# The 2000 Florida election

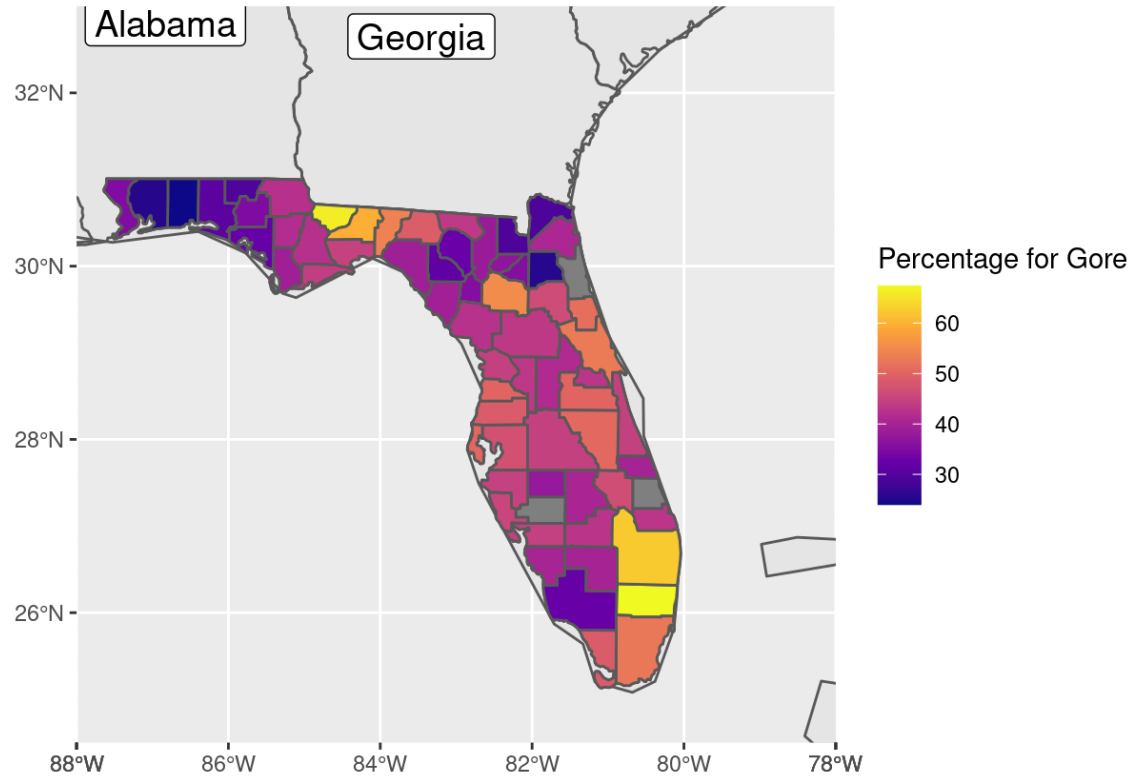
Merge the election data with the map data

Add labels

Start Over

# Introduction

We're going to end up with a choropleth map that shows the percentage of votes for Gore by county in Florida. Our final map will look something like this:




# Creating a map

# The 2000 Florida election

- Merge the election data with the map
- data
- Add labels

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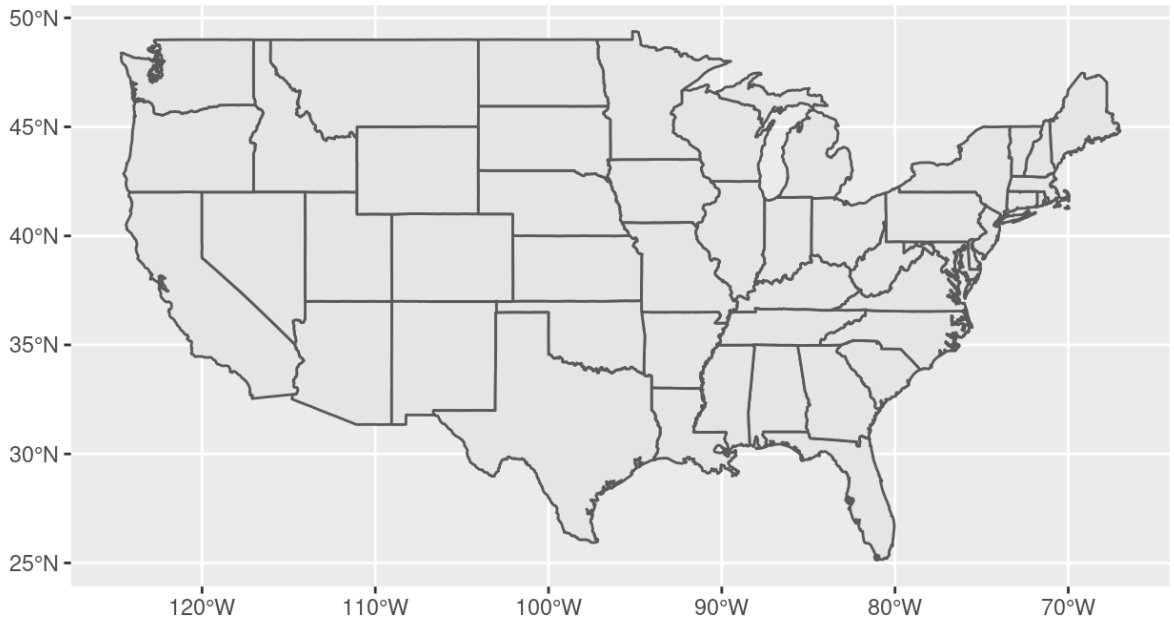
# First, let's make a map of the United States

```
library(maps)
library(sf)
states <- st_as_sf(maps::map('state', plot = F,
                             fill = T)) %>%
  cbind(st_coordinates(st_centroid(.))) %>%
  mutate(ID = str_to_title(ID))

ggplot(data = states)+
  geom_sf()
```




# Add labels to the map

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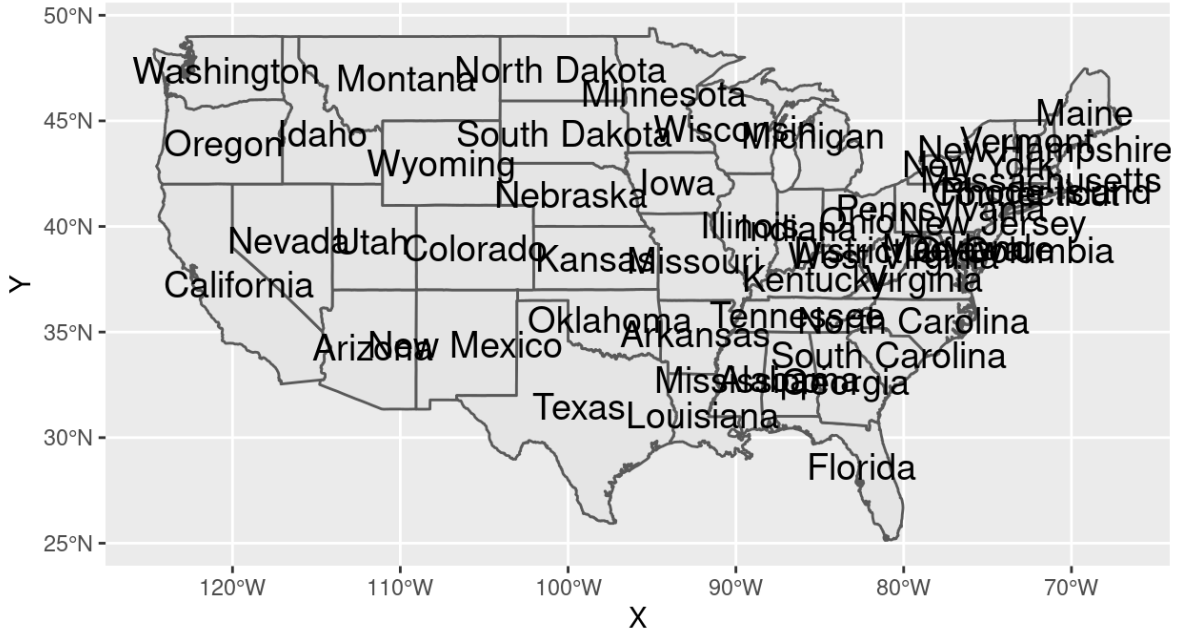
Code | Start Over | Solution | Run Code

```
ggplot(data = states)+
  geom_sf() +
  geom_text(data = states, aes(X, Y, label=ID),
            size = 5)
```




# And focus in on the southeast

```
ggplot(data = states)+
  geom_sf() +
  geom_text(data = states, aes(X, Y, label=ID),
            size = 5) +
  coord_sf(xlim = c(-88, -78), ylim = c(24.5, 33),
           expand = F)
```

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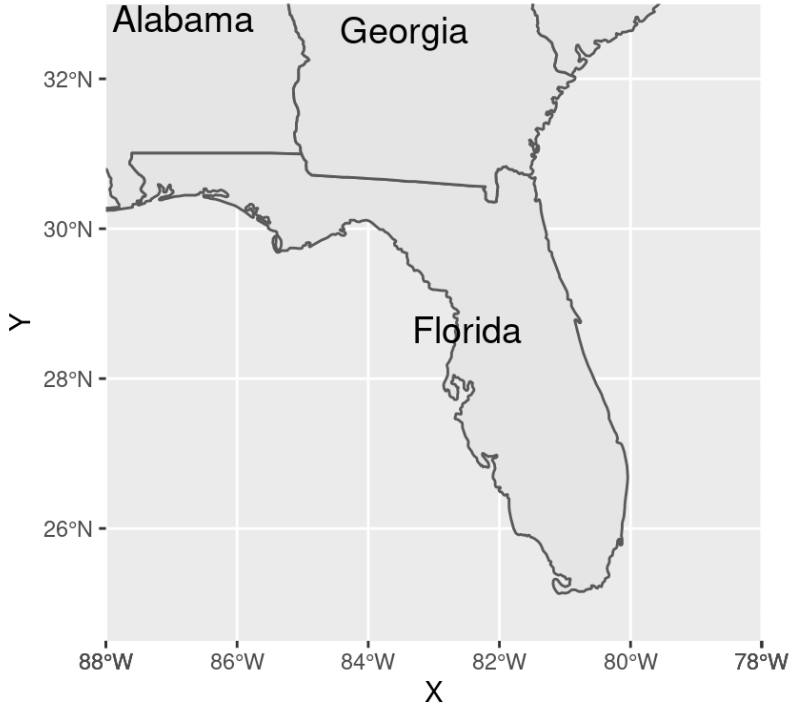


# Now we need the county boundaries

We can get them from the **maps** package. Note that we're specifying a CRS value, which defines a particular projection.

Code | Start Over | Run Code

```
library(maps)
counties <- st_as_sf(maps::map('county', plot = F,
                               fill = T), crs=4269)
counties <- counties %>%
  dplyr::filter(str_detect(ID, 'florida'))
counties <- counties %>%
  separate(ID, c('State','County'), sep = ',') %>%
  mutate_at(vars(State:County), str_to_title)
```

Play around with the code above and see what `counties` looks like. You'll find that it's data frame. This means that we'll have a pretty easy job putting the election data and geographic data together.

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## Now we can plot

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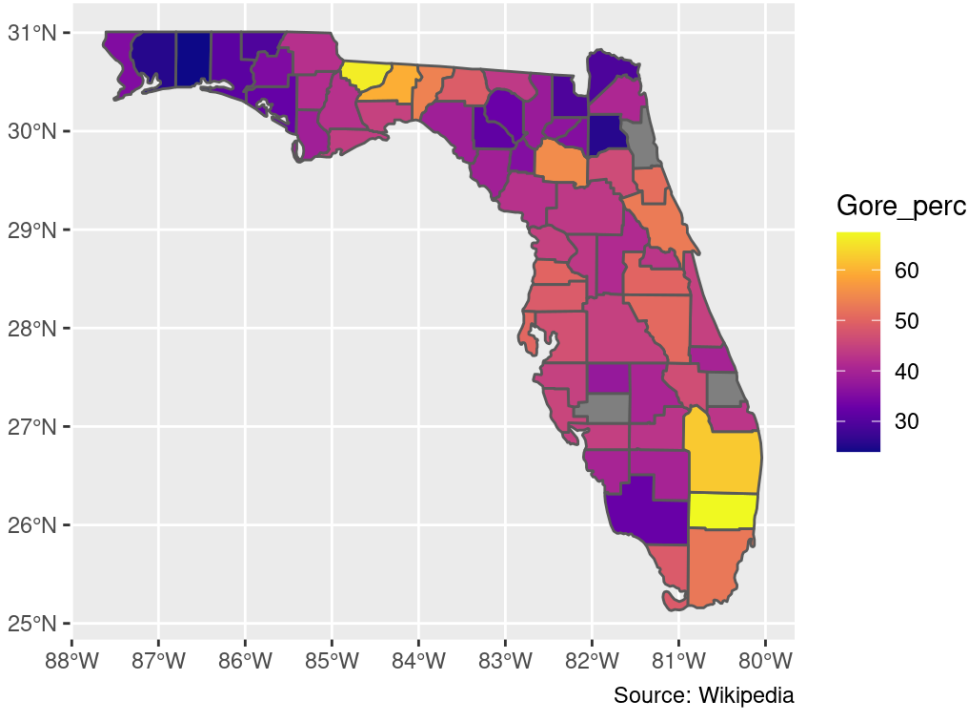
```
ggplot(election_by_county) +
  geom_sf(aes(fill = Gore_perc)) +
  scale_fill_viridis_c(option = 'plasma') +
  labs(caption = 'Source: Wikipedia')
```




## Add labels

We can clean this up a bit, and add surrounding states.

For this, we make the full US map and limit it to Florida, as before. We then add some labels for the names. Note

Code | Start Over | Hint | Run Code

```
plt_map <- ggplot()+
```

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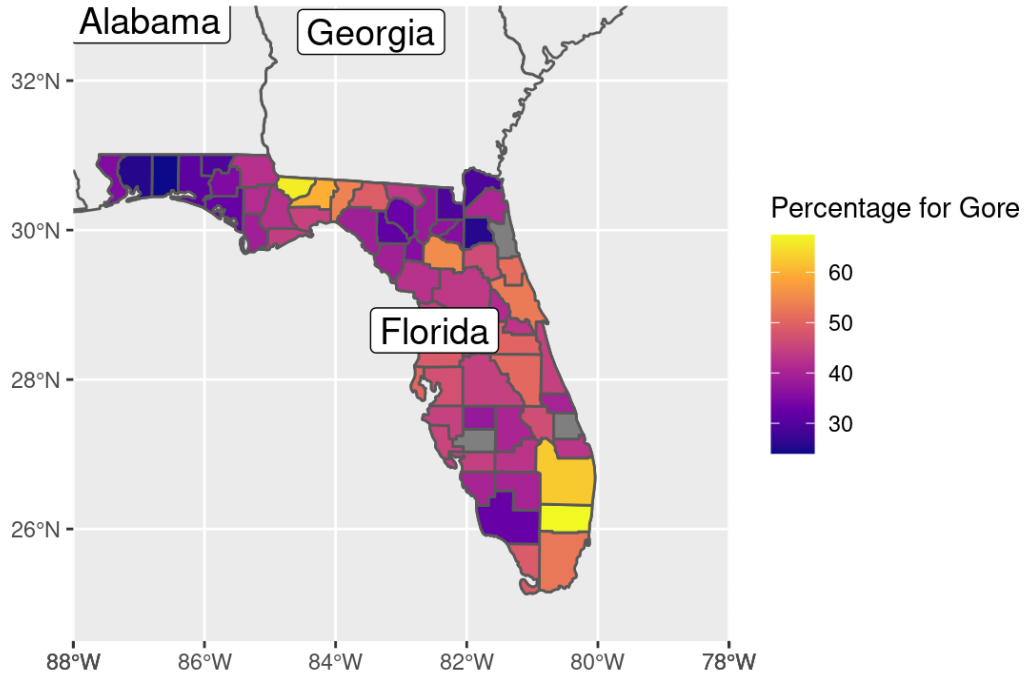
```
  geom_sf(data = states, fill = NA) +
  geom_sf(data = election_by_county,
          aes(fill=Gore_perc)) +
  geom_label(data = states , #<<
             aes(X, Y, label = ID), #<<
             size = 5) +
  coord_sf(xlim = c(-88, -78), ylim = c(24.5, 33),
           expand = F) +
  labs(x = '', y = '', fill = 'Percentage for Gore') +
  scale_fill_viridis_c(option = 'plasma')
plt_map
```




Modify this code so you don't get the label for Flordia printed.

And there you have it, Not too bad, right?

The process is

1. Find the data for the geometries you want to see
2. Find the actual map data you can use (you can always convert it using `st_as_sf`)
3. Do a join to put the data and the map geometries together
4. Plot away.

# The 2000 Florida election

Previous Topic

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