House

2024-10-26

```
house <- read.csv("Voting Data - House.csv")
```

```
house$R_vote_share <- house$votes_r / house$votes_total * 100

result <- house %>%
  group_by(state_abbrev, dist) %>%
  summarize(
    avg_R_votes = mean(votes_r, na.rm = TRUE),
    avg_D_votes = mean(votes_d, na.rm = TRUE),
    avg_O_votes = mean(votes_o, na.rm = TRUE),
    total_avg_votes = rowSums(cbind(avg_R_votes, avg_D_votes, avg_O_votes), na.rm = TRUE),
    avg_R_vote_share = mean(R_vote_share, na.rm = TRUE),
    avg_Rpres_share = mean(Rpres., na.rm = TRUE)
  ) %>%
  ungroup()
```

```
## `summarise()` has grouped output by 'state_abbrev'. You can override using the
## `.groups` argument.
```

```
result$diff_vote_share <- result$avg_Rpres_share - result$avg_R_vote_share

result_final <- subset(result, select = c("state_abbrev", "dist", "diff_vote_share"))
print(result_final, n = Inf)
```

```
## # A tibble: 435 x 3
##    state_abbrev  dist diff_vote_share
##    <chr>        <int>           <dbl>
##  1 AK               0           0.600
##  2 AL               1         -16.8
##  3 AL               2           7.40
##  4 AL               3          -1.90
##  5 AL               4          -9.56
##  6 AL               5         -17.5
##  7 AL               6         -16.9
##  8 AL               7         NaN
##  9 AR               1         -21.1
## 10 AR               2          -4.10
## 11 AR               3          -8.93
## 12 AR               4          -6.36
## 13 AZ               1           2.15
## 14 AZ               2          -6.63
## 15 AZ               3          -1.31
## 16 AZ               4          -2.76
```

```
##  17 AZ              5         -4.47
##  18 AZ              6         -5.26
##  19 AZ              7         -0.348
##  20 AZ              8         -6.51
##  21 AZ              9         -0.841
##  22 CA              1         -1.72
##  23 CA              2         -0.0945
##  24 CA              3         -1.46
##  25 CA              4         -5.49
##  26 CA              5          1.26
##  27 CA              6          0.199
##  28 CA              7         -4.73
##  29 CA              8         -4.78
##  30 CA              9         -3.57
##  31 CA             10         -1.80
##  32 CA             11         -4.33
##  33 CA             12        NaN
##  34 CA             13         -1.53
##  35 CA             14         -0.580
##  36 CA             15         -2.35
##  37 CA             16         -3.63
##  38 CA             17         -5.63
##  39 CA             18         -8.10
##  40 CA             19         -2.47
##  41 CA             20         -2.12
##  42 CA             21        -12.0
##  43 CA             22         -9.02
##  44 CA             23         -8.05
##  45 CA             24         -7.26
##  46 CA             25         -7.86
##  47 CA             26         -3.27
##  48 CA             27         -1.78
##  49 CA             28          0.0928
##  50 CA             29        NaN
##  51 CA             30         -1.37
##  52 CA             31         -3.57
##  53 CA             32         -3.17
##  54 CA             33         -5.22
##  55 CA             34        NaN
##  56 CA             35          0.632
##  57 CA             36          4.05
##  58 CA             37         -2.34
##  59 CA             38          0.313
##  60 CA             39        -10.5
##  61 CA             40        -10.6
##  62 CA             41         -0.888
##  63 CA             42         -4.91
##  64 CA             43         -7.30
##  65 CA             44        NaN
##  66 CA             45         -8.69
##  67 CA             46         -0.541
##  68 CA             47         -3.35
##  69 CA             48         -7.47
##  70 CA             49         -5.71
```

```
##  71 CA             50         -5.05
##  72 CA             51         -2.63
##  73 CA             52         -6.05
##  74 CA             53         -2.75
##  75 CO              1         -3.02
##  76 CO              2         -2.02
##  77 CO              3         -1.21
##  78 CO              4         -4.82
##  79 CO              5         -3.98
##  80 CO              6         -5.16
##  81 CO              7         -0.433
##  82 CT              1          1.42
##  83 CT              2         13.9
##  84 CT              3          4.25
##  85 CT              4         -2.61
##  86 CT              5          2.13
##  87 DE              0          0.261
##  88 FL              1         -0.153
##  89 FL              2        -16.0
##  90 FL              3         -0.746
##  91 FL              4         -4.64
##  92 FL              5          0.717
##  93 FL              6         -2.01
##  94 FL              7         -1.73
##  95 FL              8         -3.90
##  96 FL              9          0.738
##  97 FL             10          0.208
##  98 FL             11         -0.922
##  99 FL             12         -8.07
## 100 FL             13         -0.627
## 101 FL             14          1.34
## 102 FL             15         -3.04
## 103 FL             16         -4.00
## 104 FL             17         -0.467
## 105 FL             18         -1.37
## 106 FL             19         -3.91
## 107 FL             20         -0.400
## 108 FL             21          3.03
## 109 FL             22          0.408
## 110 FL             23         -2.66
## 111 FL             24         -0.708
## 112 FL             25         -6.90
## 113 FL             26         -5.83
## 114 FL             27         -9.62
## 115 GA              1        -23.0
## 116 GA              2          3.53
## 117 GA              3         -3.57
## 118 GA              4         -0.883
## 119 GA              5         -2.93
## 120 GA              6         -7.56
## 121 GA              7         -5.88
## 122 GA              8         -3.45
## 123 GA              9        -12.2
## 124 GA             10        -20.5
```

```
## 125 GA             11         -5.34
## 126 GA             12         -3.65
## 127 GA             13          2.38
## 128 GA             14        -13.1
## 129 HI              1          7.15
## 130 HI              2          6.96
## 131 IA              1         -2.75
## 132 IA              2          2.05
## 133 IA              3         -1.67
## 134 IA              4          0.186
## 135 ID              1         -2.55
## 136 ID              2         -6.19
## 137 IL              1         -2.98
## 138 IL              2         -0.524
## 139 IL              3         -2.24
## 140 IL              4         -0.693
## 141 IL              5         -2.09
## 142 IL              6         -9.43
## 143 IL              7         -3.90
## 144 IL              8         -4.01
## 145 IL              9         -5.11
## 146 IL             10         -8.46
## 147 IL             11         -2.35
## 148 IL             12         -1.80
## 149 IL             13         -6.96
## 150 IL             14         -6.09
## 151 IL             15        -15.3
## 152 IL             16        -26.1
## 153 IL             17          4.73
## 154 IL             18        -10.5
## 155 IN              1          2.71
## 156 IN              2         -1.05
## 157 IN              3         -4.50
## 158 IN              4         -1.57
## 159 IN              5         -4.14
## 160 IN              6         -0.627
## 161 IN              7         -0.892
## 162 IN              8         -0.490
## 163 IN              9          2.96
## 164 KS              1          0.961
## 165 KS              2         -2.00
## 166 KS              3         -2.60
## 167 KS              4         -2.23
## 168 KY              1         -1.04
## 169 KY              2        -17.9
## 170 KY              3          2.10
## 171 KY              4         -4.23
## 172 KY              5        -12.2
## 173 KY              6         -5.08
## 174 LA              1         -5.03
## 175 LA              2          7.59
## 176 LA              3         14.5
## 177 LA              4         13.1
## 178 LA              5         -3.99
```

```
## 179 LA              6       -30.0
## 180 MA              1       NaN
## 181 MA              2         0.216
## 182 MA              3        -1.50
## 183 MA              4        -3.30
## 184 MA              5        -1.81
## 185 MA              6       -10.6
## 186 MA              7       NaN
## 187 MA              8        23.7
## 188 MA              9        12.3
## 189 MD              1       -32.9
## 190 MD              2        -8.06
## 191 MD              3        -6.31
## 192 MD              4        14.1
## 193 MD              5        -1.31
## 194 MD              6       -14.3
## 195 MD              7         9.15
## 196 MD              8        11.3
## 197 ME              1        15.2
## 198 ME              2         5.98
## 199 MI              1        -4.97
## 200 MI              2        -5.84
## 201 MI              3        -2.83
## 202 MI              4       -14.1
## 203 MI              5        15.1
## 204 MI              6        -3.48
## 205 MI              7       -10.2
## 206 MI              8         1.59
## 207 MI              9        19.1
## 208 MI             10       -23.9
## 209 MI             11       -24.1
## 210 MI             12       -10.8
## 211 MI             13        19.2
## 212 MI             14        31.8
## 213 MN              1        -5.63
## 214 MN              2       -11.4
## 215 MN              3       -26.0
## 216 MN              4         6.60
## 217 MN              5        36.3
## 218 MN              6        -6.66
## 219 MN              7       -12.9
## 220 MN              8       -17.8
## 221 MO              1        38.7
## 222 MO              2        10.9
## 223 MO              3       -15.3
## 224 MO              4       -16.3
## 225 MO              5        28.5
## 226 MO              6         5.17
## 227 MO              7         3.15
## 228 MO              8       -25.7
## 229 MS              1       -20.5
## 230 MS              2        33.2
## 231 MS              3        -3.06
## 232 MS              4       -38.8
```

```
## 233 MT              0         -7.06
## 234 NC              1          9.87
## 235 NC              2         -1.22
## 236 NC              3        -20.5
## 237 NC              4         29.5
## 238 NC              5        -15.3
## 239 NC              6          8.61
## 240 NC              7         -7.11
## 241 NC              8          1.15
## 242 NC              9          8.55
## 243 NC             10        -24.1
## 244 NC             11        -18.3
## 245 NC             12         32.6
## 246 NC             13         -0.661
## 247 ND              0        -16.8
## 248 NE              1         -4.18
## 249 NE              2         12.0
## 250 NE              3        -43.1
## 251 NH              1         -4.14
## 252 NH              2         -0.910
## 253 NJ              1         13.9
## 254 NJ              2         -2.97
## 255 NJ              3         -0.674
## 256 NJ              4        -18.1
## 257 NJ              5         -1.66
## 258 NJ              6         -3.98
## 259 NJ              7        -21.6
## 260 NJ              8          3.27
## 261 NJ              9          1.94
## 262 NJ             10         26.0
## 263 NJ             11        -19.1
## 264 NJ             12         11.5
## 265 NM              1          7.48
## 266 NM              2        -21.9
## 267 NM              3          4.76
## 268 NV              1         19.5
## 269 NV              2        -10.6
## 270 NV              3          4.86
## 271 NV              4          7.08
## 272 NY              1         -8.58
## 273 NY              2        -13.4
## 274 NY              3        -17.2
## 275 NY              4        -17.6
## 276 NY              5         10.9
## 277 NY              6        -14.0
## 278 NY              7          3.62
## 279 NY              8          3.16
## 280 NY              9         22.4
## 281 NY             10         11.2
## 282 NY             11        -47.2
## 283 NY             12         -1.14
## 284 NY             13          8.06
## 285 NY             14         -4.49
## 286 NY             15         23.8
```

```
## 287 NY             16        NaN
## 288 NY             17         13.6
## 289 NY             18          0.601
## 290 NY             19         -2.20
## 291 NY             20         19.1
## 292 NY             21         -7.44
## 293 NY             22          2.27
## 294 NY             23        -15.9
## 295 NY             24        -18.9
## 296 NY             25          6.21
## 297 NY             26         27.0
## 298 NY             27        -10.1
## 299 OH              1        -13.4
## 300 OH              2        -16.7
## 301 OH              3         33.1
## 302 OH              4         -2.46
## 303 OH              5         -2.10
## 304 OH              6         -7.34
## 305 OH              7        -14.5
## 306 OH              8        -23.3
## 307 OH              9          0.0708
## 308 OH             10        -25.0
## 309 OH             11         28.6
## 310 OH             12        -10.3
## 311 OH             13         16.0
## 312 OH             14         -5.13
## 313 OH             15         -5.85
## 314 OH             16          2.25
## 315 OK              1         11.1
## 316 OK              2         -2.68
## 317 OK              3        -19.0
## 318 OK              4        -25.8
## 319 OK              5         -9.30
## 320 OR              1          2.97
## 321 OR              2        -31.0
## 322 OR              3         21.9
## 323 OR              4        -11.9
## 324 OR              5        -17.0
## 325 PA              1          7.93
## 326 PA              2         14.7
## 327 PA              3         -4.62
## 328 PA              4        -12.5
## 329 PA              5         -6.80
## 330 PA              6         -2.99
## 331 PA              7          6.90
## 332 PA              8         14.0
## 333 PA              9         -9.47
## 334 PA             10         -2.31
## 335 PA             11        -13.9
## 336 PA             12        -15.3
## 337 PA             13        -16.0
## 338 PA             14         15.9
## 339 PA             15         -9.88
## 340 PA             16         -3.49
```

```
## 341 PA             17        -12.9
## 342 PA             18        -26.1
## 343 RI              1         12.9
## 344 RI              2         18.1
## 345 SC              1          6.36
## 346 SC              2          6.17
## 347 SC              3        -13.7
## 348 SC              4        -20.4
## 349 SC              5        -14.7
## 350 SC              6         30.9
## 351 SC              7          7.85
## 352 SD              0         -1.89
## 353 TN              1        -12.0
## 354 TN              2         -4.68
## 355 TN              3        -14.0
## 356 TN              4        -11.2
## 357 TN              5         32.7
## 358 TN              6         -5.79
## 359 TN              7        -28.5
## 360 TN              8        -22.6
## 361 TN              9         42.5
## 362 TX              1        -20.9
## 363 TX              2          4.47
## 364 TX              3         10.4
## 365 TX              4        -24.0
## 366 TX              5        -22.3
## 367 TX              6          3.32
## 368 TX              7         -7.53
## 369 TX              8        -48.5
## 370 TX              9         43.4
## 371 TX             10         16.1
## 372 TX             11        -14.4
## 373 TX             12          2.13
## 374 TX             13        -35.2
## 375 TX             14        -23.9
## 376 TX             15          1.50
## 377 TX             16          2.02
## 378 TX             17        -10.6
## 379 TX             18         29.7
## 380 TX             19        -37.1
## 381 TX             20         18.2
## 382 TX             21         -6.37
## 383 TX             22         -5.05
## 384 TX             23          1.37
## 385 TX             24          4.97
## 386 TX             25          1.04
## 387 TX             26        -13.6
## 388 TX             27        -26.1
## 389 TX             28         -9.56
## 390 TX             29         10.5
## 391 TX             30         29.8
## 392 TX             31        -22.0
## 393 TX             32        -26.8
## 394 TX             33         13.3
```

```
## 395 TX             34        11.7
## 396 TX             35        30.0
## 397 TX             36       -26.0
## 398 UT              1       -16.1
## 399 UT              2       -10.6
## 400 UT              3       -18.1
## 401 UT              4        -0.615
## 402 VA              1       -19.7
## 403 VA              2       -19.4
## 404 VA              3        12.9
## 405 VA              4        16.5
## 406 VA              5        -0.209
## 407 VA              6       -30.8
## 408 VA              7        -8.30
## 409 VA              8        30.7
## 410 VA              9       -47.7
## 411 VA             10       -18.7
## 412 VA             11         5.99
## 413 VT              0         9.49
## 414 WA              1        -0.478
## 415 WA              2        17.9
## 416 WA              3        -4.04
## 417 WA              4       -15.6
## 418 WA              5       -34.6
## 419 WA              6       -11.0
## 420 WA              7        17.6
## 421 WA              8       -21.9
## 422 WA              9        20.3
## 423 WA             10         0.118
## 424 WI              1       -22.9
## 425 WI              2         5.92
## 426 WI              3        -8.64
## 427 WI              4        33.6
## 428 WI              5        -6.10
## 429 WI              6        -0.492
## 430 WI              7         1.38
## 431 WI              8         3.48
## 432 WV              1        -2.28
## 433 WV              2         8.84
## 434 WV              3         1.83
## 435 WY              0         4.95
```