

2026

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```
library(tidyverse)

## -- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
## v dplyr      1.1.4      v readr      2.1.5
## v forcats    1.0.0      v stringr   1.5.2
## v ggplot2    4.0.0      v tibble    3.3.0
## v lubridate  1.9.4      v tidyr     1.3.1
## v purrr      1.1.0
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors

library(dplyr)
df<-read.csv("partybalot.csv")
df

##   year balot_jimin balot_komei batot_ishin balot_yotousum seat_jimin seat_komei
## 1 2014   25461449    765390         0      26226839      222         9
## 2 2017   26500777    832453         0      27333230      215         8
## 3 2021   27626236    872931         0      28499167      189         9
## 4 2024   20867762    730401         0      21598163      132         4
## 5 2026   27789183         0    4943331    32732514      249         0
##   seat_ishin seat_yotousum seat_total  n_balot  n_voter p_vote n_osbalot
## 1         0         231         295 54743087 103962784 0.53    19256
## 2         0         223         289 56952674 106091229 0.54    21462
## 3         0         198         289 58901616 105320523 0.56    19531
## 4         0         136         289 55935743 103880749 0.54    17288
## 5        20         269         289 58062807 103211224 0.56    28966
##   n_osvoters p_osvote
## 1    104677    0.18
## 2    100405    0.21
## 3     96664    0.20
## 4     95472    0.18
## 5    103380    0.28

str(df)

## 'data.frame':   5 obs. of  16 variables:
##  $ year      : num  2014 2017 2021 2024 2026
##  $ balot_jimin : num  25461449 26500777 27626236 20867762 27789183
##  $ balot_komei : num  765390 832453 872931 730401 0
##  $ batot_ishin : num  0 0 0 0 4943331
##  $ balot_yotousum: num  26226839 27333230 28499167 21598163 32732514
##  $ seat_jimin   : num  222 215 189 132 249
##  $ seat_komei   : num  9 8 9 4 0
```

```
## $ seat_ishin : num 0 0 0 0 20
## $ seat_yotousum : num 231 223 198 136 269
## $ seat_total : num 295 289 289 289 289
## $ n_balot : num 54743087 56952674 58901616 55935743 58062807
## $ n_voter : num 1.04e+08 1.06e+08 1.05e+08 1.04e+08 1.03e+08
## $ p_vote : num 0.53 0.54 0.56 0.54 0.56
## $ n_osbalot : num 19256 21462 19531 17288 28966
## $ n_osvoters : num 104677 100405 96664 95472 103380
## $ p_osvote : num 0.18 0.21 0.2 0.18 0.28
```

1

```
( )
df <- df %>%
  mutate(
    balot_jimin = as.numeric(as.character(balot_jimin)),
    n_voter = as.numeric(as.character(n_voter))
  ) %>%
  mutate(
    p_jimin = balot_jimin / n_balot,
    p_seat_jimin = seat_jimin / seat_total
  )
```

```
plot1 <- ggplot(
  df,
  aes(
    x=p_seat_jimin,
    y=p_jimin,
    label=year
  )
)+
geom_point(size = 3) +
geom_smooth(
  method = "lm",
  se = FALSE,
  linewidth = 0.7,
  fullrange = TRUE
) +
geom_text(
  vjust = -1,
  size = 3
) +

scale_x_continuous(
  limits = c(0, 1),
  labels = scales::percent
) +
scale_y_continuous(
  limits = c(0, 1),
  labels = scales::percent
) +

labs(
```

```

title = "      ( )      ",
x = "      ",
y = "      ( / )",
caption = "※      ( )"
) +
theme_minimal(base_size = 12)

```

```
plot1
```

```
## `geom_smooth()` using formula = 'y ~ x'
```

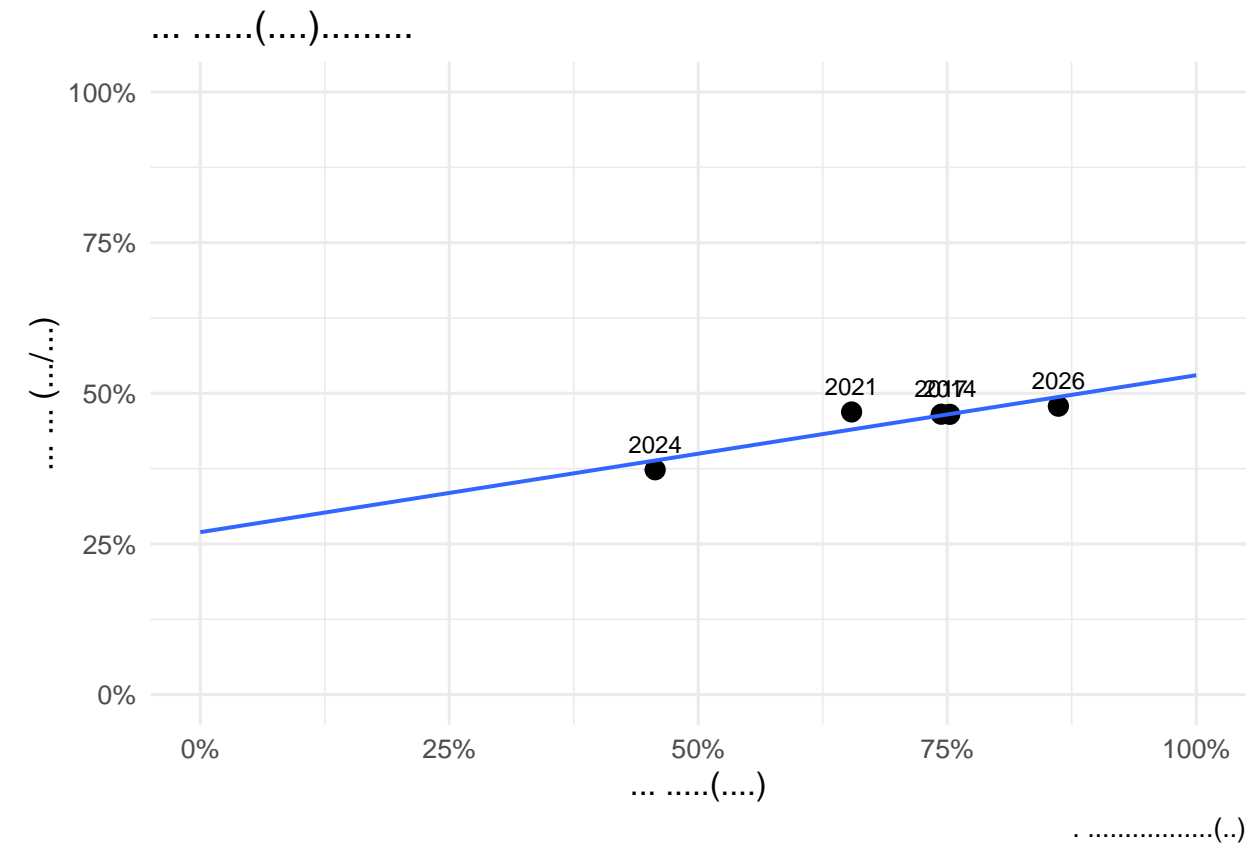
```
## Warning: The following aesthetics were dropped during statistical transformation: label.
```

```
## i This can happen when ggplot fails to infer the correct grouping structure in
```

```
## the data.
```

```
## i Did you forget to specify a `group` aesthetic or to convert a numerical
```

```
## variable into a factor?
```



2.