describes your living situation this semester?`,
        whyhome = `What was your primary reason for staying home?`,
        springliving = `Are you planning to come to campus/Durham in the spring?`,
        springplans = `What are your plans for the spring?`,
        covidrelief = `Did you receive additional COVID-19 relief funds from Duke? (in addition to fina
        amount = `What do you think of the amount received?`,
        testpos = `Have you tested positive for COVID-19 (while on campus)?`,
        knowpos = `Has someone you know tested positive for COVID-19 (while on campus)?`,
        compactOp = `Share your opinions on... - The Duke Compact`,
        enforcementOp = `Share your opinions on... - Duke's enforcement of the Duke Compact`,
        housingOp = `Share your opinions on... - First-year fall housing arrangements`,
        inperson = `How many in-person classes are you in this semester?`,
        focus = `Are you in a FOCUS?`,
        inpersonfocus = `How many of your FOCUS classes are in-person (not including the FOCUS "dinner"
        community = `Have you been able to find community this year?`,
        communitywhere = `Where have you primarily found community?`,
        pandemiccommunity = `How much do you think the pandemic has negatively affected your ability to
        wearmask = `How likely are you to abide by the following elements of the Duke Compact: - Wearin
        usesymmon = `How likely are you to abide by the following elements of the Duke Compact: - Moni
        avoidgather = `How likely are you to abide by the following elements of the Duke Compact: - Av
        covidrelief = `Did you receive additional COVID-19 relief funds from Duke? (in addition to fina
        dodistance = `How likely are you to abide by the following elements of the Duke Compact: - Enga
        peersmask = `How likely are your peers to abide by the following elements of the Duke Compact:
        peerssymmon = `How likely are your peers to abide by the following elements of the Duke Compac
        peersavoidgather = `How likely are your peers to abide by the following elements of the Duke Co
        peersdistance = `How likely are your peers to abide by the following elements of the Duke Compa
        report = `How likely are you to report violations to the Duke Compact?`,
        summerplans = `Were your summer and/or travel plans affected by the pandemic?`,
        jobloss = `Has any member of your household lost their job or been furloughed due to the pandem
        coviddeath = `Have any of your family members or close contacts died from COVID-19?`,
        gpa = `What was your high school GPA (scaled on a 0 to 4.00 scale)?`,
        actorsat = `Did you take the SAT or ACT?`,
        sat = `What was your SAT combined score?`,
```

```
        act = `What was your ACT composite score?`,
        schooltype = `What type of secondary school did you attend?`,
        summerplans = `Were your summer and/or travel plans affected by the pandemic?`,
        collegecoun = `Did you hire a private college admissions counselor during the admissions proces
        numberapps = `How many colleges and universities did you apply to?`,
        acceptances = `How many colleges and universities were you accepted to?`,
        ed = `Did you apply to Duke via the Early Decision process?`,
        waitlist = `Were you accepted off the waitlist from Duke?`,
        firstchoice = `Was Duke your first choice?`,
        legacy = `Did any of your parents or siblings attend Duke?`,
        religion = `Which best describes your religion?`,
        howreligious = `How religious would you say you are?`,
        political = `How would you describe your political beliefs?`,
        voted = `Did you / are you planning to vote in the 2020 election?`,
        president = `Who did you vote for / who are you planning to vote for?`,
        wherevote = `Did you / are you planning to vote at your home or in Durham?`,
        primaryvote = `Did you vote in the primary election?`,
        lifestyle = `Have you done any of the following?`,
        mentalhealth = `Have you received treatment for your mental health before?`,
        continuedtreatment = `Are you currently receiving treatment for your mental health?`,
        chronicle = `In which format do you read The Chronicle?`)
```

```
newfirst
```

```
## # A tibble: 299 x 145
##    `Are you enroll~ `Are you of His~ `How would you ~ `What is your g~
##    <chr>           <chr>           <chr>           <chr>
##  1 Pratt           No              White           Cis Woman
##  2 Trinity         No              White           Cis Woman
##  3 Trinity         No              Asian           Cis Woman
##  4 Trinity         No              Asian           Cis Man
##  5 Trinity         No              White,Black or ~ Cis Woman
##  6 Pratt           No              Asian           Cis Man
##  7 Trinity         No              Asian           Cis Woman
##  8 Trinity         No              White           Cis Man
##  9 Pratt           No              White           Cis Man
## 10 Trinity         Yes             White           Cis Woman
## # ... with 289 more rows, and 141 more variables: `What is your sexual
## #   orientation?` <chr>, `Are you a first-generation college student?` <chr>,
## #   `Are you a recruited varsity athlete?` <chr>, `Are you an international
## #   student?` <chr>, `Which state do you live in (please enter the postal
## #   abbreviation)?` <chr>, `What is the ZIP Code of your home address?` <chr>,
## #   `What is your home city?` <chr>, `What is your home country?` <chr>, `What
## #   type of community are you from?` <chr>, `What do you estimate is your
## #   immediate family's total annual income?` <chr>, `Do you receive financial
## #   aid from Duke?` <chr>, `Which major are you most inclined towards?` <chr>,
## #   `Which of the following most influenced your decision to attend
## #   Duke?` <chr>, `How interested are you in Greek life at Duke?` <chr>, `How
## #   interested are you in non-Greek selective living groups at Duke?` <chr>,
## #   `Are you more or less likely to rush if the recruitment process were to be
## #   online?` <chr>, `What is your primary motivation for wanting to
## #   rush?` <chr>, `Which of the following best describes your living situation
## #   this semester?` <chr>, `What was your primary reason for staying
## #   home?` <chr>, `Are you planning to come to campus/Durham in the
```
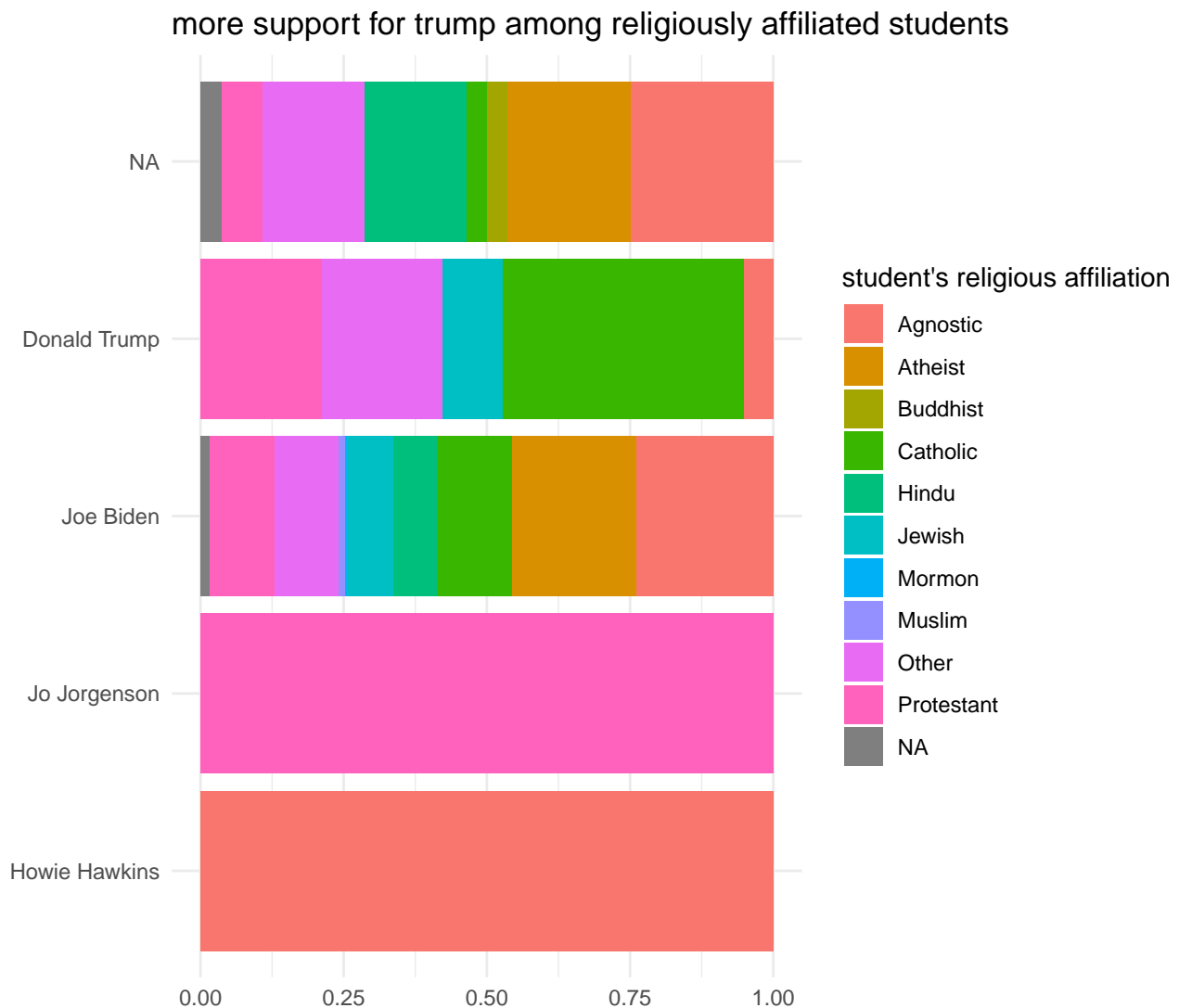
```
## #   spring?` <chr>, `What are your plans for the spring?` <chr>, `Did you
## #   receive additional COVID-19 relief funds from Duke? (in addition to
## #   financial aid package)` <chr>, `What do you think of the amount
## #   received?` <chr>, `Have you tested positive for COVID-19 (while on
## #   campus)?` <chr>, `Has someone you know tested positive for COVID-19 (while
## #   on campus)?` <chr>, `Share your opinions on... - The Duke Compact` <chr>,
## #   `Share your opinions on... - Duke's enforcement of the Duke Compact` <chr>,
## #   `Share your opinions on... - First-year fall housing arrangements` <chr>,
## #   `How many in-person classes are you in this semester?` <dbl>, `Are you in a
## #   FOCUS?` <chr>, `How many of your FOCUS classes are in-person (not including
## #   the FOCUS "dinner")?` <dbl>, `Have you been able to find community this
## #   year?` <chr>, `Where have you primarily found community?` <chr>, `How much
## #   do you think the pandemic has negatively affected your ability to find
## #   community?` <chr>, `How likely are you to abide by the following elements
## #   of the Duke Compact: - Wearing a mask or face covering in all public
## #   spaces` <chr>, `How likely are you to abide by the following elements of
## #   the Duke Compact: - Monitoring and reporting symptoms through the SymMon
## #   app` <chr>, `How likely are you to abide by the following elements of the
## #   Duke Compact: - Avoiding large gatherings of 10+ people` <chr>, `How likely
## #   are you to abide by the following elements of the Duke Compact: - Engaging
## #   in physical distancing` <chr>, `How likely are your peers to abide by the
## #   following elements of the Duke Compact: - Wearing a mask or face covering
## #   in all public spaces` <chr>, `How likely are your peers to abide by the
## #   following elements of the Duke Compact: - Monitoring and reporting symptoms
## #   through the SymMon app` <chr>, `How likely are your peers to abide by the
## #   following elements of the Duke Compact: - Avoiding large gatherings of 10+
## #   people` <chr>, `How likely are your peers to abide by the following
## #   elements of the Duke Compact: - Engaging in physical distancing` <chr>,
## #   `How likely are you to report violations to the Duke Compact?` <chr>, `Were
## #   your summer and/or travel plans affected by the pandemic?` <chr>, `Has any
## #   member of your household lost their job or been furloughed due to the
## #   pandemic?` <chr>, `Have any of your family members or close contacts died
## #   from COVID-19?` <chr>, `What was your high school GPA (scaled on a 0 to
## #   4.00 scale)?` <dbl>, `Did you take the SAT or ACT?` <chr>, `What was your
## #   SAT combined score?` <dbl>, `What was your ACT composite score?` <dbl>,
## #   `What type of secondary school did you attend?` <chr>, `Did you hire a
## #   private college admissions counselor during the admissions process?` <chr>,
## #   `How many colleges and universities did you apply to?` <dbl>, `How many
## #   colleges and universities were you accepted to?` <dbl>, `Did you apply to
## #   Duke via the Early Decision process?` <chr>, `Were you accepted off the
## #   waitlist from Duke?` <chr>, `Was Duke your first choice?` <chr>, `Did any
## #   of your parents or siblings attend Duke?` <chr>, `Which best describes your
## #   religion?` <chr>, `How religious would you say you are?` <chr>, `How would
## #   you describe your political beliefs?` <chr>, `Did you / are you planning to
## #   vote in the 2020 election?` <chr>, `Who did you vote for / who are you
## #   planning to vote for?` <chr>, `Did you / are you planning to vote at your
## #   home or in Durham?` <chr>, `Did you vote in the primary election?` <chr>,
## #   `Have you done any of the following?` <chr>, `Have you received treatment
## #   for your mental health before?` <chr>, `Are you currently receiving
## #   treatment for your mental health?` <chr>, `In which format do you read The
## #   Chronicle?` <chr>, college <chr>, hispanic <chr>, race <chr>, gender <chr>,
## #   sexor <chr>, firstgen <chr>, athlete <chr>, int <chr>, state <chr>,
## #   zip <chr>, city <chr>, country <chr>, community <chr>, income <chr>,
## #   finaid <chr>, major <chr>, whyduke <chr>, greek <chr>, slgs <chr>,
```

```
## #   rush <chr>, whyrush <chr>, livingwhere <chr>, whyhome <chr>,
## #   springliving <chr>, springplans <chr>, covidrelief <chr>, amount <chr>,
## #   testpos <chr>, knowpos <chr>, compactOp <chr>, enforcementOp <chr>, ...
newfirst %>%
  ggplot(newfirst, mapping = aes(x = (factor(president,levels=c("Howie Hawkins", "Jo Jorgenson", "Joe B:
  geom_bar(position= "fill") +
  labs(title = "more support for trump among religiously affiliated students",
       x = "", y = "") +
  scale_fill_discrete(name = "student's religious affiliation") +
  coord_flip() +
  theme_minimal()
```
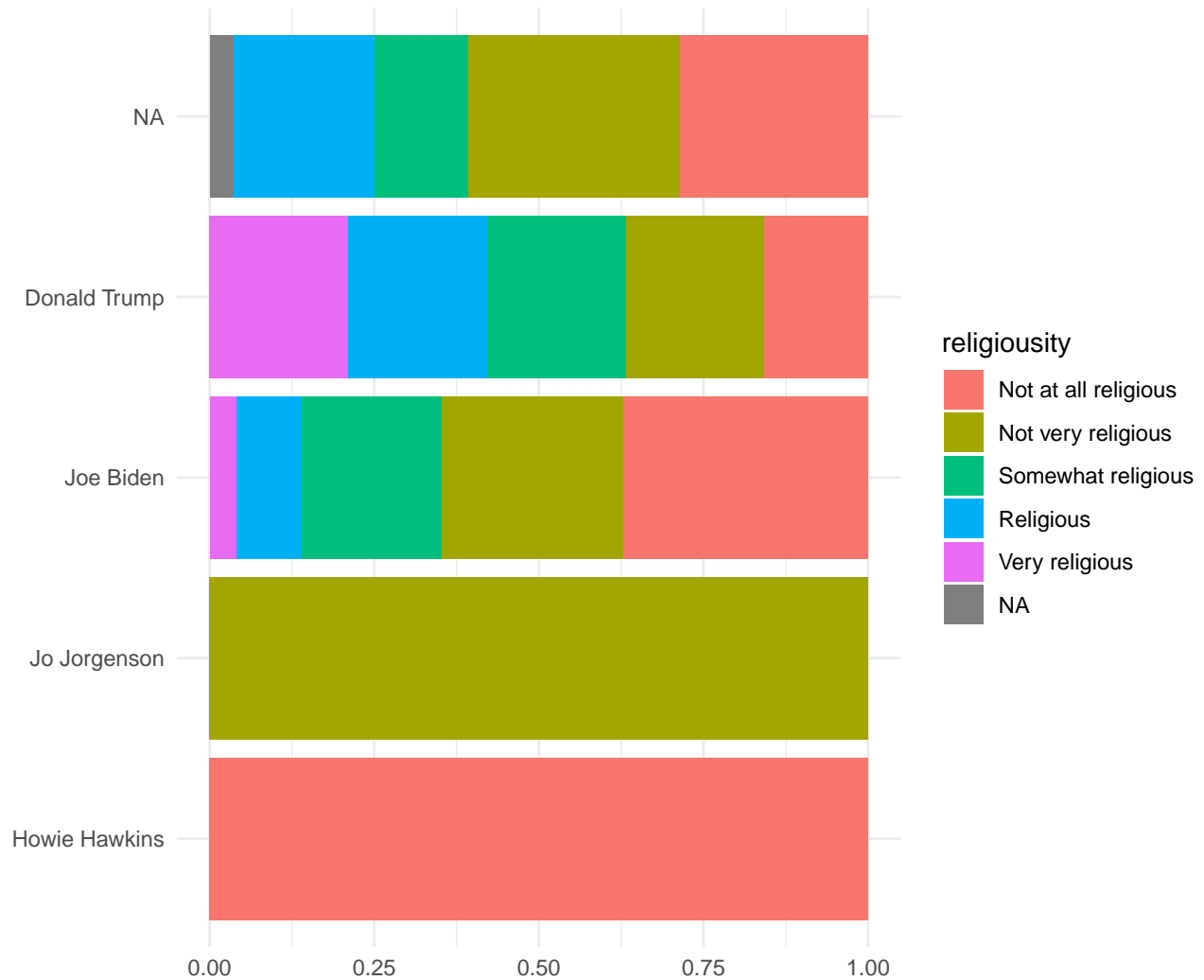

more support for trump among religiously affiliated students

```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = (factor(president ,levels=c("Howie Hawkins", "Jo Jorgenson", "Joe !
  geom_bar(position= "fill") +
  labs(title = "more support for trump among religious students",
       x = "", y = "") +
  scale_fill_discrete(name = "religiousity") +
  coord_flip() +
```

```
theme_minimal()
```

## more support for trump among religious students


```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = wherevote, fill = president))+
  geom_bar(position= "fill") +
  labs(title = "more biden voters among students who elected to vote in Durham",
       x = "", y = "") +
  coord_flip() +
  theme_minimal()
```

more biden voters among students who elected to vote in Durham
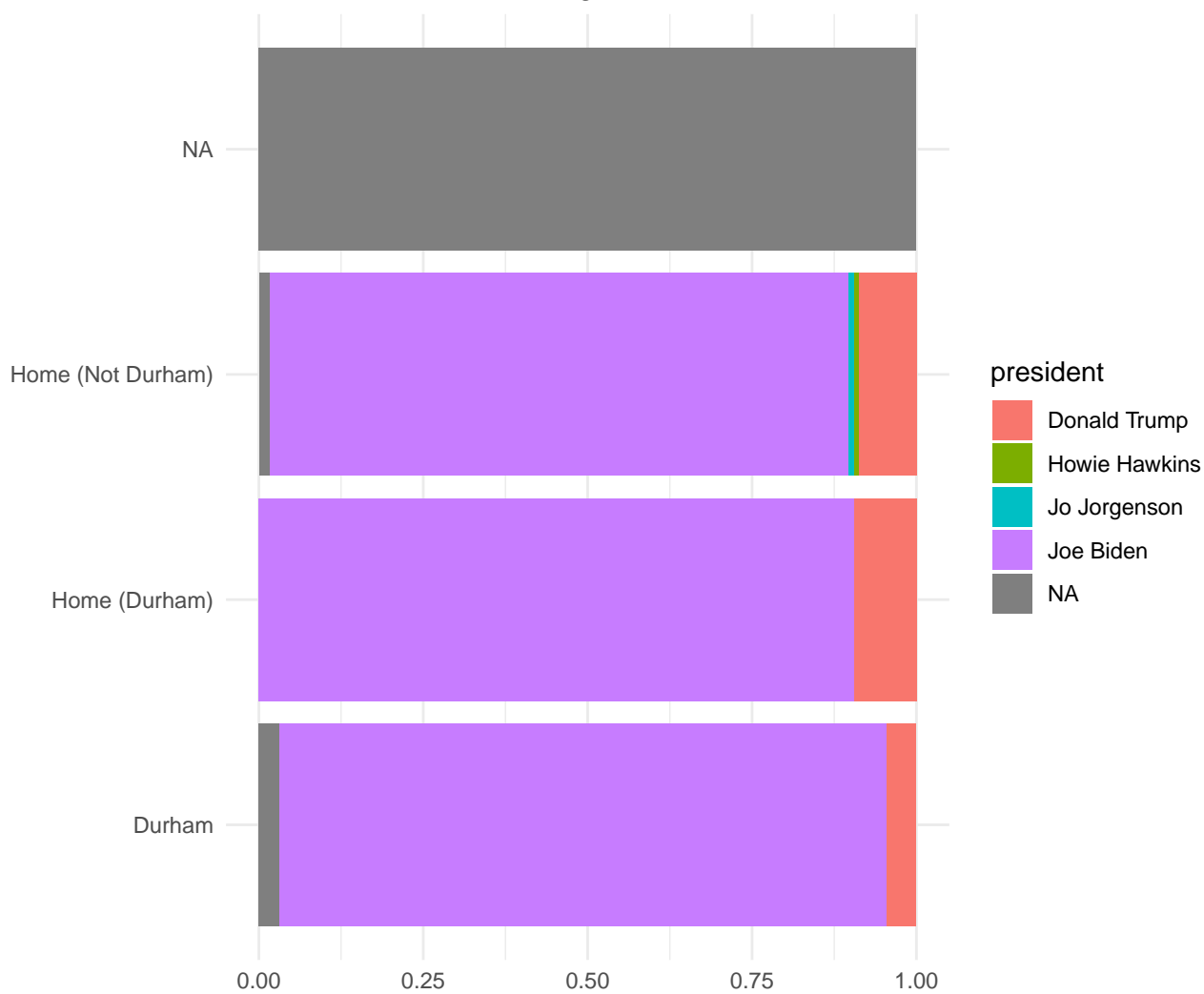


```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = (factor(howreligious ,levels=c("Not at all religious", "Not very re
  geom_bar(position= "fill") +
  labs(title = "x",
       x = "", y = "") +
  coord_flip() +
  theme_minimal()
```
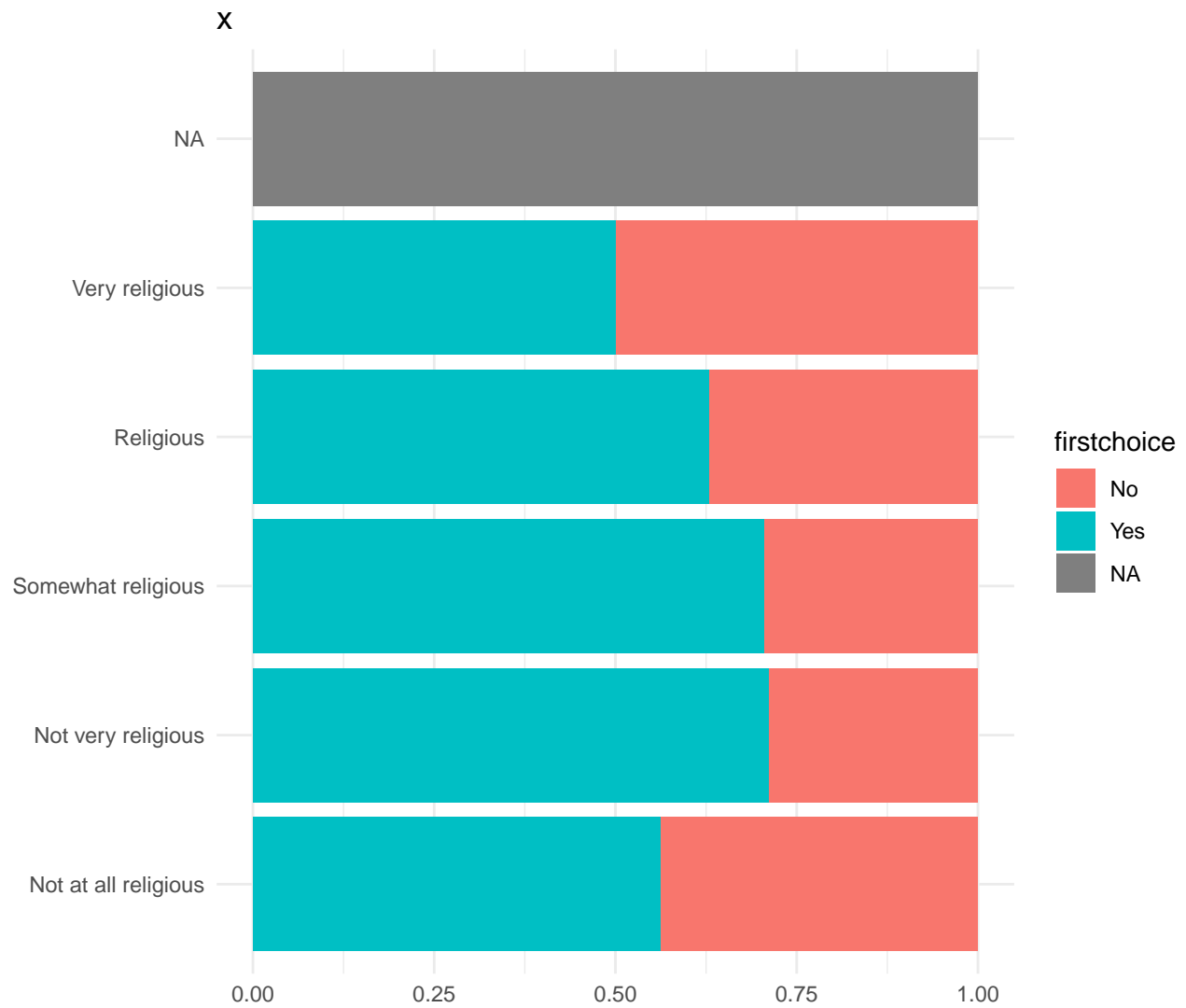
X


```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = (factor(political ,levels=c("Very liberal", "Somewhat liberal", "Mo
  geom_bar(position= "fill") +
  labs(title = "increased liberal views, decreased religiosity",
       x = "", y = "") +
  scale_fill_discrete(name = "religiousity") +
  coord_flip() +
  theme_minimal()
```
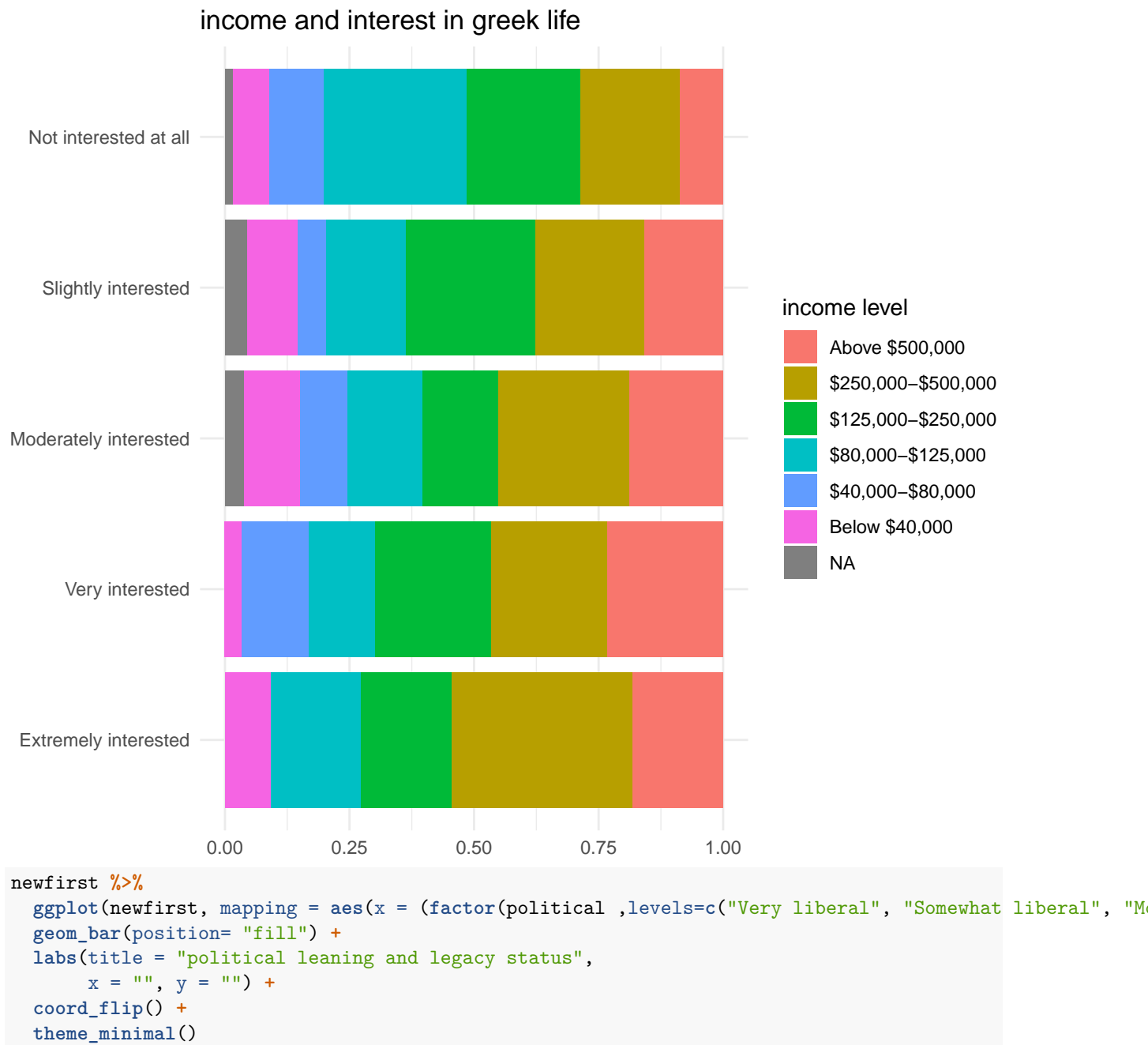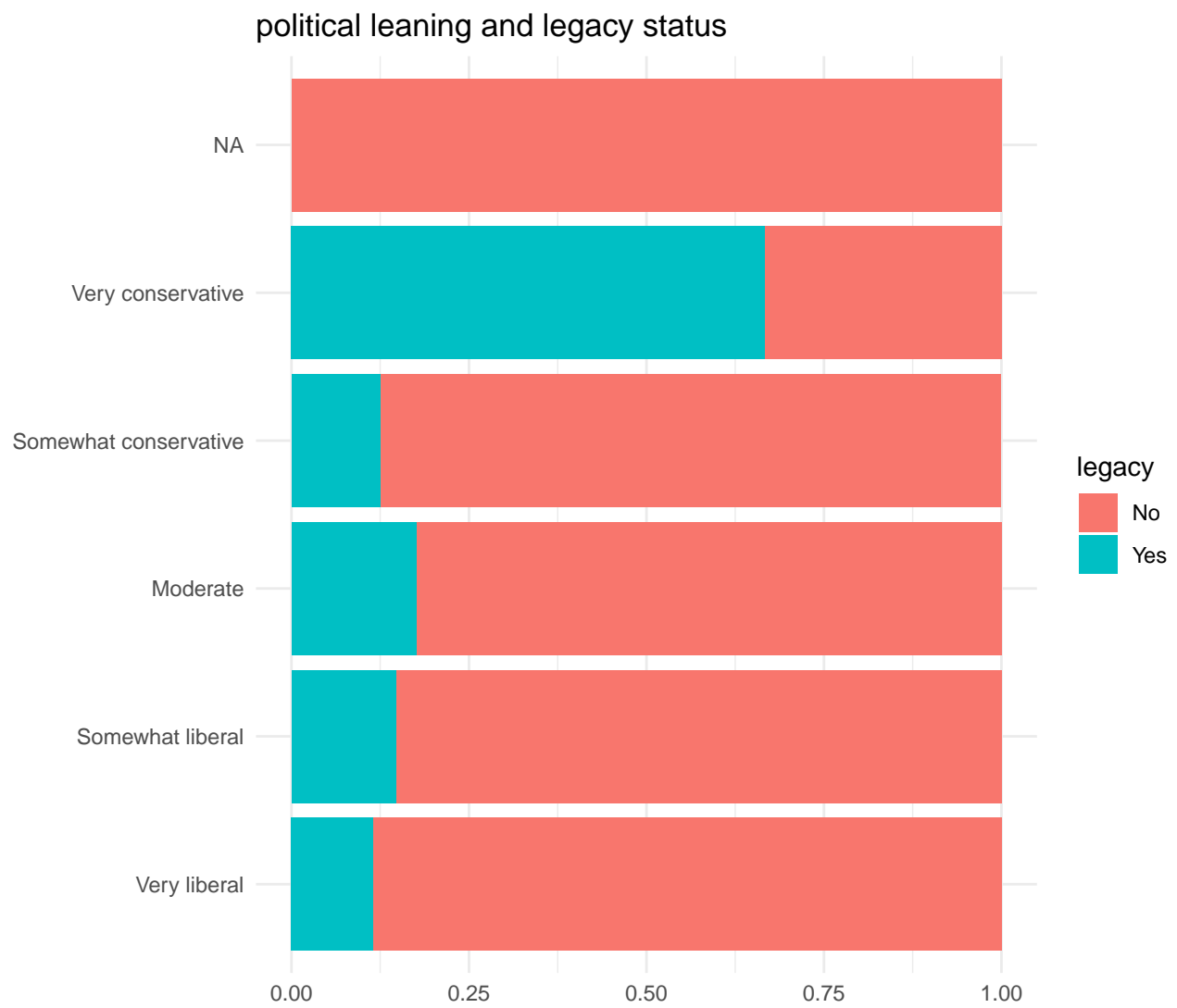
increased liberal views, decreased religiosity
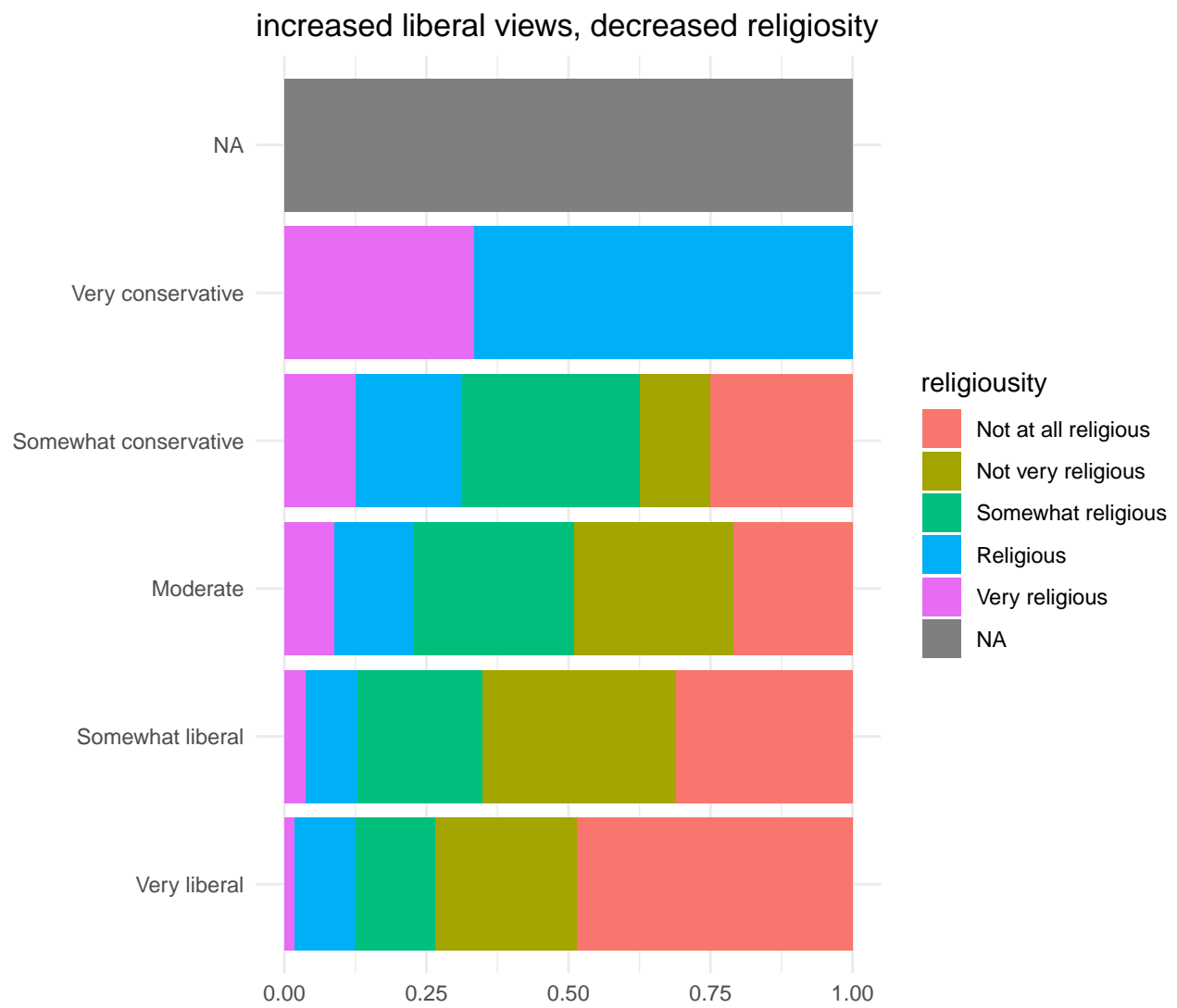

```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = (factor(income ,levels=c("Above $500,000","$250,000-$500,000", "$1
  geom_bar(position= "fill") +
  labs(title = "income and presidential vote",
       x = "", y = "") +
  coord_flip() +
  theme_minimal()
```

## income and presidential vote
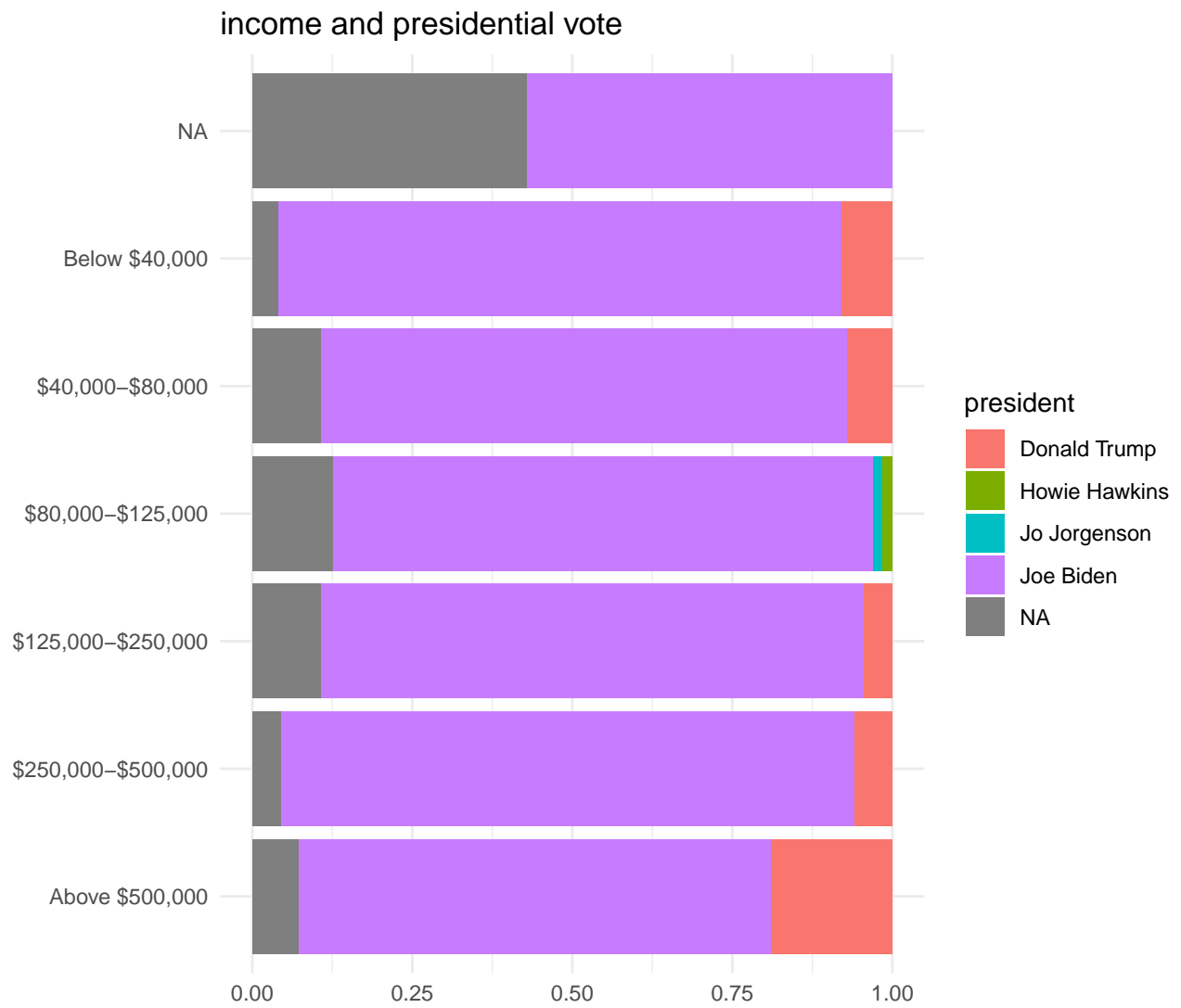

```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = (factor(greek ,levels=c("Extremely interested", "Very interested",
  geom_bar(position= "fill") +
  labs(title = "income and interest in greek life",
      x = "", y = "") +
  scale_fill_discrete(name = "income level") +
  coord_flip() +
  theme_minimal()
```
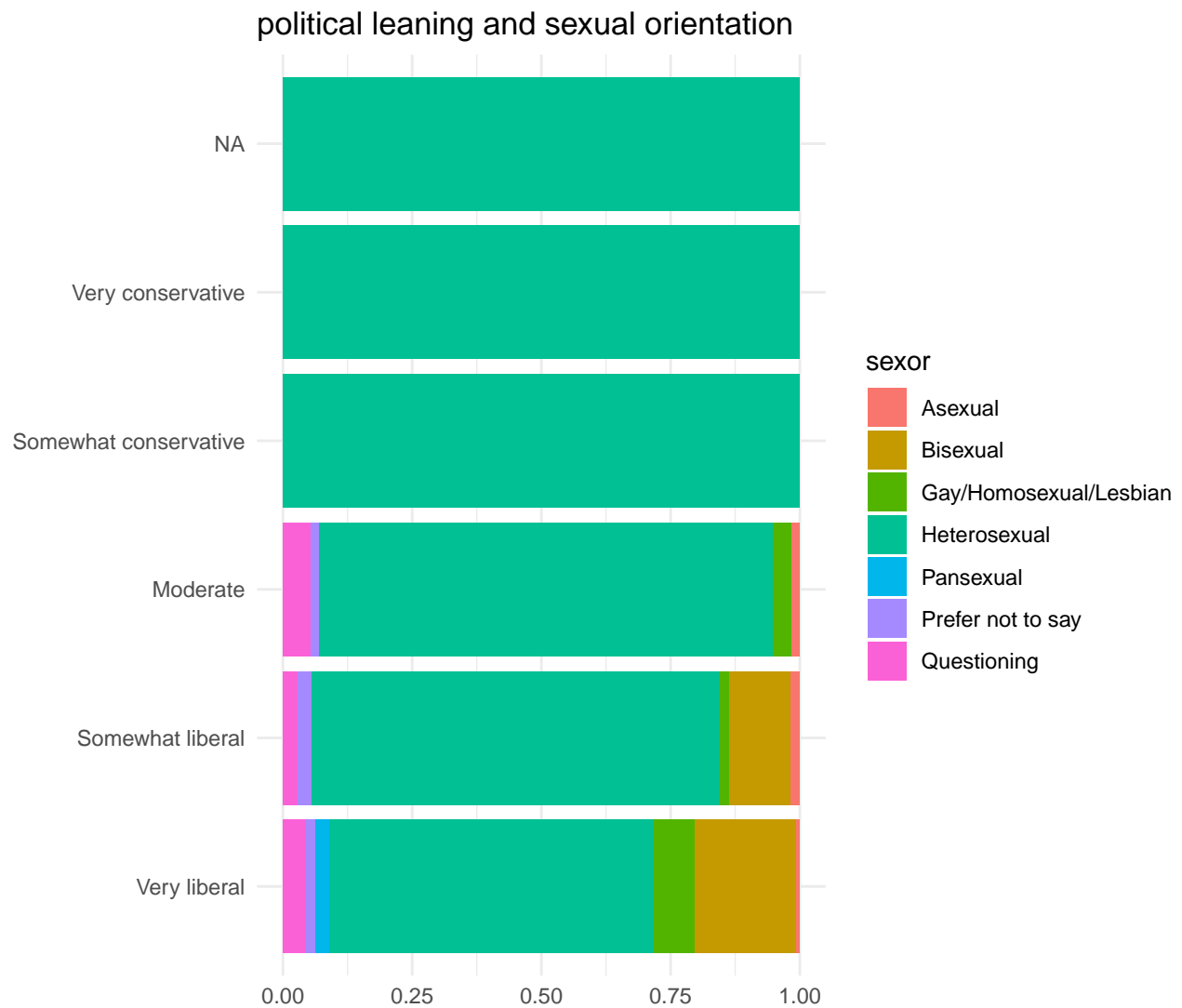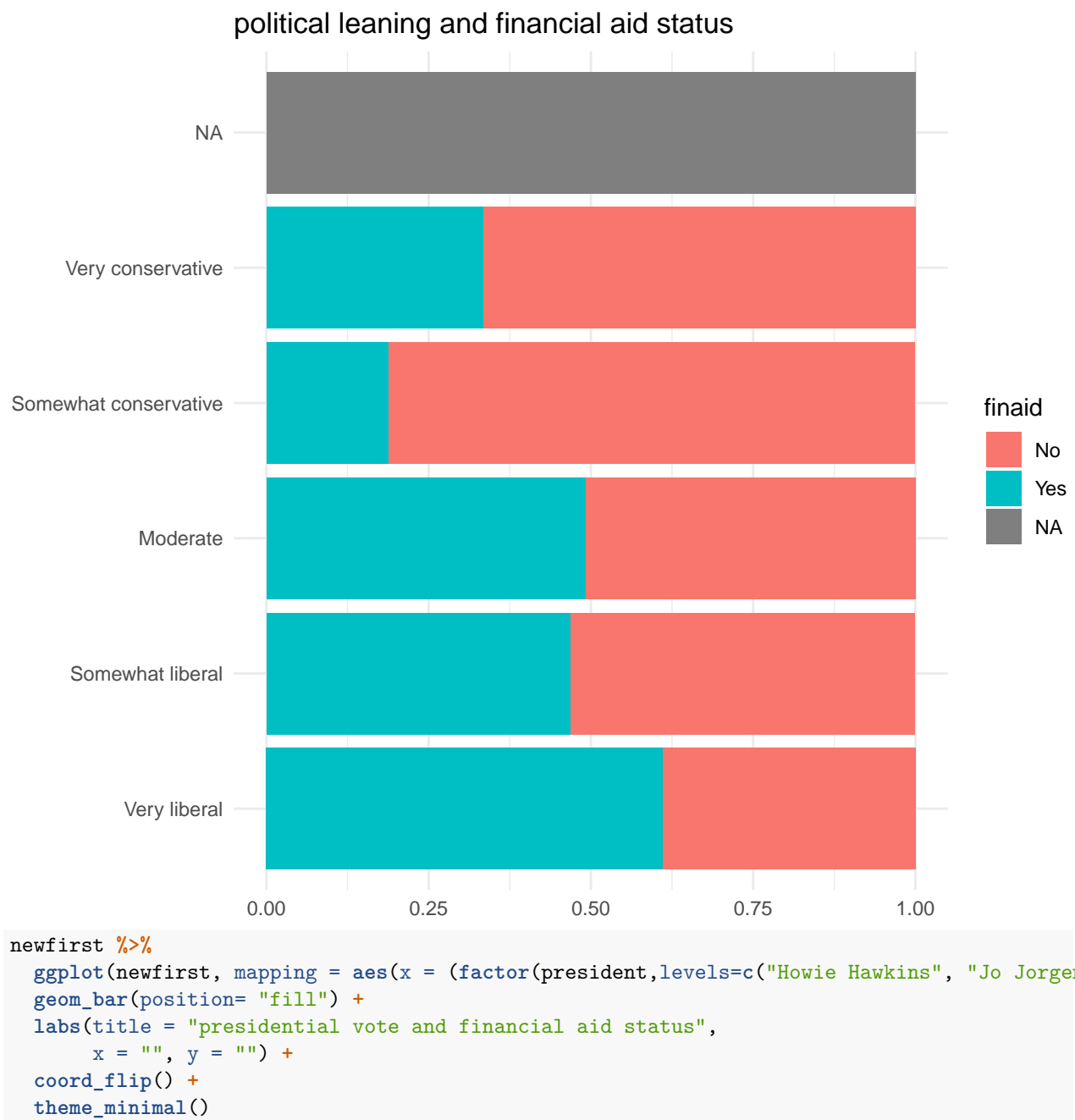
income and interest in greek life


```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = (factor(political ,levels=c("Very liberal", "Somewhat liberal", "M
  geom_bar(position= "fill") +
  labs(title = "political leaning and legacy status",
      x = "", y = "") +
  coord_flip() +
  theme_minimal()
```

political leaning and legacy status


```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = legacy, fill = (factor(income ,levels=c("Above $500,000","$250,000
  geom_bar(position= "fill") +
  labs(title = "legacy status and income",
      x = "", y = "") +
  scale_fill_discrete(name = "income level") +
  coord_flip() +
  theme_minimal()
```
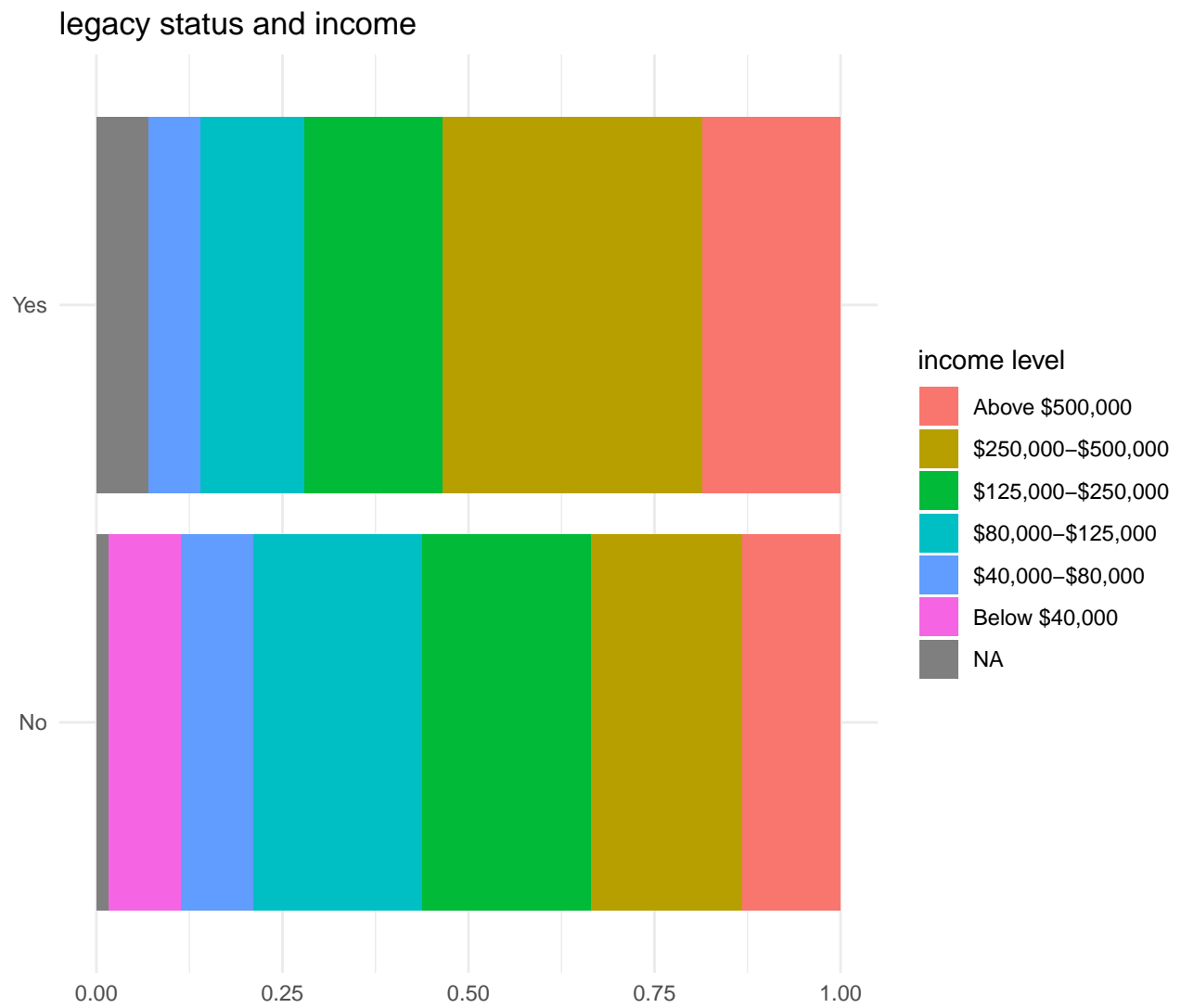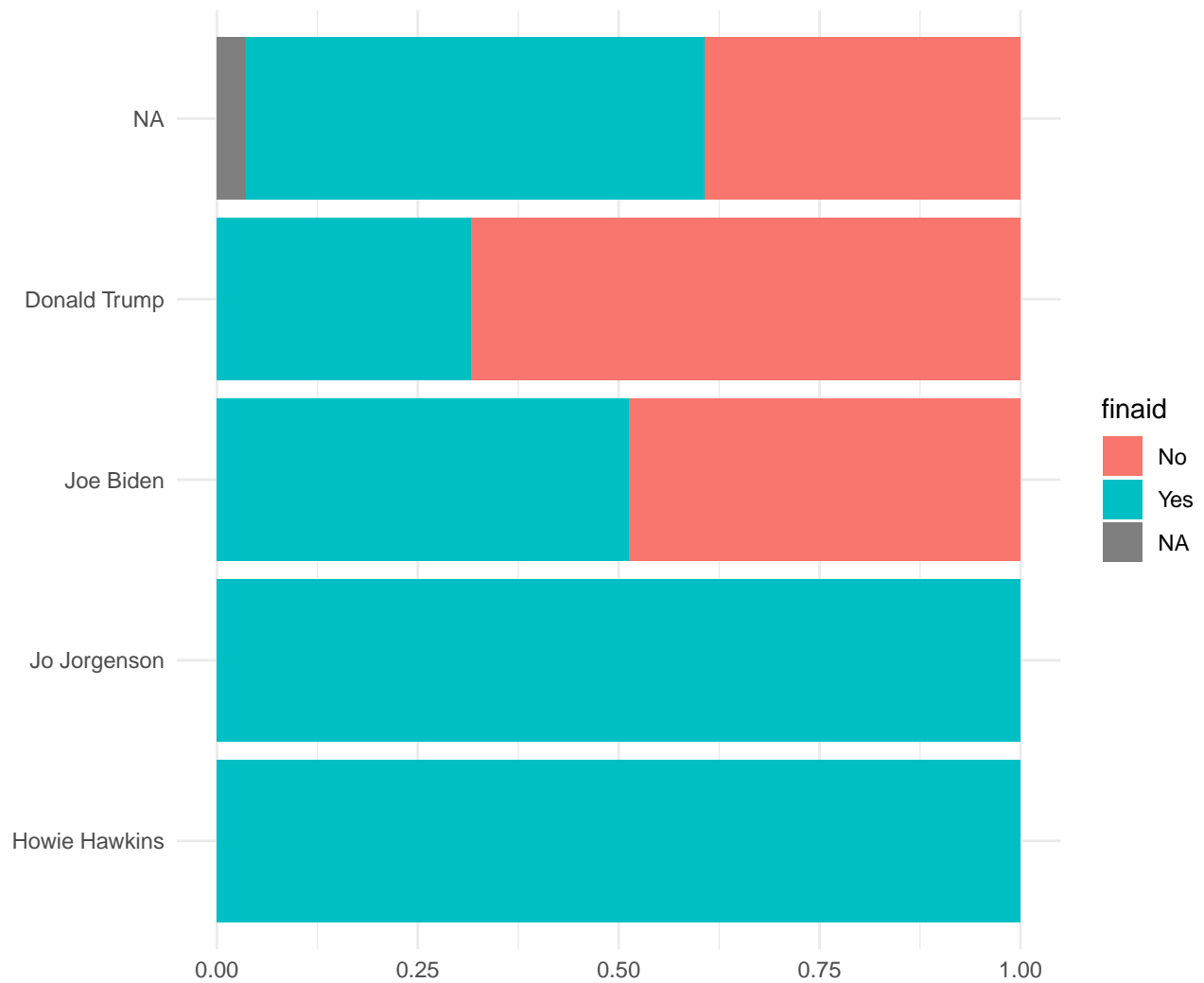
legacy status and income


```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = (factor(political ,levels=c("Very liberal", "Somewhat liberal", "Mo
  geom_bar(position= "fill") +
  labs(title = "political leaning and sexual orientation",
       x = "", y = "") +
  coord_flip() +
  theme_minimal()
```

political leaning and sexual orientation


```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = (factor(political ,levels=c("Very liberal", "Somewhat liberal", "M
  geom_bar(position= "fill") +
  labs(title = "political leaning and financial aid status",
       x = "", y = "") +
  coord_flip() +
  theme_minimal()
```

political leaning and financial aid status


```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = (factor(president,levels=c("Howie Hawkins", "Jo Jorgenson", "Joe Bi
  geom_bar(position= "fill") +
  labs(title = "presidential vote and financial aid status",
       x = "", y = "") +
  coord_flip() +
  theme_minimal()
```

presidential vote and financial aid status


```
newfirst %>%
  ggplot(newfirst, mapping = aes(x = major, fill = (factor(political ,levels=c("Very liberal", "Somewhat
  geom_bar(position= "fill") +
  labs(title = "intended major and political leaning",
      x = "", y = "") +
  scale_fill_discrete(name = "political leaning") +
  coord_flip() +
  theme_minimal()
```

intended major and political leaning