*Dataset* | People of Color

Communities of Opportunity Displacement Risk Assessment

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### Introduction

This datset comes from the [American Community Survey](https://www.census.gov/programs-surveys/acs/). General information about the structure of this dataset can be found [here](https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=table&id=table.en.ACS_14_5YR_B03002#main_content).

This dataset is used to create the indicator "Percent People of Color", which is defined as the percentage of the population that is a race other than non-Hispanic White.

### Metadata

|  |  |  |
| --- | --- | --- |
| Program | Data Set | Table |
| American Community Survey | 2010-2014 American Community Survey 5-Year Estimates | B03002 - HISPANIC OR LATINO ORIGIN BY RACE |

|  |  |  |
| --- | --- | --- |
|  | Abbr. | Full Column Name |
| 1 | B03002\_001 | Hispanic or Latino by Race: Total: |
| 2 | B03002\_002 | Hispanic or Latino by Race: Not Hispanic or Latino: |
| 3 | B03002\_003 | Hispanic or Latino by Race: Not Hispanic or Latino: White alone |
| 4 | B03002\_004 | Hispanic or Latino by Race: Not Hispanic or Latino: Black or African American alone |
| 5 | B03002\_005 | Hispanic or Latino by Race: Not Hispanic or Latino: American Indian and Alaska Native alone |
| 6 | B03002\_006 | Hispanic or Latino by Race: Not Hispanic or Latino: Asian alone |
| 7 | B03002\_007 | Hispanic or Latino by Race: Not Hispanic or Latino: Native Hawaiian and Other Pacific Islander alone |
| 8 | B03002\_008 | Hispanic or Latino by Race: Not Hispanic or Latino: Some other race alone |
| 9 | B03002\_009 | Hispanic or Latino by Race: Not Hispanic or Latino: Two or more races: |
| 10 | B03002\_010 | Hispanic or Latino by Race: Not Hispanic or Latino: Two or more races: Two races including Some other race |
| 11 | B03002\_011 | Hispanic or Latino by Race: Not Hispanic or Latino: Two or more races: Two races excluding Some other race, and three or more races |
| 12 | B03002\_012 | Hispanic or Latino by Race: Hispanic or Latino: |
| 13 | B03002\_013 | Hispanic or Latino by Race: Hispanic or Latino: White alone |
| 14 | B03002\_014 | Hispanic or Latino by Race: Hispanic or Latino: Black or African American alone |
| 15 | B03002\_015 | Hispanic or Latino by Race: Hispanic or Latino: American Indian and Alaska Native alone |
| 16 | B03002\_016 | Hispanic or Latino by Race: Hispanic or Latino: Asian alone |
| 17 | B03002\_017 | Hispanic or Latino by Race: Hispanic or Latino: Native Hawaiian and Other Pacific Islander alone |
| 18 | B03002\_018 | Hispanic or Latino by Race: Hispanic or Latino: Some other race alone |
| 19 | B03002\_019 | Hispanic or Latino by Race: Hispanic or Latino: Two or more races: |
| 20 | B03002\_020 | Hispanic or Latino by Race: Hispanic or Latino: Two or more races: Two races including Some other race |
| 21 | B03002\_021 | Hispanic or Latino by Race: Hispanic or Latino: Two or more races: Two races excluding Some other race, and three or more races |

### Raw Data

The data is structured in a special format that retains important metadata about the variable, including the standard error values needed to calculate confidence intervals.

## ACS DATA:   
## 2010 -- 2014 ;  
## Estimates w/90% confidence intervals;  
## for different intervals, see confint()  
## Hispanic or Latino by Race: Total:  
## Census Tract 1, King County, Washington 6377 +/- 463   
## Census Tract 2, King County, Washington 7819 +/- 487   
## Census Tract 3, King County, Washington 2619 +/- 249   
## Census Tract 4.01, King County, Washington 6236 +/- 637   
## Census Tract 4.02, King County, Washington 4890 +/- 481   
## Census Tract 5, King County, Washington 3009 +/- 185

### New Column: People of Color

poc\_acs2 <- poc\_acs[, "B03002\_001"] - poc\_acs[, "B03002\_003"]  
   
acs.colnames(poc\_acs2) <- "POC"  
  
poc\_acs2 %<>% cbind(poc\_acs, .)  
  
poc\_acs3 <-   
 apply(  
 X = poc\_acs2[, 22],  
 MARGIN = 1,  
 FUN = divide.acs,  
 denominator = poc\_acs2[, 1],  
 method = "proportion",  
 verbose = FALSE  
 )  
  
acs.colnames(poc\_acs3) <- "POC\_PCT"  
  
readr::write\_rds(poc\_acs3,"./2\_intermediate/poc\_acs.rds")  
  
head(poc\_acs3[])

## ACS DATA:   
## 2010 -- 2014 ;  
## Estimates w/90% confidence intervals;  
## for different intervals, see confint()  
## POC\_PCT   
## Census Tract 1, King County, Washington 0.423239767915948 +/- 0.0919826991817042  
## Census Tract 2, King County, Washington 0.399411689474357 +/- 0.0818933044024027  
## Census Tract 3, King County, Washington 0.284077892325315 +/- 0.121657000882263   
## Census Tract 4.01, King County, Washington 0.408755612572162 +/- 0.132596472643495   
## Census Tract 4.02, King County, Washington 0.259304703476483 +/- 0.121704991357779   
## Census Tract 5, King County, Washington 0.176138251910934 +/- 0.0896471799890667

### Conversion to a Dataframe

poc\_acs <- readr::read\_rds("./2\_intermediate/poc\_acs.rds")  
  
poc\_df <-   
 data.frame(  
 geography(poc\_acs)["tract"],   
 estimate(poc\_acs),   
 1.645 \* standard.error(poc\_acs)) %>%   
 `colnames<-`(., c("GEOID6", "POC\_PCT\_EST","POC\_PCT\_MOE")) %>%   
 mutate(UPPER = POC\_PCT\_EST + POC\_PCT\_MOE,   
 LOWER = POC\_PCT\_EST - POC\_PCT\_MOE,   
 UPPER = if\_else(UPPER > 1, 1, UPPER),   
 LOWER = if\_else(LOWER < 0, 0, LOWER))  
  
readr::write\_rds(poc\_df,"./2\_intermediate/poc\_df.rds")  
as\_tibble(poc\_df)

## # A tibble: 398 × 5  
## GEOID6 POC\_PCT\_EST POC\_PCT\_MOE UPPER LOWER  
## \* <chr> <dbl> <dbl> <dbl> <dbl>  
## 1 000100 0.4232398 0.09198270 0.5152225 0.33125707  
## 2 000200 0.3994117 0.08189330 0.4813050 0.31751839  
## 3 000300 0.2840779 0.12165700 0.4057349 0.16242089  
## 4 000401 0.4087556 0.13259647 0.5413521 0.27615914  
## 5 000402 0.2593047 0.12170499 0.3810097 0.13759971  
## 6 000500 0.1761383 0.08964718 0.2657854 0.08649107  
## 7 000600 0.3570549 0.11386183 0.4709167 0.24319305  
## 8 000700 0.4132928 0.10619668 0.5194895 0.30709609  
## 9 000800 0.1678600 0.10234762 0.2702076 0.06551236  
## 10 000900 0.2063330 0.11949929 0.3258323 0.08683370  
## # ... with 388 more rows