Counts + Rates

Table of Contents

This reports stores the drafts of the visualizations generated from the combined data set produced by ./manipulation/4-combiner.R script.

# Set the scene

Describe the working environment.

# Attach these packages so their functions don't need to be qualified  
library(magrittr) # pipes  
library(dplyr) # disable when temp lines are removed  
library(ggplot2) # graphs  
library(ggpubr) # documents

# Call `base::source()` on any repo file that defines functions needed below.   
base::source("./scripts/common-functions.R")

path\_file\_input <- "./data-unshared/derived/9-combined.rds"  
html\_flip <- FALSE  
baseSize <- 10  
  
  
age\_group\_order <- c(  
 "less\_than\_1"  
 ,"1\_4"   
 ,"5\_9"   
 ,"10\_14"   
 ,"15\_19"   
 ,"20\_24"   
 ,"25\_34"   
 ,"35\_44"   
 ,"45\_54"   
 ,"55\_64"   
 ,"65\_74"   
 ,"75\_84"   
 ,"85\_plus"   
)

#Put code in here. It doesn't call a chunk in the codebehind file.

dto <- readRDS(path\_file\_input)  
dto %>% pryr::object\_size(); dto %>% class(); dto %>% names()

16.1 MB

[1] "list"

[1] "granularity\_gls" "granularity\_population"

# to collapse into a single data frame  
ds <- dto[["granularity\_population"]] %>%   
 Reduce(function(a , b) dplyr::left\_join( a, b ), . )  
  
ds %>% explore::describe\_all()

variable type na na\_pct unique min mean max  
1 county chr 0 0.0 67 NA NA NA  
2 year chr 0 0.0 17 NA NA NA  
3 sex chr 0 0.0 2 NA NA NA  
4 race chr 0 0.0 2 NA NA NA  
5 ethnicity chr 0 0.0 3 NA NA NA  
6 age\_group chr 0 0.0 13 NA NA NA  
7 population\_count dou 0 0.0 14511 0 2926.53 144791  
8 peer\_group dou 1612 1.5 25 1 32.85 81  
9 resident\_deaths dou 97718 90.5 40 1 3.30 41  
10 region chr 101972 94.4 4 NA NA NA  
11 community dou 104156 96.4 35 8 491.19 3764  
12 professionals dou 102388 94.8 45 4 95.89 1161  
13 county\_gls log 101972 94.4 2 1 1.00 1

# to help us filter out those counties that had programming  
counties\_gls <- ds %>%   
 distinct(county,region) %>% # those who have region had programming  
 na.omit() %>%  
 dplyr::distinct(county) %>%   
 as.list() %>% unlist() %>% as.character()  
  
  
# to view the total programming delivered (between 2015 and 2017)  
ds %>%   
 dplyr::filter(county %in% counties\_gls) %>%   
 dplyr::distinct(county, year, community, professionals ) %>%   
 # na.omit() %>%   
 dplyr::group\_by(county) %>%   
 dplyr::summarize(  
 community = sum(community, na.rm= T)  
 ,professionals = sum(professionals, na.rm= T)  
 ) %>%   
 dplyr::arrange(desc(professionals))

# A tibble: 23 x 3  
 county community professionals  
 <chr> <dbl> <dbl>  
 1 Orange 8182 1605  
 2 Saint Lucie 1068 830  
 3 Volusia 2170 432  
 4 Seminole 2400 419  
 5 Lake 206 290  
 6 Palm Beach 935 241  
 7 Duval 0 235  
 8 Saint Johns 250 210  
 9 Brevard 1126 166  
10 Hernando 115 131  
# ... with 13 more rows

ds <- ds %>%   
 dplyr::rename(  
 "deaths\_by\_suicide" = "resident\_deaths" # to remind what we count  
 ) %>%   
 dplyr::mutate(  
 # to have a standardized measure / put counties on the same scale  
 suicide\_rate\_per100k = (deaths\_by\_suicide / population\_count) \*100000  
 # to have a single variable describing racial background  
 ,racethnicity = paste0(race," + ", ethnicity)  
 # to aid in graph production ( note the spaces at the end of "NE ")  
 ,rgn = car::recode(  
 region,  
 "  
 'central' ='CN'  
 ;'southeast'='SE'  
 ;'northeast'='NE '  
 "  
 )  
 ) %>%   
   
 dplyr::select(county, year, sex, age\_group, race, ethnicity, racethnicity, # context  
 region, rgn, # support for graphing and grouping  
 population\_count, deaths\_by\_suicide, suicide\_rate\_per100k, #measures  
 community, professionals # treatment  
 )  
  
ds %>% explore::describe\_all()

variable type na na\_pct unique min mean max  
1 county chr 0 0.0 67 NA NA NA  
2 year chr 0 0.0 17 NA NA NA  
3 sex chr 0 0.0 2 NA NA NA  
4 age\_group chr 0 0.0 13 NA NA NA  
5 race chr 0 0.0 2 NA NA NA  
6 ethnicity chr 0 0.0 3 NA NA NA  
7 racethnicity chr 0 0.0 6 NA NA NA  
8 region chr 101972 94.4 4 NA NA NA  
9 rgn chr 101972 94.4 4 NA NA NA  
10 population\_count dou 0 0.0 14511 0.00 2926.53 144791.00  
11 deaths\_by\_suicide dou 97718 90.5 40 1.00 3.30 41.00  
12 suicide\_rate\_per100k dou 97718 90.5 8395 0.83 63.70 7142.86  
13 community dou 104156 96.4 35 8.00 491.19 3764.00  
14 professionals dou 102388 94.8 45 4.00 95.89 1161.00

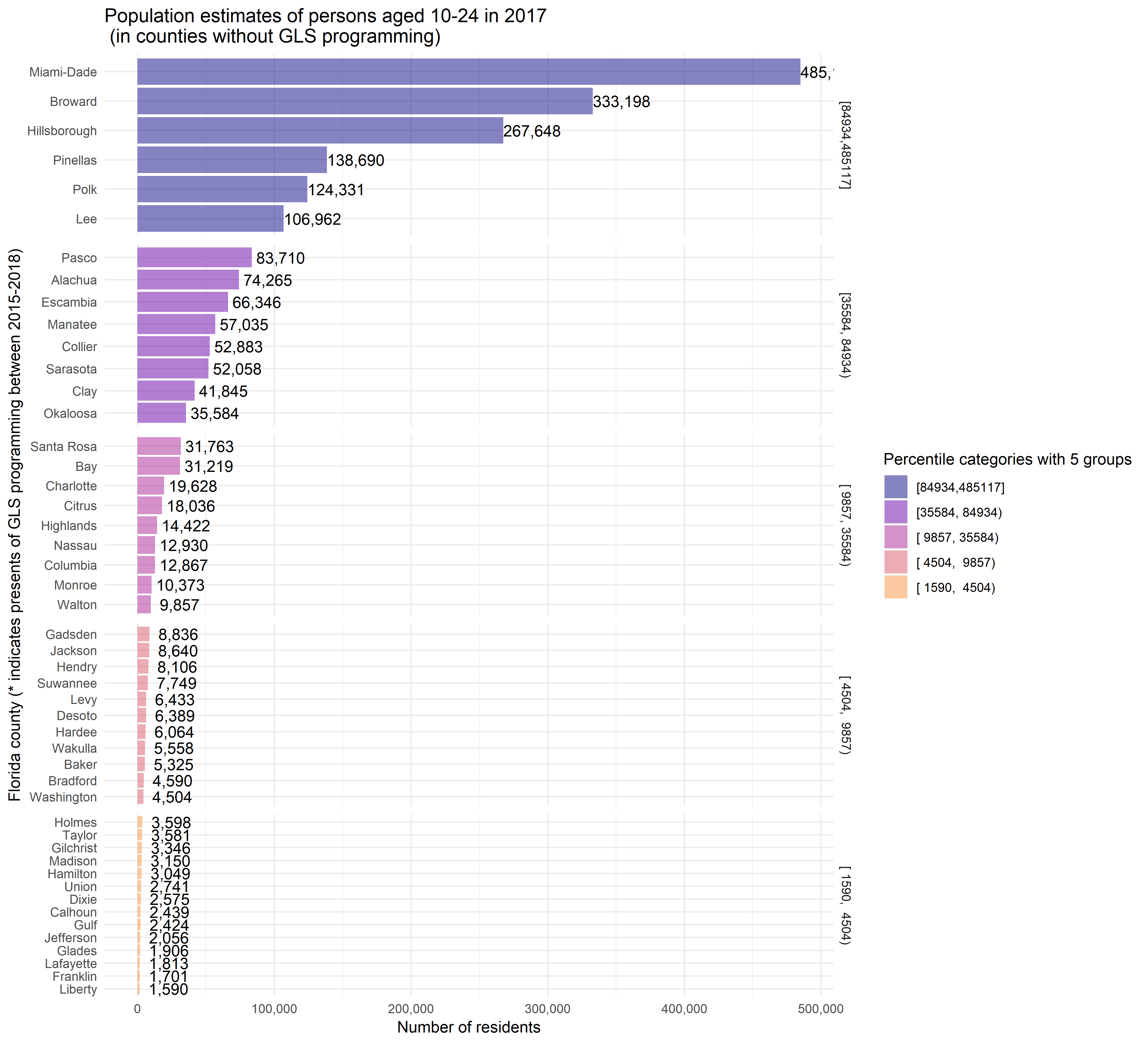
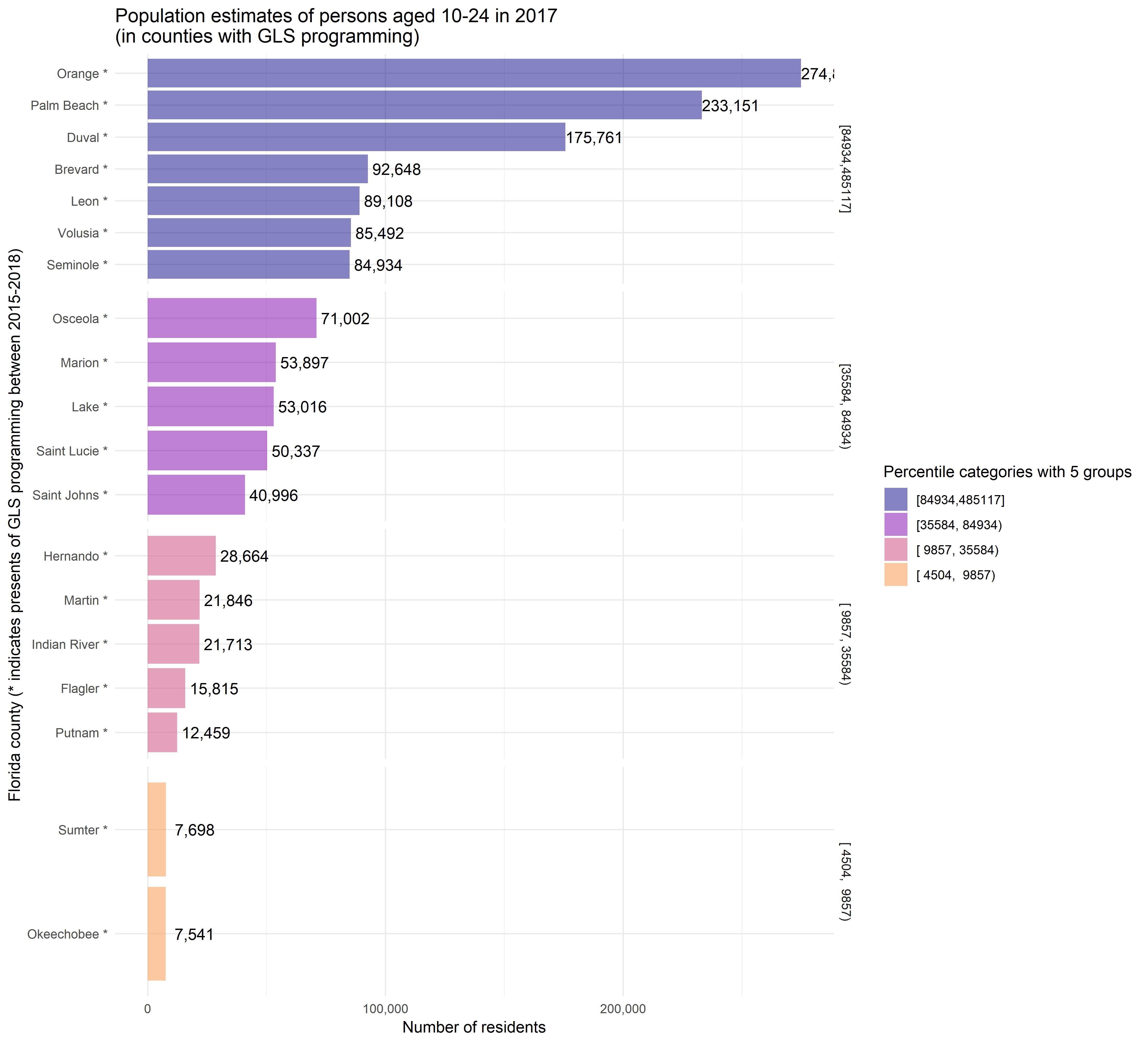
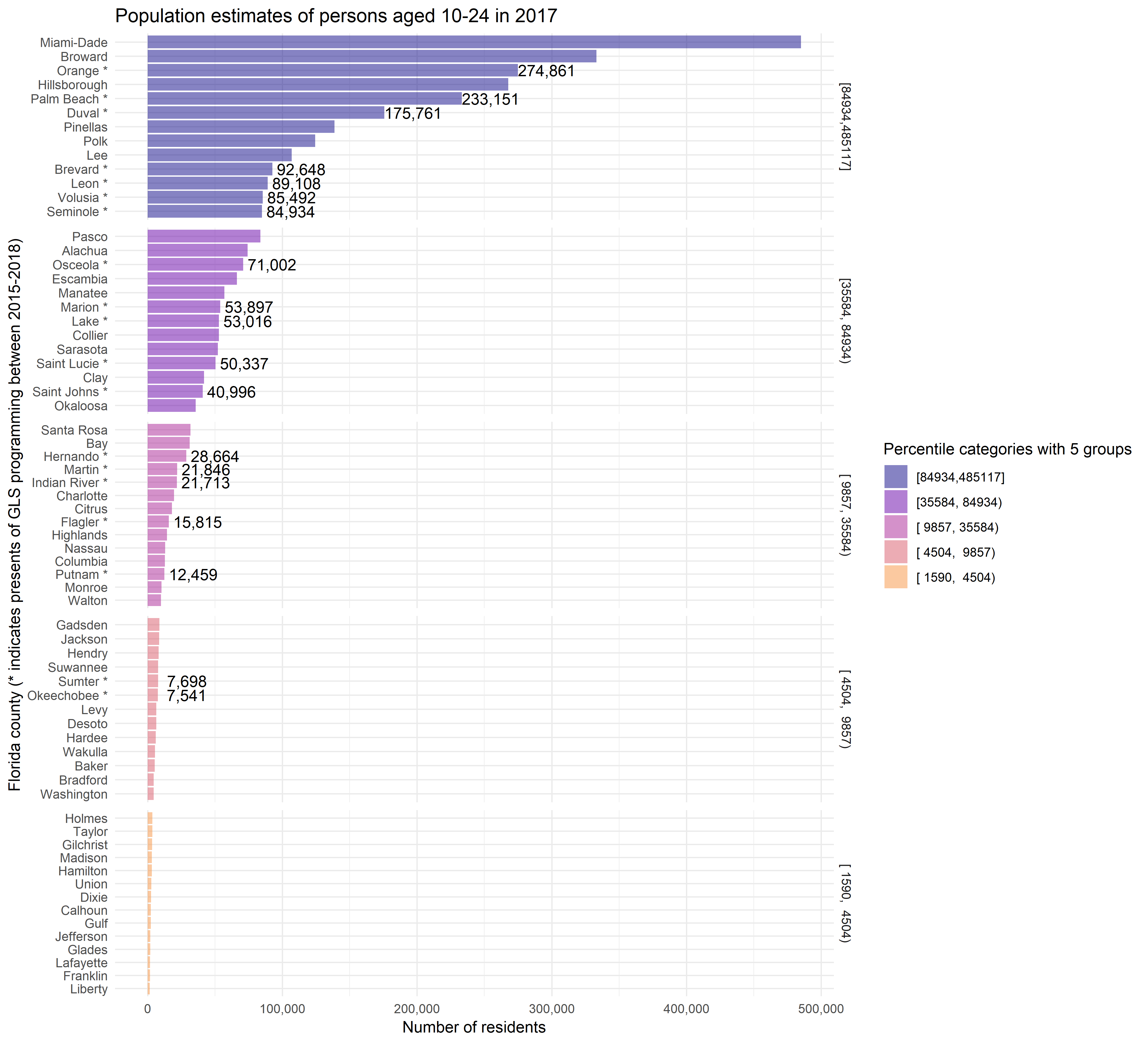
# to remind out how to aggregate   
# the most granular level includes (6):  
# county, year, sex, age\_group, race, ethnicity  
d1 <- ds %>%   
 # apply filters to better understand the structure of the data  
 # dplyr::filter(county %in% c("Orange") ) %>%  
 # dplyr::filter(year %in% c("2015") ) %>%  
 # dplyr::filter(sex %in% c("Male") ) %>%  
 # dplyr::filter(age\_group %in% c("15\_19") ) %>%  
 # dplyr::filter(race %in% c("White") ) %>%  
 # dplyr::filter(ethnicity %in% c("Non-Hispanic") )%>%  
 # dplyr::filter(ethnicity %in% c("Hispanic","Non-Hispanic") )%>%  
 dplyr::group\_by(county, year, sex, age\_group, race, ethnicity) %>% # no aggregation  
 # to exemplify useful aggregates:  
 # dplyr::group\_by(county, year ) %>%  
 # dplyr::group\_by(county, year, sex ) %>%  
 # dplyr::group\_by(county, year, sex, age\_group ) %>%  
 # dplyr::group\_by(county, year, sex, racethnicity ) %>%  
 dplyr::summarize(  
 population\_count = sum(population\_count, na.rm = T)  
 ,deaths\_by\_suicide = sum(deaths\_by\_suicide, na.rm = T)  
 ,professionals = sum(professionals, na.rm = T)  
 ,community = sum(community, na.rm = T)  
 )   
# use the code for preparing data for custom graphs  
# d1 %>% glimpse(60)  
# d1 %>% explore::describe()

# I Exposition

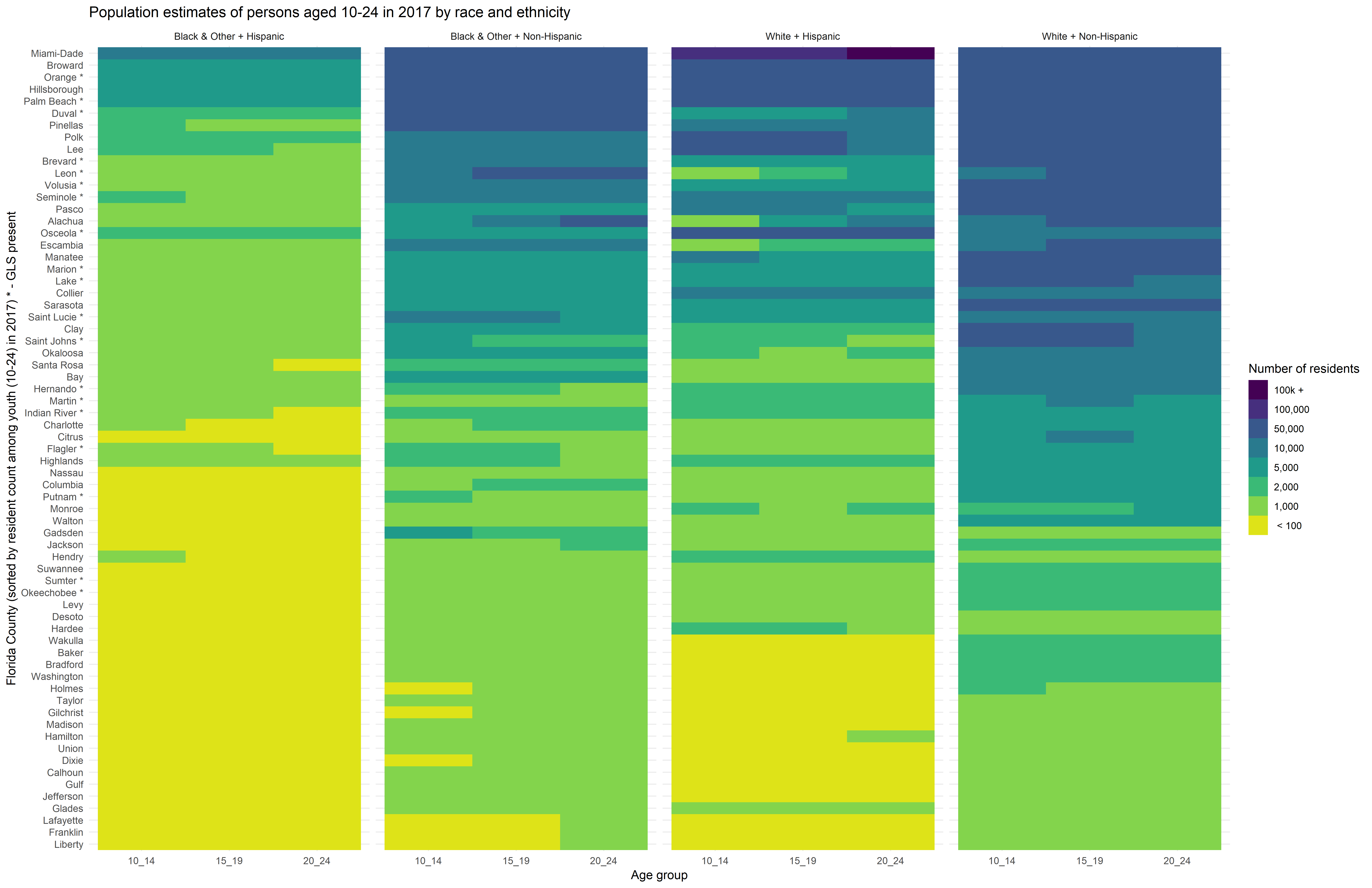
# II. Development

## Population Counts

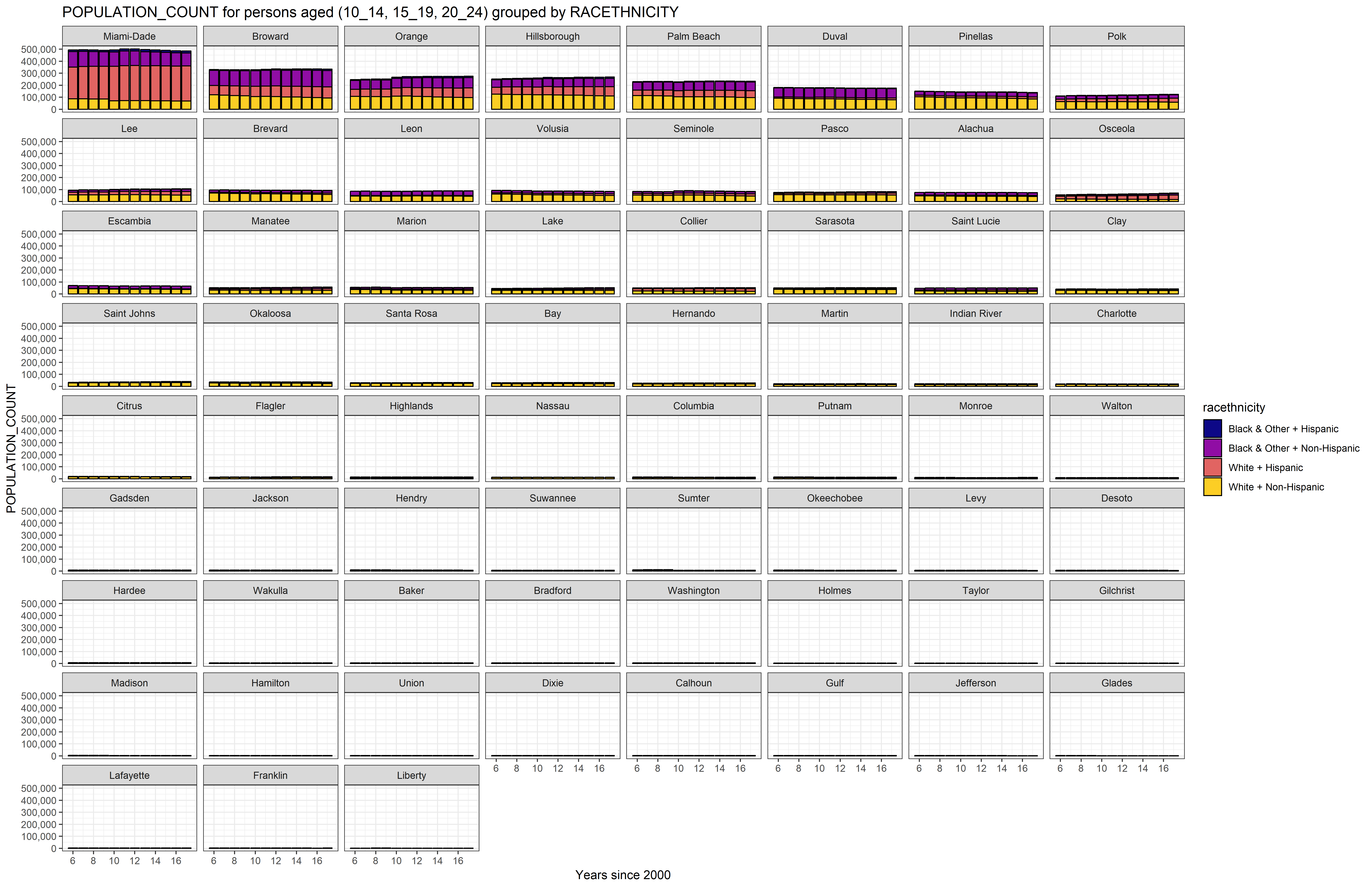
### p0



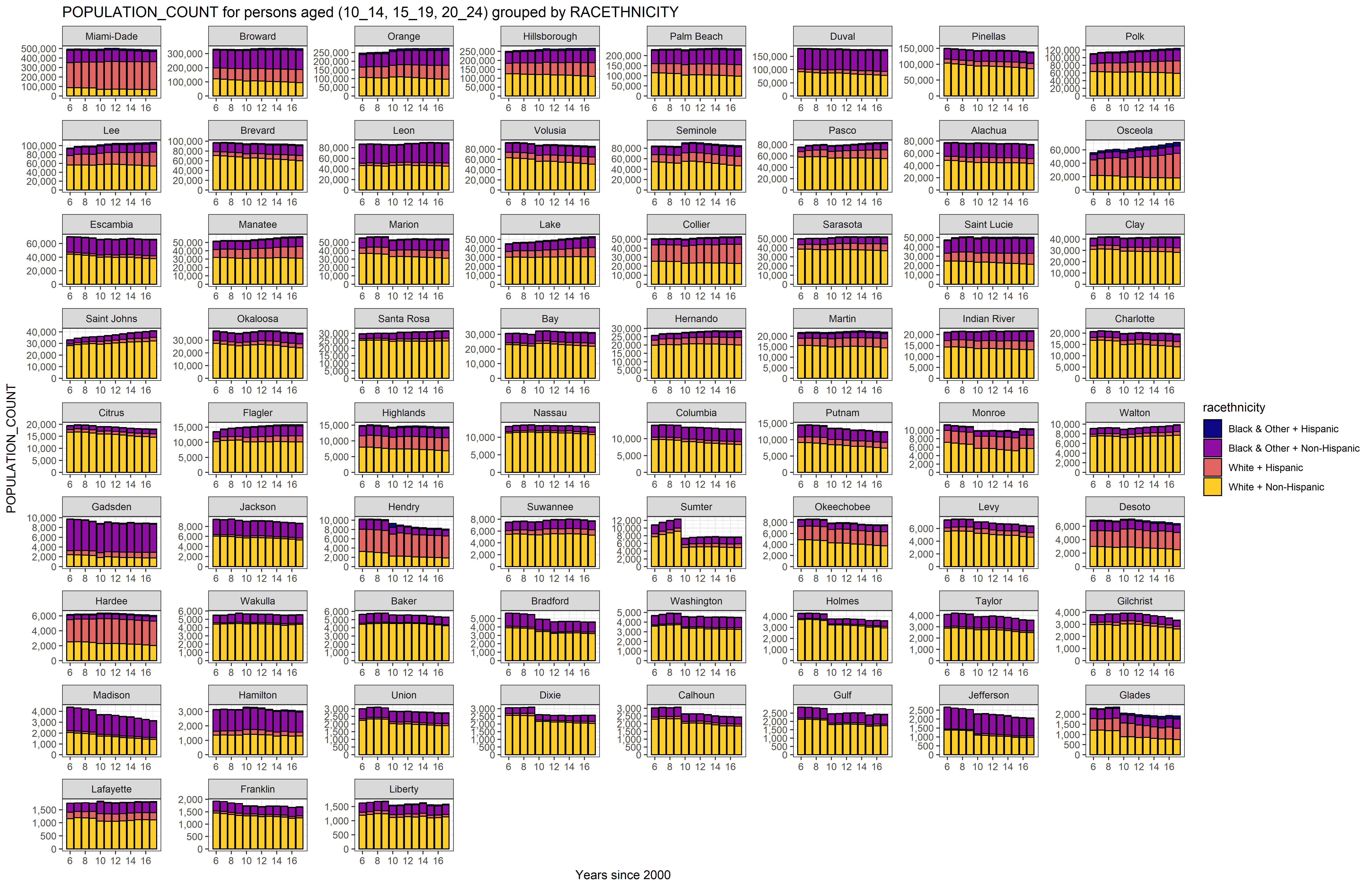
### p1



### p2

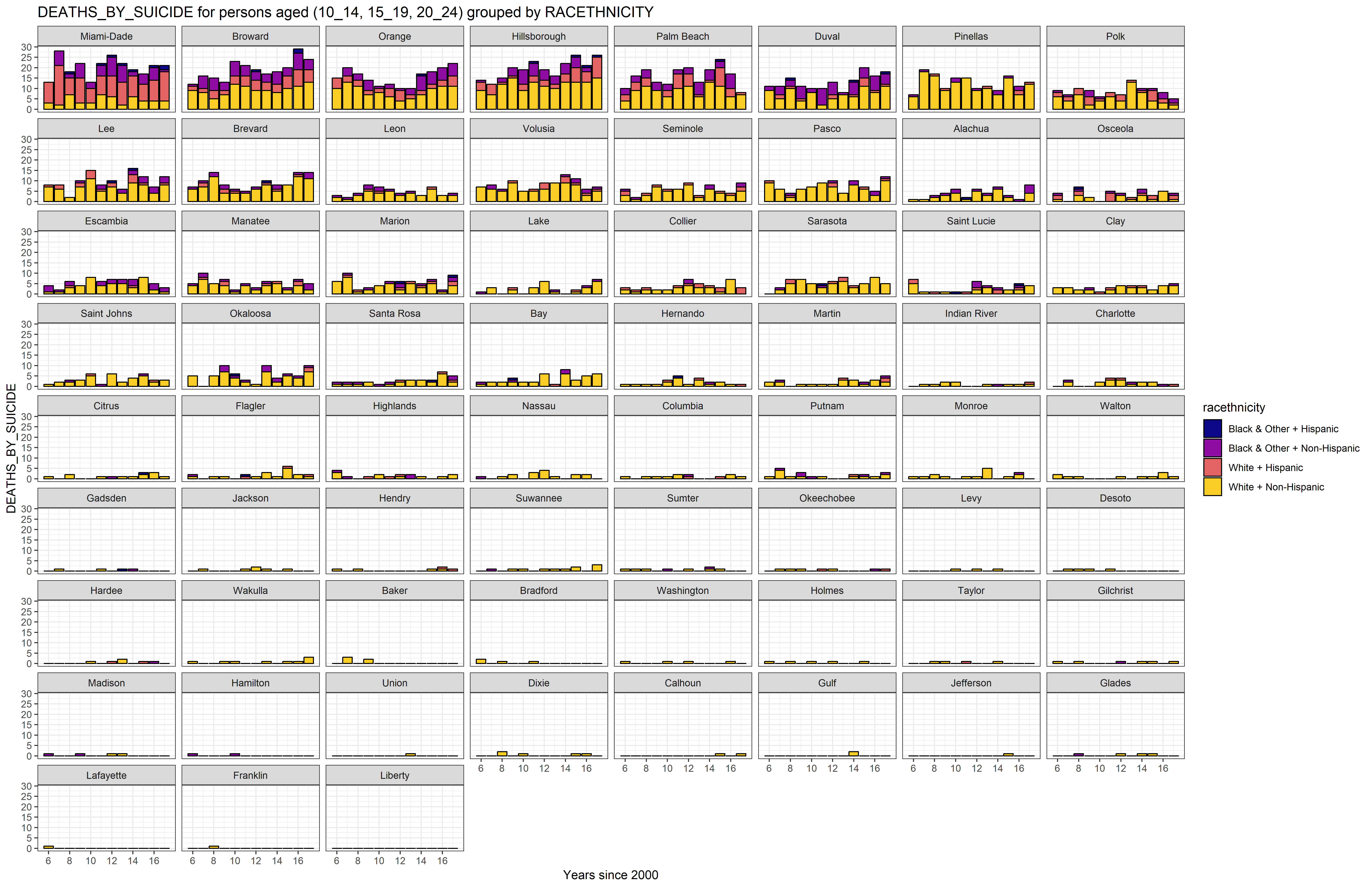


### p3

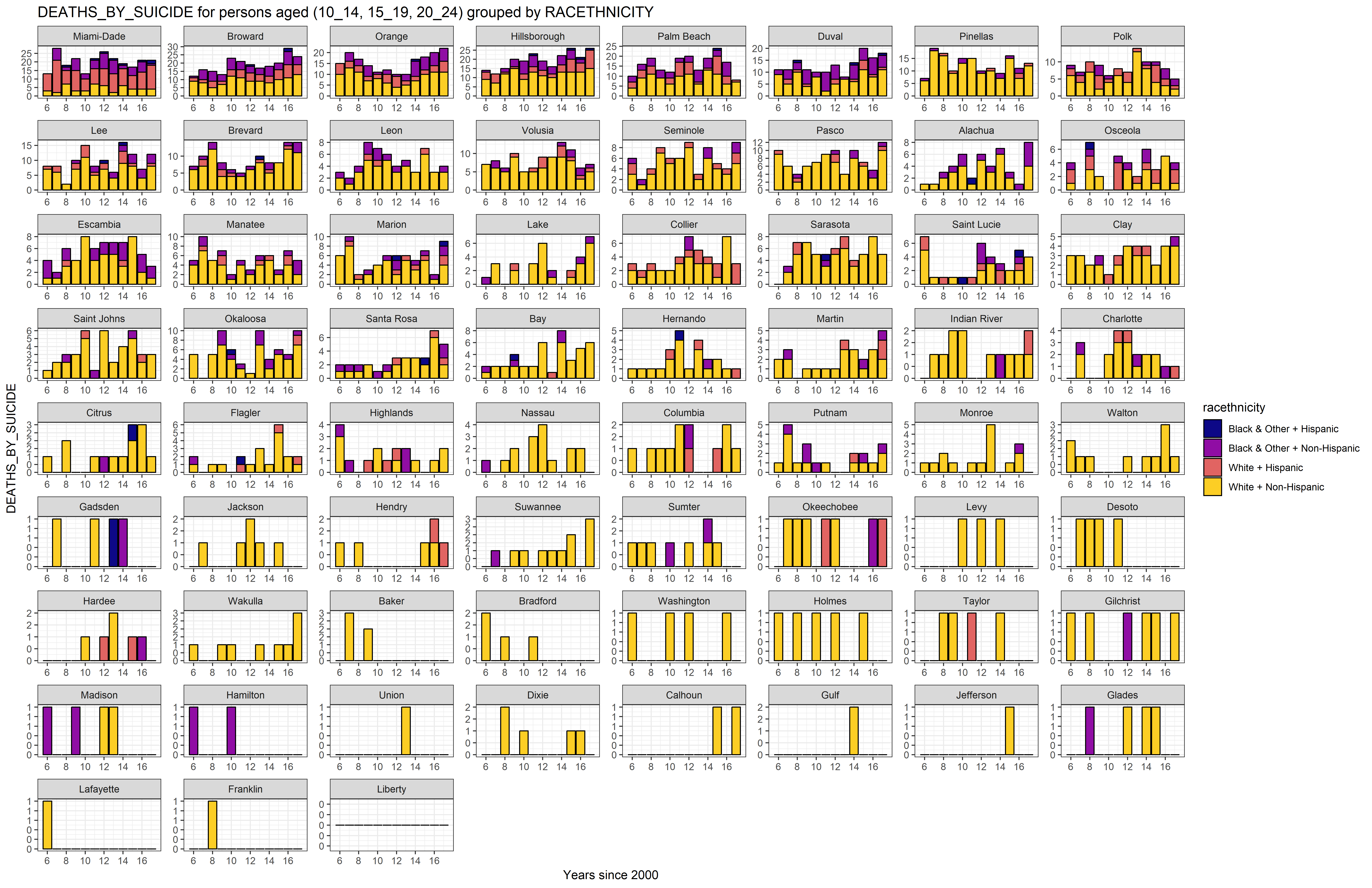


## Suicides Counts

### p4

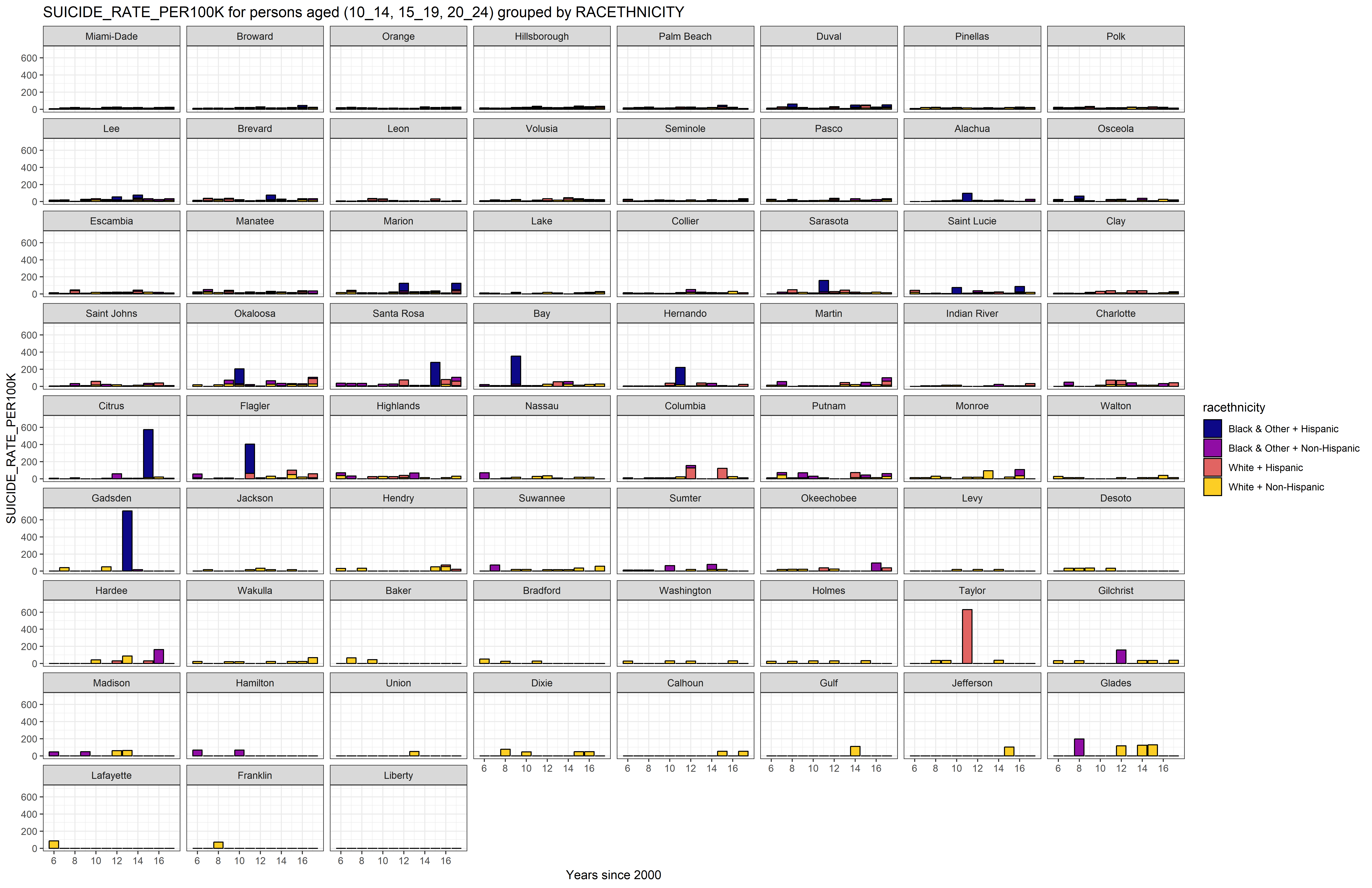


### p5

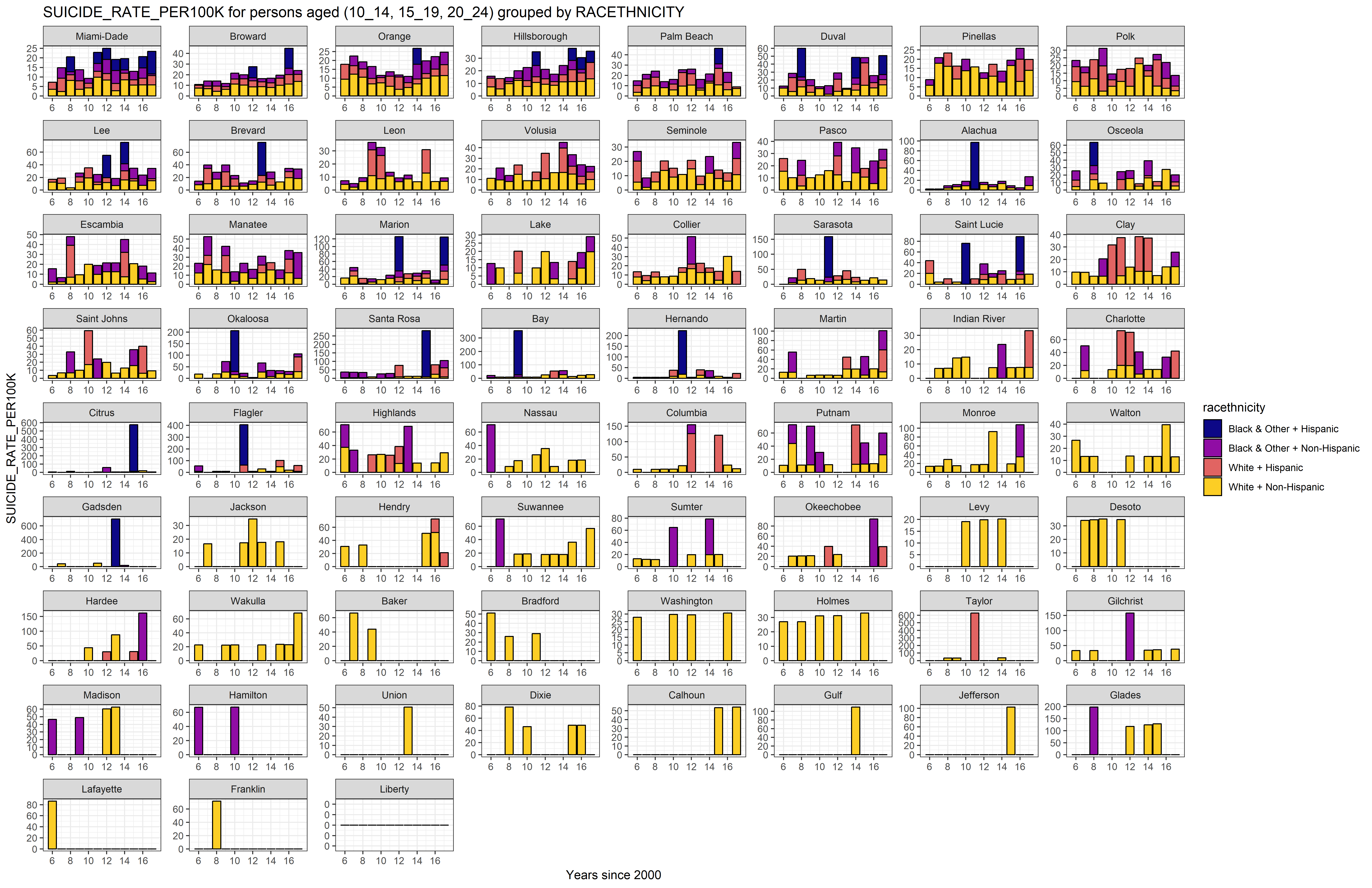


## Suicide Rates

### p6



### p7



# III. Recapitulation

# Session Information

For the sake of documentation and reproducibility, the current report was rendered in the following environment. Click the line below to expand.

Environment

- Session info -------------------------------------------------------------------------------------------------------  
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 ui RTerm   
 language (EN)   
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 ctype English\_United States.1252   
 tz America/Los\_Angeles   
 date 2019-07-08   
  
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