wrangle-cdf.R

robly

2020-04-21

```
library(tidyverse)
```

```
## -- Attaching packages ---------------------------------------------------------------------------
## v ggplot2 3.3.0     v purrr   0.3.4
## v tibble  3.0.1     v dplyr   0.8.5
## v tidyr   1.0.2     v stringr 1.4.0
## v readr   1.3.1     v forcats 0.5.0
## -- Conflicts ------------------------------------------------------------------------------------
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(sjlabelled)
```

```
##
## Attaching package: 'sjlabelled'
## The following object is masked from 'package:forcats':
##
##     as_factor
## The following object is masked from 'package:dplyr':
##
##     as_label
```

```
library(goji)
```

```
##
## Attaching package: 'goji'
## The following object is masked from 'package:graphics':
##
##     stars
```

```
#anes_df <- read_dta("data/raw/anes_timeseries_2016.dta")%>%
#  select(V161095, V161096, V161086, V161087, V161126, V161128, V161129, V161130, V161131, V161021, V16
#  glimpse()

anes_raw <- read_rds("data/raw/cdf-raw-trim.rds")%>% # Loads RDS created in `anes-cdf-trim.R`
    glimpse()
```

```
## Rows: 38,100
## Columns: 31
## $ VCF0004  <dbl> 1978, 1978, 1978, 1978, 1978, 1978, 1978, 1978, 1978, 1978...
## $ VCF0301  <dbl> 1, 4, 7, 3, 3, 2, 3, 2, 2, 1, 5, 2, 1, 3, 4, 1, 2, 6, 6, 1...
## $ VCF0303  <dbl> 1, 2, 3, 1, 1, 1, 1, 1, 1, 1, 3, 1, 1, 1, 2, 1, 1, 3, 3, 1...
```

```
## $ VCF0305  <dbl> 4, 1, 4, 2, 2, 3, 2, 3, 3, 4, 2, 3, 4, 2, 1, 4, 3, 3, 3, 4...
## $ VCF0311  <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA...
## $ VCF0312  <dbl> 2, 2, 2, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 1, 2, 1, 2, 2, 2...
## $ VCF0803  <dbl> 6, 9, 4, 4, 9, 5, 1, 9, 5, 6, 9, 6, 2, 4, 9, 1, 5, 4, 9, 9...
## $ VCF0218  <dbl> 80, 50, 40, 60, 85, 50, 70, NA, 60, NA, NA, 70, 85, 75, 50...
## $ VCF0224  <dbl> 50, 50, 60, 60, 60, 50, 40, NA, 60, NA, NA, 40, 85, 65, 50...
## $ VCF0723  <dbl> 1, 1, 1, 2, 1, 1, 1, 2, 1, 2, 2, 1, 2, 1, 1, 2, 3, 1, 1, 1...
## $ VCF0503  <dbl> 5, NA, 2, 4, NA, 5, 2, NA, 2, 6, NA, 6, 2, 3, NA, 1, 1, NA...
## $ VCF0504  <dbl> 2, NA, 4, 3, NA, 4, 5, NA, 6, 6, NA, 2, 3, 6, NA, 7, 7, 4,...
## $ VCF9265  <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA...
## $ VCF0806  <dbl> 2, 3, 6, 1, 1, 1, 5, 9, 5, 1, 9, 1, 1, 3, 9, 9, 1, 1, 9, 7...
## $ VCF0809  <dbl> 2, 9, 6, 9, 9, 4, 3, 9, 5, 3, 9, 9, 1, 4, 9, 6, 7, 5, 7, 9...
## $ VCF0839  <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA...
## $ VCF9049  <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA...
## $ VCF0834  <dbl> 4, 4, 5, 4, 1, 4, 1, 6, 1, 7, 9, 1, 1, 4, 9, 9, 1, 6, 9, 7...
## $ VCF0838  <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA...
## $ VCF0876a <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA...
## $ VCF0110  <dbl> 2, 1, 2, 2, 1, 2, 4, 2, 3, 2, 2, 2, 1, 4, 2, 2, 3, 3, 2, 1...
## $ VCF0105a <dbl> 1, 1, 1, 1, 1, 1, 1, 2, 1, 4, 1, 1, 1, 1, 5, 1, 1, 1, 2, 1...
## $ VCF0113  <dbl> 1, 2, 2, 2, 2, 2, 2, 1, 1, 2, 1, 2, 2, 2, 2, 2, 1, 1, 1, 2...
## $ VCF0310  <dbl> 2, 1, 3, 2, 2, 2, 1, 1, 1, 3, 3, 2, 3, 3, 1, 2, 2, 2, 1, 1...
## $ VCF0130  <dbl> 4, 4, 3, 2, 4, 2, 7, 1, 2, 3, 1, 5, 2, 2, 2, 1, 3, 2, 4, 4...
## $ VCF0050a <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA...
## $ VCF0050b <dbl> 4, 3, 2, 4, 3, 3, 2, 5, 2, 2, 4, 2, 3, 4, 5, 2, 2, 3, 4, 5...
## $ VCF9255  <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA...
## $ VCF0729  <dbl> 1, 1, 2, 2, 2, 2, 2, 1, 2, 1, 1, 2, 2, 2, 1, 2, 2, 2, 1, 1...
## $ VCF9036  <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA...
## $ VCF0104  <dbl> 2, 1, 2, 1, 1, 2, 1, 2, 1, 2, 2, 1, 2, 2, 2, 1, 1, 2, 2, 2...
```

```
anes_char <- anes_raw %>%
    remove_all_labels()%>%
    rename(year = VCF0004)%>% # Year of response
    rename(pid_7 = VCF0301)%>% #7 scale Party ID val: 1-7. Strong Democrat 2. Weak Democrat3. Independe
    rename(pid_3 = VCF0303)%>% # Party ID 3 categories val: "Republican", "Independent", "Democrat" (De
    rename(pid_str = VCF0305)%>% # PID strength val: 1. Independent 2. Leaning Independent 3. Weak Part
    rename(win_care_pres = VCF0311)%>% # How much do you care which party wins presidency? val: 1. Don'
    rename(win_care_cong = VCF0312)%>% # How much do you care which party wins congress? val: 1. Don't
    rename(respondent_ideo = VCF0803)%>% # Liberal-conservative scale val: 1(extremely liberal)- 7(extr
    rename(therm_dem = VCF0218)%>% # val 00-96 cold-warm as coded; 97: 97-100, 98: DK, 99. NA
    rename(therm_rep = VCF0224)%>% # val 00-96 cold-warm as coded; 97: 97-100, 98: DK, 99. NA
    rename(activist_6cat = VCF0723)%>%#val: 1-6 low-high participation 0. DKN/NA
    rename(ideo_dem = VCF0503)%>% # val: 1-7 lib-con
    rename(ideo_rep = VCF0504)%>%# val: 1-7 lib-con
    rename(primary_vote = VCF9265)%>%
    select(year,
                pid_7,
                pid_3,
                pid_str,
                win_care_pres,
                win_care_cong,
                respondent_ideo,
                therm_dem,
                therm_rep,
                activist_6cat,
```

```
                ideo_dem,
                ideo_rep,
                primary_vote,
                VCF0806, #insurance Government Health Insurance Scale #1-7 Gov ins- Private ins 9DK, 0
                VCF0809, #jobs Jobs Gurantee, same scale as above
                VCF0839, # services Gov should provide 1 (few services)--7 (many services) 9DK, 0NA
                VCF9049, #ss SS: 1 (increase), 2 (same), 3 Decreased, 7 cut entirely 8DK 9NA
                VCF0834, #women 1(equal) -- 7 (home) 9DK, 0NA
                VCF0838, #abortion 1 (never), 2(rape, incest, danger), 3(need est.), 4(always) 9DK, 0N
                VCF0876a, #gayrights 1(Favor Strongly),2, 4, 5 (Oppose Strongly). 7DK, 9NA
                VCF0110, #education 1 (grade school), 2(High School), 3(Some College), 4(College/advan
                VCF0105a, #race 1(white), 2(Black), 3 (asian/pacific), 4(Am. indian/alaska native), 5(
                VCF0113, #south 1(south), 2(nonsouth)
                VCF0310, #interest 1(not much), 2(somewhat), 3(very) 9dk, 0na
                VCF0130, #worship 1(every week), 2(almost every week), 3 (once or twice a month), 4 (f
                VCF0050a, # iwrpkpre 1(very high)-5(very low)
                VCF0050b, # iwrpkpst (same above), take mean
                VCF9255, #satisfied_democ 1(very), 2(fairly), 3(not very), 4(not at all) -8,-9NA
                VCF0729, #know_house which party has the most seats in house 1(wrong), 2(right), 0NA
                VCF9036, #know_sen 1-2(correct), 3-4(wrong), 7-9NA
                VCF0104
  )%>%
  rename(female = VCF0104)%>%
  mutate(female = as.numeric(recode(female,
                                                                    "1" = "0",
                                                                    "2" = "1")))%>%
  rename(insurance = VCF0806)%>%
  mutate(insurance = na_if(insurance, 9))%>%
  mutate(insurance = na_if(insurance, 0))%>%
  mutate(insurance = zero1(insurance))%>%#standardize between 0-1
  rename(jobs = VCF0809)%>%
  mutate(jobs = na_if(jobs, 9))%>%
  mutate(jobs = na_if(jobs, 0))%>%
  mutate(jobs = zero1(jobs))%>%
  rename(services = VCF0839)%>%
  mutate(services = na_if(services, 9))%>%
  mutate(services = na_if(services, 0))%>%
  mutate(services = as.numeric(recode(services, #recoding so that liberal values are lower, in accord
                                                                      "1" = "7",
                                                                      "2" = "6",
                                                                      "3" = "5",
                                                                      "4" = "4",
                                                                      "5" = "3",
                                                                      "6" = "2",
                                                                      "7" = "1"
  )))%>%
  mutate(services = zero1(services))%>%
  rename(ss = VCF9049)%>%
  mutate(ss = na_if(ss, 8))%>%
  mutate(ss = na_if(ss, 9))%>%
  mutate(no_ss = if_else(ss == 7, 1, 0))%>%
  mutate(ss = na_if(ss, 7))%>%
  mutate(ss = zero1(ss))%>%
```

```
    rename(women = VCF0834)%>%
    mutate(women = na_if(women, 9))%>%
    mutate(women = na_if(women, 0))%>%
    mutate(women = zero1(women))%>%
    rename(abortion = VCF0838)%>%
    mutate(abortion = as.numeric(recode(abortion, #recoding so that liberal values are lower, in accord
                                                                    "1" = "4",
                                                                    "2" = "3",
                                                                    "3" = "2",
                                                                    "4" = "1"
    )))%>%
    mutate(abortion = zero1(abortion))%>%
    rename(gayrights = VCF0876a)%>%
    mutate(gayrights = na_if(gayrights, 7))%>%
    mutate(gayrights = na_if(gayrights, 9))%>%
    mutate(gayrights = zero1(gayrights))%>%
    rename(education = VCF0110)%>%#education 1 (grade school), 2(High School), 3(Some College), 4(Colle
    mutate(education = na_if(education, 0))%>%
    mutate(high_school = if_else(education == 2, 1, 0))%>% #creating education dummies. grade school is
    mutate(some_college = if_else(education == 3, 1, 0))%>%
    mutate(college_adv = if_else(education == 4, 1, 0))%>%
    rename(white = VCF0105a)%>%
    mutate(white = na_if(white, 9))%>%
    mutate(white = if_else(white==1, 1, 0))%>%
    rename(south = VCF0113)%>%
    mutate(south = if_else(south==1, 1, 0))%>%
    rename(interest = VCF0310)%>%
    mutate(interest = na_if(interest, 9))%>%
    mutate(interest = na_if(interest, 0))%>%
    rename(worship = VCF0130)%>%
    mutate(worship = if_else(worship == 1 | worship == 2, 1, 0))%>%
    rename(iwrpk_pre = VCF0050a)%>%
    mutate(iwrpk_pre = na_if(iwrpk_pre, 9))%>%
    mutate(iwrpk_pre = as.numeric(recode(iwrpk_pre, #recoding so that liberal values are lower, in acco
                                                                    "1" = "5",
                                                                    "2" = "4",
                                                                    "3" = "3",
                                                                    "4" = "2",
                                                                    "5" = "1"
    )))%>%
    mutate(iwrpk_pre = zero1(iwrpk_pre))%>%
    rename(iwrpk_post = VCF0050b)%>%
    mutate(iwrpk_post = na_if(iwrpk_post, 9))%>%
    mutate(iwrpk_post = na_if(iwrpk_post, 0))%>%
    mutate(iwrpk_post = as.numeric(recode(iwrpk_post, #recoding so that liberal values are lower, in ac
                                                                    "1" = "5",
                                                                    "2" = "4",
                                                                    "3" = "3",
                                                                    "4" = "2",
                                                                    "5" = "1"
    )))%>%
    mutate(iwrpk_post = zero1(iwrpk_post))%>%
#   mutate(iwrpk_mean = (iwrpk_post + iwrpk_pre)/2)%>%
```

```
    rename(dis_democ = VCF9255)%>%
    mutate(dis_democ = na_if(dis_democ, -9))%>%
    mutate(dis_democ = na_if(dis_democ, -8))%>%
    mutate(dis_democ = if_else(dis_democ == 3 | dis_democ ==4, 1, 0))%>%
    rename(know_house = VCF0729)%>%
    mutate(know_house = na_if(know_house, 0))%>%
    mutate(know_house = if_else(know_house==1, 1, 0))%>%
    rename(know_sen = VCF9036)%>%
    mutate(know_sen = na_if(know_sen, 0))%>%
    mutate(know_sen = if_else(know_sen==1, 1, 0))%>%
    mutate(know_cong = (know_sen + know_house)/2)%>%
#   rowwise()%>%
#   mutate(cult_att = mean(c(abortion, gayrights, women), na.rm = TRUE))%>%
#   mutate(cult_att = (abortion + gayrights + women)/3)%>%
#   mutate(cult_att = zero1(cult_att))%>%
#   mutate(econ_att = (ss + services + jobs + insurance)/4)%>%
#   mutate(econ_att = zero1(econ_att))%>%
    glimpse()%>%# adds only these variables to the df
    mutate(win_care_pres = na_if(win_care_pres, 0))%>% #these functions set the specified value to NA,
    mutate(win_care_cong = na_if(win_care_cong, 0))%>%
    mutate(respondent_ideo = na_if(respondent_ideo, 9))%>%#the recode() function is used in the next 4 
    mutate(ideo_rep = na_if(ideo_rep, 8))%>%
    mutate(ideo_rep = na_if(ideo_rep, 0))%>%
    mutate(ideo_dem = na_if(ideo_dem, 8))%>%
    mutate(ideo_dem = na_if(ideo_dem, 0))%>%
    mutate(primary_vote = na_if(primary_vote, -8))%>%
    mutate(primary_vote = na_if(primary_vote, -9))%>%
    mutate(primary_vote = as.numeric(recode(primary_vote,
                                                                    "1" = "1",
                                                                    "2" = "0")))%>%
    mutate(strong_partisan = if_else(pid_7 == 1|pid_7 ==7, 1, 0))%>%
    mutate(pid_7_num = as.numeric(pid_7),
                 pid_7 = recode(pid_7,
                                            "1" = "Strong Democrat",
                                            "2" = "Weak Democrat",
                                            "3" = "Independent - Democrat",
                                            "4" = "Independent - Independent",
                                            "5" = "Independent - Republican",
                                            "6" = "Weak Republican",
                                            "7" = "Strong Republican"),
                 pid_7 = reorder(pid_7, pid_7_num))%>%
    mutate(pid_3_num = as.numeric(pid_3),
                 pid_3 = recode(pid_3,
                                            "1" = "Democrat",
                                            "2" = "Independent",
                                            "3" = "Republican"),
                 pid_3 = reorder(pid_3, pid_3_num))%>%
    mutate(pid_str_num = as.numeric(pid_str),
                 pid_str = recode(pid_str,
                                                "1" = "Independent",
                                                "2" = "Leaning Independent",
                                                "3" = "Weak Partisan",
                                                "4" = "Strong Partisan"),
```

```
                pid_str = reorder(pid_str, pid_str_num))%>%
    mutate(respondent_ideo_num = as.numeric(respondent_ideo),
                respondent_ideo = recode(respondent_ideo,
                                                                "1" = "Extremely Liberal",
                                                                "2" = "Liberal",
                                                                "3" = "Somewhat Liberal",
                                                                "4" = "Moderate",
                                                                "5" = "Somewhat Conservative",
                                                                "6" = "Conservative",
                                                                "7" = "Extremely Conservative"),
                respondent_ideo = reorder(respondent_ideo, respondent_ideo_num))%>%
    mutate(parties_therm_dif = sqrt((therm_dem - therm_rep)^2))%>% #creates a variable showing the diff
    mutate(parties_ideo_dif = abs(ideo_dem - ideo_rep))%>%
#   mutate(cult_att = if_else(pid_3_num == 3, (1-cult_att), cult_att))%>%
#   mutate(econ_att = if_else(pid_3_num == 3, (1-econ_att), econ_att))%>% #DO NOT USE UNLESS YOU ARE WO
#   select(-ends_with("_num")) %>%   # drop the numeric versions of the factors that i used for reorder
    glimpse()%>%
    write_rds("data/tidy-cdf.rds") %>%
    write_csv("data/tidy-cdf.csv")
```

```
## Warning: Unreplaced values treated as NA as .x is not compatible. Please specify
## replacements exhaustively or supply .default

## Warning: Unreplaced values treated as NA as .x is not compatible. Please specify
## replacements exhaustively or supply .default
```

```
## Rows: 38,100
## Columns: 36
## $ year            <dbl> 1978, 1978, 1978, 1978, 1978, 1978, 1978, 1978, 197...
## $ pid_7           <dbl> 1, 4, 7, 3, 3, 2, 3, 2, 2, 1, 5, 2, 1, 3, 4, 1, 2, ...
## $ pid_3           <dbl> 1, 2, 3, 1, 1, 1, 1, 1, 1, 1, 3, 1, 1, 1, 2, 1, 1, ...
## $ pid_str         <dbl> 4, 1, 4, 2, 2, 3, 2, 3, 3, 4, 2, 3, 4, 2, 1, 4, 3, ...
## $ win_care_pres   <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ win_care_cong   <dbl> 2, 2, 2, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 1, 2, 1, ...
## $ respondent_ideo <dbl> 6, 9, 4, 4, 9, 5, 1, 9, 5, 6, 9, 6, 2, 4, 9, 1, 5, ...
## $ therm_dem       <dbl> 80, 50, 40, 60, 85, 50, 70, NA, 60, NA, NA, 70, 85,...
## $ therm_rep       <dbl> 50, 50, 60, 60, 60, 50, 40, NA, 60, NA, NA, 40, 85,...
## $ activist_6cat   <dbl> 1, 1, 1, 2, 1, 1, 1, 2, 1, 2, 2, 1, 2, 1, 1, 2, 3, ...
## $ ideo_dem        <dbl> 5, NA, 2, 4, NA, 5, 2, NA, 2, 6, NA, 6, 2, 3, NA, 1...
## $ ideo_rep        <dbl> 2, NA, 4, 3, NA, 4, 5, NA, 6, 6, NA, 2, 3, 6, NA, 7...
## $ primary_vote    <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ insurance       <dbl> 0.1666667, 0.3333333, 0.8333333, 0.0000000, 0.00000...
## $ jobs            <dbl> 0.1666667, NA, 0.8333333, NA, NA, 0.5000000, 0.3333...
## $ services        <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ ss              <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ women           <dbl> 0.5000000, 0.5000000, 0.6666667, 0.5000000, 0.00000...
## $ abortion        <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ gayrights       <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ education       <dbl> 2, 1, 2, 2, 1, 2, 4, 2, 3, 2, 2, 2, 1, 4, 2, 2, 3, ...
## $ white           <dbl> 1, 1, 1, 1, 1, 1, 1, 0, 1, 0, 1, 1, 1, 1, 0, 1, 1, ...
## $ south           <dbl> 1, 0, 0, 0, 0, 0, 0, 1, 1, 0, 1, 0, 0, 0, 0, 0, 1, ...
## $ interest        <dbl> 2, 1, 3, 2, 2, 2, 1, 1, 1, 3, 3, 2, 3, 3, 1, 2, 2, ...
## $ worship         <dbl> 0, 0, 0, 1, 0, 1, 0, 1, 1, 0, 1, 0, 1, 1, 1, 1, 0, ...
## $ iwrpk_pre       <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
```

```
## $ iwrpk_post      <dbl> 0.25, 0.50, 0.75, 0.25, 0.50, 0.50, 0.75, 0.00, 0.7...
## $ dis_democ       <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ know_house      <dbl> 1, 1, 0, 0, 0, 0, 0, 1, 0, 1, 1, 0, 0, 0, 1, 0, 0, ...
## $ know_sen        <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ female          <dbl> 1, 0, 1, 0, 0, 1, 0, 1, 0, 1, 1, 0, 1, 1, 1, 0, 0, ...
## $ no_ss           <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ high_school     <dbl> 1, 0, 1, 1, 0, 1, 0, 1, 0, 1, 1, 1, 0, 0, 1, 1, 0, ...
## $ some_college    <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 1, ...
## $ college_adv     <dbl> 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, ...
## $ know_cong       <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## Rows: 38,100
## Columns: 43
## $ year                <dbl> 1978, 1978, 1978, 1978, 1978, 1978, 1978, 1978,...
## $ pid_7               <fct> Strong Democrat, Independent - Independent, Str...
## $ pid_3               <fct> Democrat, Independent, Republican, Democrat, De...
## $ pid_str             <fct> Strong Partisan, Independent, Strong Partisan, ...
## $ win_care_pres       <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ win_care_cong       <dbl> 2, 2, 2, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 1, 2,...
## $ respondent_ideo     <fct> Conservative, NA, Moderate, Moderate, NA, Somew...
## $ therm_dem           <dbl> 80, 50, 40, 60, 85, 50, 70, NA, 60, NA, NA, 70,...
## $ therm_rep           <dbl> 50, 50, 60, 60, 60, 50, 40, NA, 60, NA, NA, 40,...
## $ activist_6cat       <dbl> 1, 1, 1, 2, 1, 1, 1, 2, 1, 2, 2, 1, 2, 1, 1, 2,...
## $ ideo_dem            <dbl> 5, NA, 2, 4, NA, 5, 2, NA, 2, 6, NA, 6, 2, 3, N...
## $ ideo_rep            <dbl> 2, NA, 4, 3, NA, 4, 5, NA, 6, 6, NA, 2, 3, 6, N...
## $ primary_vote        <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ insurance           <dbl> 0.1666667, 0.3333333, 0.8333333, 0.0000000, 0.0...
## $ jobs                <dbl> 0.1666667, NA, 0.8333333, NA, NA, 0.5000000, 0....
## $ services            <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ ss                  <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ women               <dbl> 0.5000000, 0.5000000, 0.6666667, 0.5000000, 0.0...
## $ abortion            <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ gayrights           <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ education           <dbl> 2, 1, 2, 2, 1, 2, 4, 2, 3, 2, 2, 2, 1, 4, 2, 2,...
## $ white               <dbl> 1, 1, 1, 1, 1, 1, 1, 0, 1, 0, 1, 1, 1, 1, 0, 1,...
## $ south               <dbl> 1, 0, 0, 0, 0, 0, 0, 1, 1, 0, 1, 0, 0, 0, 0, 0,...
## $ interest            <dbl> 2, 1, 3, 2, 2, 2, 1, 1, 1, 3, 3, 2, 3, 3, 1, 2,...
## $ worship             <dbl> 0, 0, 0, 1, 0, 1, 0, 1, 1, 0, 1, 0, 1, 1, 1, 1,...
## $ iwrpk_pre           <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ iwrpk_post          <dbl> 0.25, 0.50, 0.75, 0.25, 0.50, 0.50, 0.75, 0.00,...
## $ dis_democ           <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ know_house          <dbl> 1, 1, 0, 0, 0, 0, 0, 1, 0, 1, 1, 0, 0, 0, 1, 0,...
## $ know_sen            <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ female              <dbl> 1, 0, 1, 0, 0, 1, 0, 1, 0, 1, 1, 0, 1, 1, 1, 0,...
## $ no_ss               <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ high_school         <dbl> 1, 0, 1, 1, 0, 1, 0, 1, 0, 1, 1, 1, 0, 0, 1, 1,...
## $ some_college        <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0,...
## $ college_adv         <dbl> 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 0, 0,...
## $ know_cong           <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
## $ strong_partisan     <dbl> 1, 0, 1, 0, 0, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0, 1,...
## $ pid_7_num           <dbl> 1, 4, 7, 3, 3, 2, 3, 2, 2, 1, 5, 2, 1, 3, 4, 1,...
## $ pid_3_num           <dbl> 1, 2, 3, 1, 1, 1, 1, 1, 1, 1, 3, 1, 1, 1, 2, 1,...
## $ pid_str_num         <dbl> 4, 1, 4, 2, 2, 3, 2, 3, 3, 4, 2, 3, 4, 2, 1, 4,...
## $ respondent_ideo_num <dbl> 6, NA, 4, 4, NA, 5, 1, NA, 5, 6, NA, 6, 2, 4, N...
## $ parties_therm_dif   <dbl> 30, 0, 20, 0, 25, 0, 30, NA, 0, NA, NA, 30, 0, ...
```

```
## $ parties_ideo_dif    <dbl> 3, NA, 2, 1, NA, 1, 3, NA, 4, 0, NA, 4, 1, 3, N...
```