

# Tanay Barangay Presidential Election

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```
library(tidyverse)
```

```
## Warning: package 'ggplot2' was built under R version 4.4.1
```

```
## -- 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    1.5.1
## v ggplot2     4.0.0      v tibble     3.2.1
## v lubridate  1.9.3      v tidyr      1.3.1
## v purrr       1.0.2
## -- 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(readxl)
library(viridis)
```

```
## Loading required package: viridisLite
```

## Data

```
pres <- read_csv("pres.csv")
```

```
## New names:
## Rows: 105971 Columns: 17
## -- Column specification
## ----- Delimiter: "," chr
## (5): region, province, city, brgy, precinct dbl (12): ...1, total_votes,
## pres_1_abella, pres_2_de_guzman, pres_3_domagos...
## i Use 'spec()' to retrieve the full column specification for this data. i
## Specify the column types or set 'show_col_types = FALSE' to quiet this message.
## * ' -> '...1'
```

```
precint <- read_excel("precint.xlsx")
```

```
precinct <- precinct %>% mutate(precinct = PRECINCT_ID)
```

```
df <- precinct %>%  
  left_join(pres, by = "precinct") %>%  
  rename(  
    Candidate_Abella = pres_1_abella,  
    Candidate_De_Guzman = pres_2_de_guzman,  
    Candidate_Domagoso = pres_3_domagoso,  
    Candidate_Gonzales = pres_4_gonzales,  
    Candidate_Lacson = pres_5_lacson,  
    Candidate_Mangondato = pres_6_mangondato,  
    Candidate_Marcos = pres_7_marcos,  
    Candidate_Montemayor = pres_8_montemayor,  
    Candidate_Pacquiao = pres_9_pacquiao,  
    Candidate_Robredo = pres_10_robredo  
  )
```

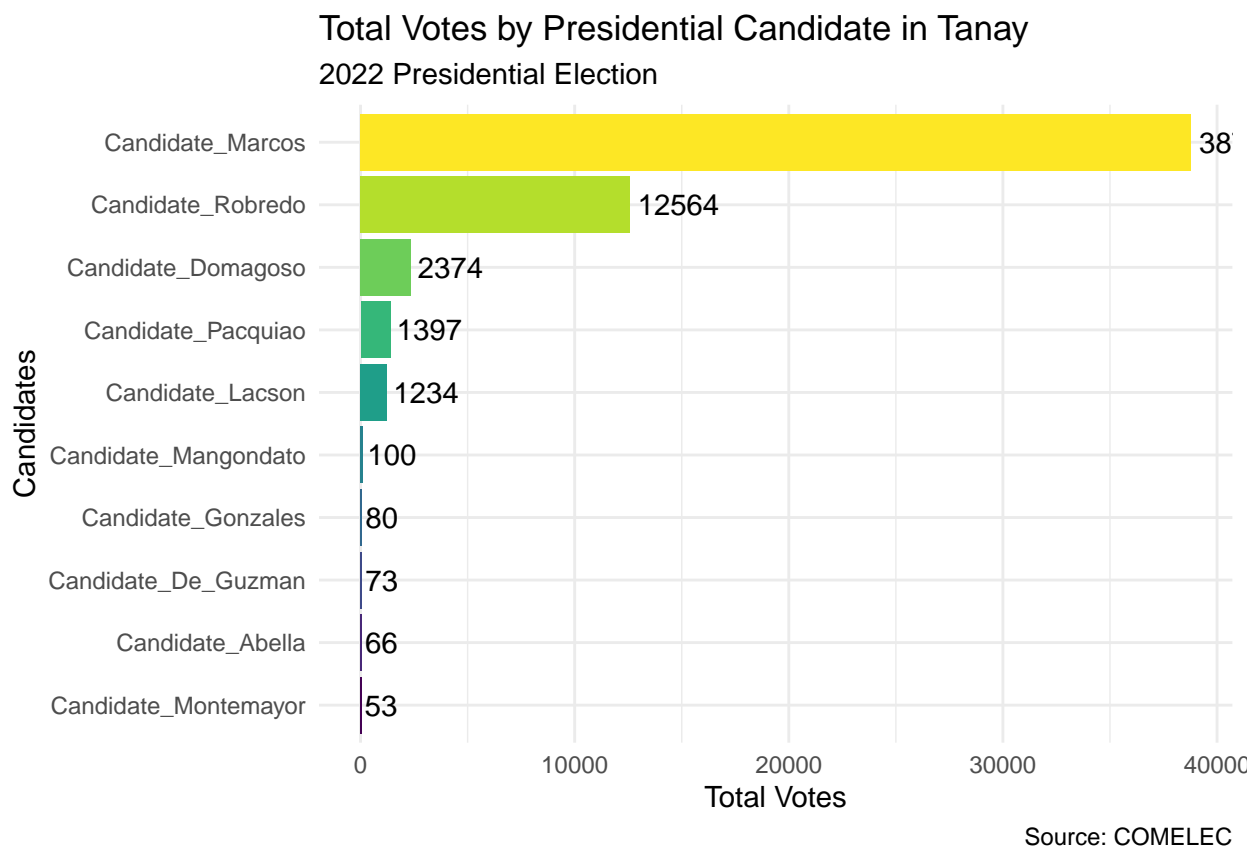
```
df_brgy <- df %>%  
  filter(city == "TANAY") %>%  
  group_by(brgy) %>%  
  summarise(  
    across(starts_with("Cand"), sum, na.rm = TRUE),  
    .groups = "drop"  
  )
```

```
## Warning: There was 1 warning in 'summarise()'.  
## i In argument: 'across(starts_with("Cand"), sum, na.rm = TRUE)'.  
## i In group 1: 'brgy = "CAYABU"'.  
## Caused by warning:  
## ! The '...' argument of 'across()' is deprecated as of dplyr 1.1.0.  
## Supply arguments directly to '.fns' through an anonymous function instead.  
##  
## # Previously  
## across(a:b, mean, na.rm = TRUE)  
##  
## # Now  
## across(a:b, \(x) mean(x, na.rm = TRUE))
```

```
df_long <- df_brgy %>%  
  pivot_longer(  
    cols = starts_with("Cand"),  
    names_to = "candidate",  
    values_to = "votes"  
  ) %>%  
  mutate(candidate = fct_reorder(candidate, votes))  
  
df_total <- df_long %>%  
  group_by(candidate) %>%  
  summarise(total_votes = sum(votes)) %>%  
  ungroup() %>%  
  mutate(candidate = fct_reorder(candidate, total_votes))
```

## Plots

```
ggplot(df_total, aes(x = total_votes, y = candidate, fill = candidate)) +  
  geom_col() +  
  geom_text(aes(label = total_votes), hjust = -0.1, size = 4) +  
  labs(  
    title = "Total Votes by Presidential Candidate in Tanay",  
    subtitle = "2022 Presidential Election",  
    x = "Total Votes",  
    y = "Candidates",  
    caption = "Source: COMELEC"  
  ) +  
  theme_minimal() +  
  guides(fill = "none") +  
  scale_fill_viridis_d()
```



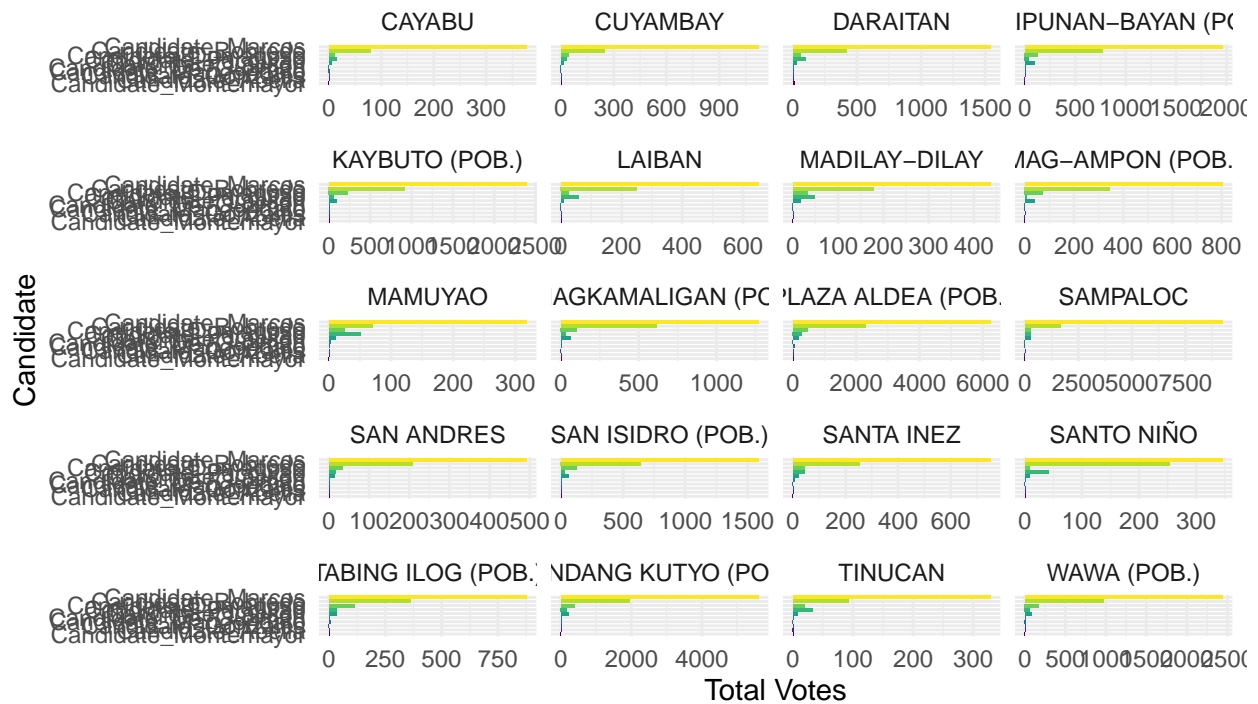
```
ggplot(df_long, aes(y = candidate, x = votes, fill = candidate)) +  
  geom_bar(stat = "identity") +  
  labs(  
    title = "Candidate Performance Within Each Barangay in Tanay",  
    subtitle = "2022 Presidential Election",  
    x = "Total Votes",  
    y = "Candidate",  
    caption = "Source: COMELEC"  
  )
```

```

) +
facet_wrap(~ brgy, ncol = 4, scales = "free_x") +
theme_minimal() +
guides(fill = "none") +
scale_fill_viridis_d()

```

## Candidate Performance Within Each Barangay in Tanay 2022 Presidential Election



Source: COMELEC