

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 tidyrr    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: ","
## (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")
```

```

precint <- 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_marco,
    Candidate_Montemayor = pres_8_montemayor,
    Candidate_Pacquiao = pres_9_pacquiao,
    Candidate_Robredo = pres_10_robreo
  )

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))
```

```

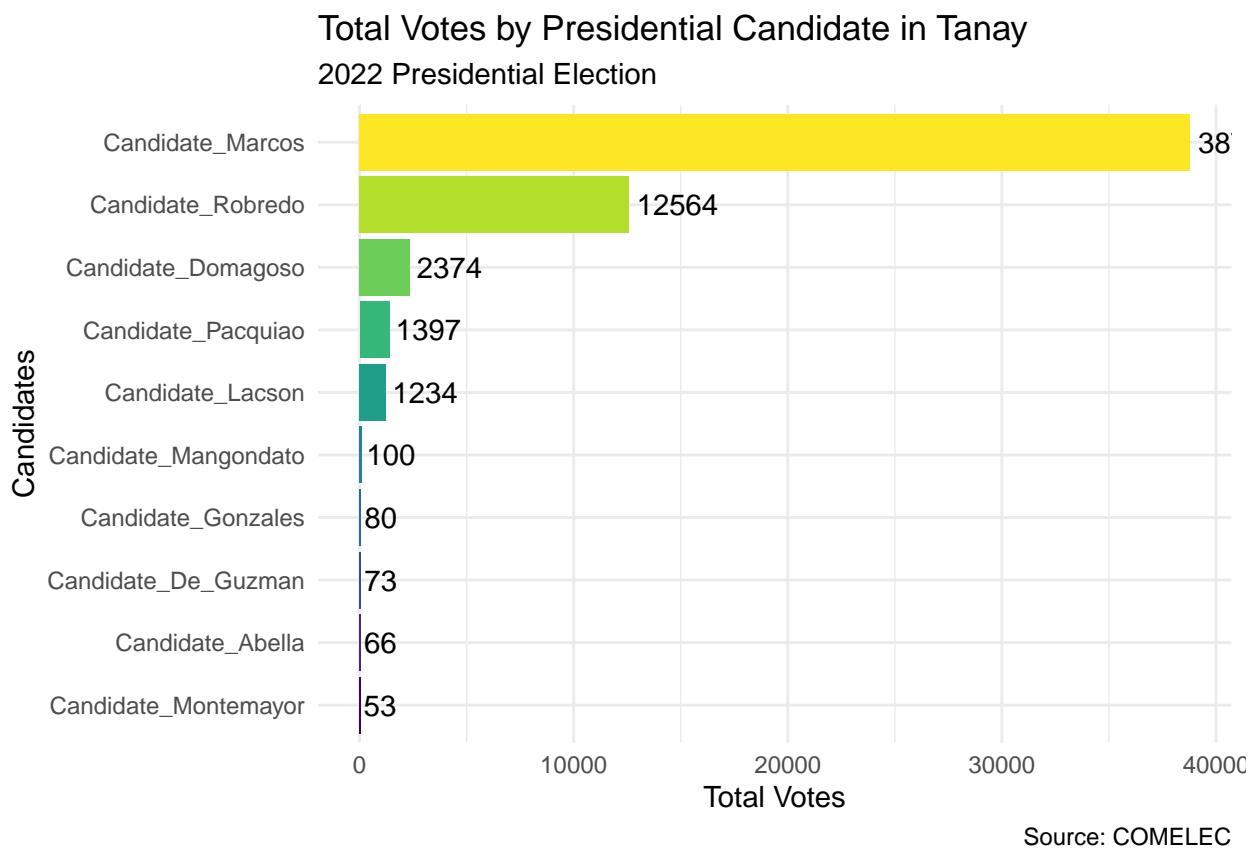
df_long <- df_brgy %>%
  pivot_longer(
    cols = starts_with("Cand"),
    names_to = "candidate",
    values_to = "votes"
  ) %>%
  mutate(candidate = fct_reorder(candidate, votes))

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()

```

