BGNVisualization

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3/17/2021

```
ACGR_state_longformat$acgr <- as.numeric(as.character(unlist(ACGR_state_longformat$acgr)))
```

```
## Warning: NAs introduced by coercion
```

```
states = unique(ACGR_state_longformat$state)
state_ACGR_plots = list()

for (state_ in states) {
  state_ACGR_plots[[state_]] = ggplot(ACGR_state_longformat %>% filter(state == state_ & acgr != "NA"),

  print(state_ACGR_plots[state_])

}
```
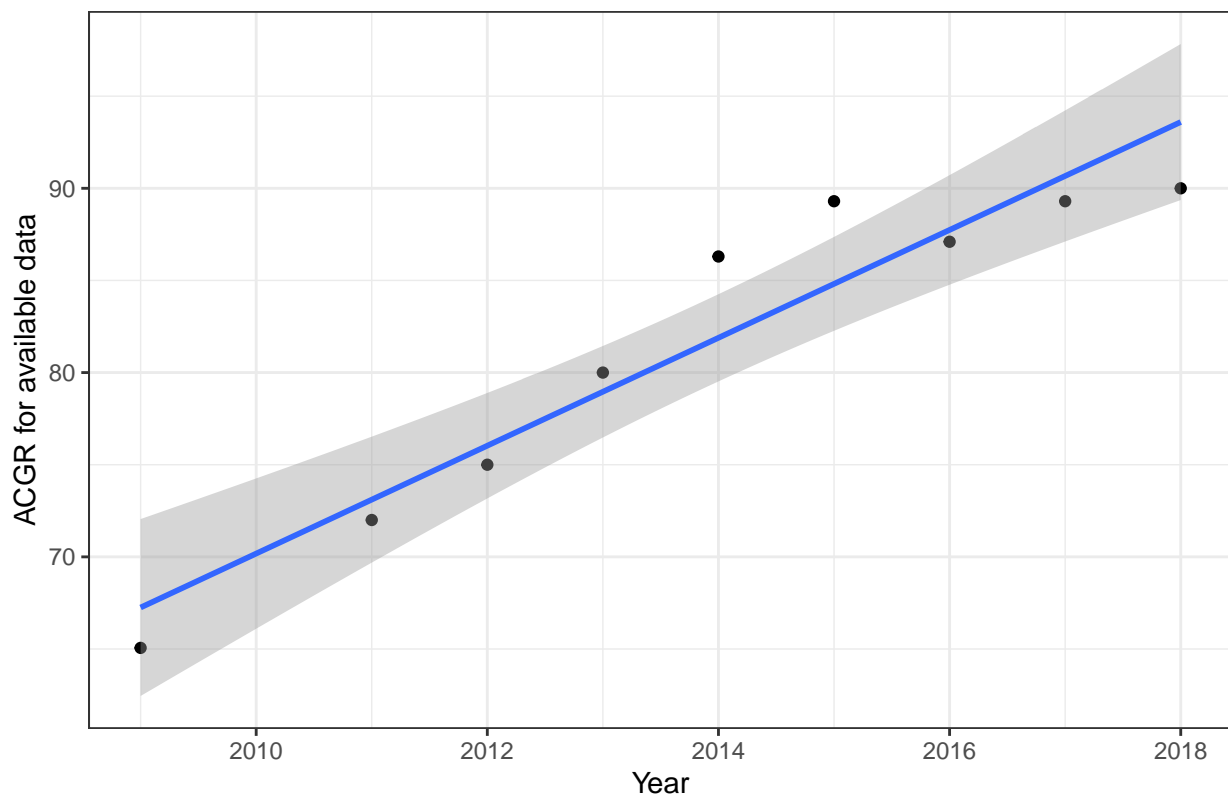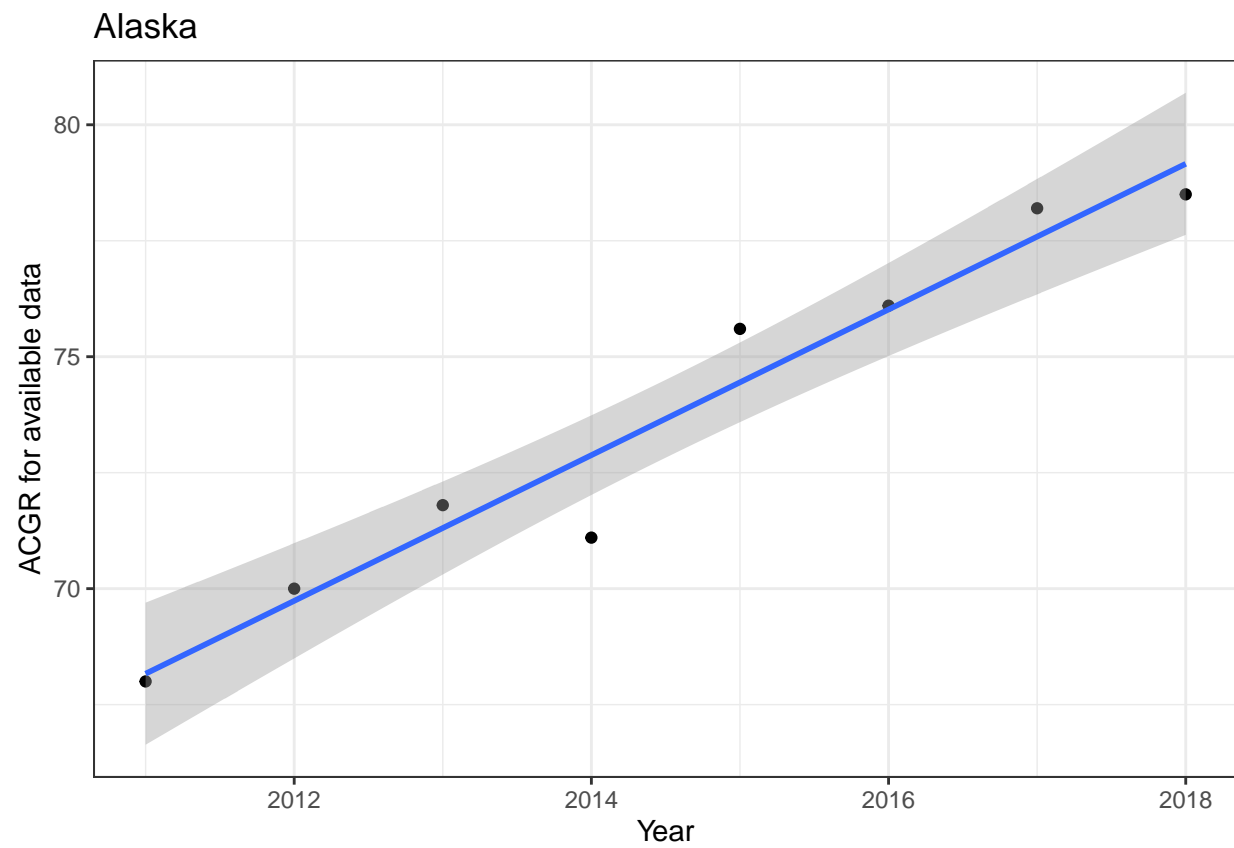
```
## $Alabama
```

```
## `geom_smooth()` using formula 'y ~ x'
```
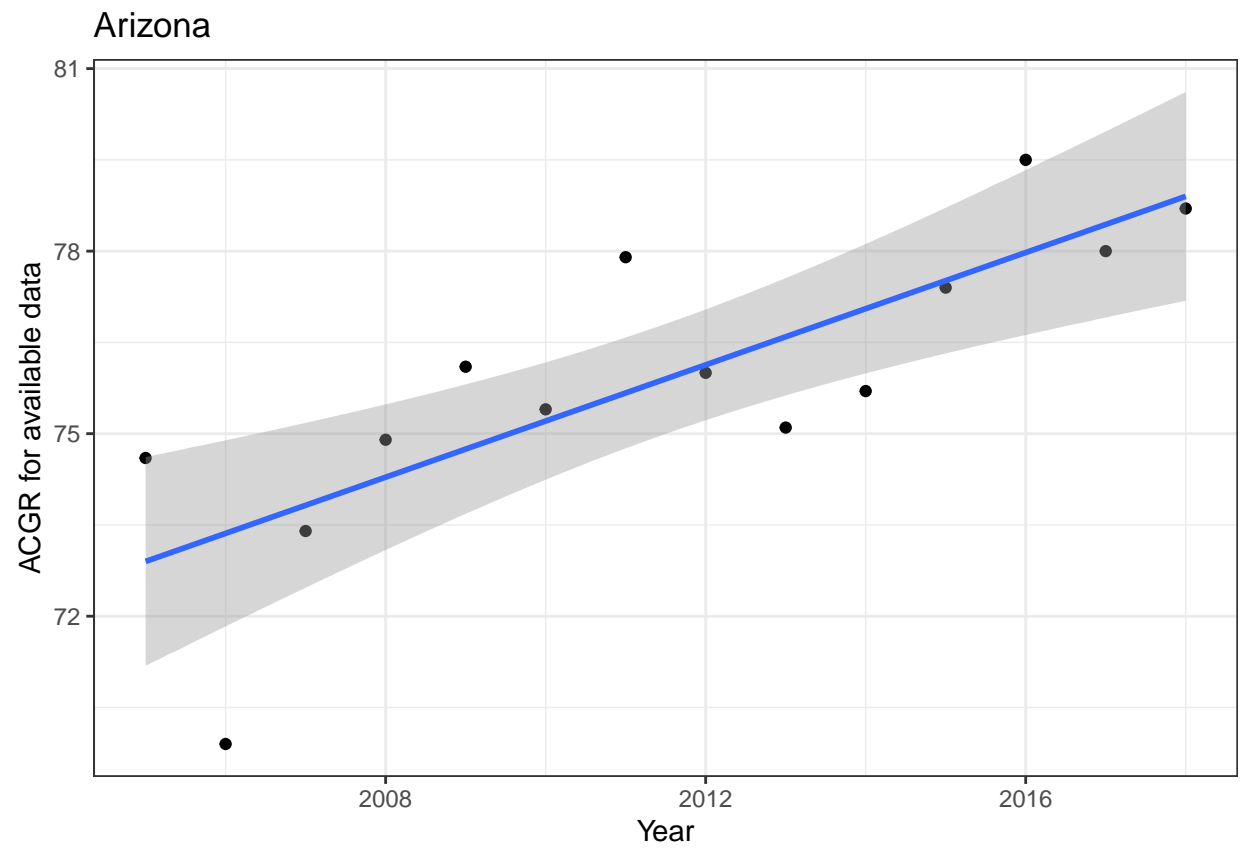
Alabama

```
##
## $Alaska
```
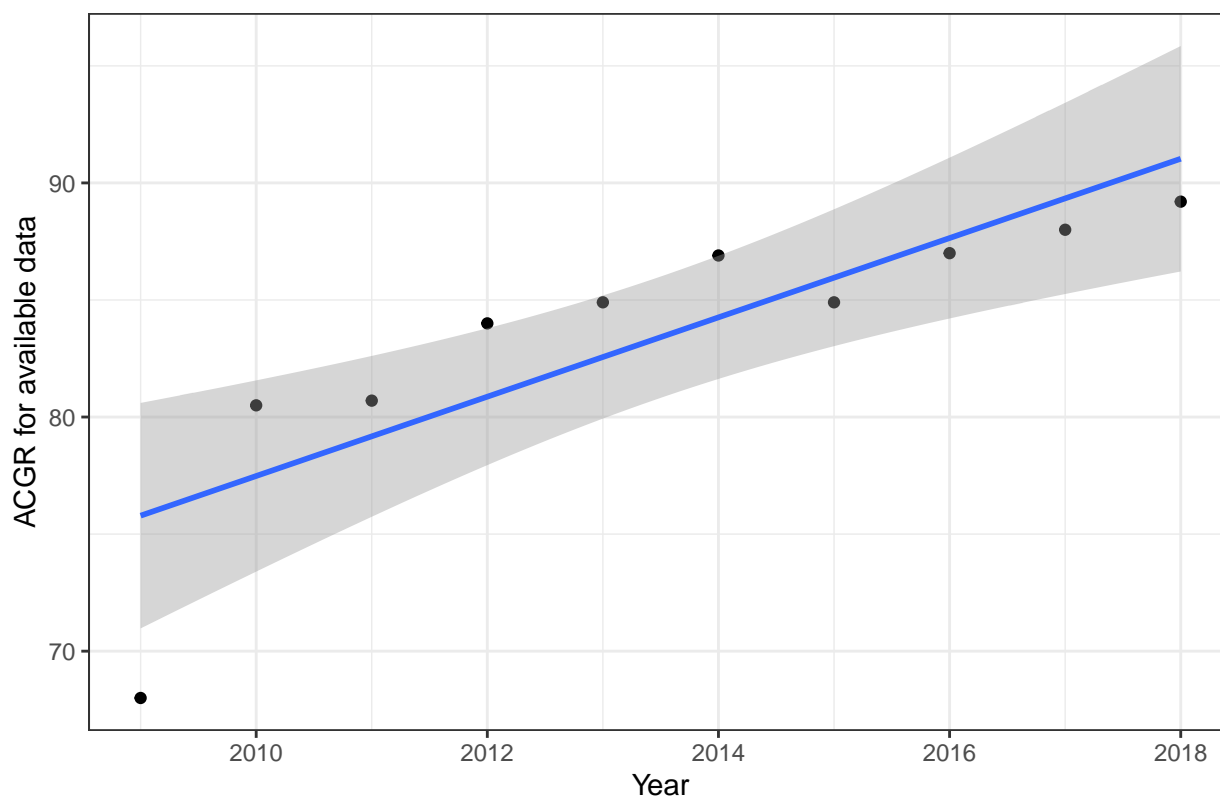
```
## `geom_smooth()` using formula 'y ~ x'
```

Alaska


```
##
## $Arizona
```

```
## `geom_smooth()` using formula 'y ~ x'
```
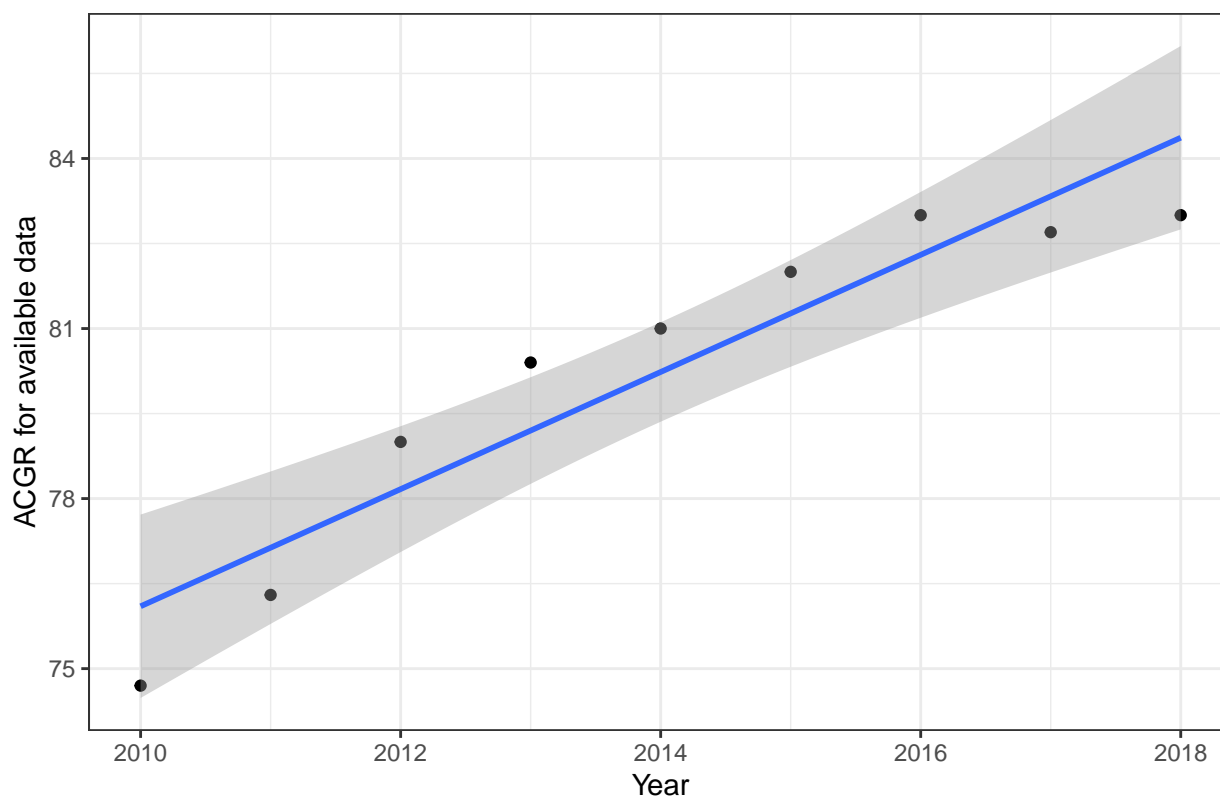
Arizona

```
##
## $Arkansas

## `geom_smooth()` using formula 'y ~ x'
```
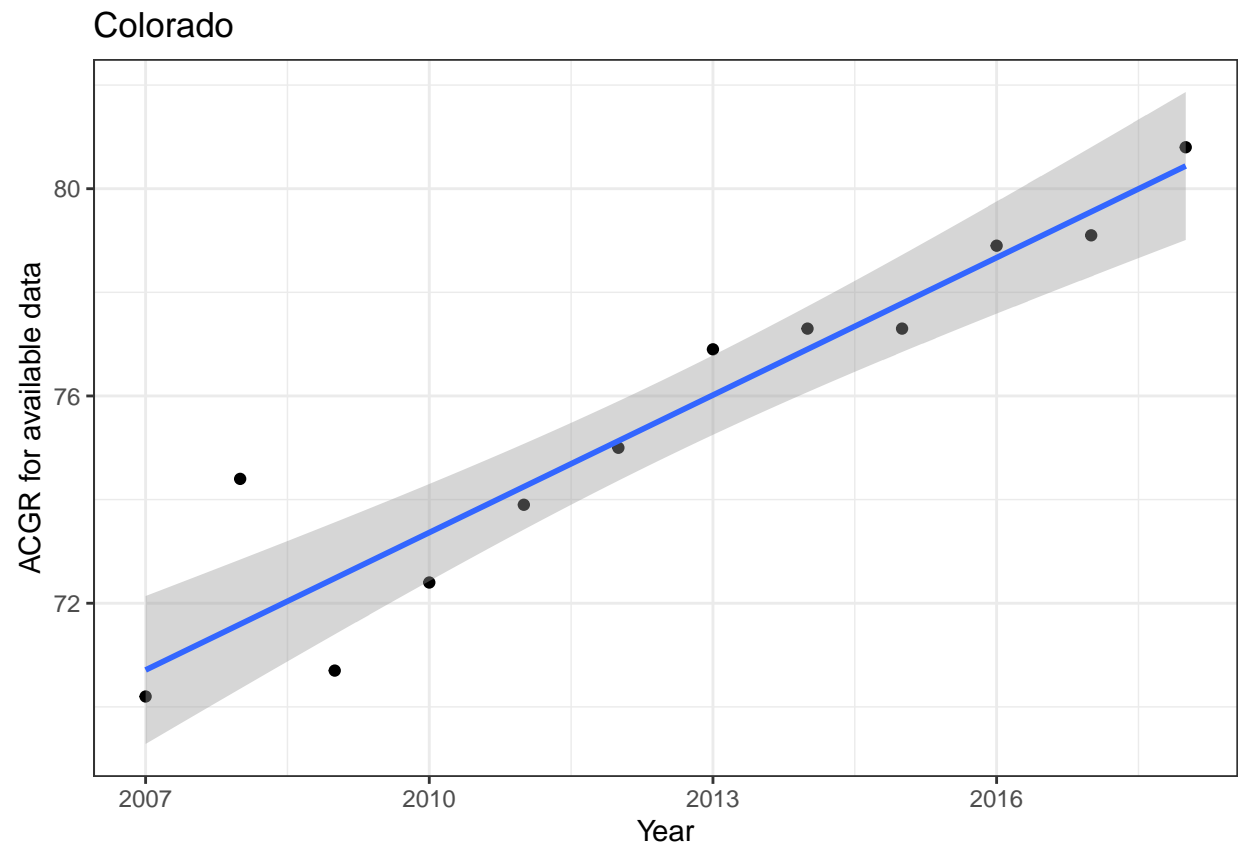
Arkansas


```
##
## $California
## `geom_smooth()` using formula 'y ~ x'
```
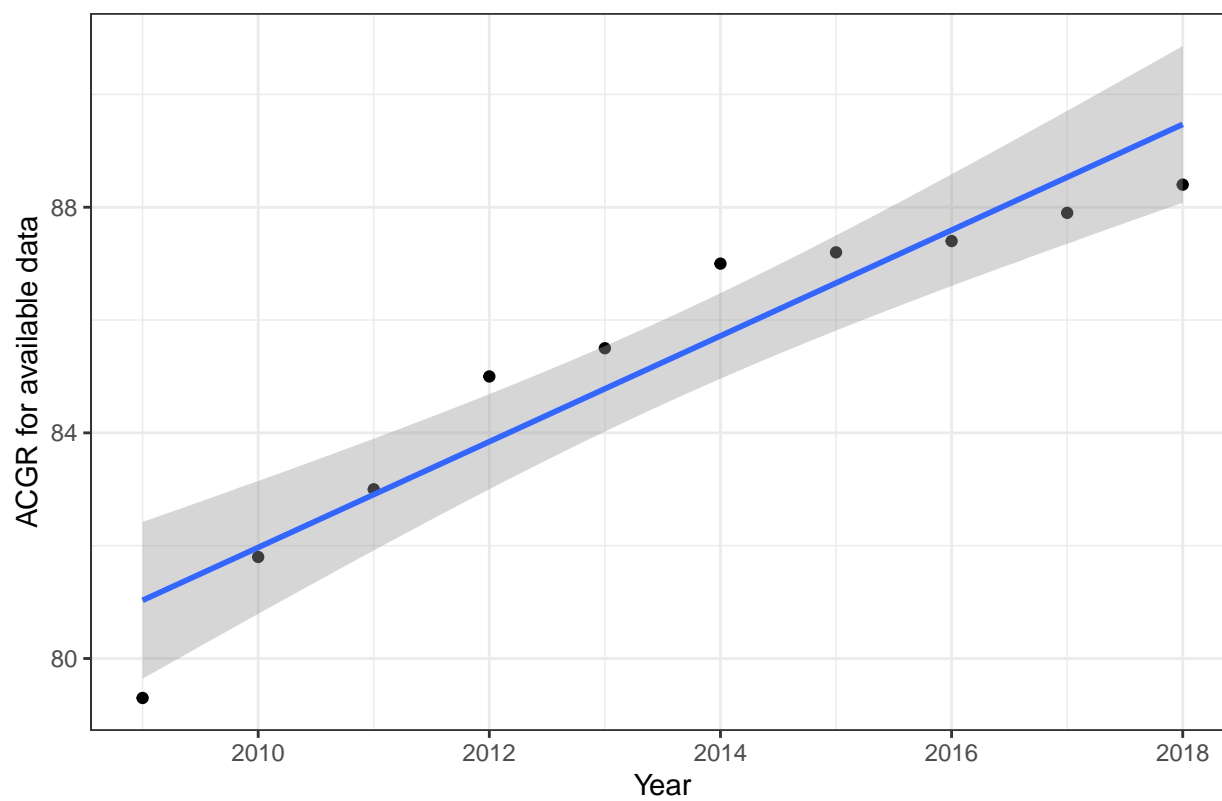
California


```
##
## $Colorado
```

```
## `geom_smooth()` using formula 'y ~ x'
```
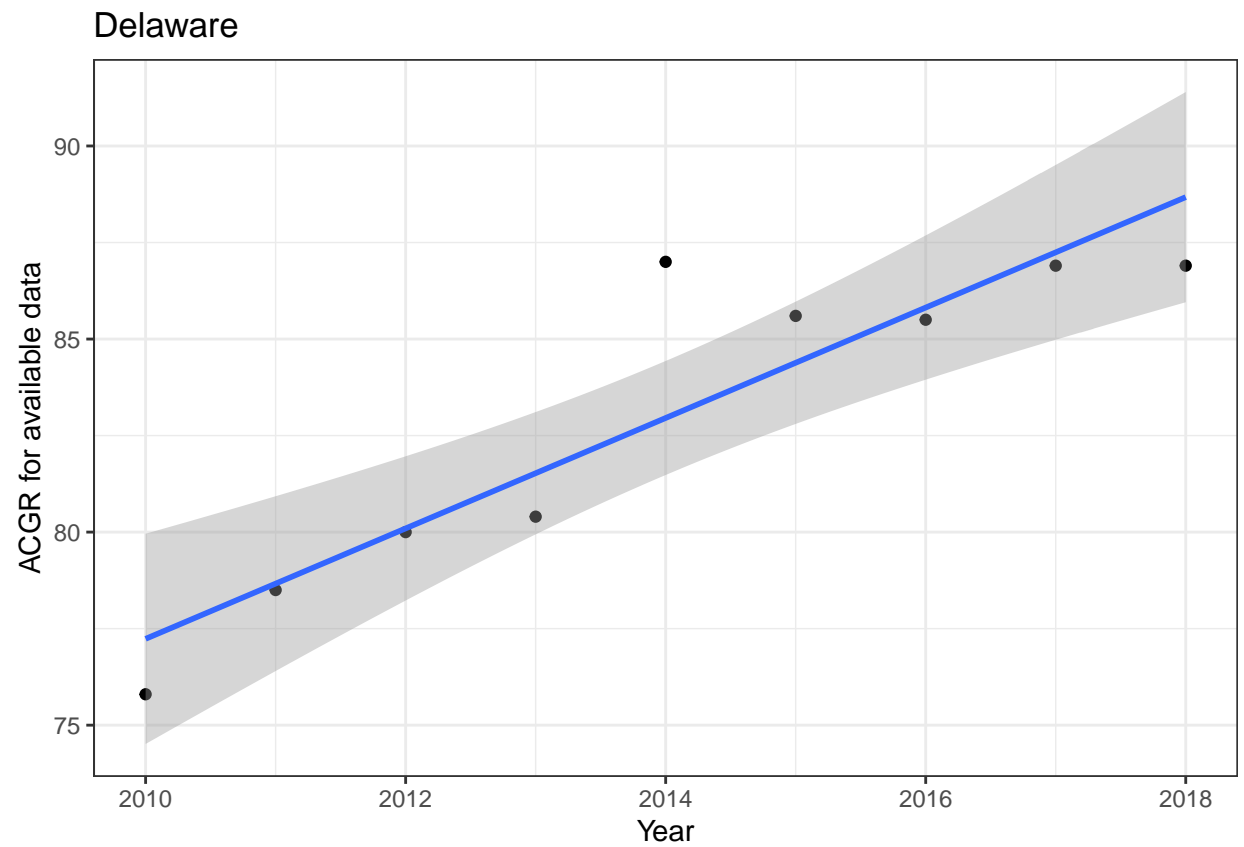
Colorado


```
## 
## $Connecticut

## `geom_smooth()` using formula 'y ~ x'
```
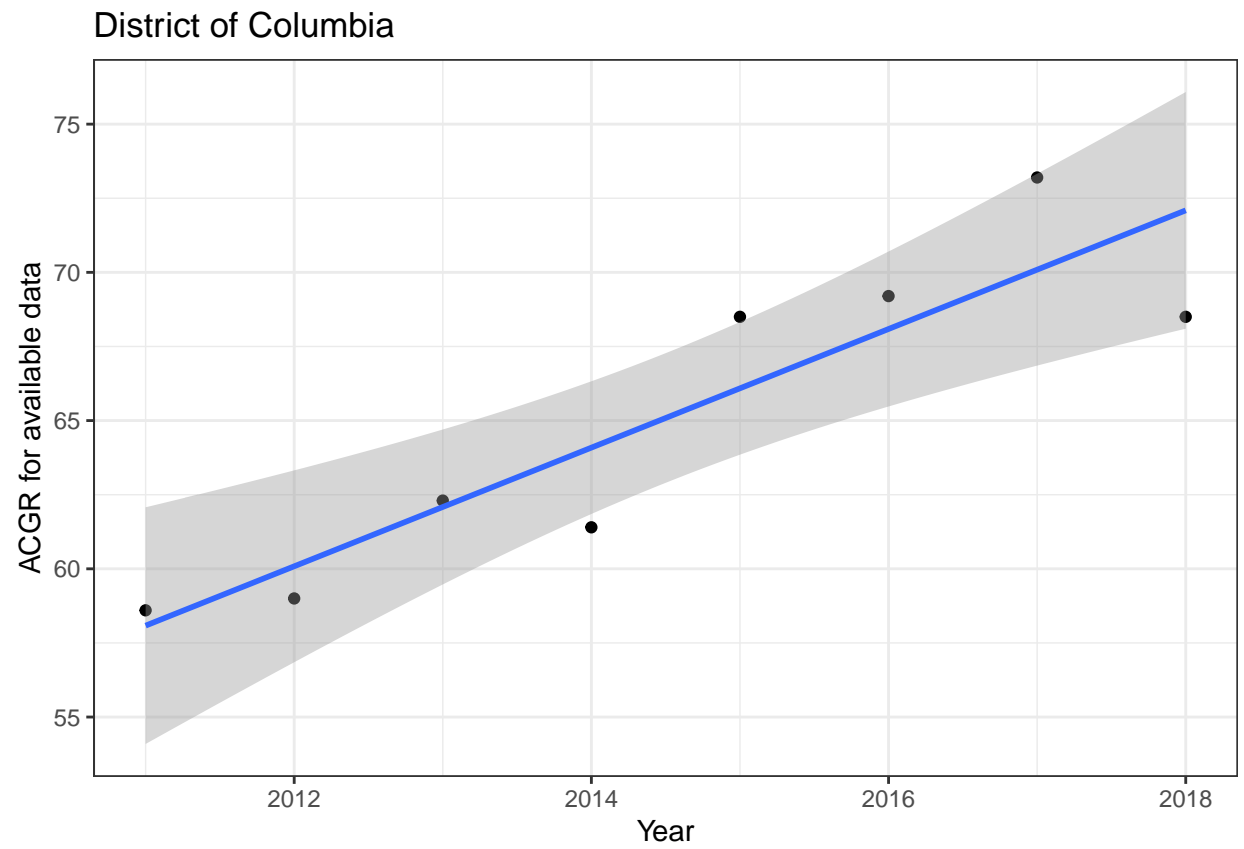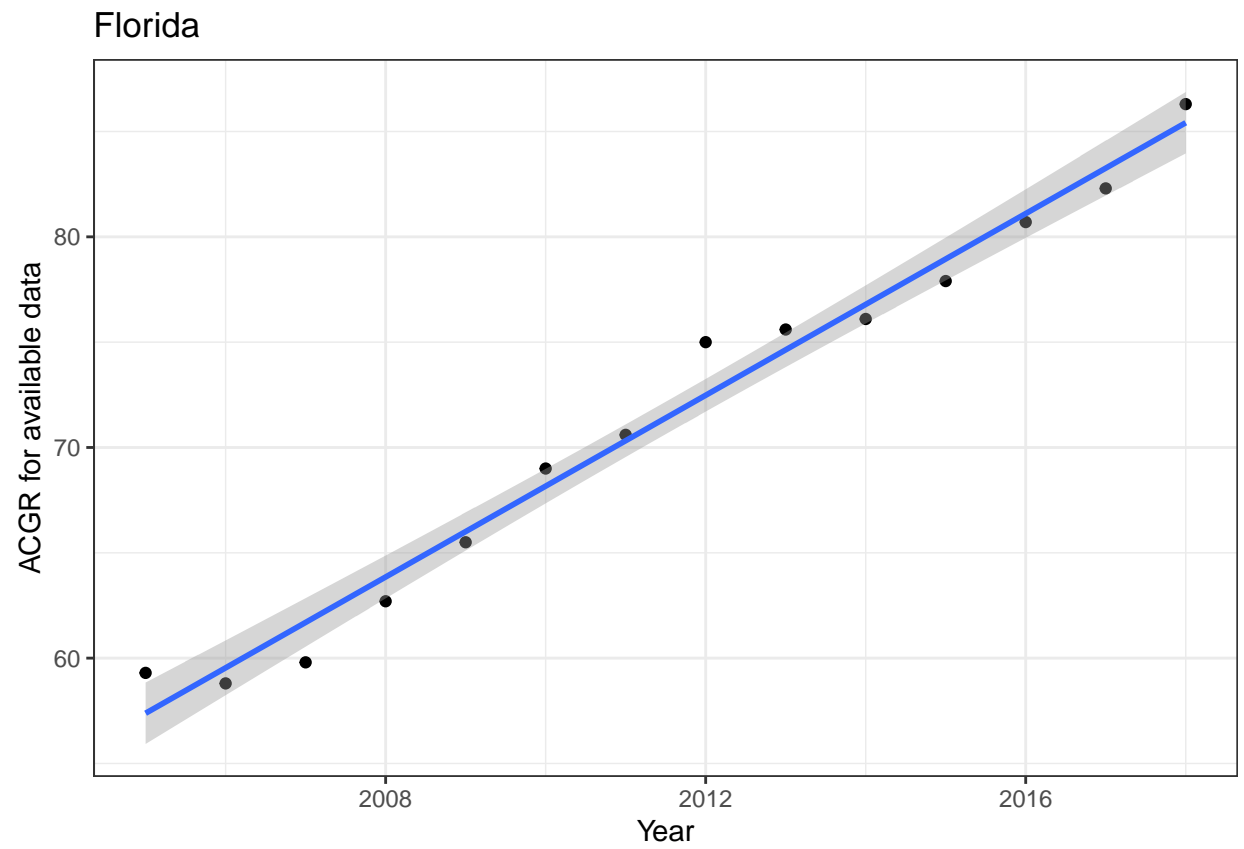
Connecticut


```
## 
## $Delaware

## `geom_smooth()` using formula 'y ~ x'
```
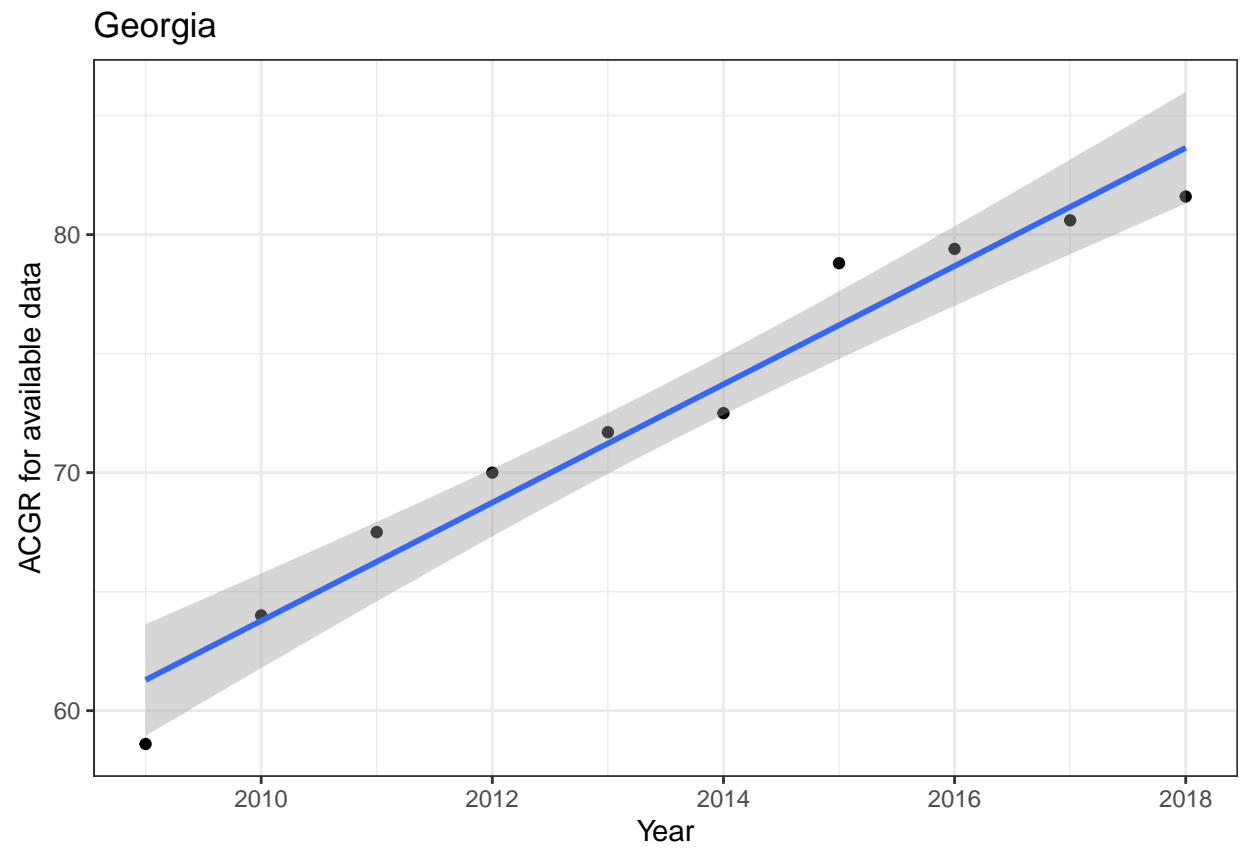
Delaware


```
##
## $`District of Columbia`

## `geom_smooth()` using formula 'y ~ x'
```
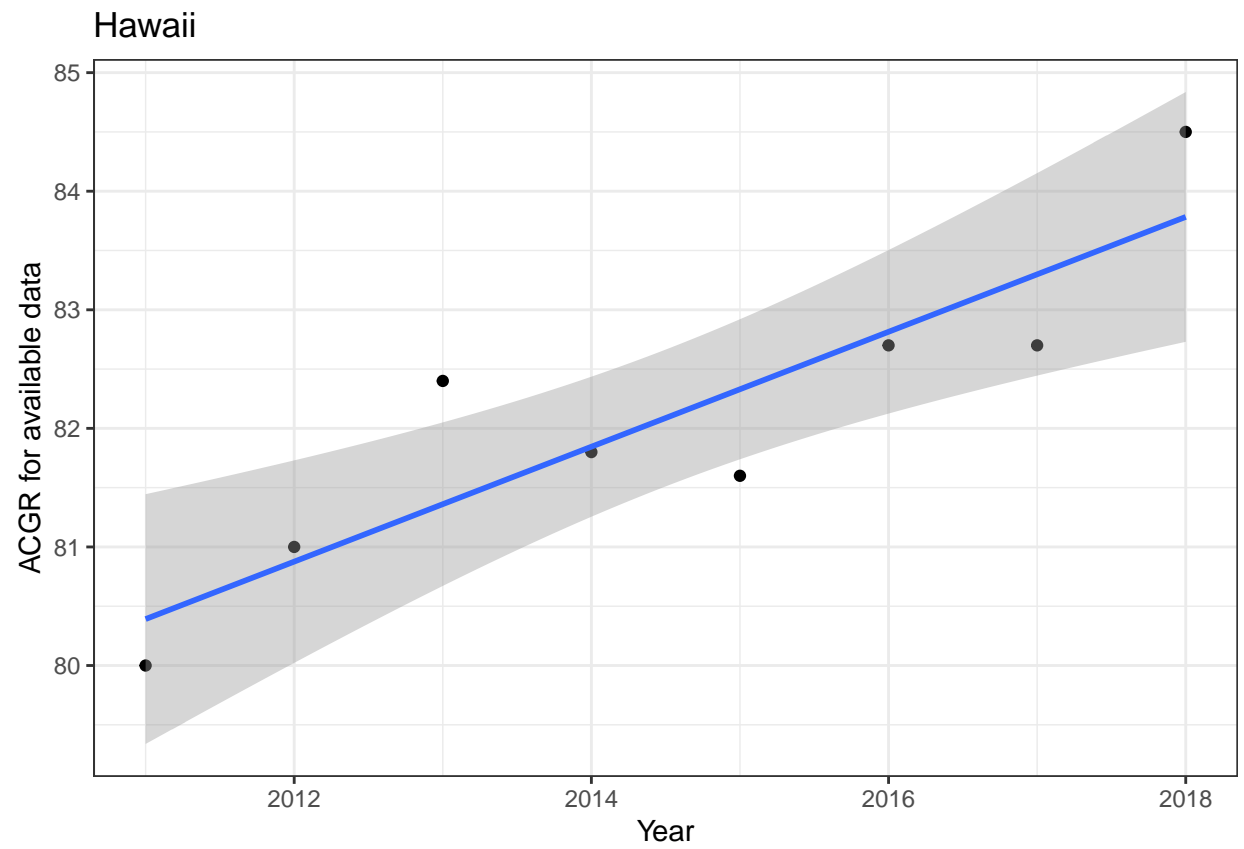
District of Columbia


```
##
## $Florida
```

```
## `geom_smooth()` using formula 'y ~ x'
```
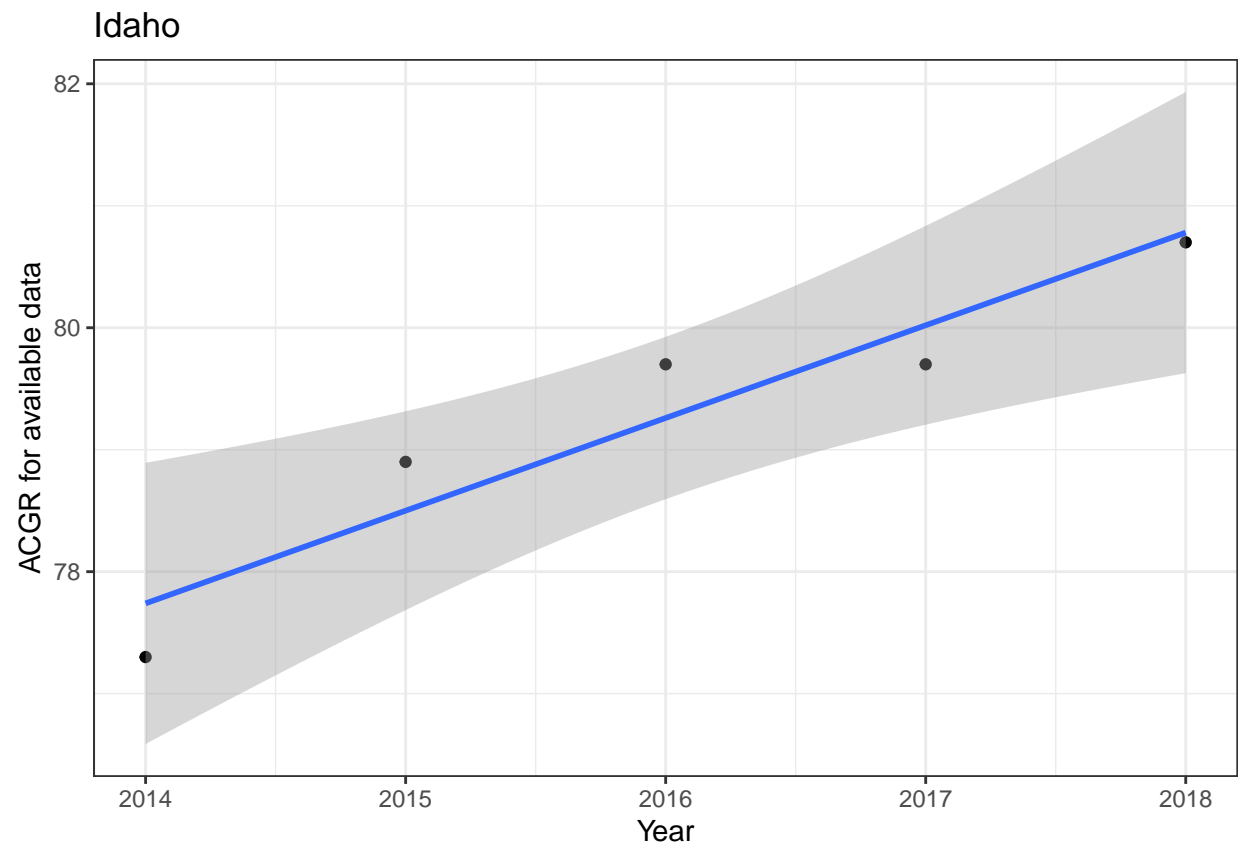
Florida


```
##
## $Georgia

## `geom_smooth()` using formula 'y ~ x'
```
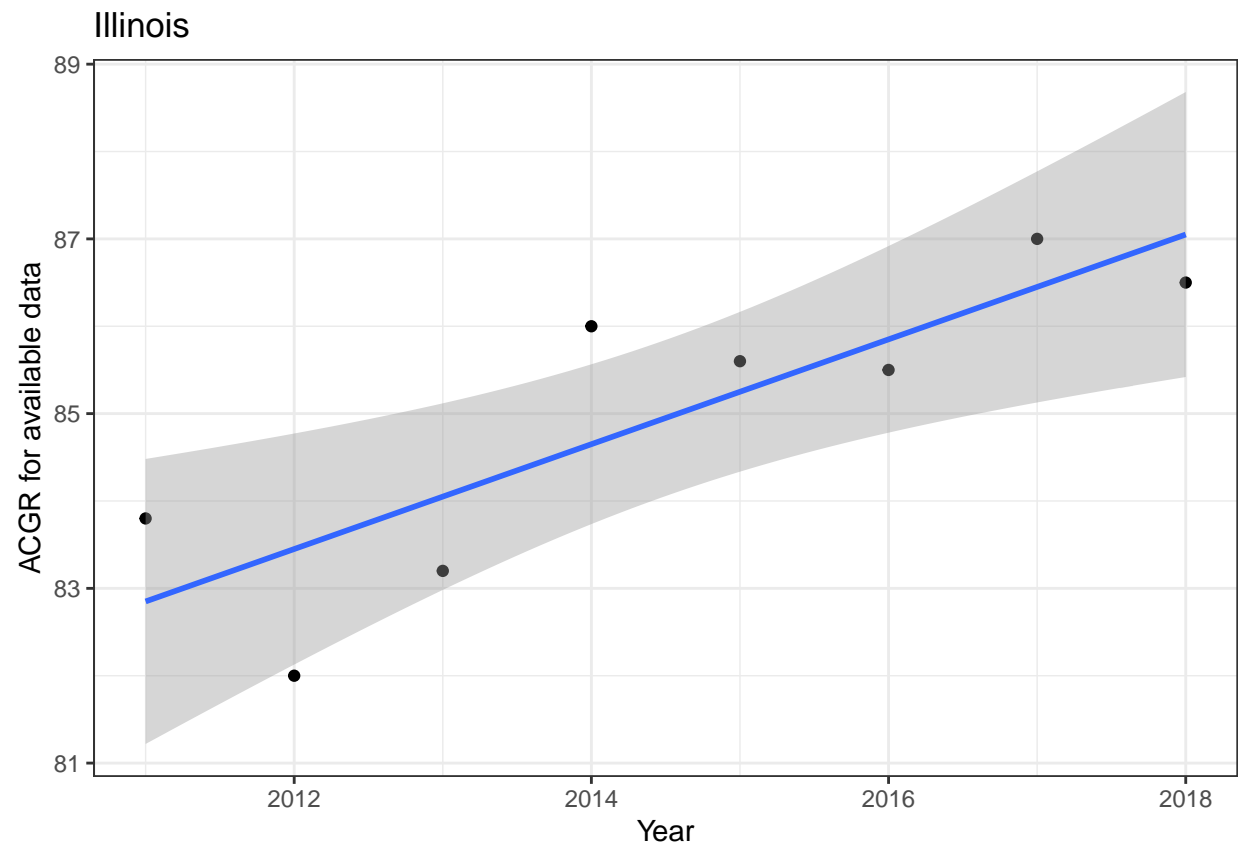
Georgia


```
## 
## $Hawaii

## `geom_smooth()` using formula 'y ~ x'
```
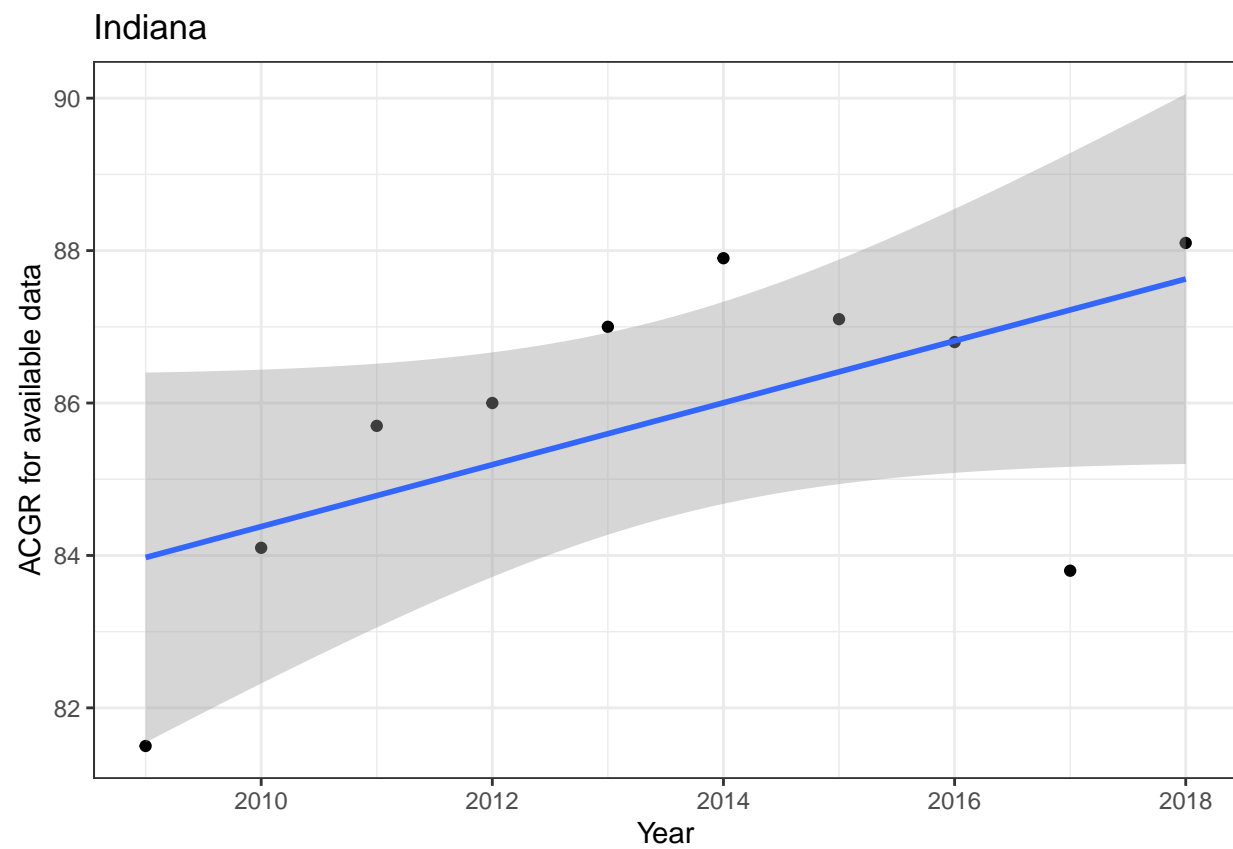
Hawaii


```
##
## $Idaho

## `geom_smooth()` using formula 'y ~ x'
```

Idaho


```
##
## $Illinois

## `geom_smooth()` using formula 'y ~ x'
```
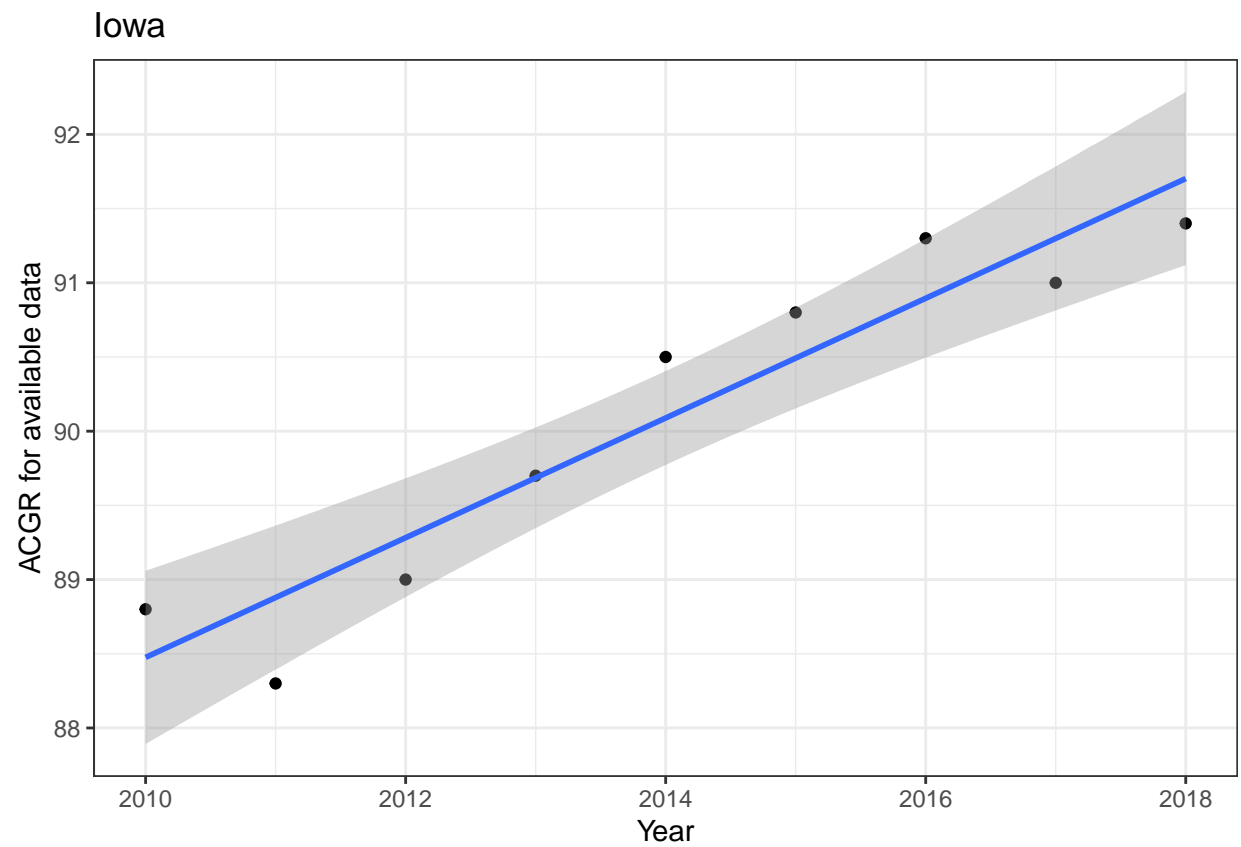
```
##
## $Indiana
```
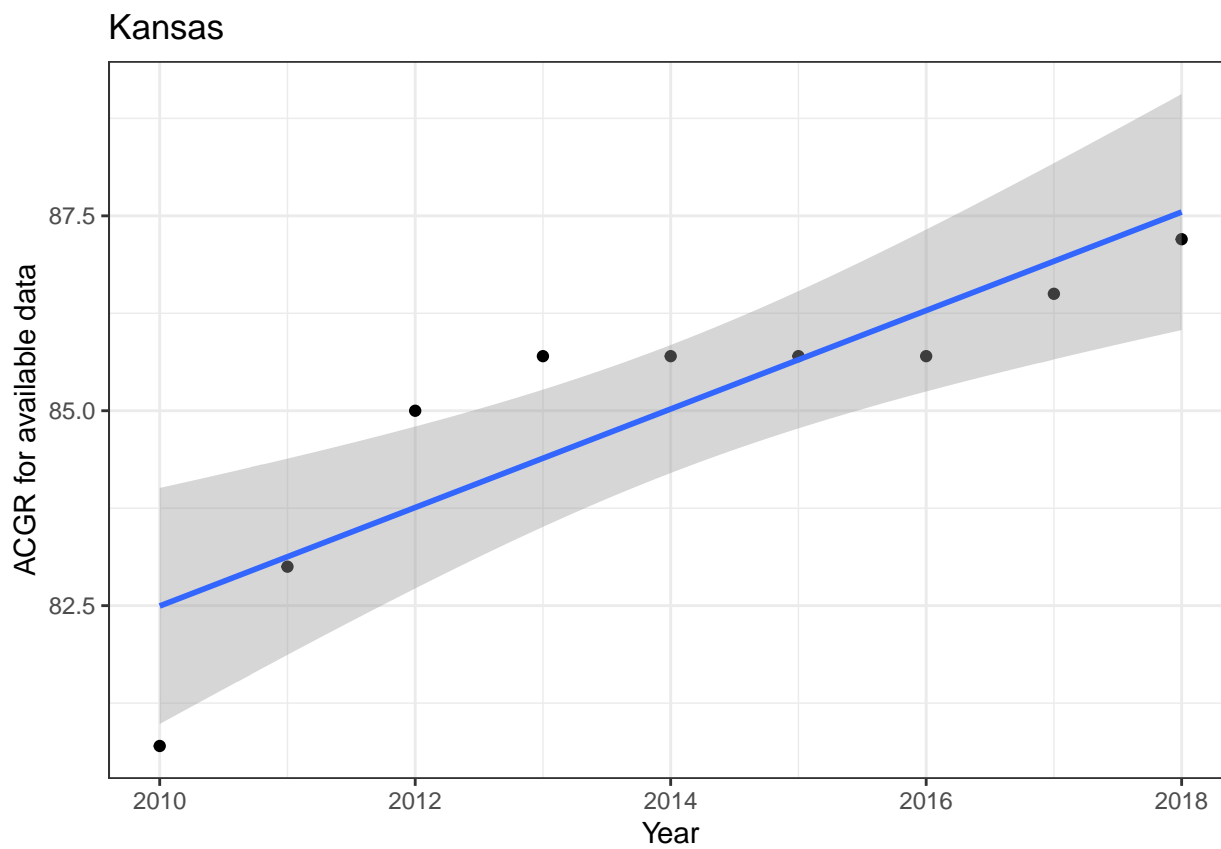
```
## `geom_smooth()` using formula 'y ~ x'
```

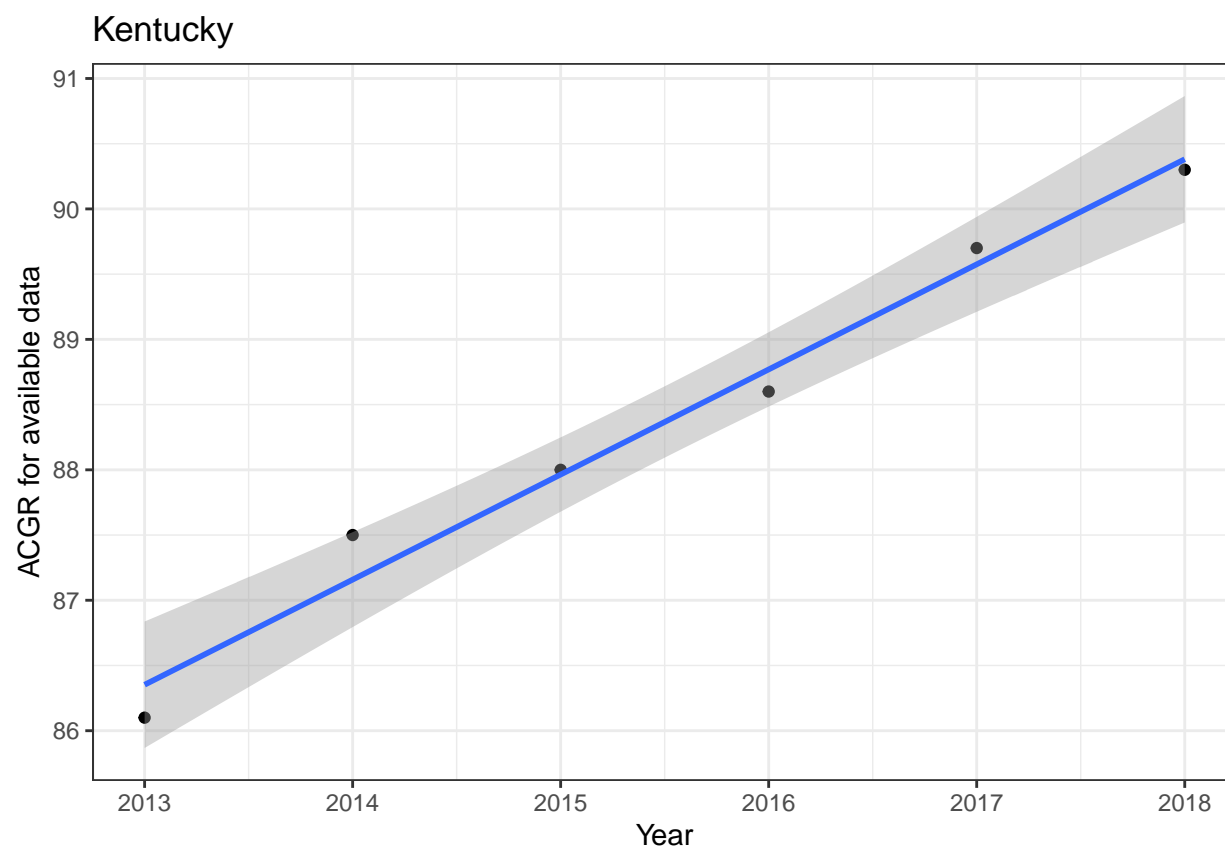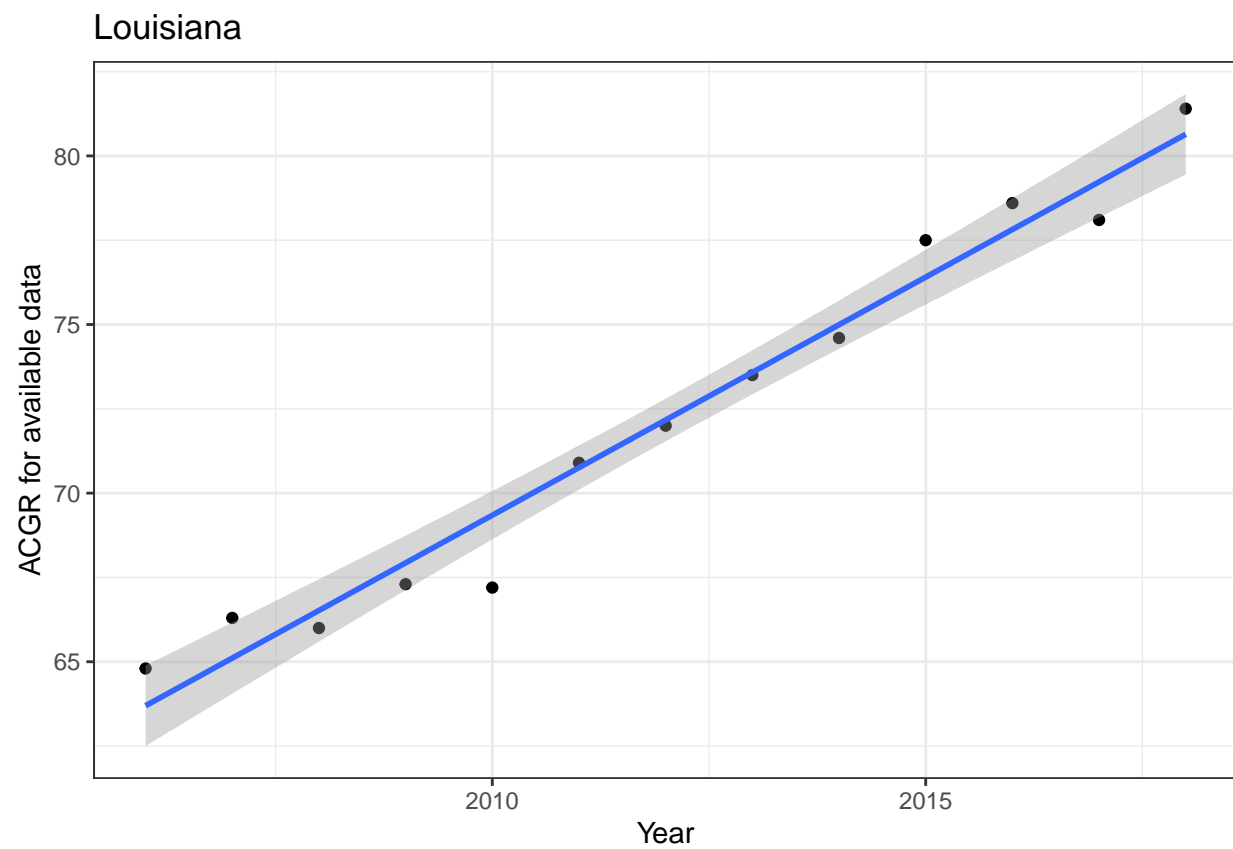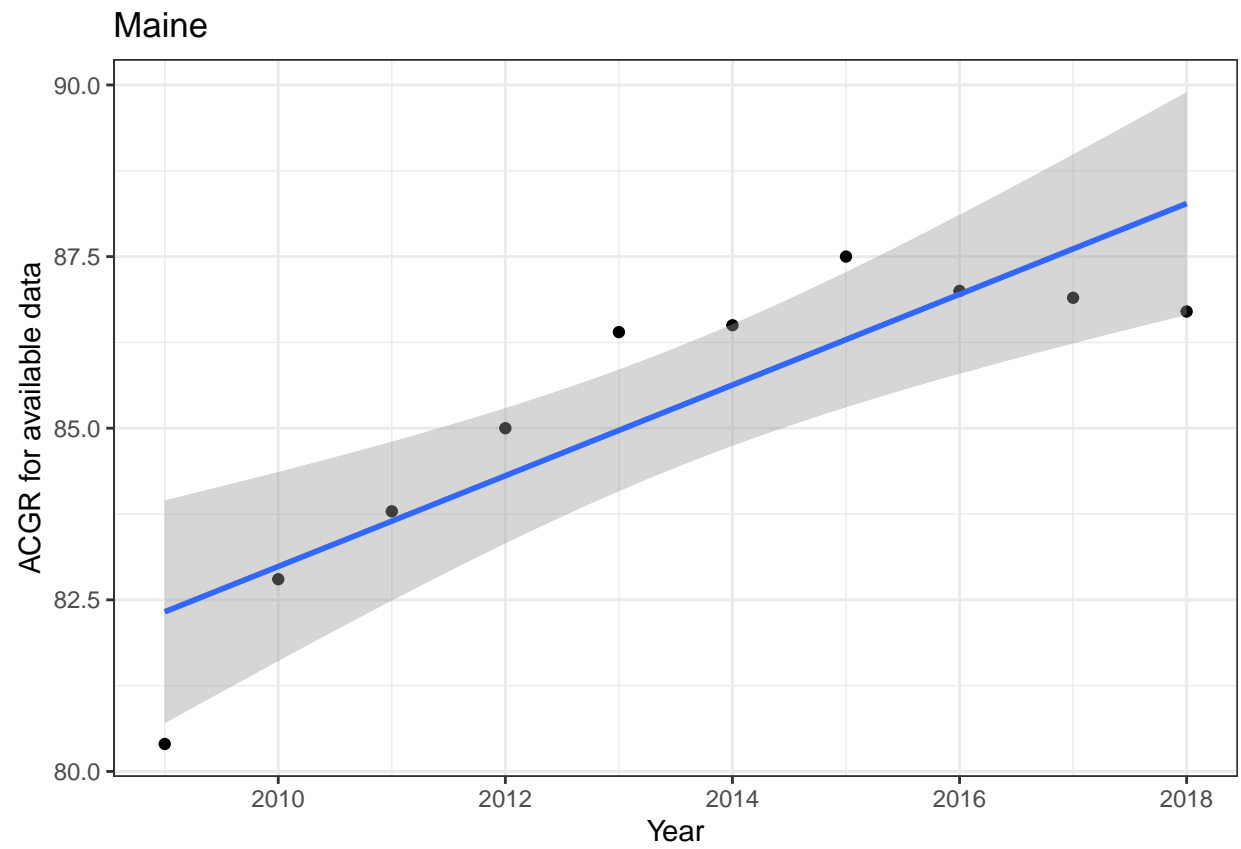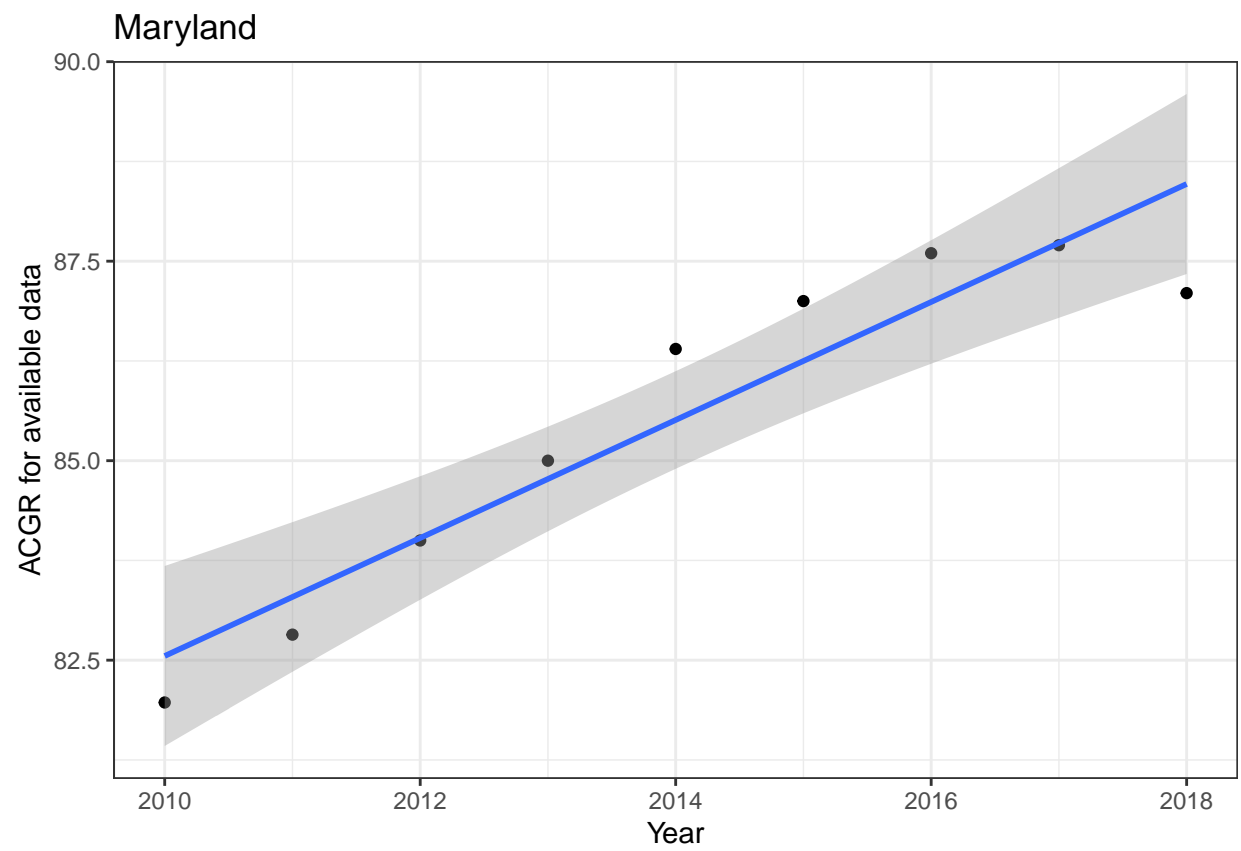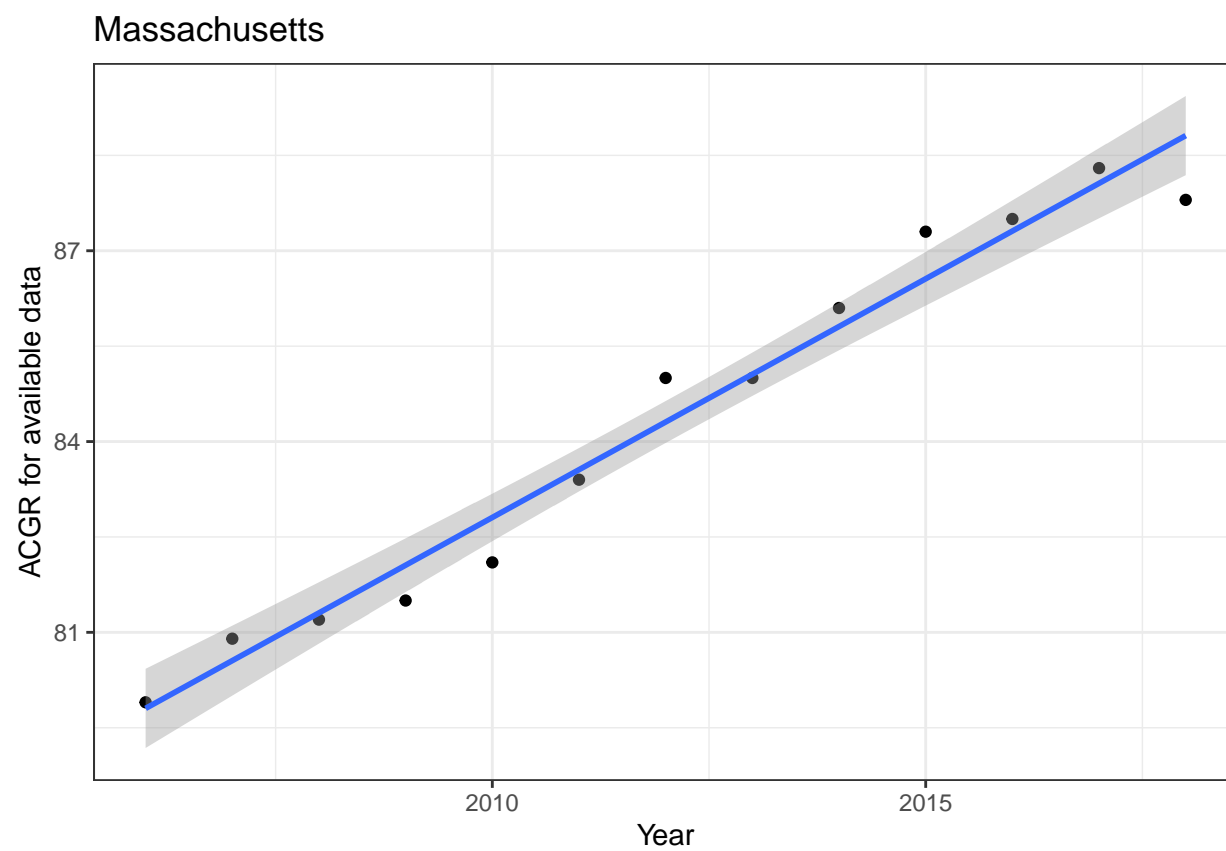## Indiana


```
## 
## $Iowa
```

```
## `geom_smooth()` using formula 'y ~ x'
```

Iowa


```
## 
## $Kansas
```

```
## `geom_smooth()` using formula 'y ~ x'
```

Kansas


```
## 
## $Kentucky
```

```
## `geom_smooth()` using formula 'y ~ x'
```

Kentucky


```
## 
## $Louisiana
```

```
## `geom_smooth()` using formula 'y ~ x'
```

Louisiana


```
## 
## $Maine
```

```
## `geom_smooth()` using formula 'y ~ x'
```
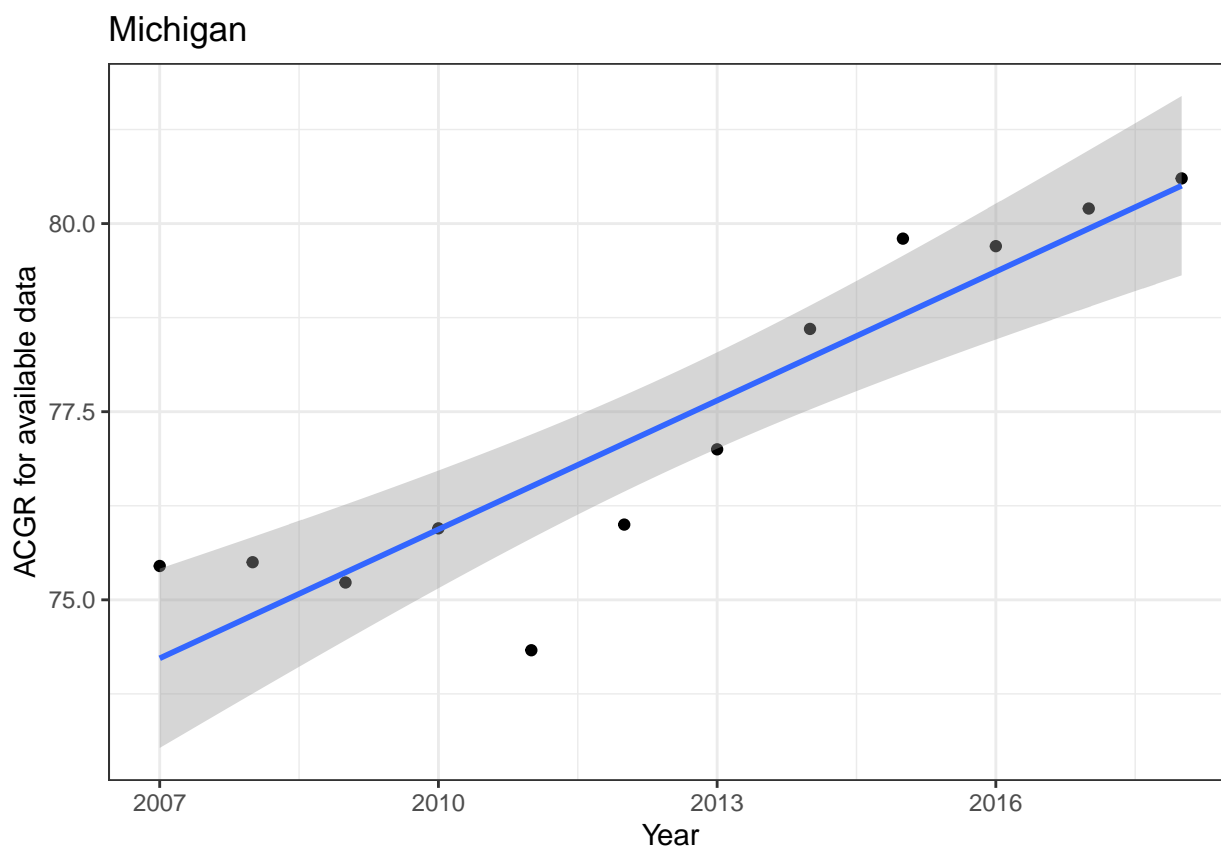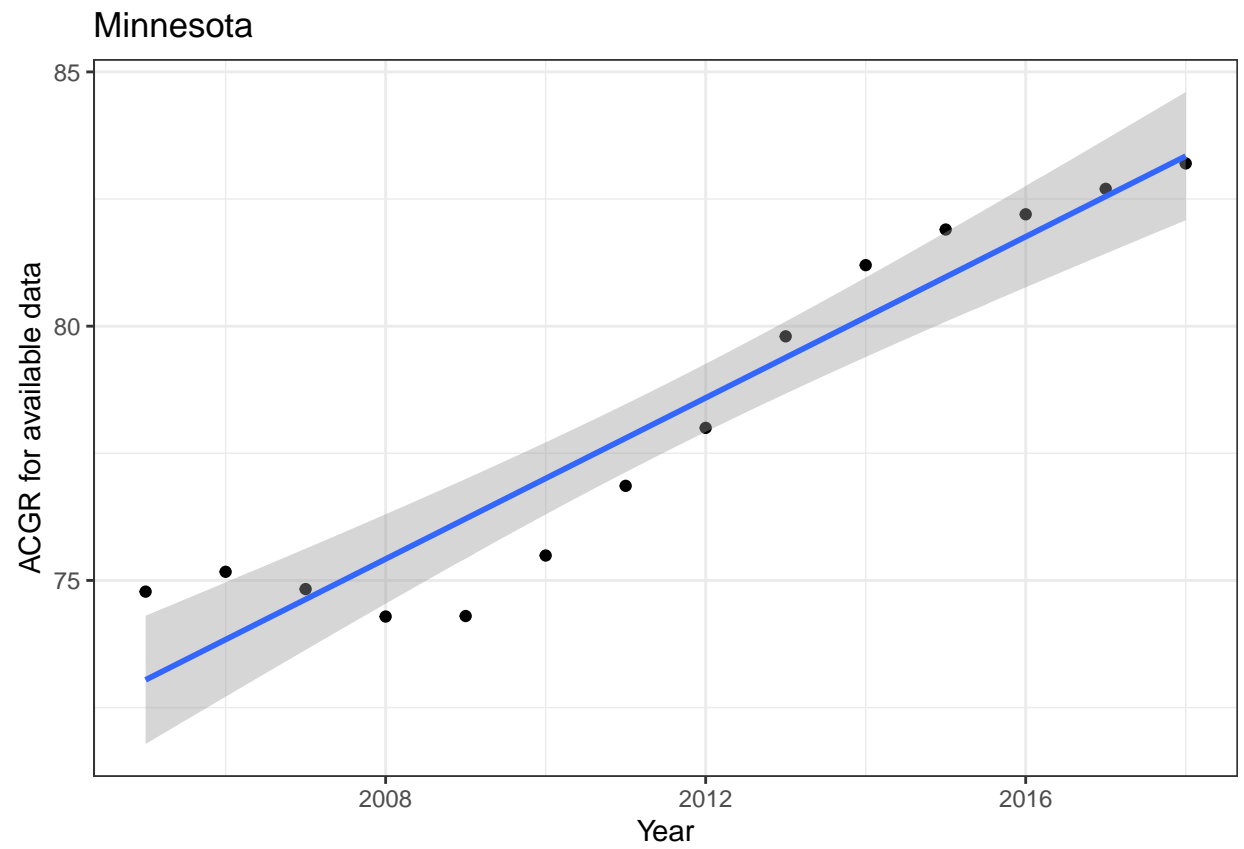
Maine


```
##
## $Maryland

## `geom_smooth()` using formula 'y ~ x'
```

Maryland

```
##
## $Massachusetts

## `geom_smooth()` using formula 'y ~ x'
```
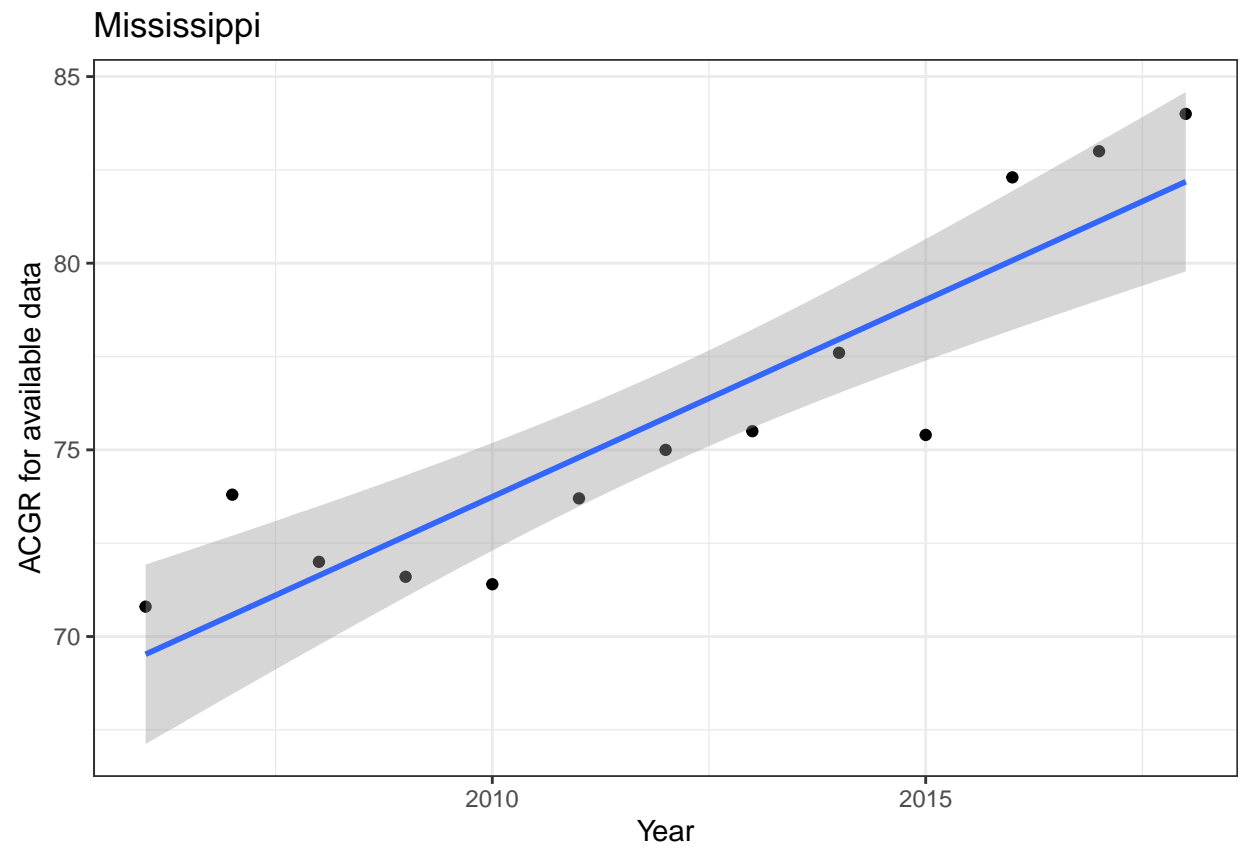
Massachusetts


```
##
## $Michigan
## `geom_smooth()` using formula 'y ~ x'
```
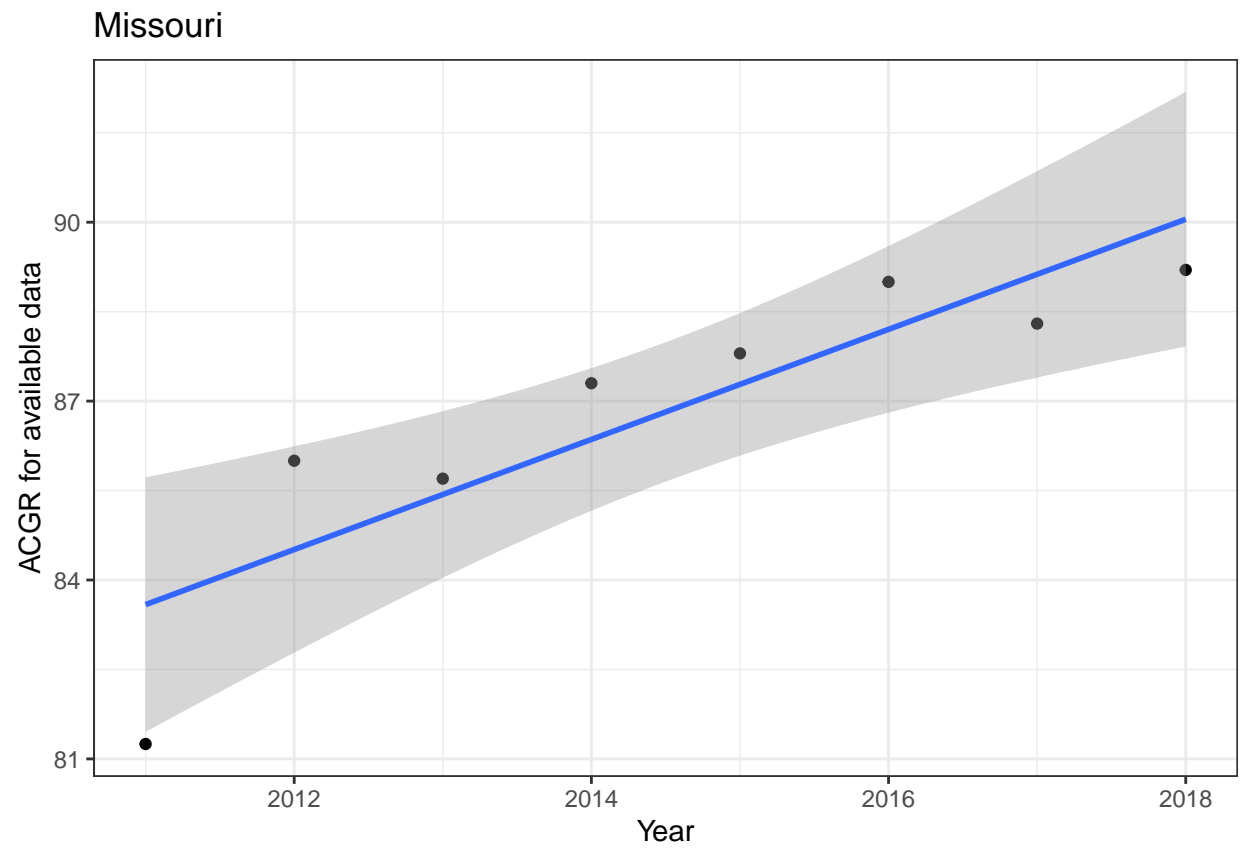
Michigan

ACGR for available data

```
##
## $Minnesota

## `geom_smooth()` using formula 'y ~ x'
```

Minnesota

```
##
## $Mississippi

## `geom_smooth()` using formula 'y ~ x'
```
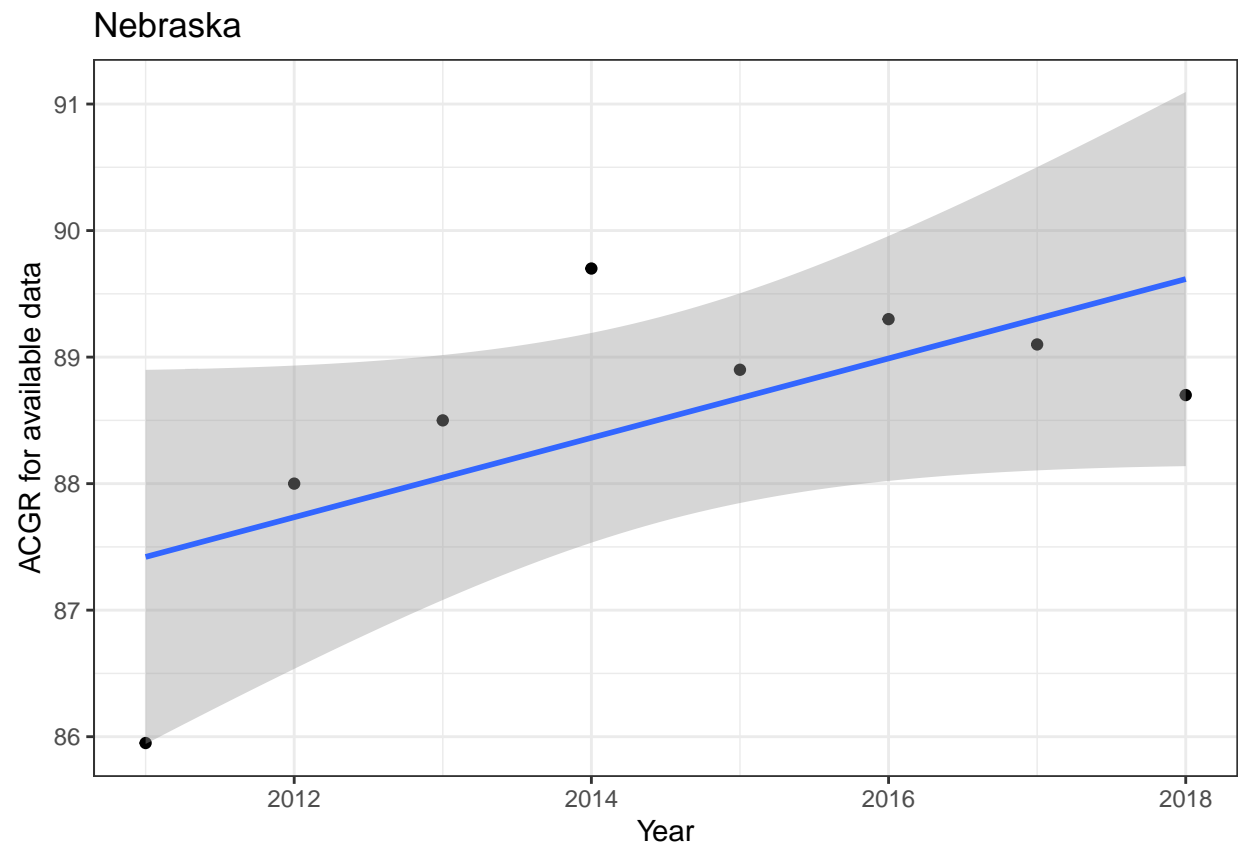
Mississippi


```
## 
## $Missouri
```

```
## `geom_smooth()` using formula 'y ~ x'
```

Missouri


```
##
## $Montana

## `geom_smooth()` using formula 'y ~ x'
```

Montana
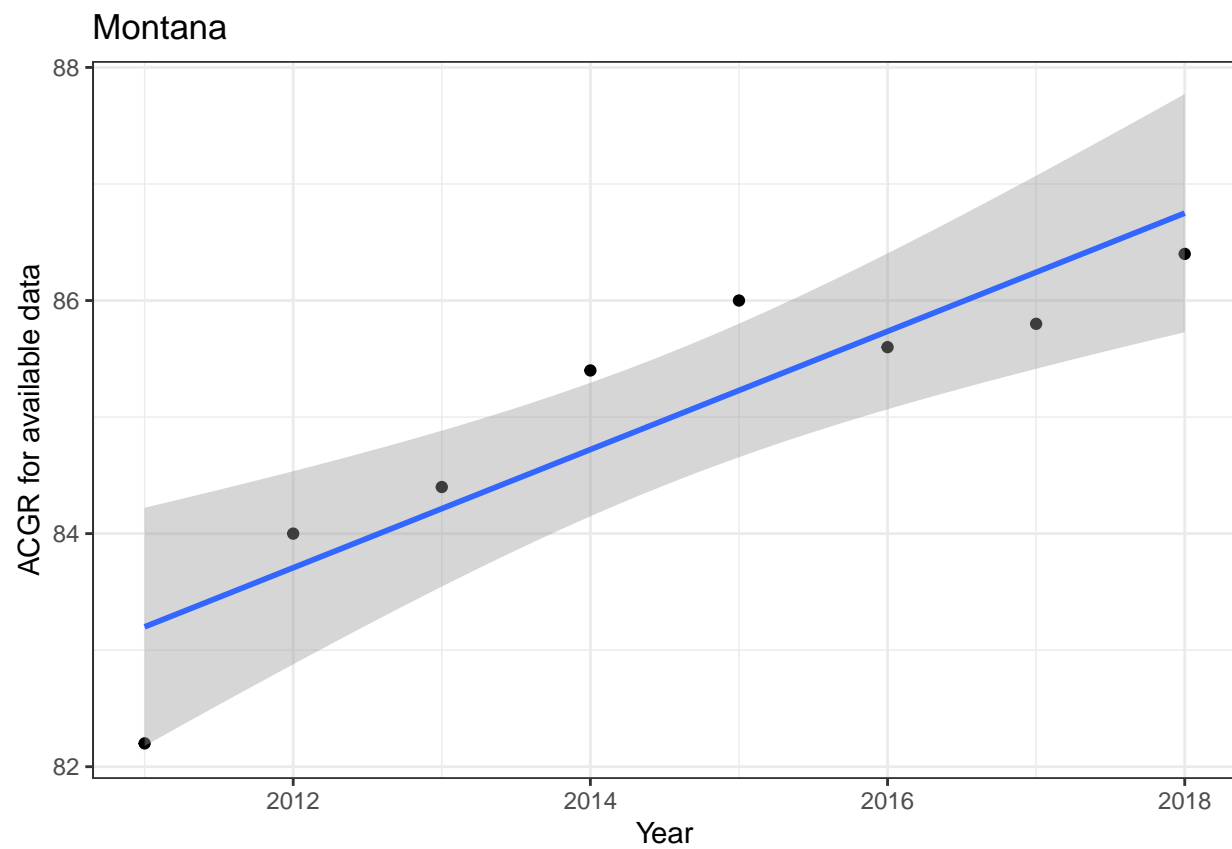

```
## 
## $Nebraska

## `geom_smooth()` using formula 'y ~ x'
```
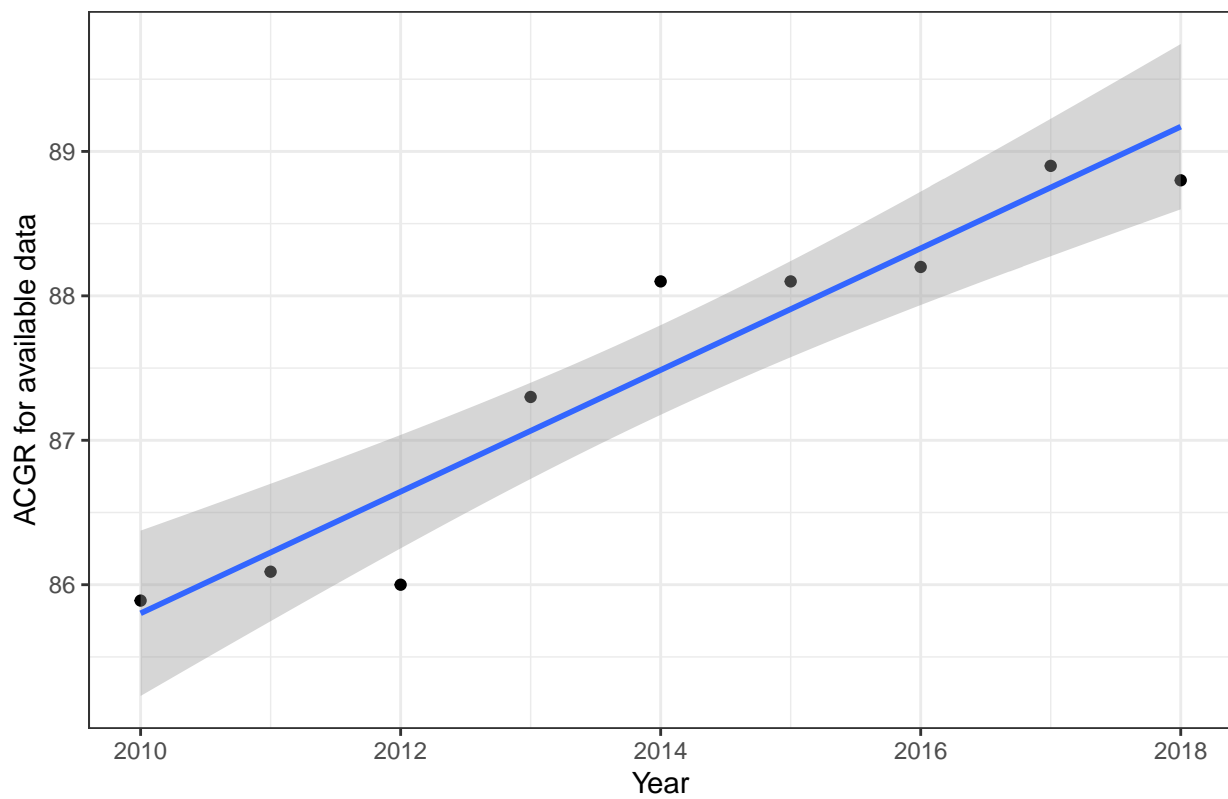
Nebraska


```
## 
## $Nevada

## `geom_smooth()` using formula 'y ~ x'
```
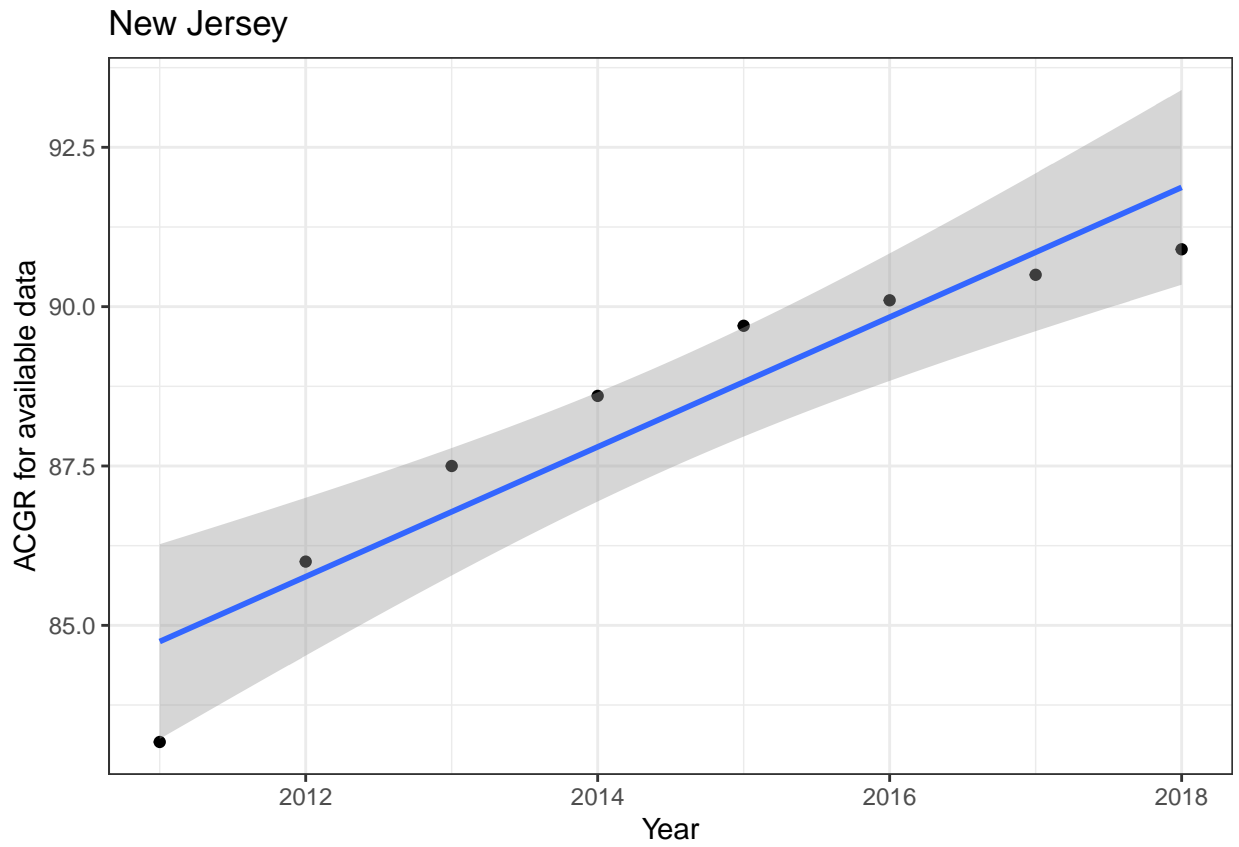
Nevada
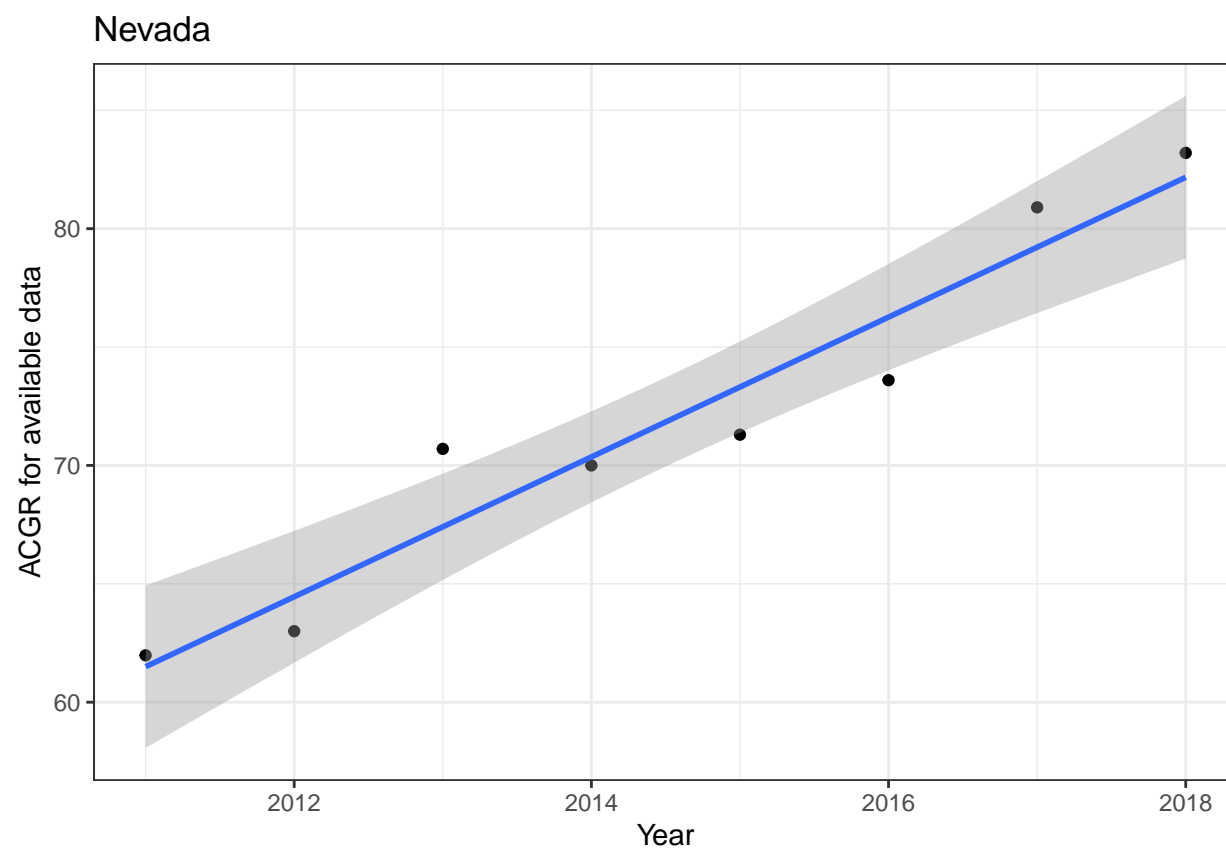
```
##
## $`New Hampshire`

## `geom_smooth()` using formula 'y ~ x'
```
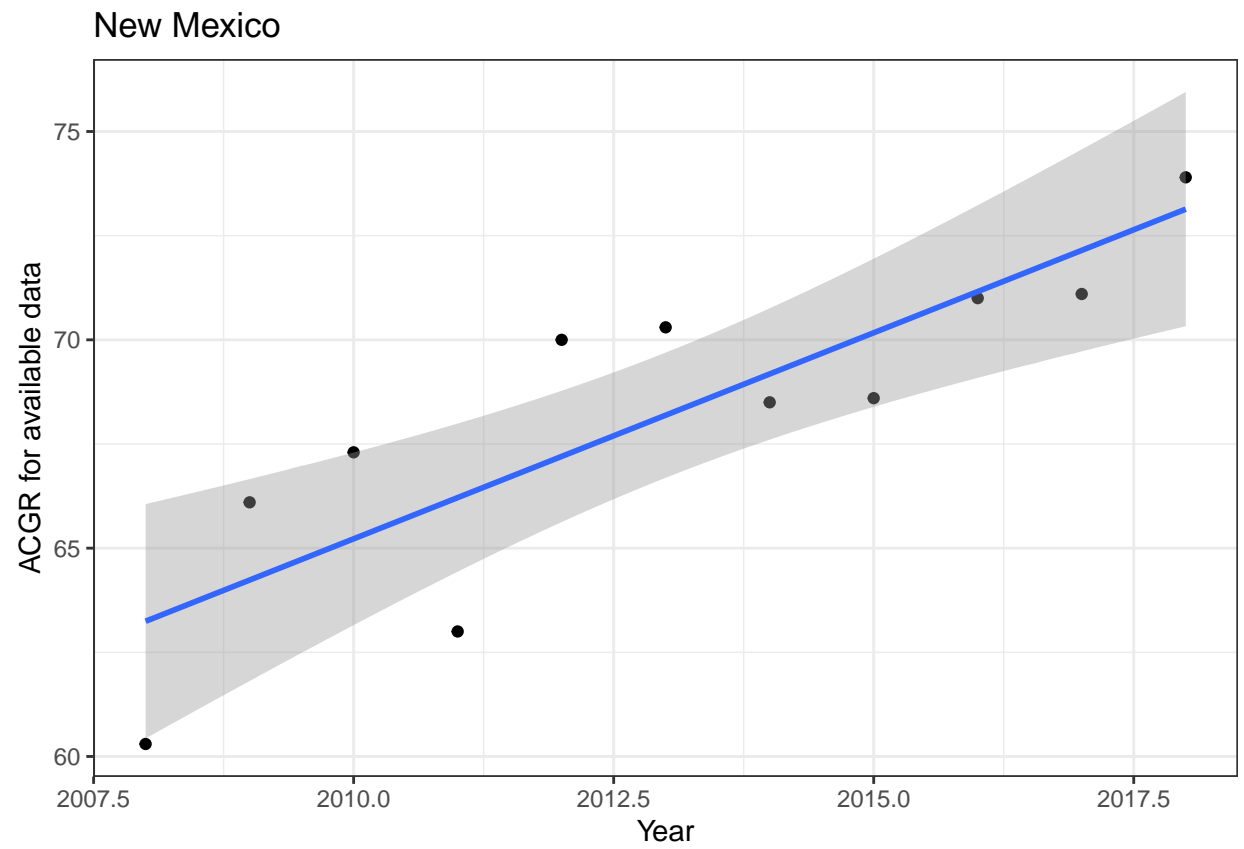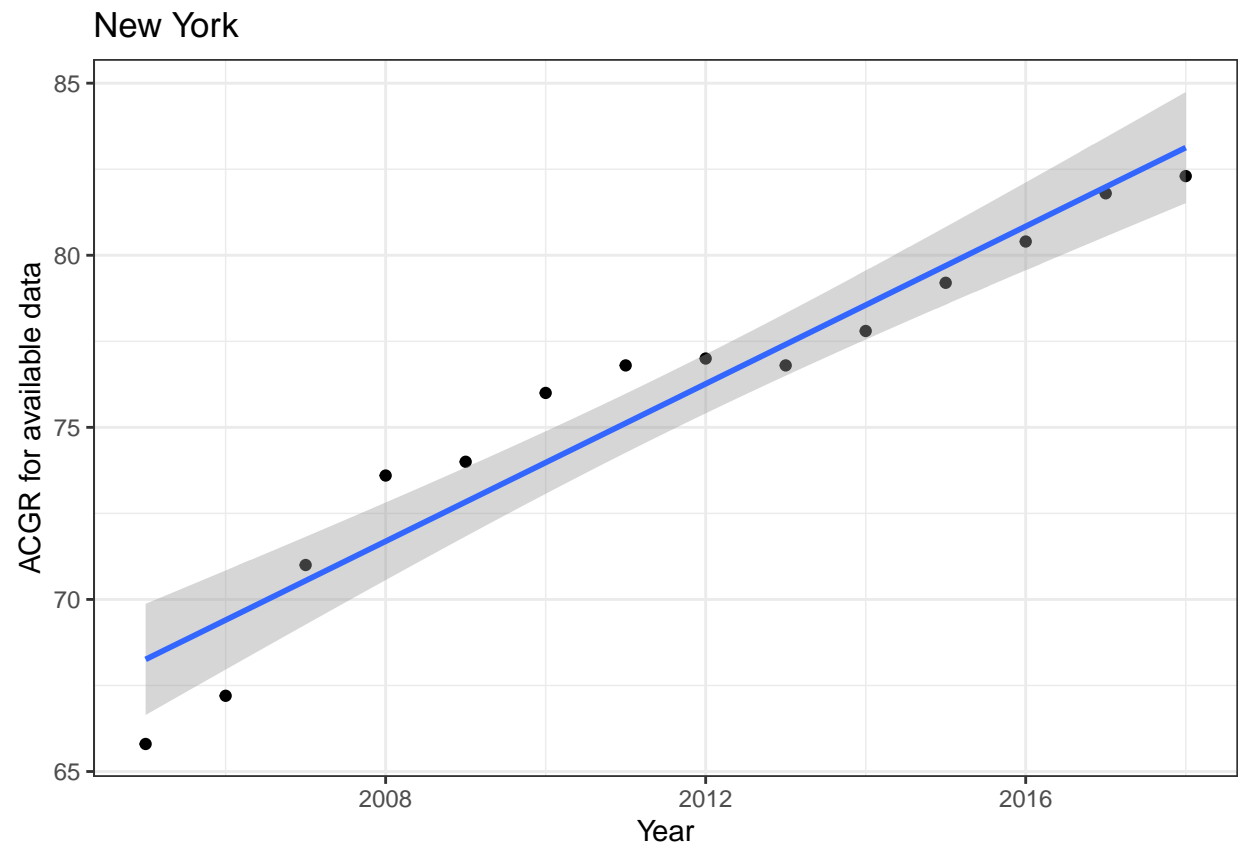
New Hampshire


```
## 
## $`New Jersey`

## `geom_smooth()` using formula 'y ~ x'
```
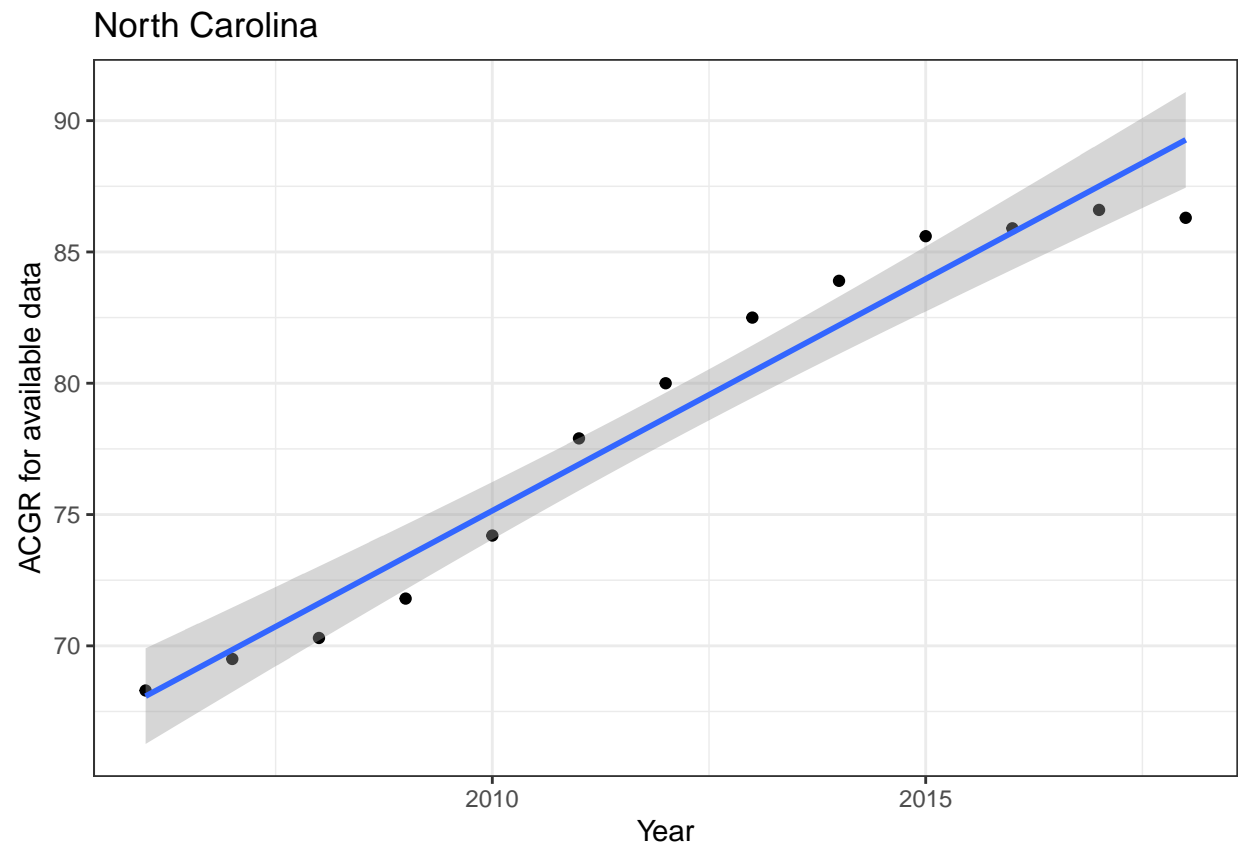
New Jersey


```
## 
## $`New Mexico`

## `geom_smooth()` using formula 'y ~ x'
```
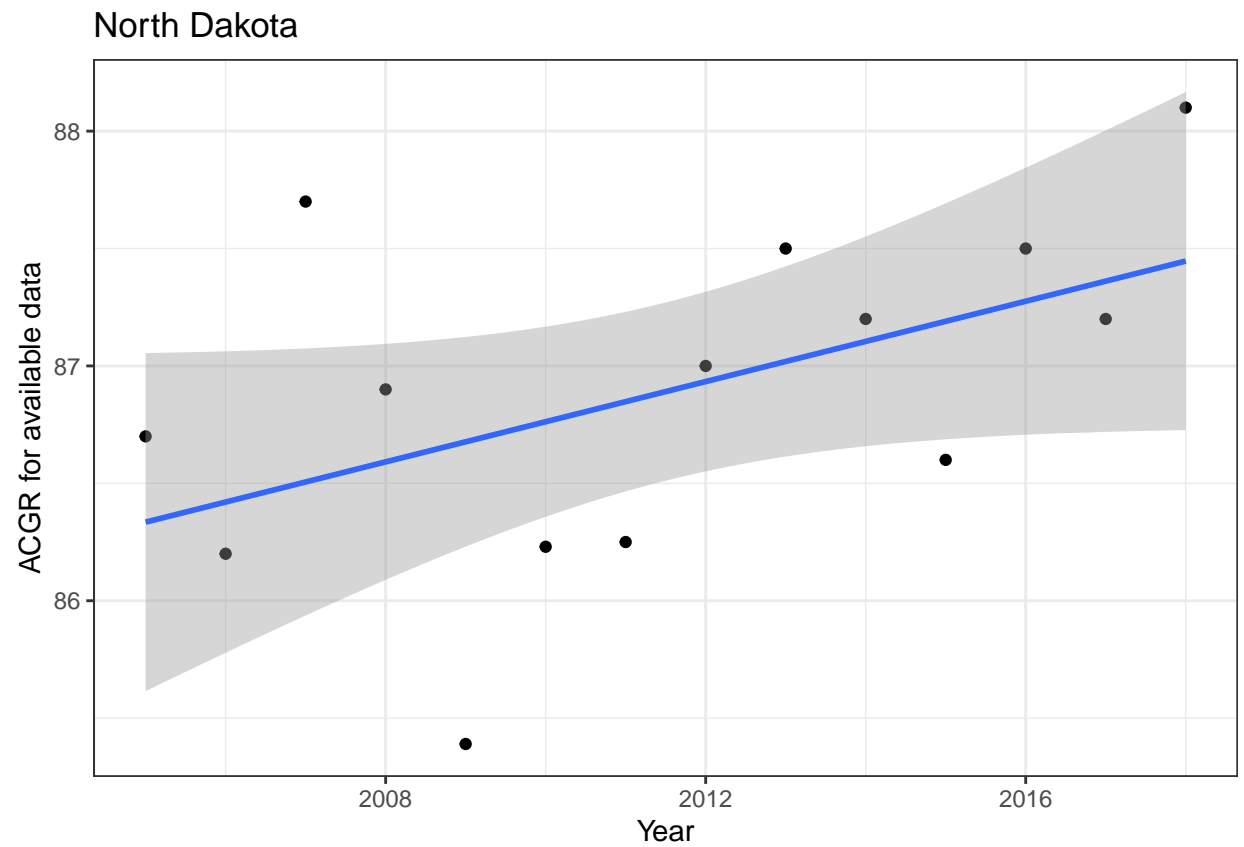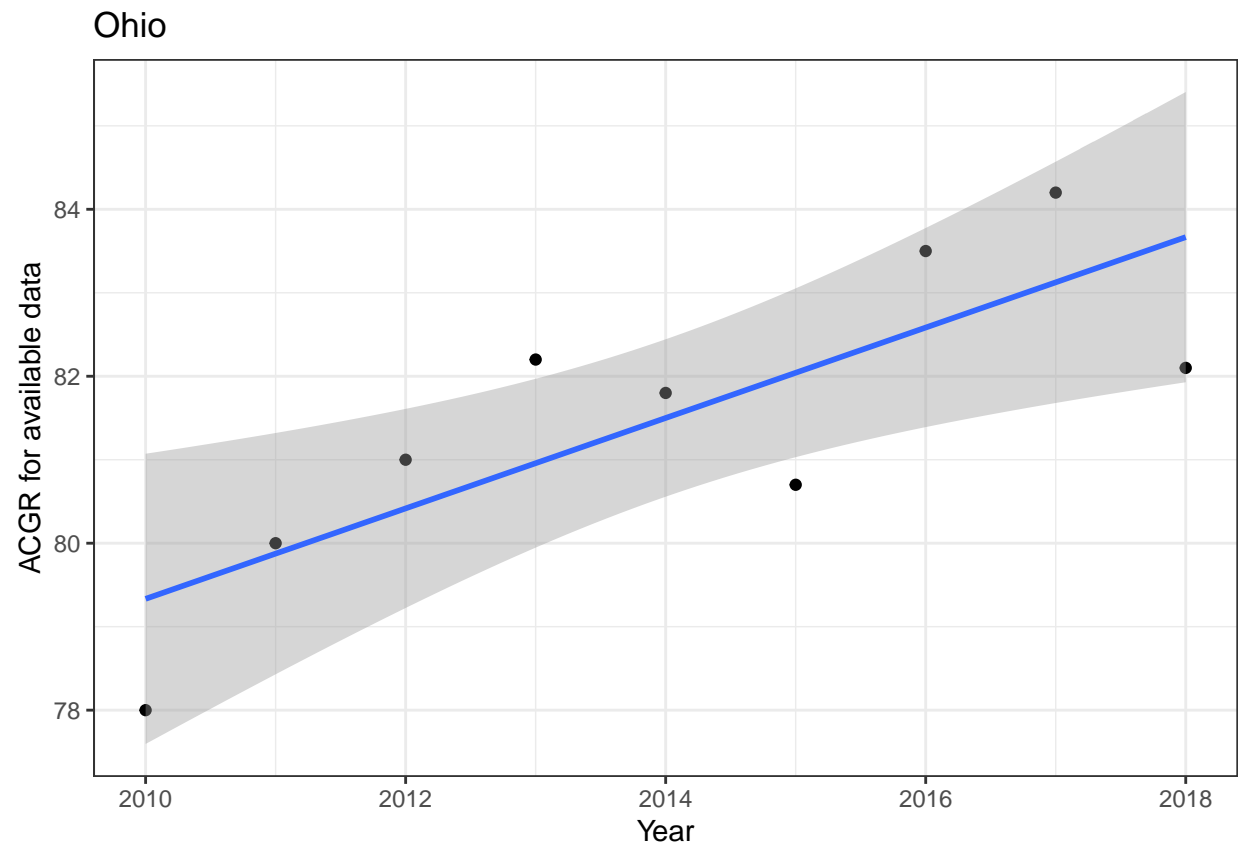
New Mexico

ACGR for available data

```
##
## $`New York`

## `geom_smooth()` using formula 'y ~ x'
```

New York

$`North Carolina`

`geom_smooth()` using formula 'y ~ x'

North Carolina


```
##
## $`North Dakota`
```

```
## `geom_smooth()` using formula 'y ~ x'
```

North Dakota

$Ohio

`geom_smooth()` using formula 'y ~ x'

Ohio


```
## 
## $Oklahoma

## `geom_smooth()` using formula 'y ~ x'
```
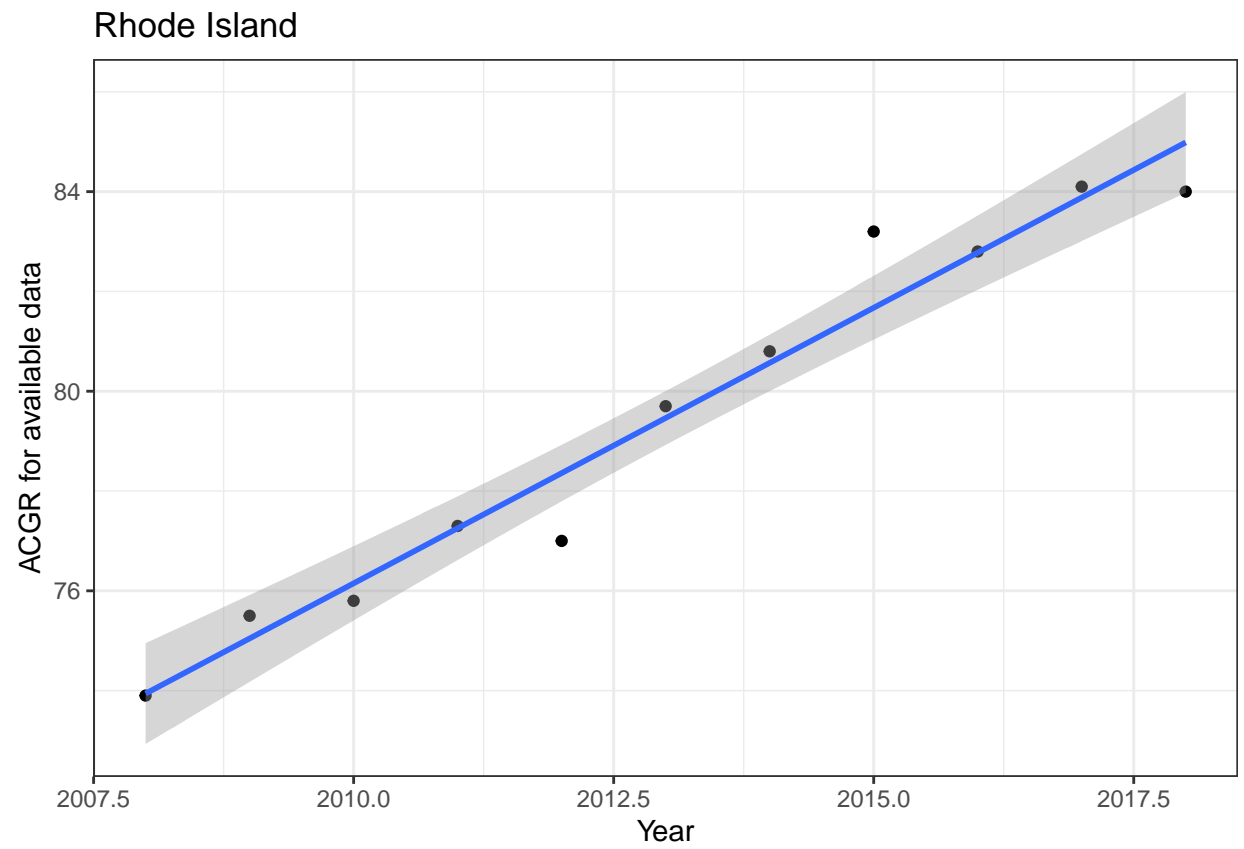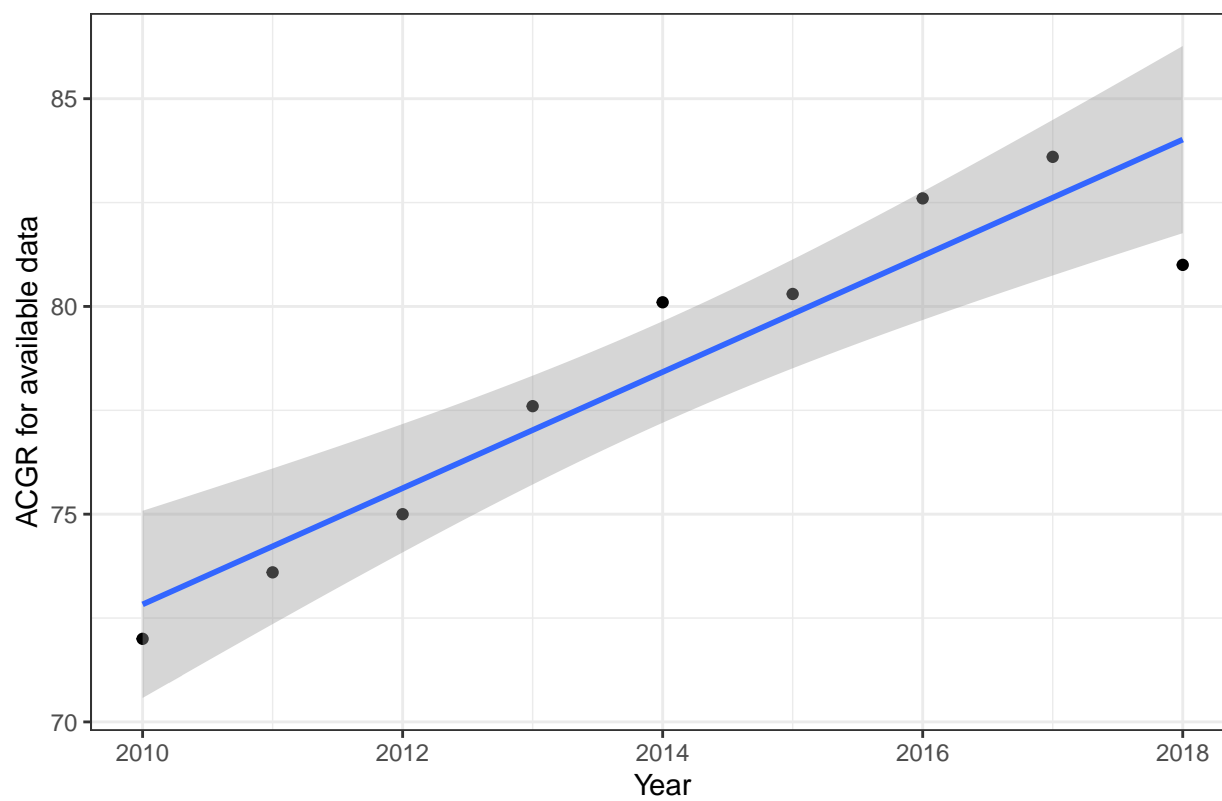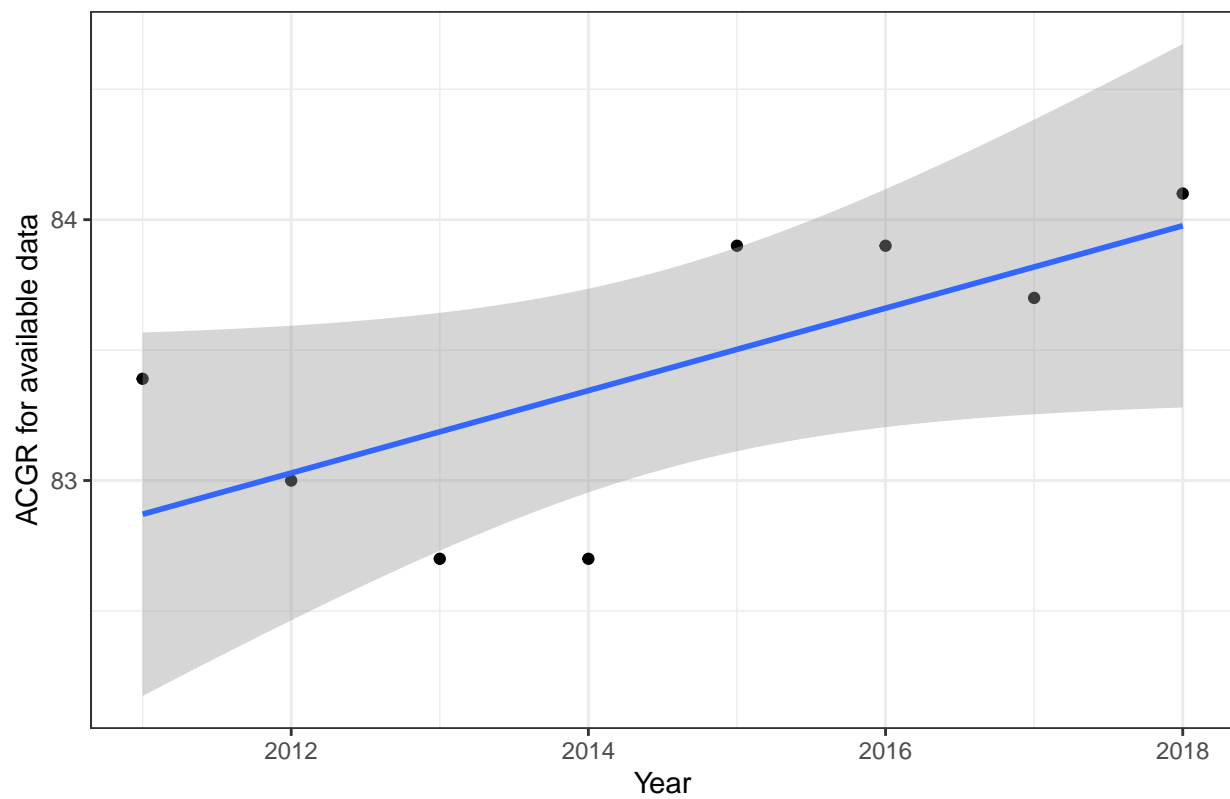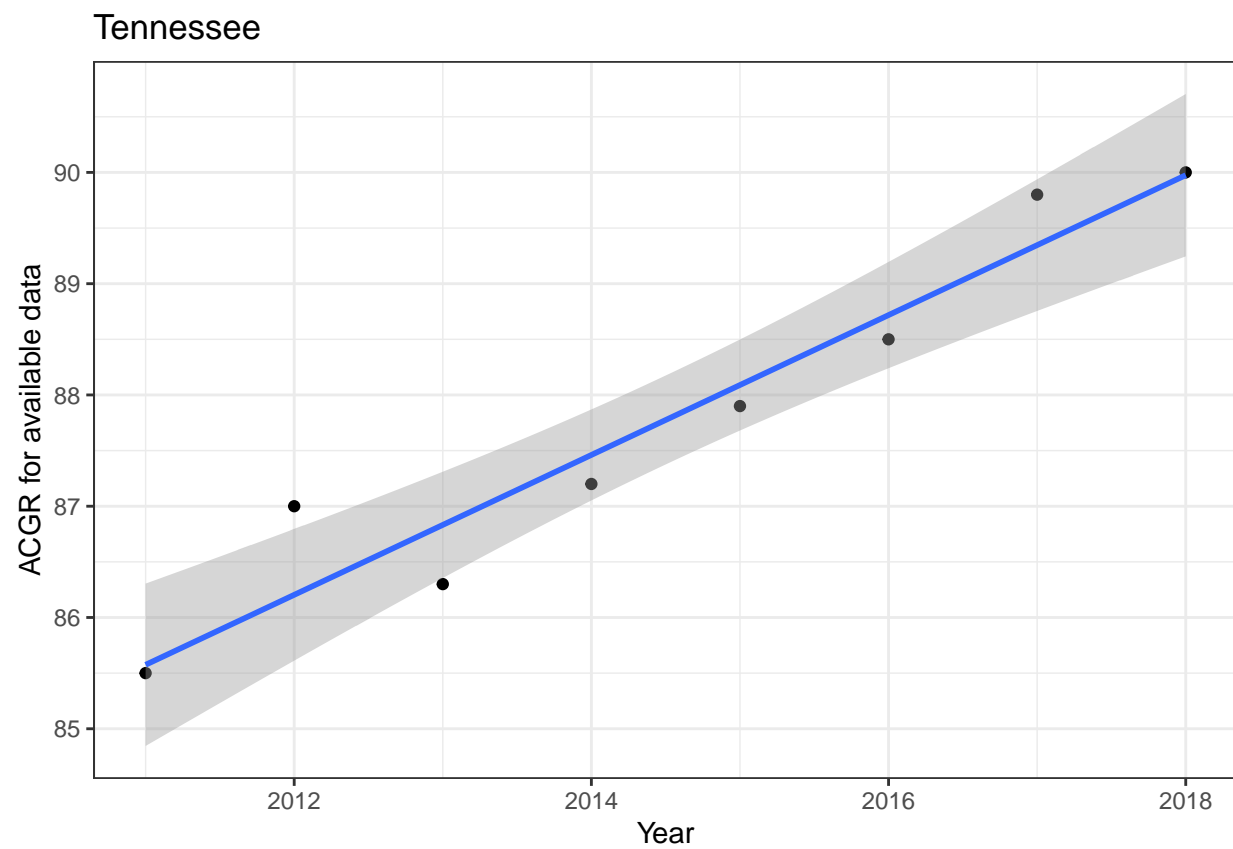
Oklahoma
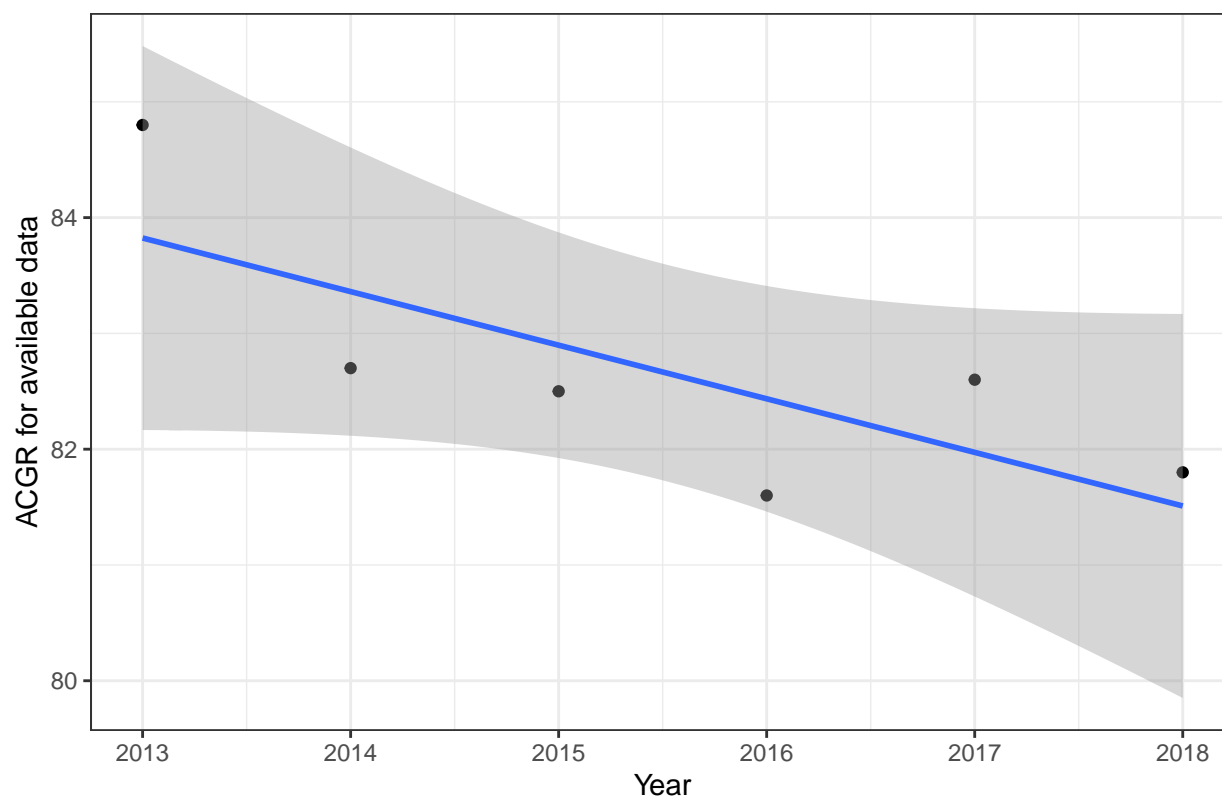

```
## 
## $Oregon
```

```
## `geom_smooth()` using formula 'y ~ x'
```

Oregon
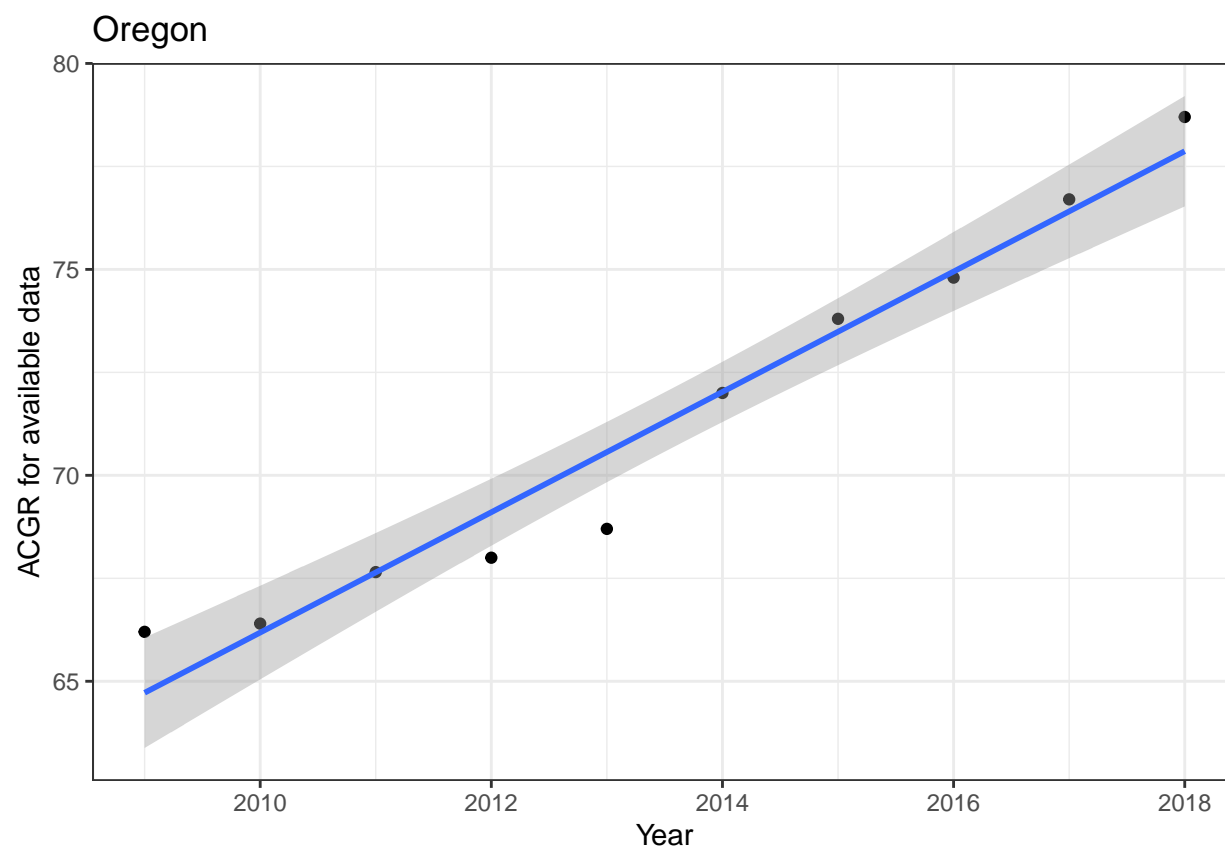

```
##
## $Pennsylvania

## `geom_smooth()` using formula 'y ~ x'
```

Pennsylvania
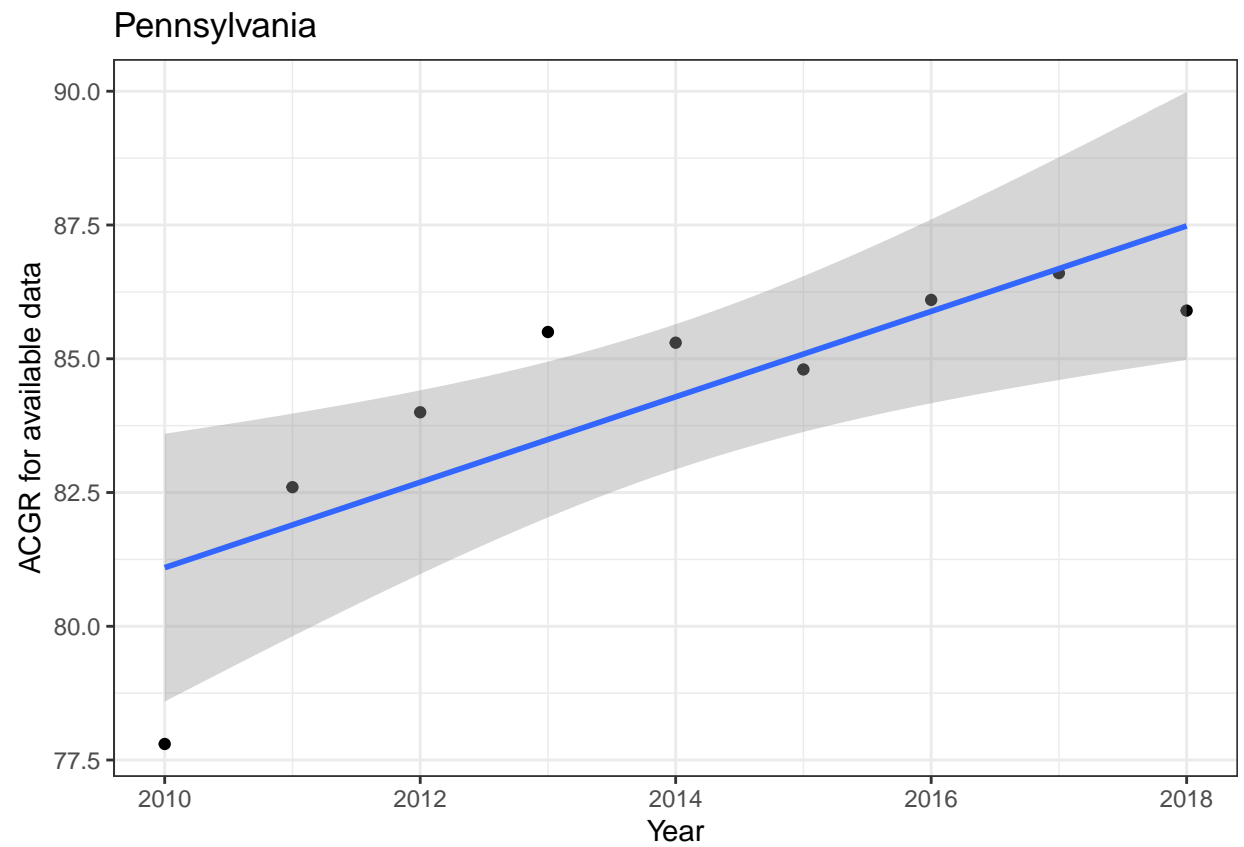

```
##
## $`Rhode Island`
```

```
## `geom_smooth()` using formula 'y ~ x'
```

Rhode Island


```
##
## $`South Carolina`

## `geom_smooth()` using formula 'y ~ x'
```

South Carolina


```
##
## $`South Dakota`
```

```
## `geom_smooth()` using formula 'y ~ x'
```

South Dakota


```
##
## $Tennessee

## `geom_smooth()` using formula 'y ~ x'
```

Tennessee


```
##
## $Texas

## `geom_smooth()` using formula 'y ~ x'
```

Texas
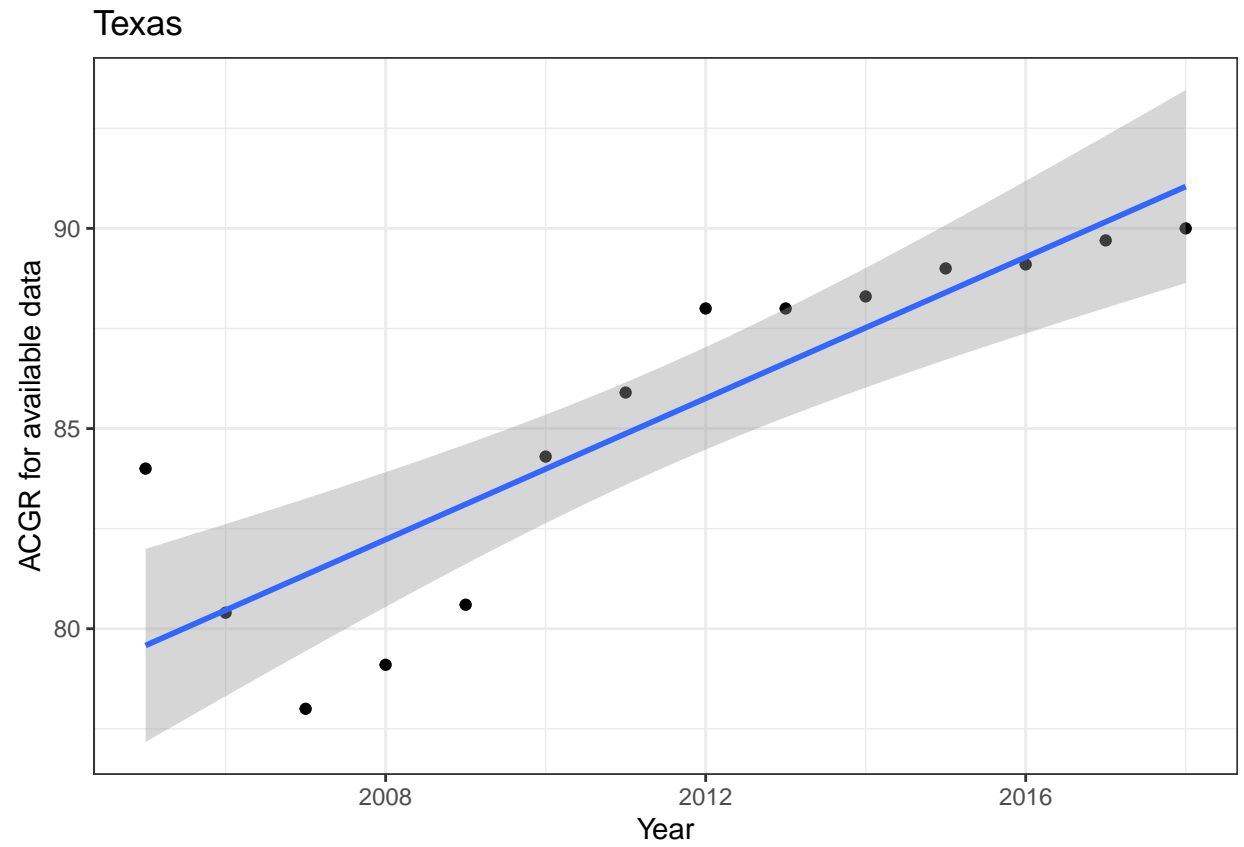
```
##
## $Utah

## `geom_smooth()` using formula 'y ~ x'
```
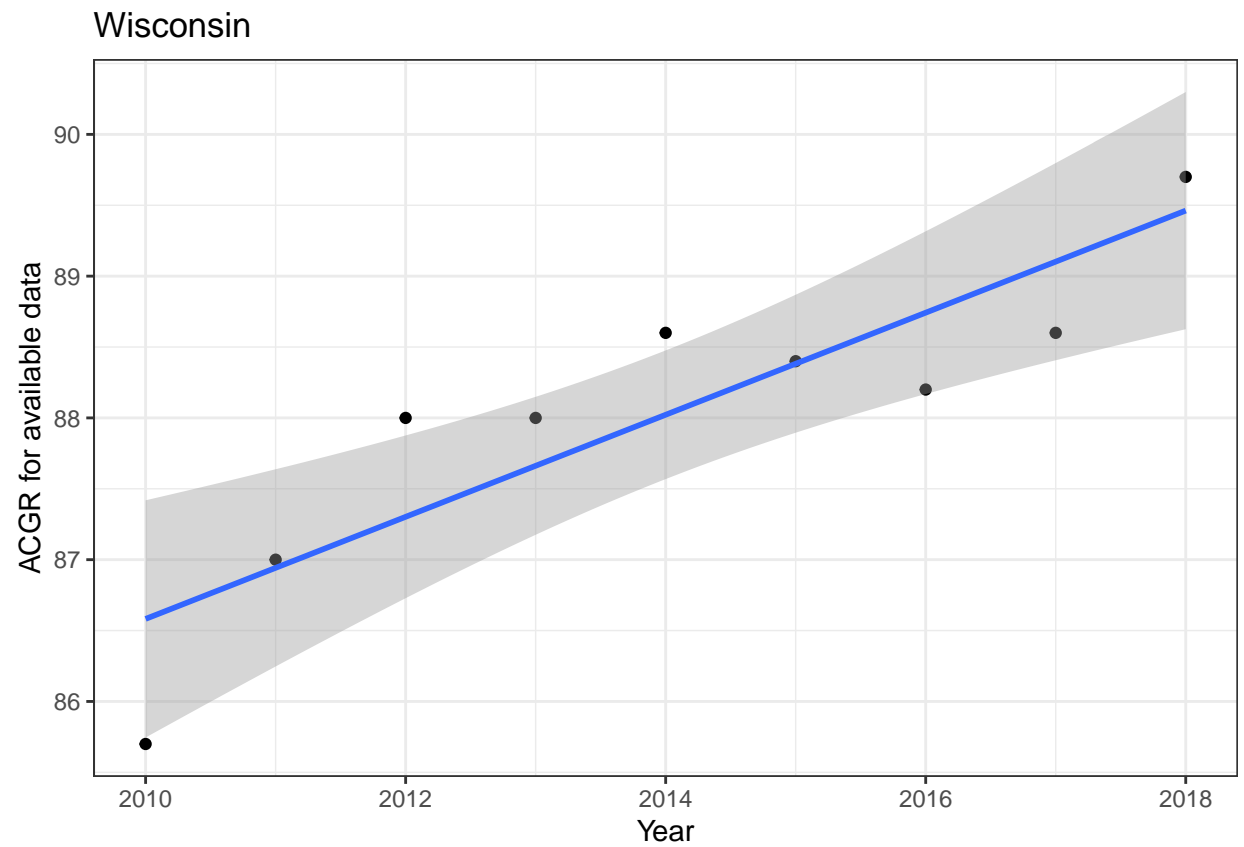
Utah
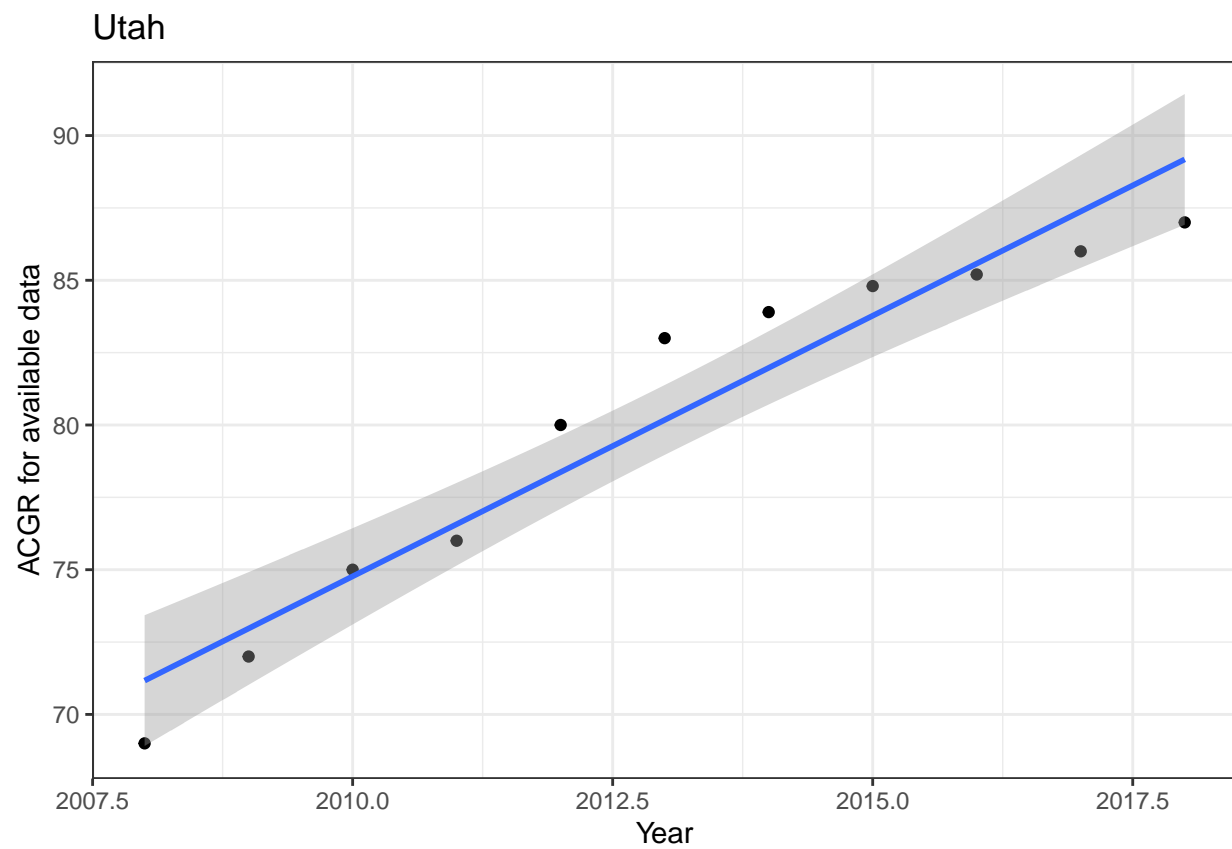
$Vermont

`geom_smooth()` using formula 'y ~ x'

Vermont
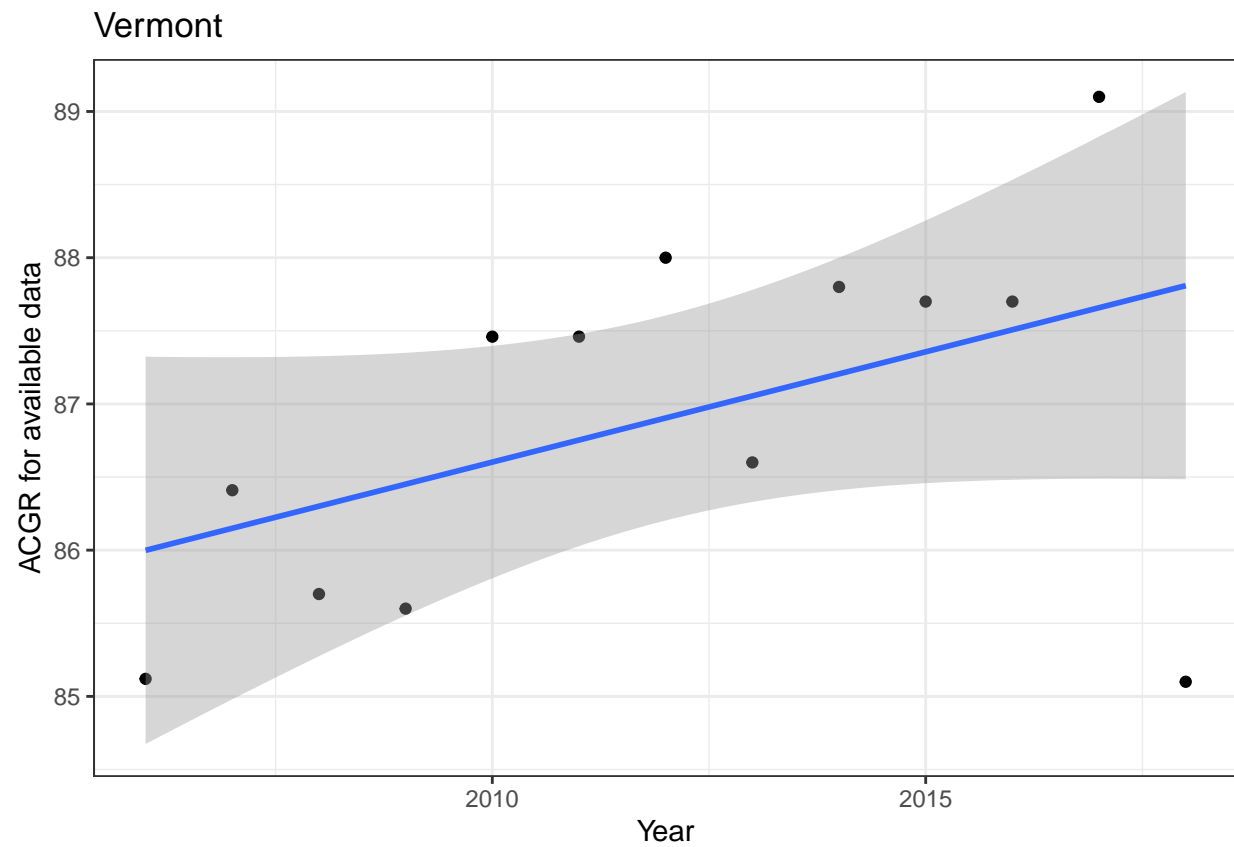
```
##
## $Virginia

## `geom_smooth()` using formula 'y ~ x'
```

Virginia
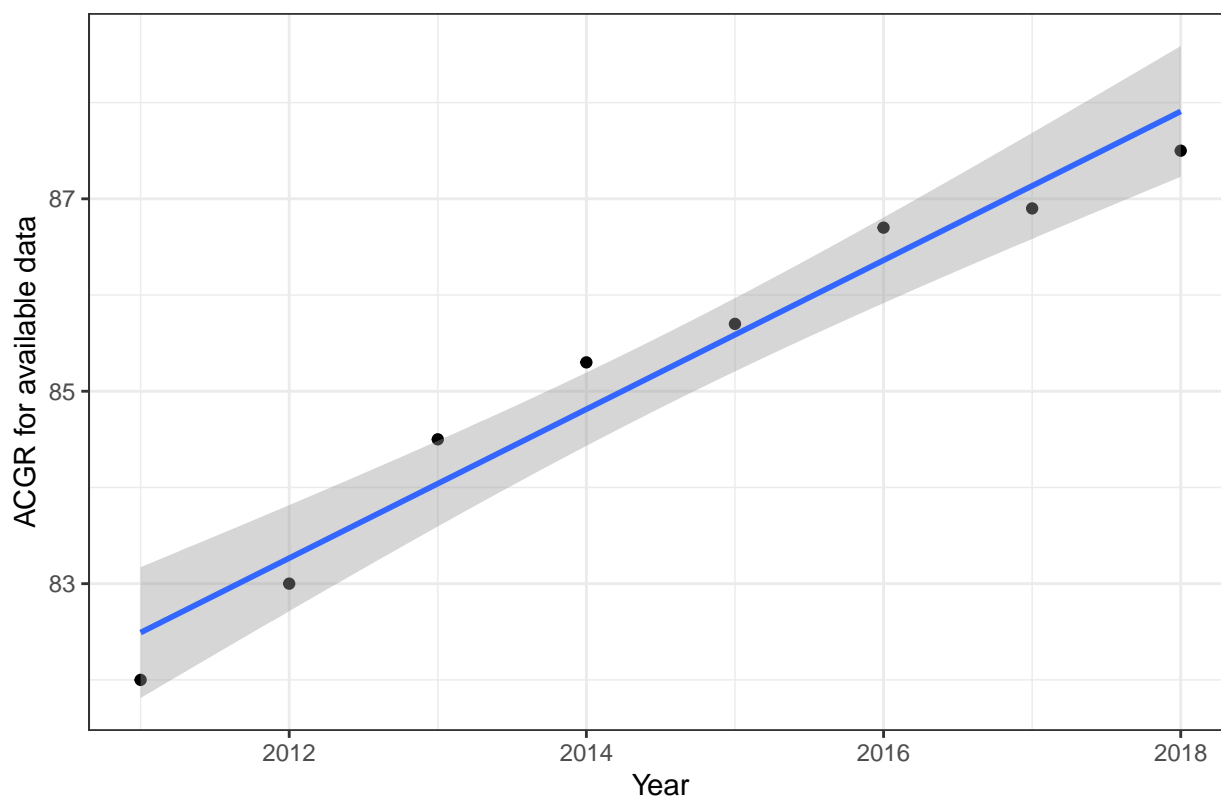

```
##
## $Washington

## `geom_smooth()` using formula 'y ~ x'
```
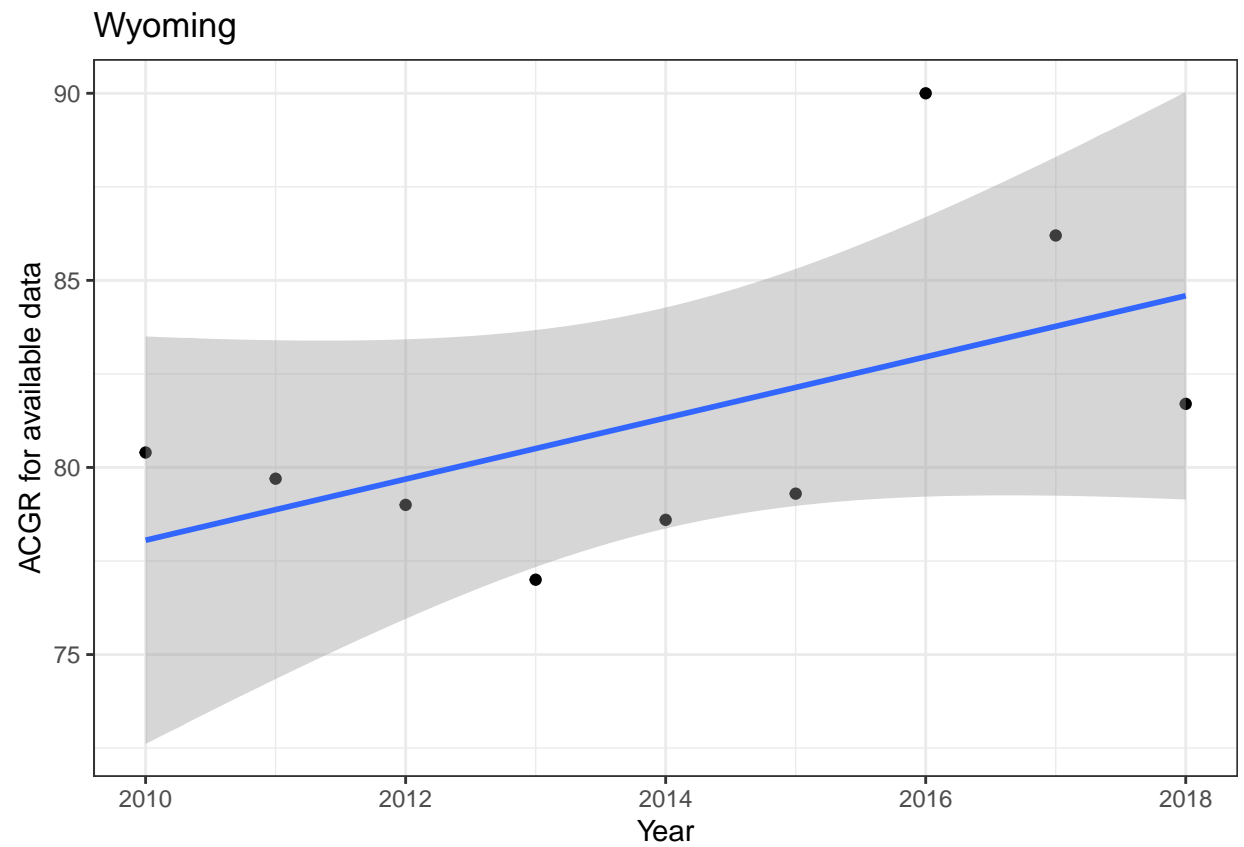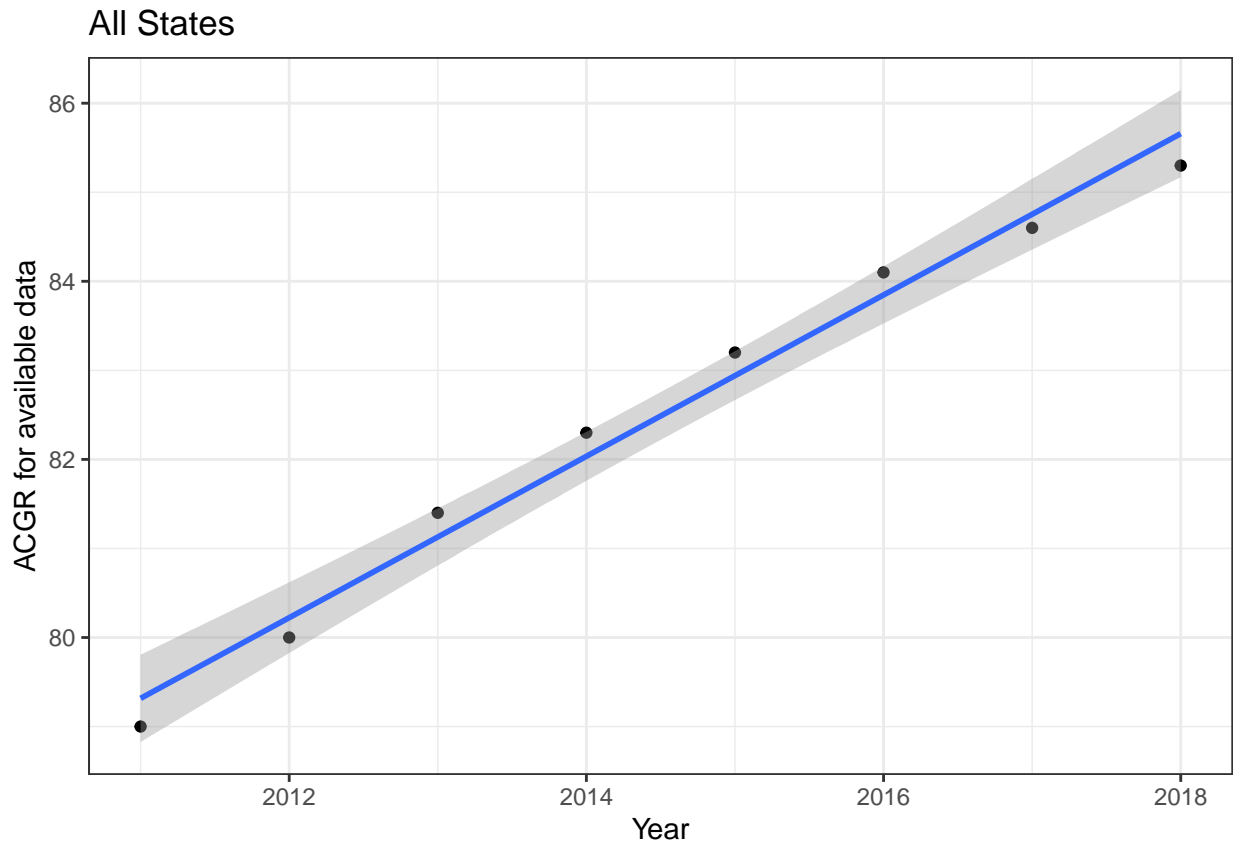
47

Washington
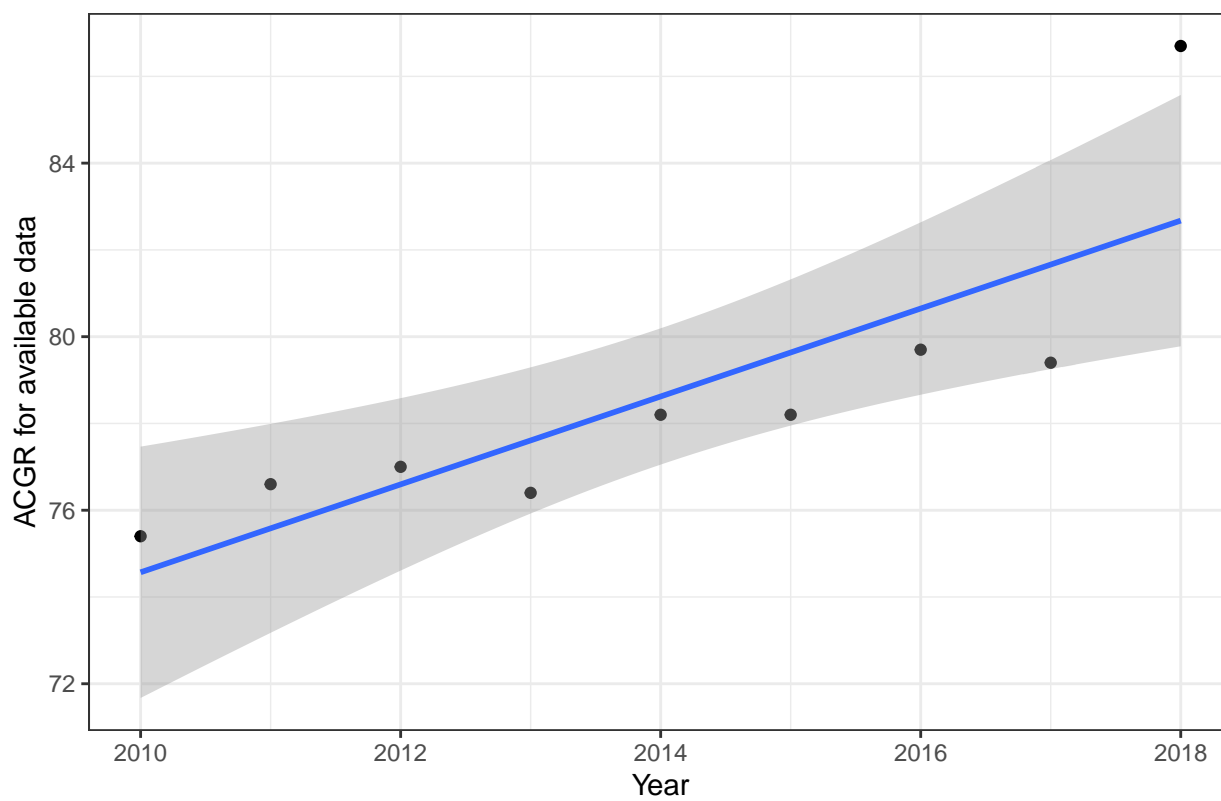

```
## 
## $`West Virginia`

## `geom_smooth()` using formula 'y ~ x'
```

West Virginia
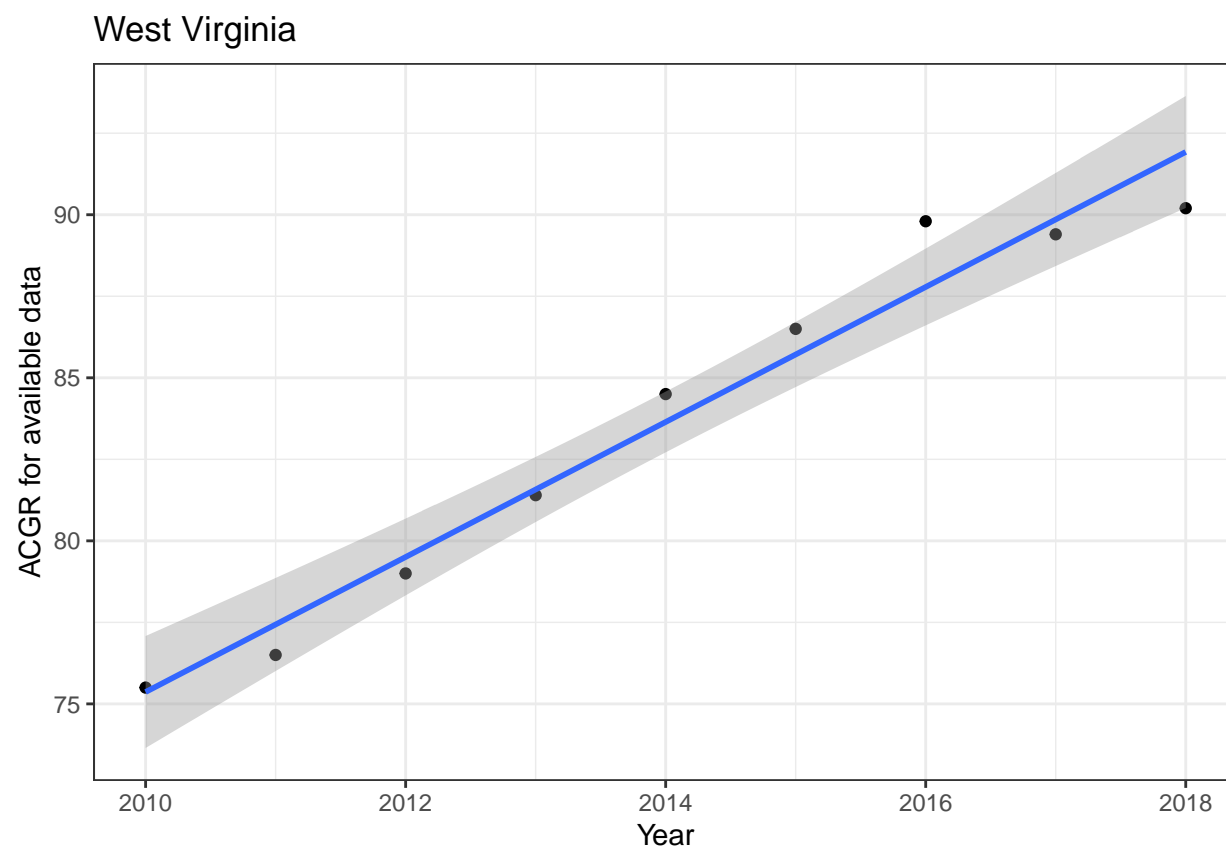

```
##
## $Wisconsin

## `geom_smooth()` using formula 'y ~ x'
```

Wisconsin


```
## 
## $Wyoming
```

```
## `geom_smooth()` using formula 'y ~ x'
```

Wyoming

```
##
## $`All States`

## `geom_smooth()` using formula 'y ~ x'
```

All States


```r
acgr_long_subgroups <- acgr %>%
  gather(race, acgr, ACGR_black:ACGR_white) %>%
  select(statename, race, acgr)

acgr_long_subgroups$race <- as.factor(acgr_long_subgroups$race)
```

```r
acgr_long_subgroups <- acgr_long_subgroups %>%
  mutate(National_avg = case_when(
    statename == "United States" ~ "National average",
    statename != "United States" ~ "State average") %>%
      as.factor() %>%
      structure(levels = c("National average", "State average"))
  )



states2 = unique(acgr_long_subgroups$statename)
state_subgroup_bar = list()

for (i in states2) {
  state_subgroup_bar[[i]] = ggplot(acgr_long_subgroups %>% filter(statename == i|statename == "United St

  print(state_subgroup_bar[i])

}
```

```
## $Alabama
```
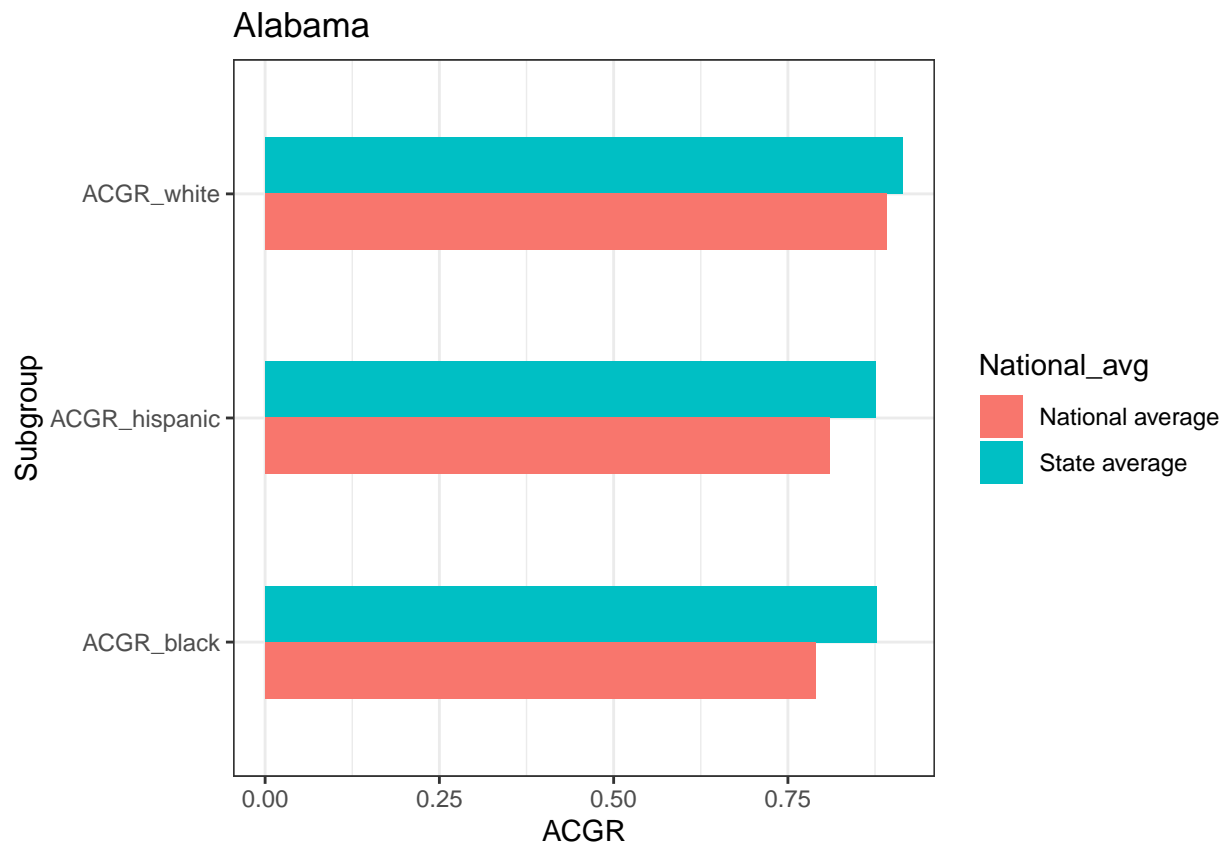
Alabama
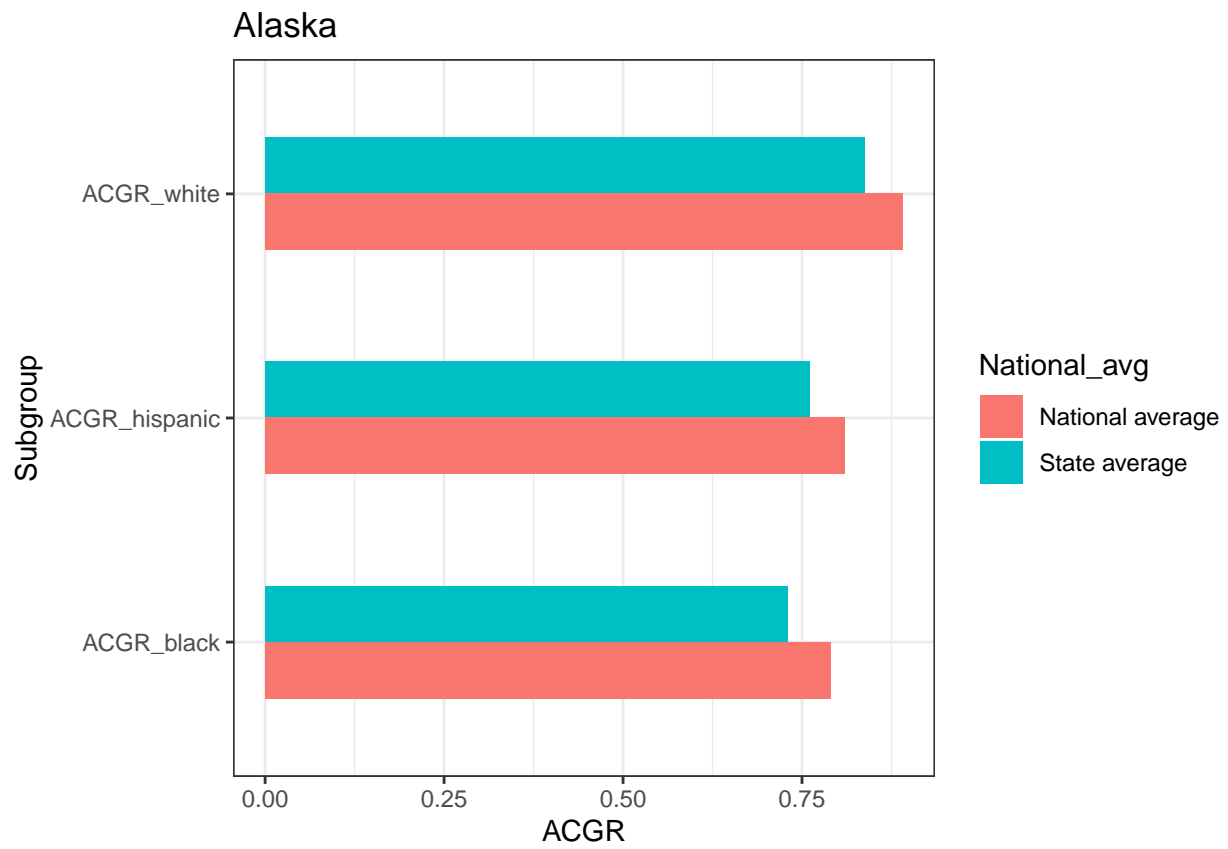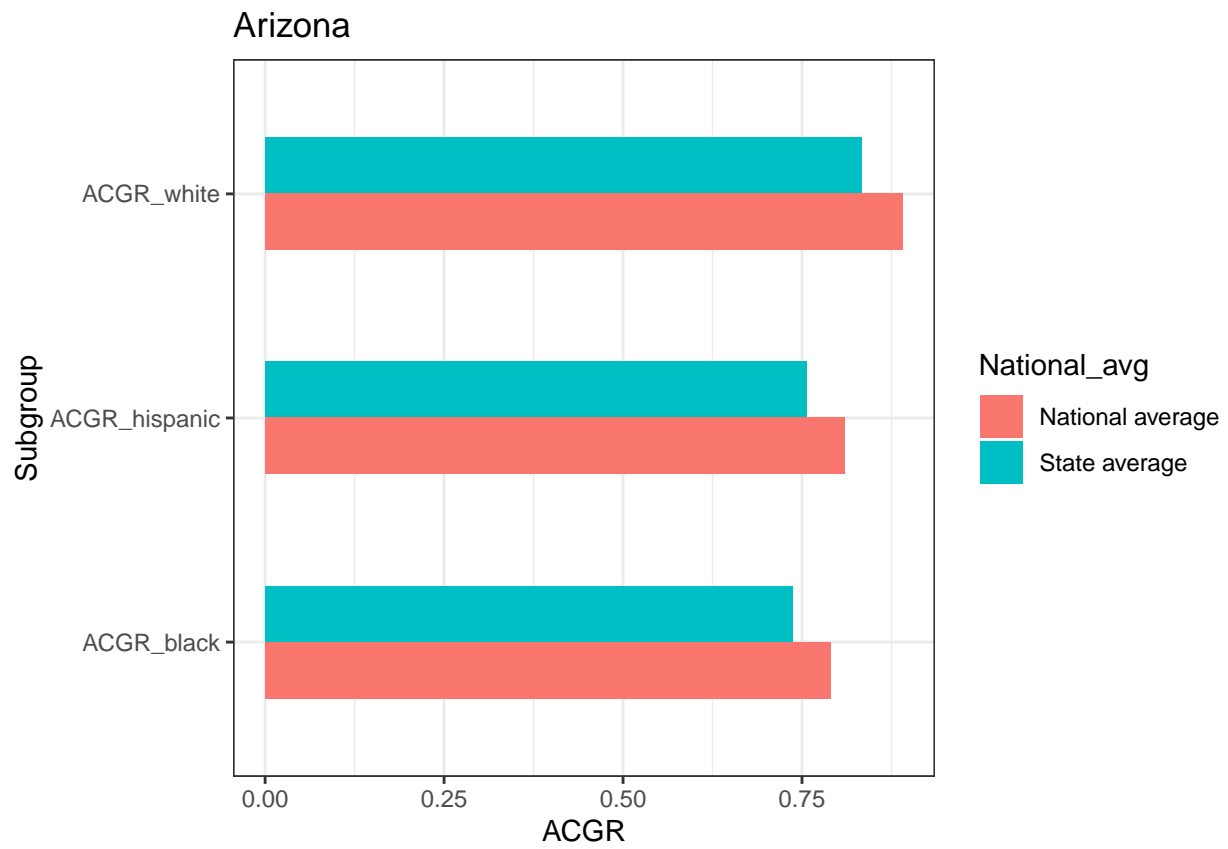
$Alaska

Alaska

```
##
## $Arizona
```

Arizona

$Arkansas
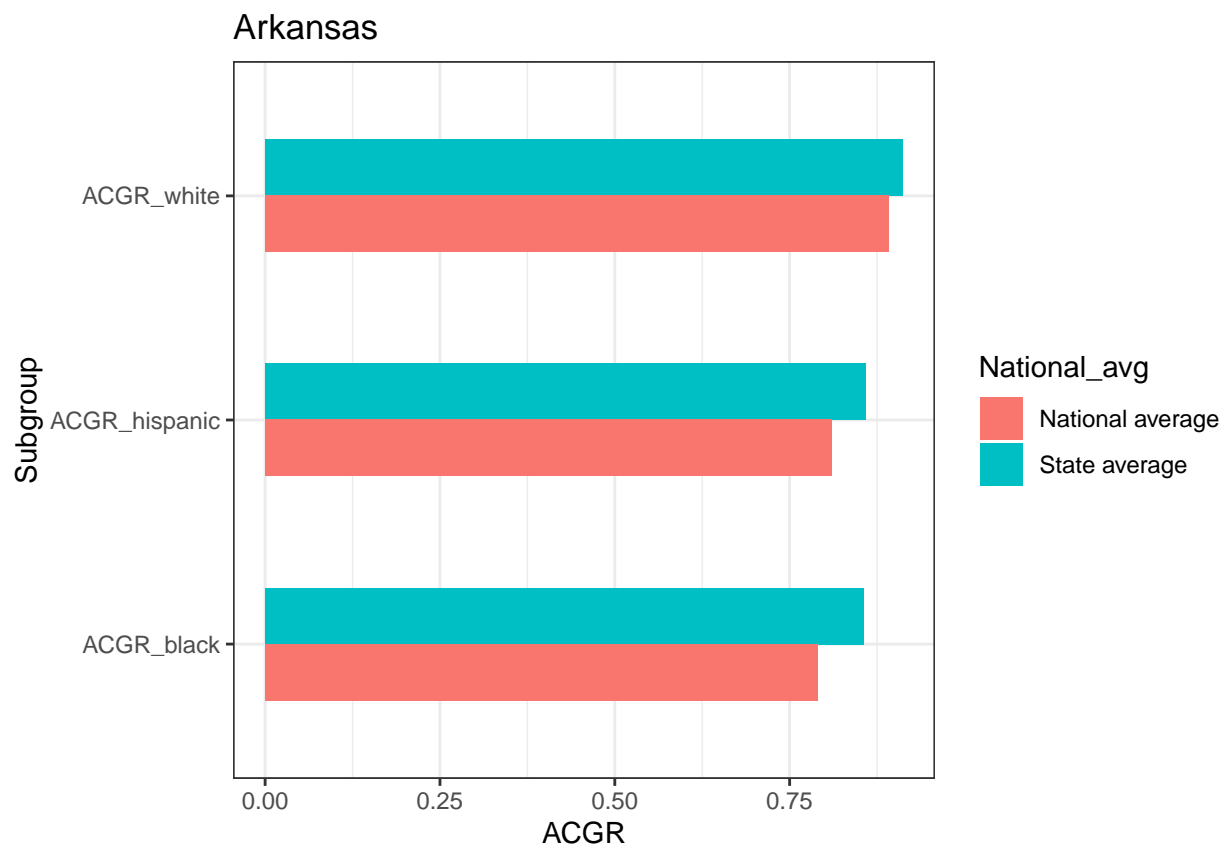
Arkansas

```
## 
## $California
```

California

```
## 
## $Colorado
```

Colorado

```
##
## $Connecticut
```

Connecticut

```
##
## $Delaware
```

Delaware

$Florida

Florida

$Georgia

Georgia

$Hawaii

Hawaii

$Idaho

Idaho


```
##
## $Illinois
```
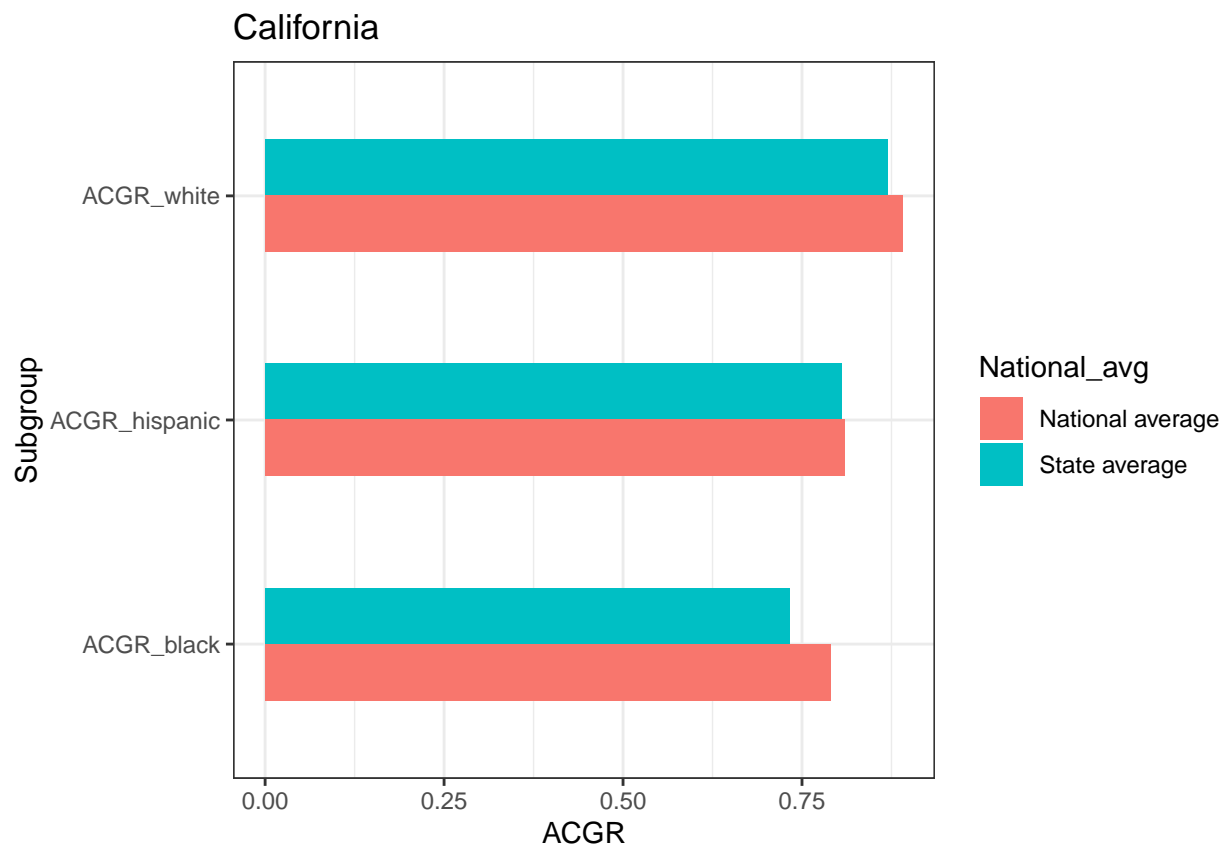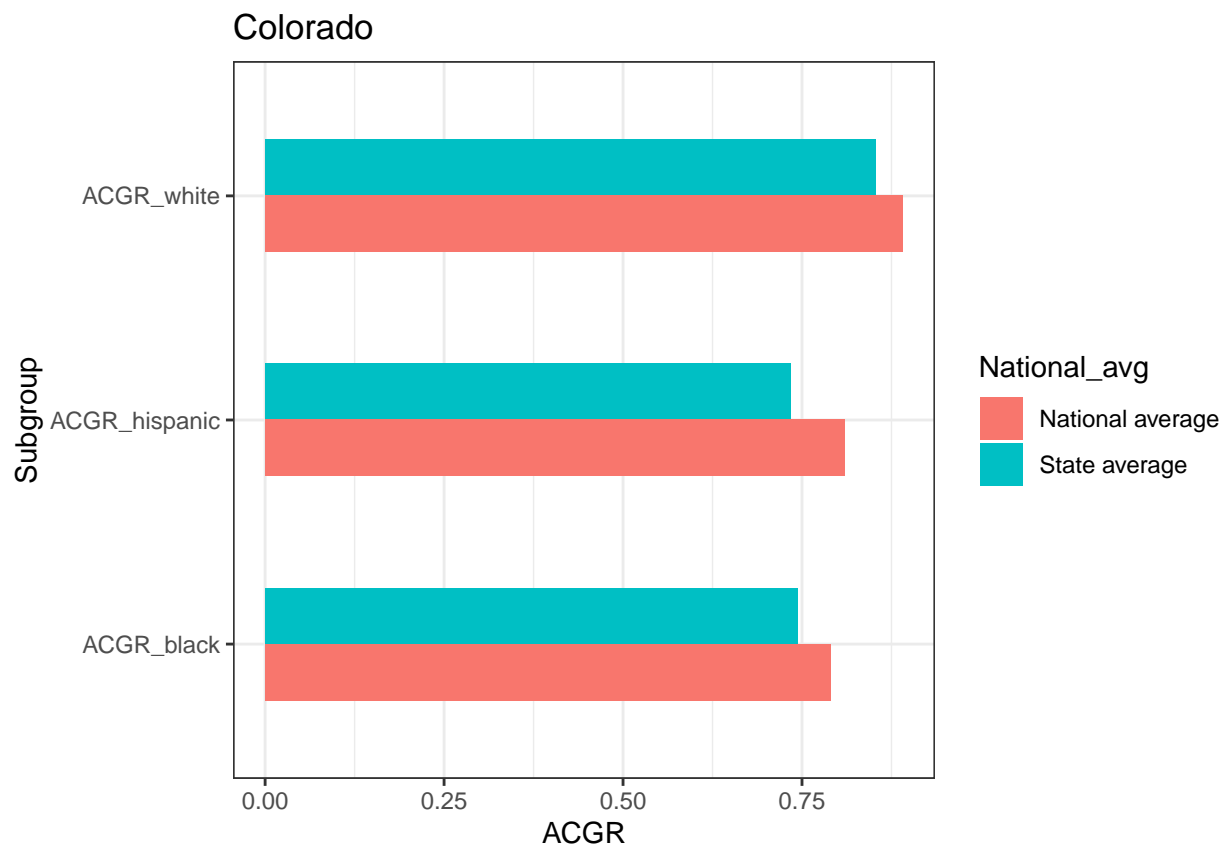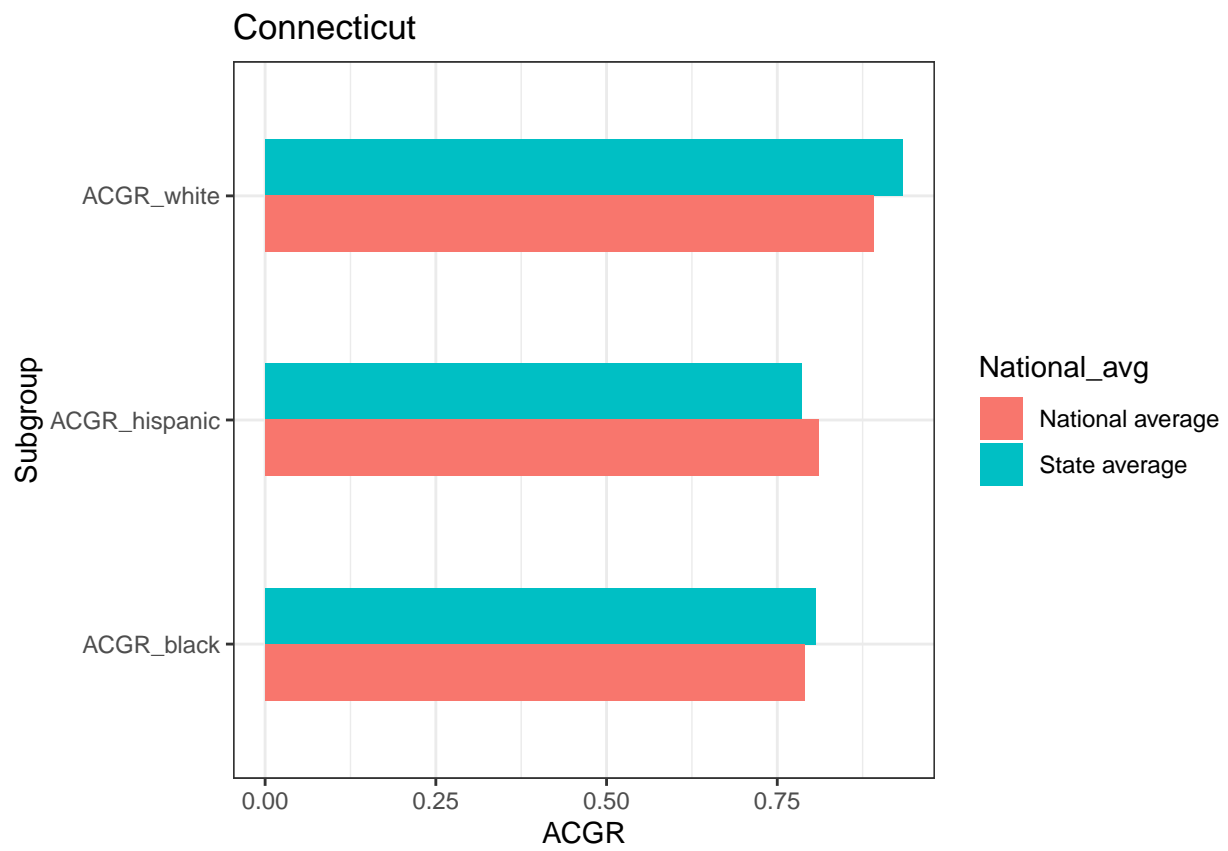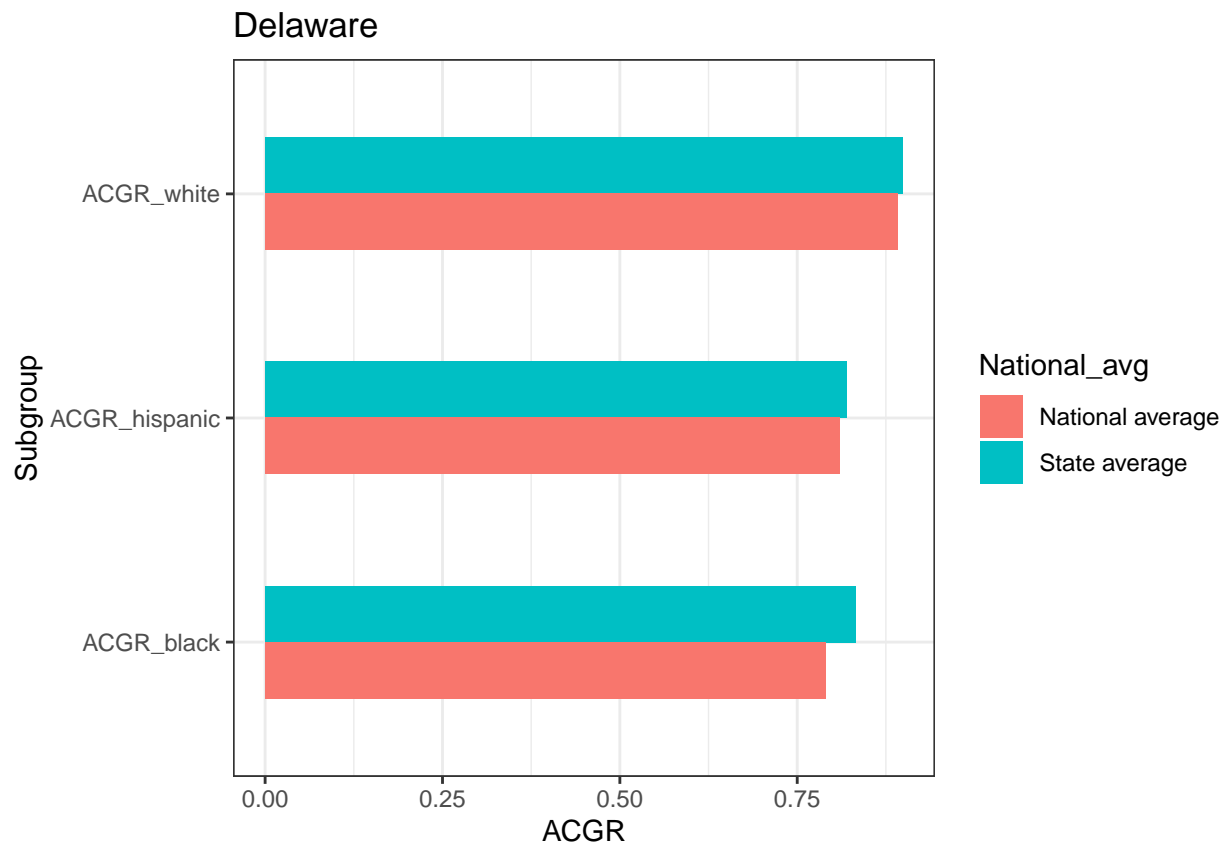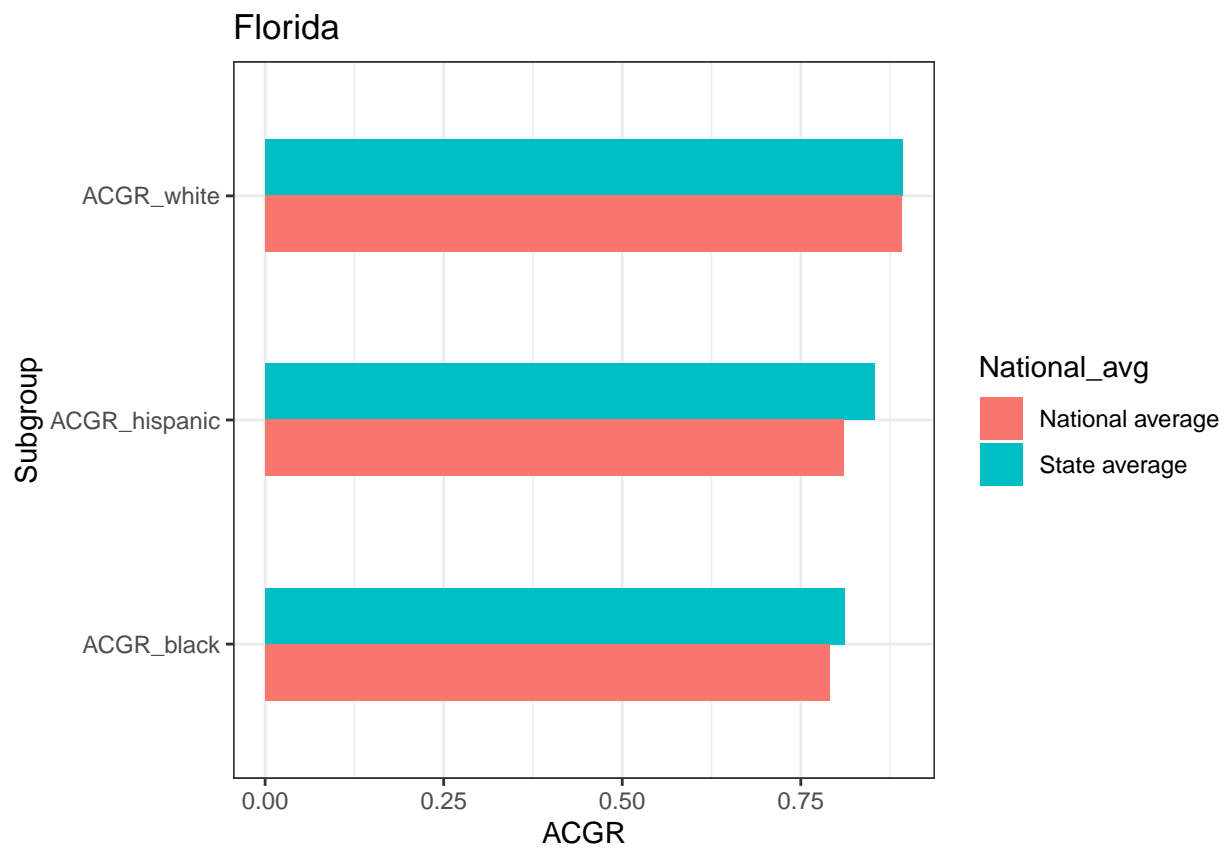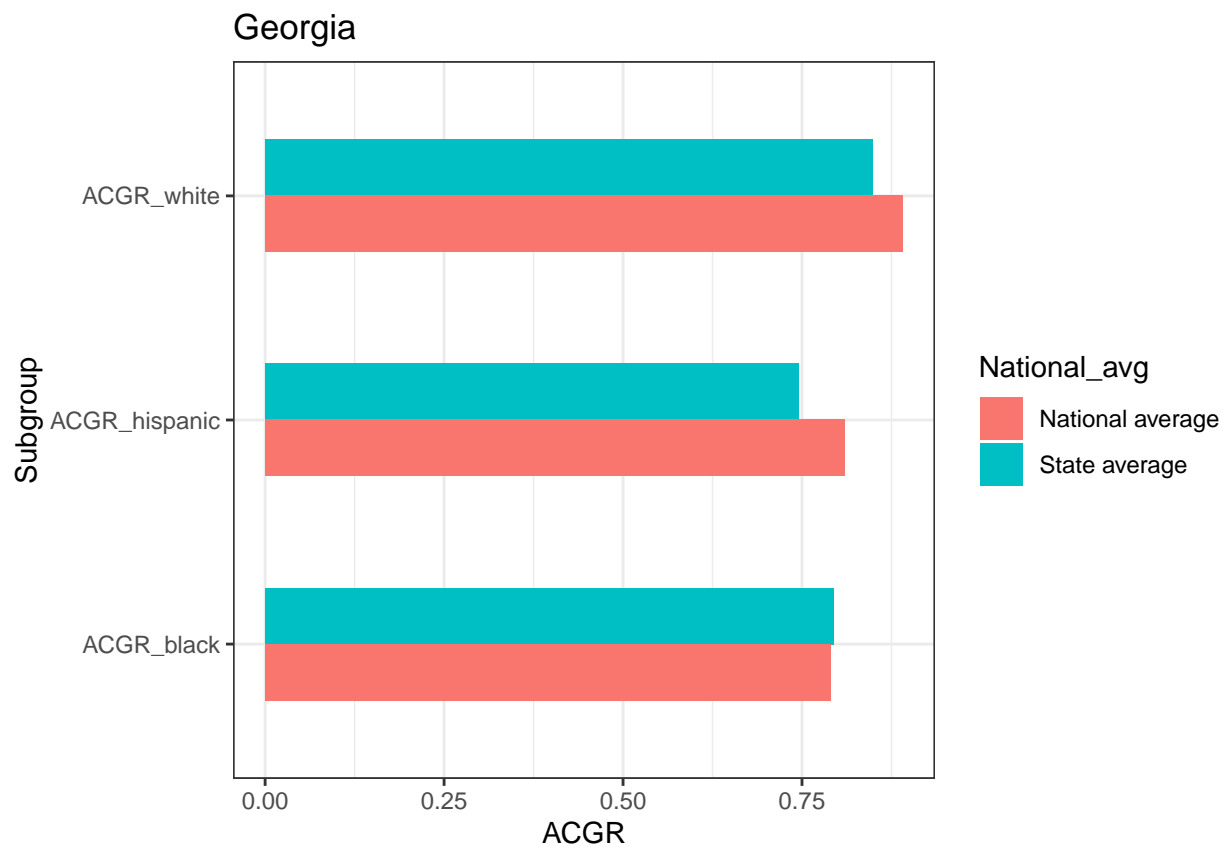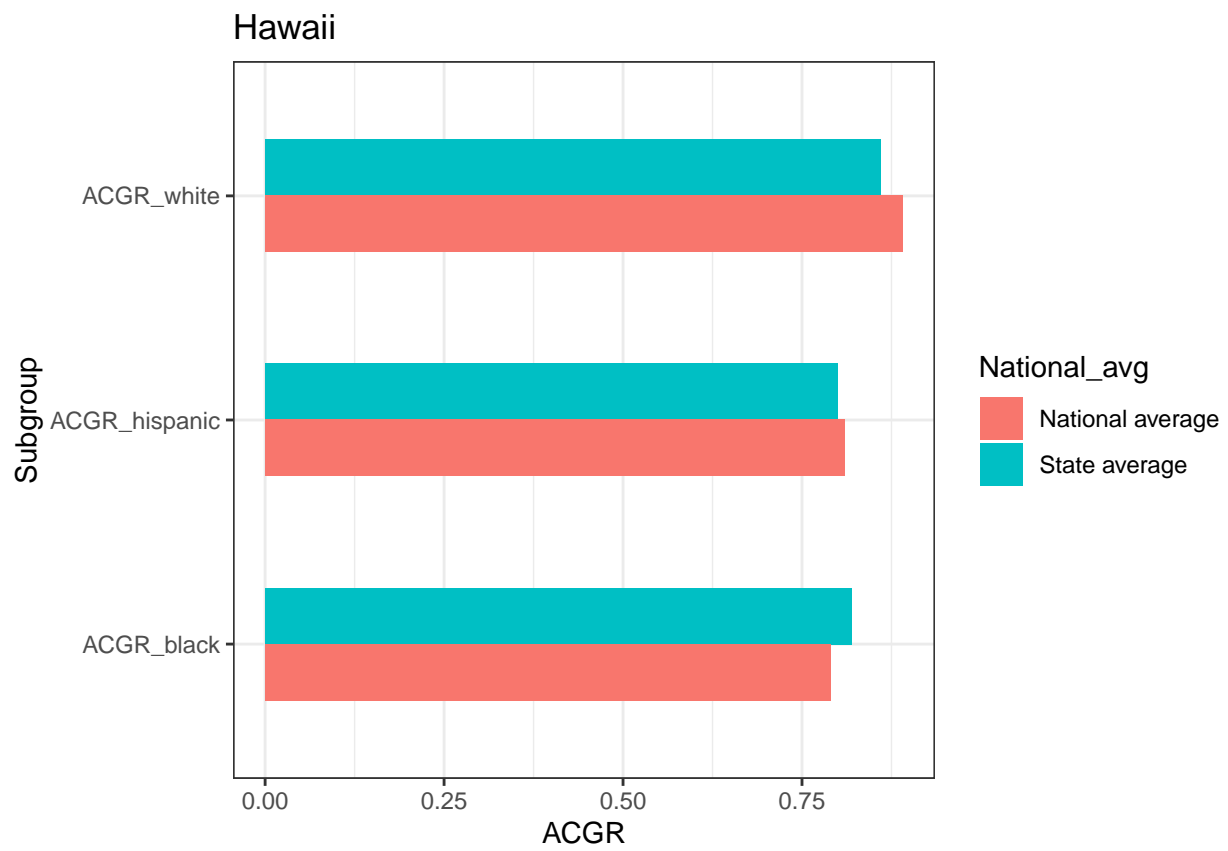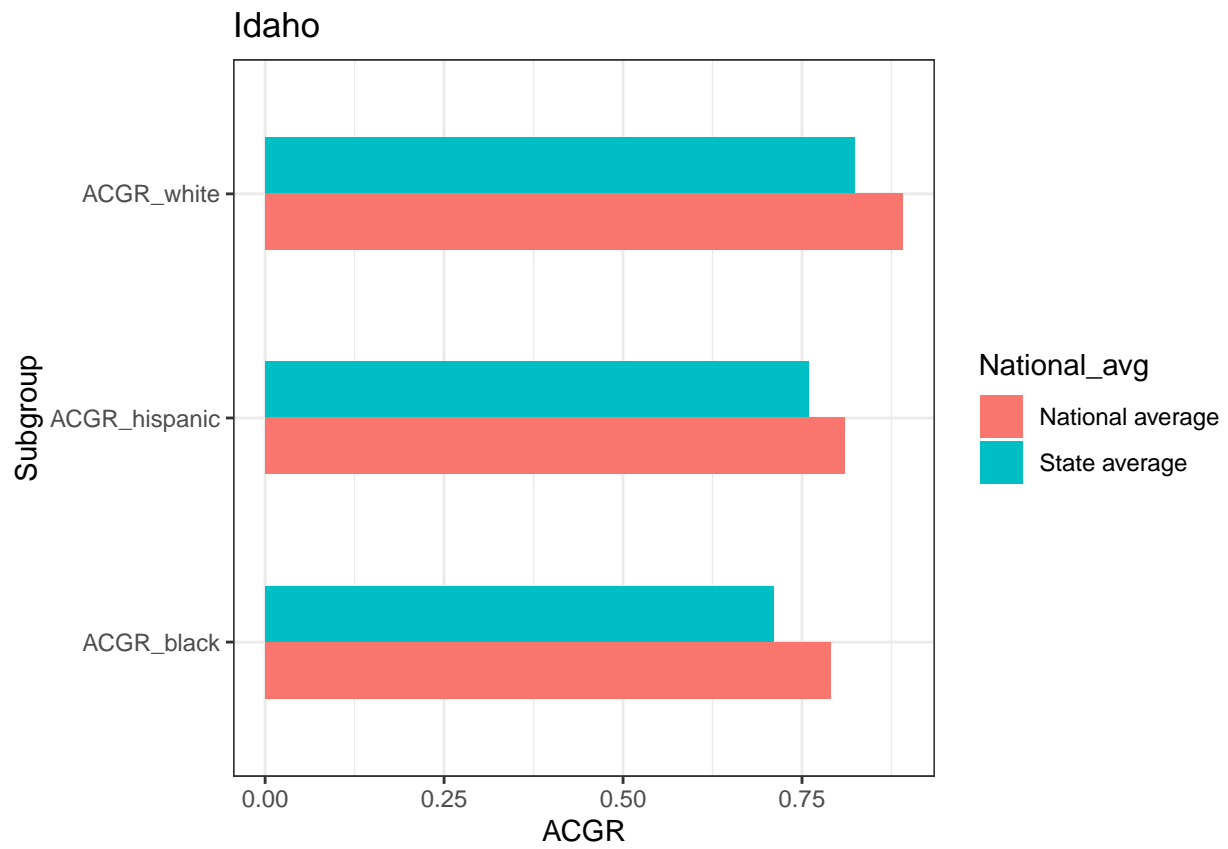
Illinois

```
## 
## $Indiana
```
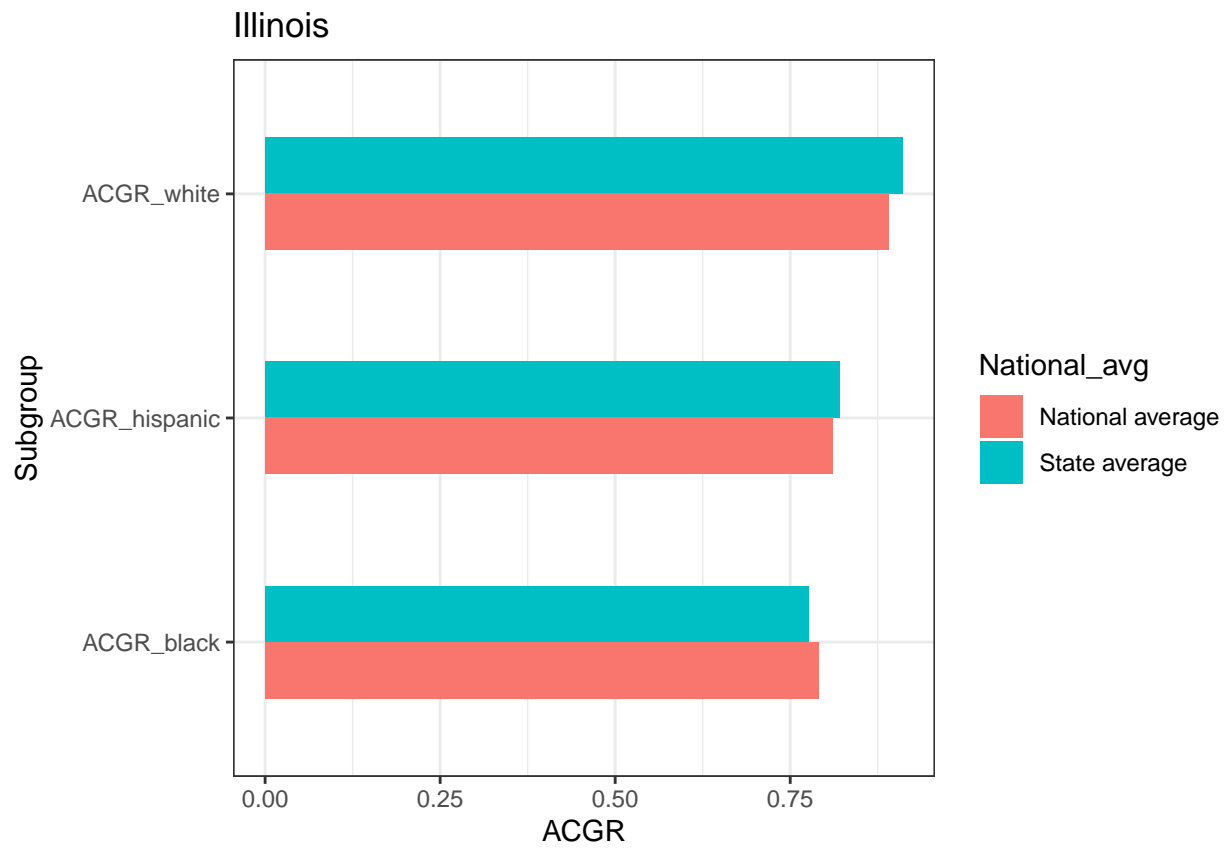
Indiana

```
##
## $Iowa
```

```
## 
## $Kansas
```

```
##
## $Kentucky
```
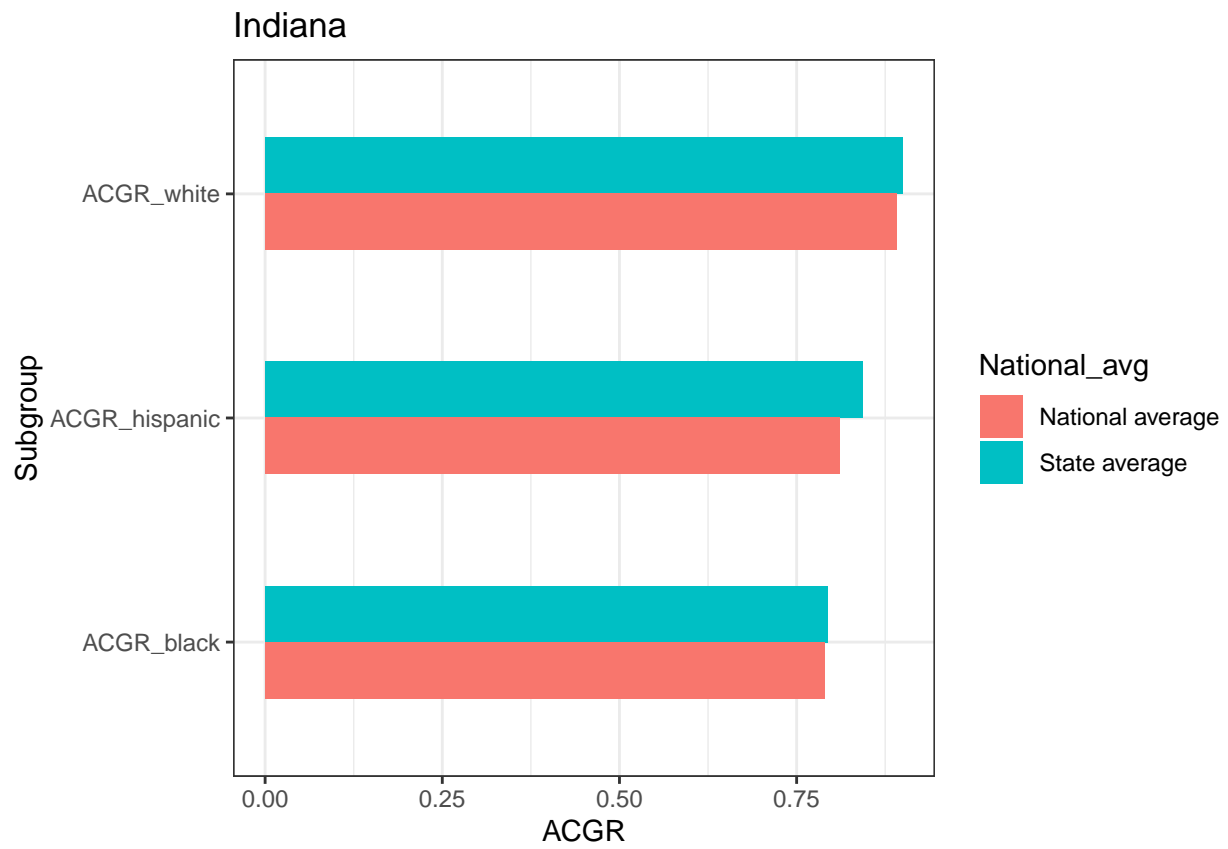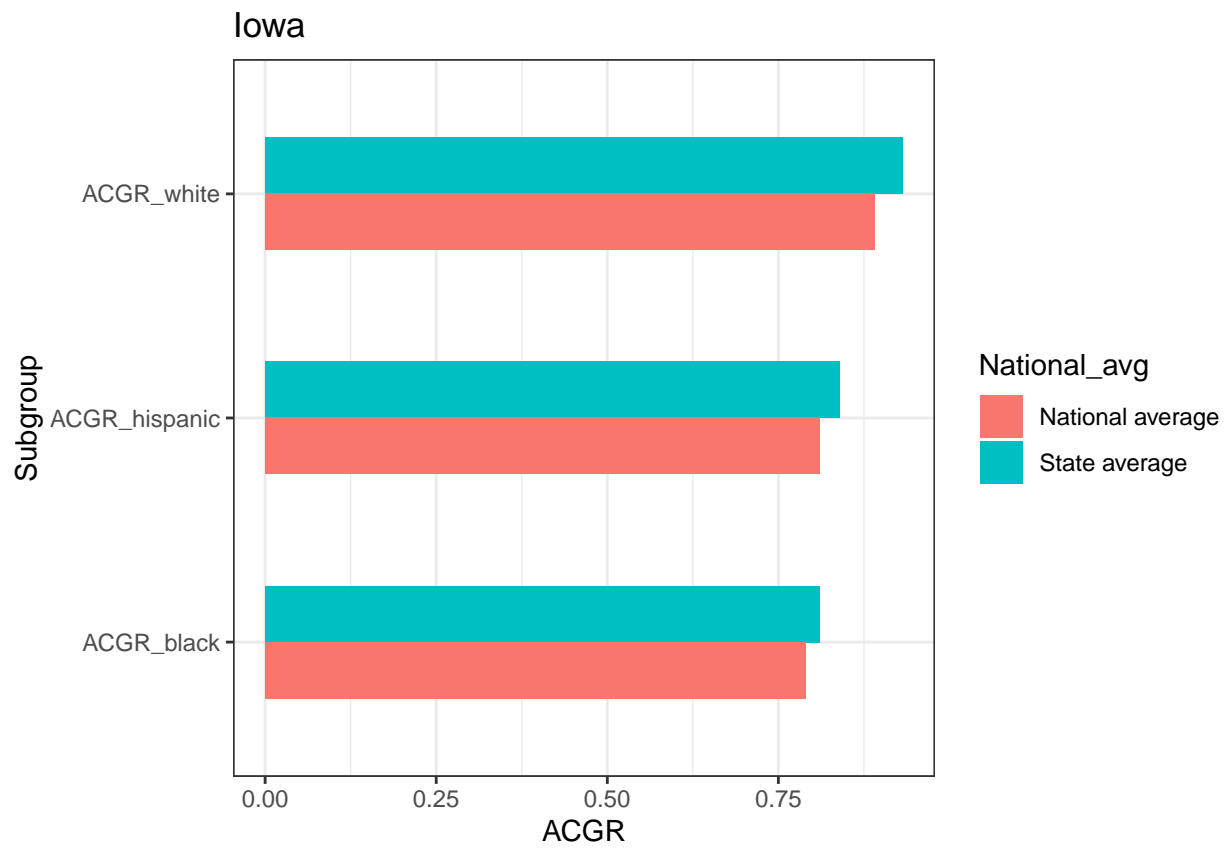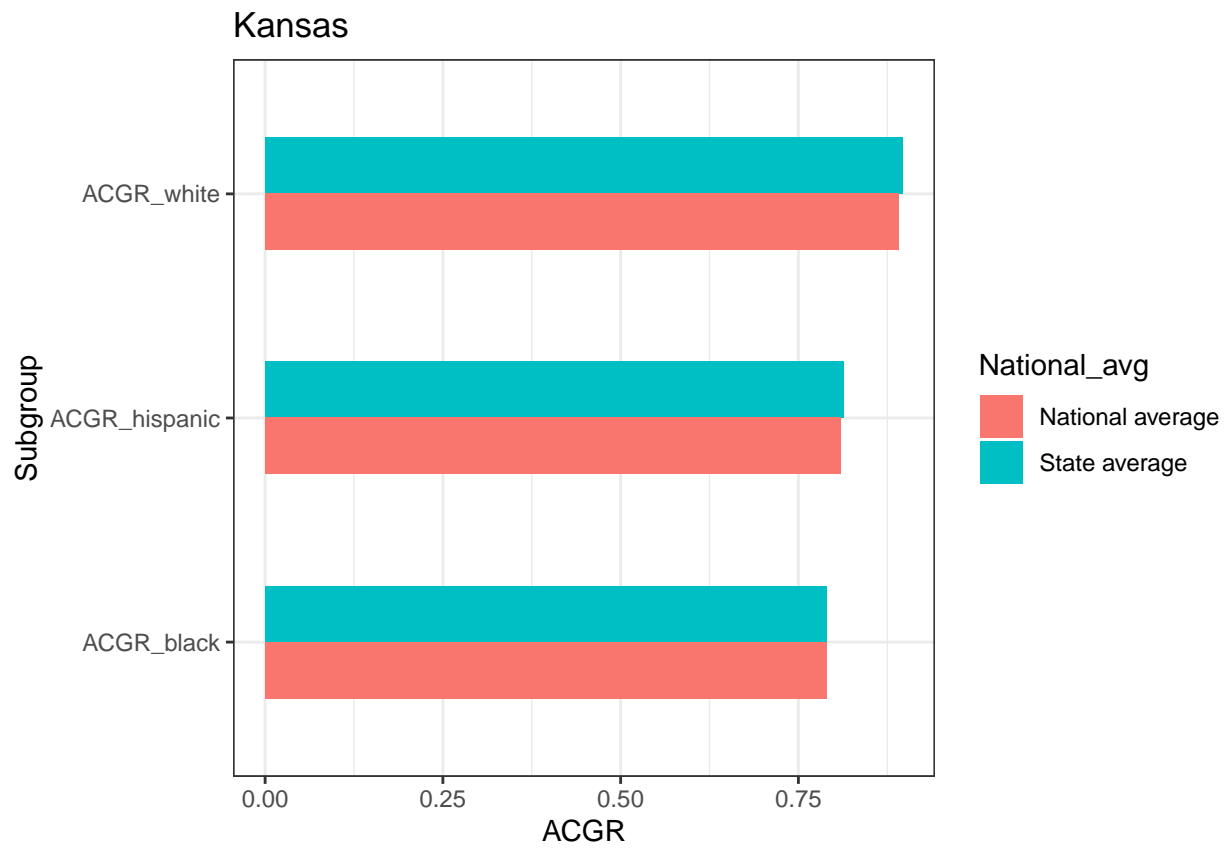
Kentucky
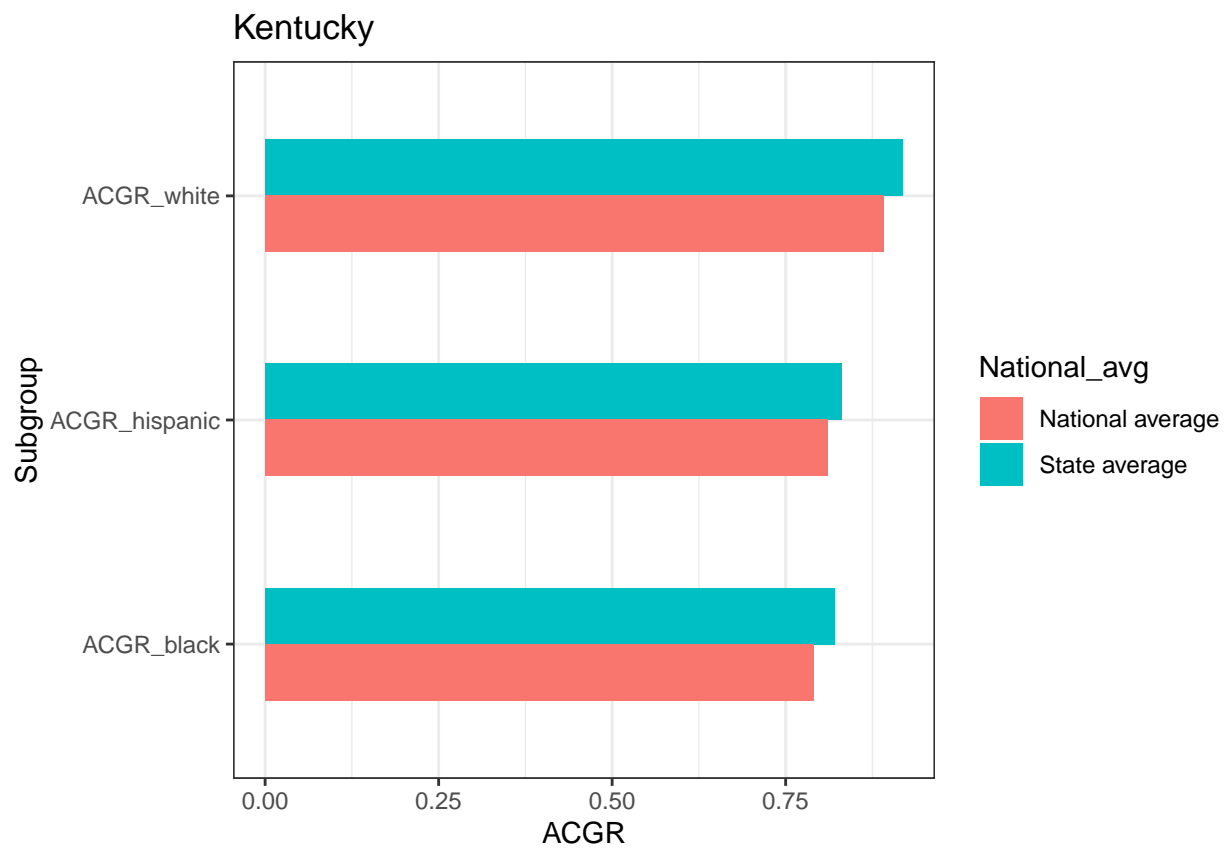
$Louisiana

Louisiana

```
##
## $Maine
```

Maine

```
##
## $Maryland
```
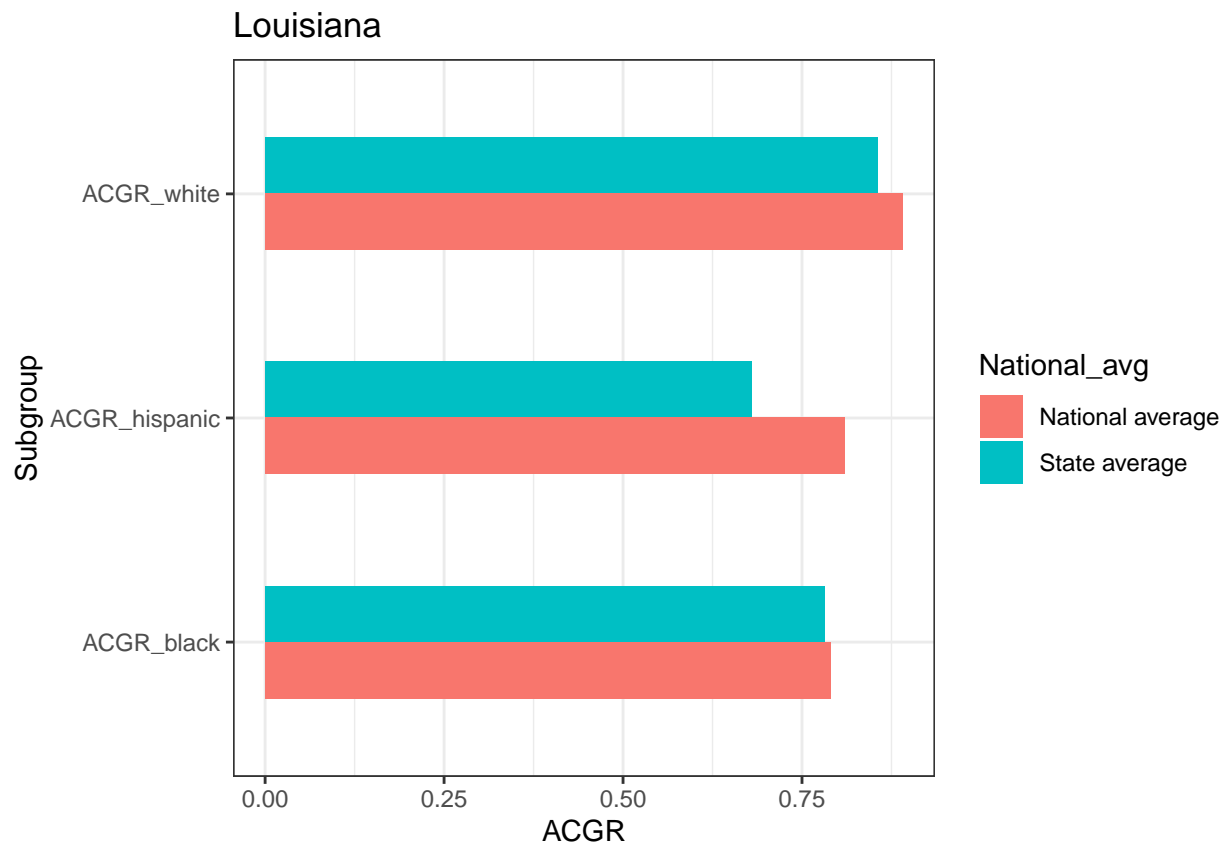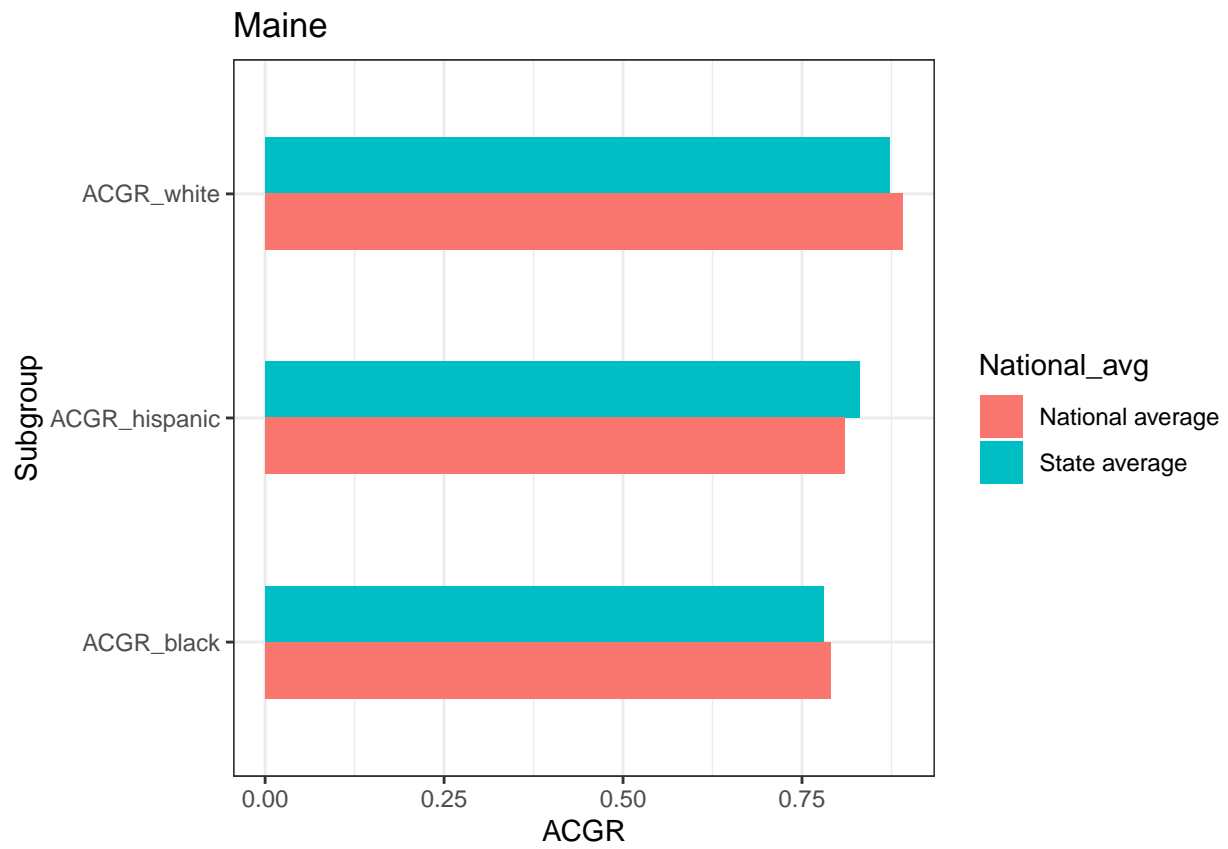
Maryland
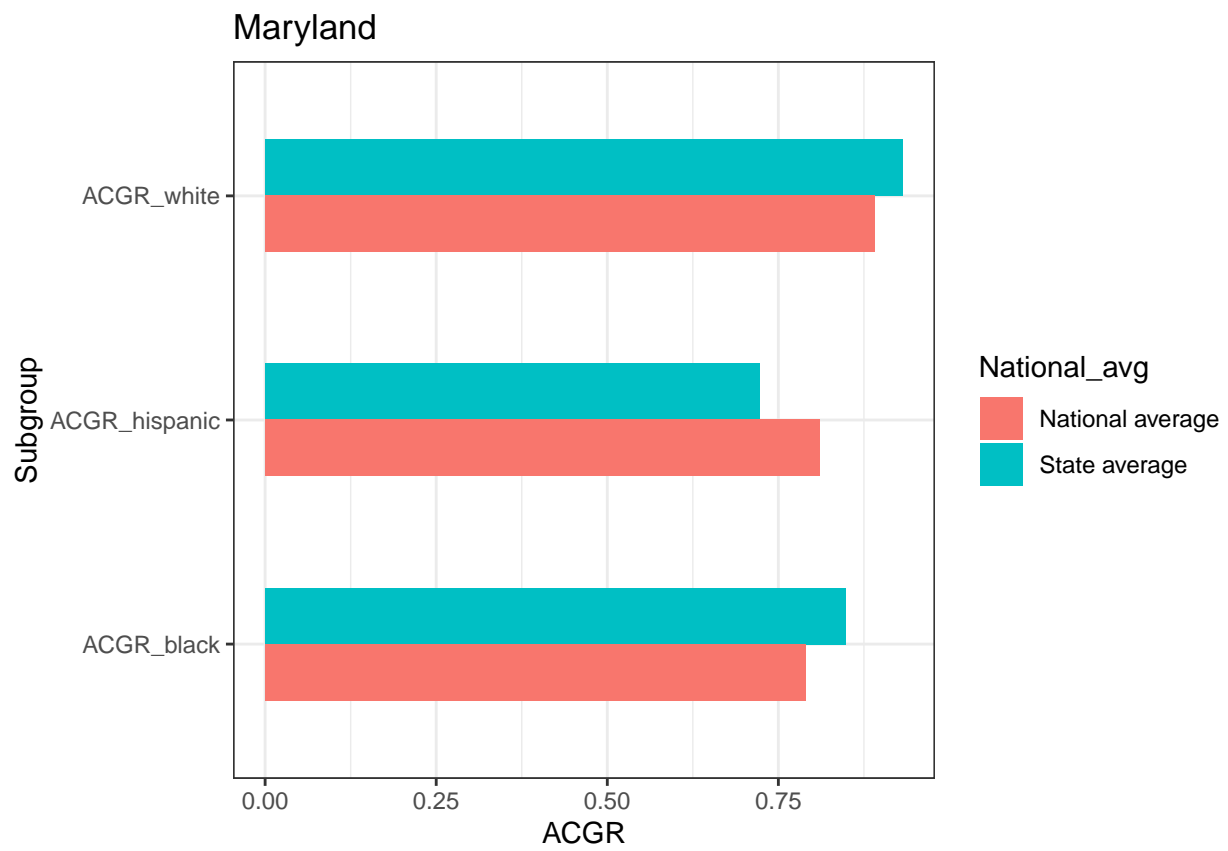
```
## 
## $Massachusetts
```

Massachusetts

```
##
## $Michigan
```
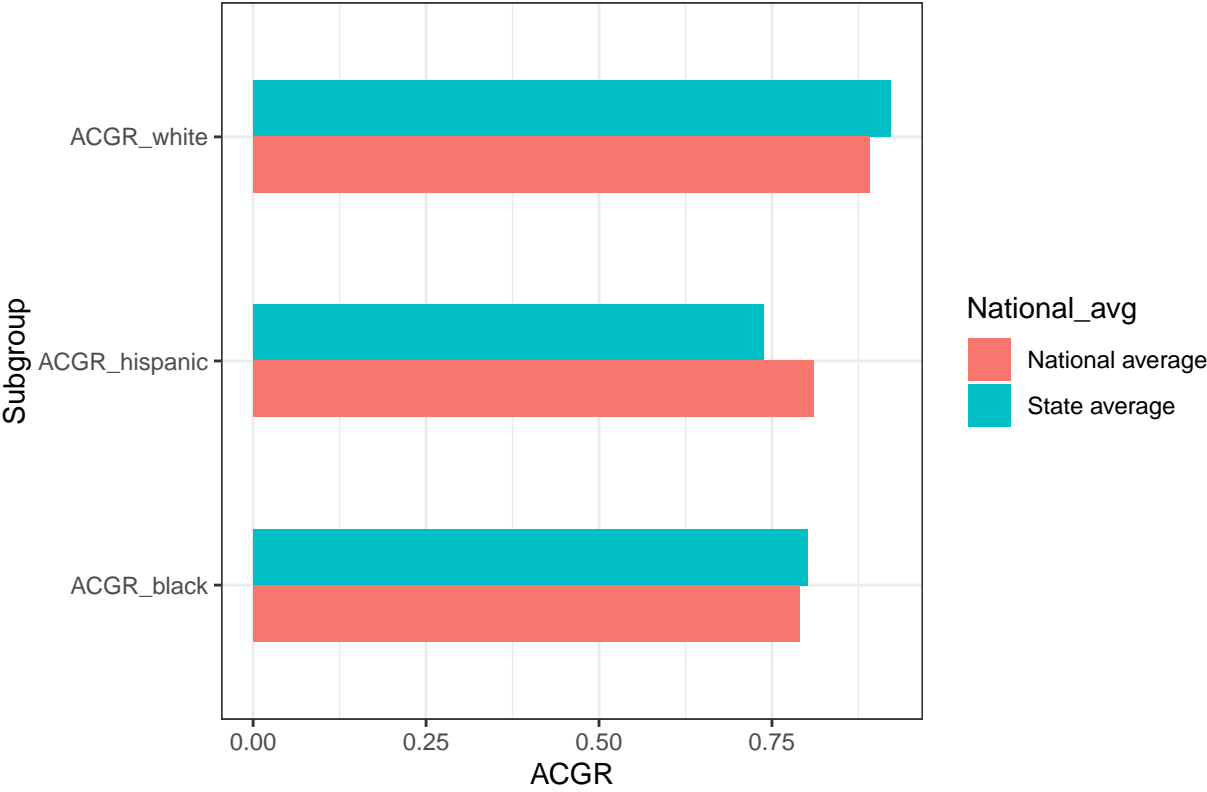
Michigan
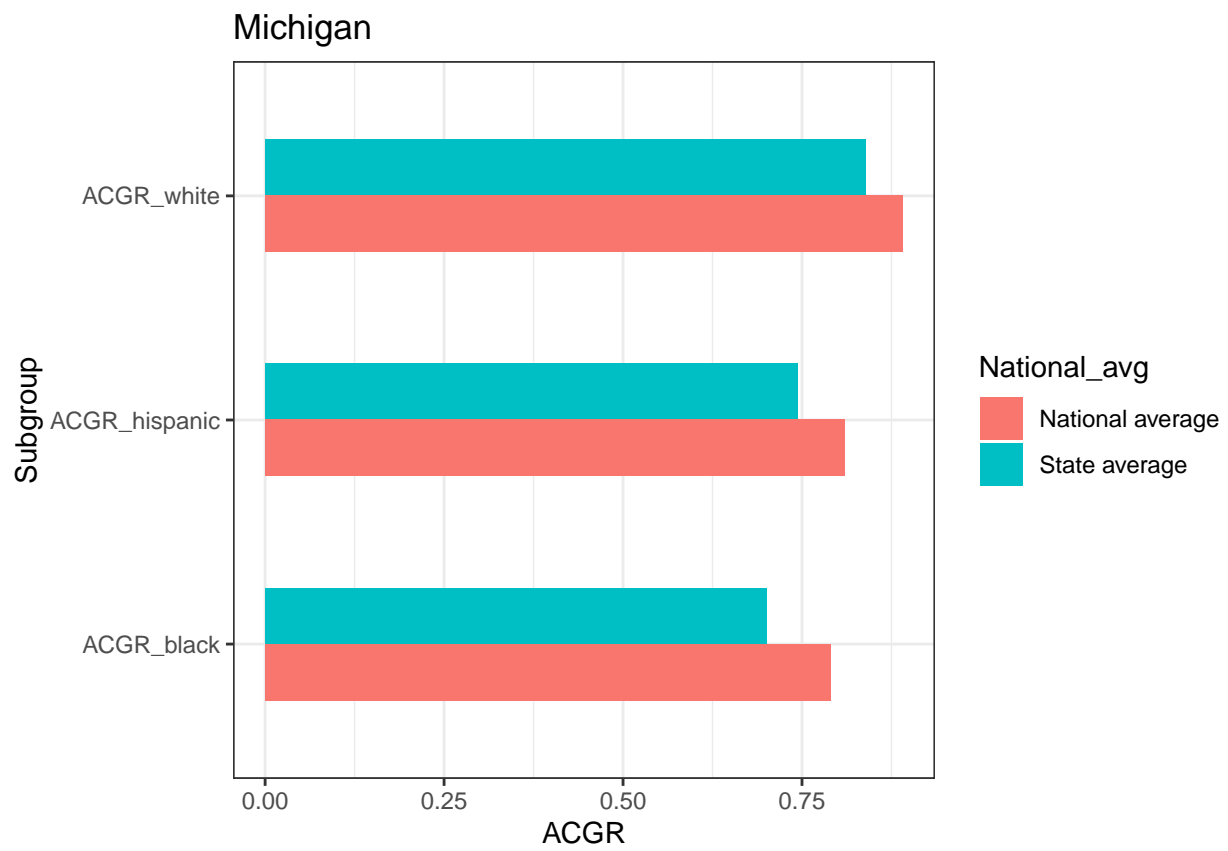
```
##
## $Minnesota
```

Minnesota

$Mississippi
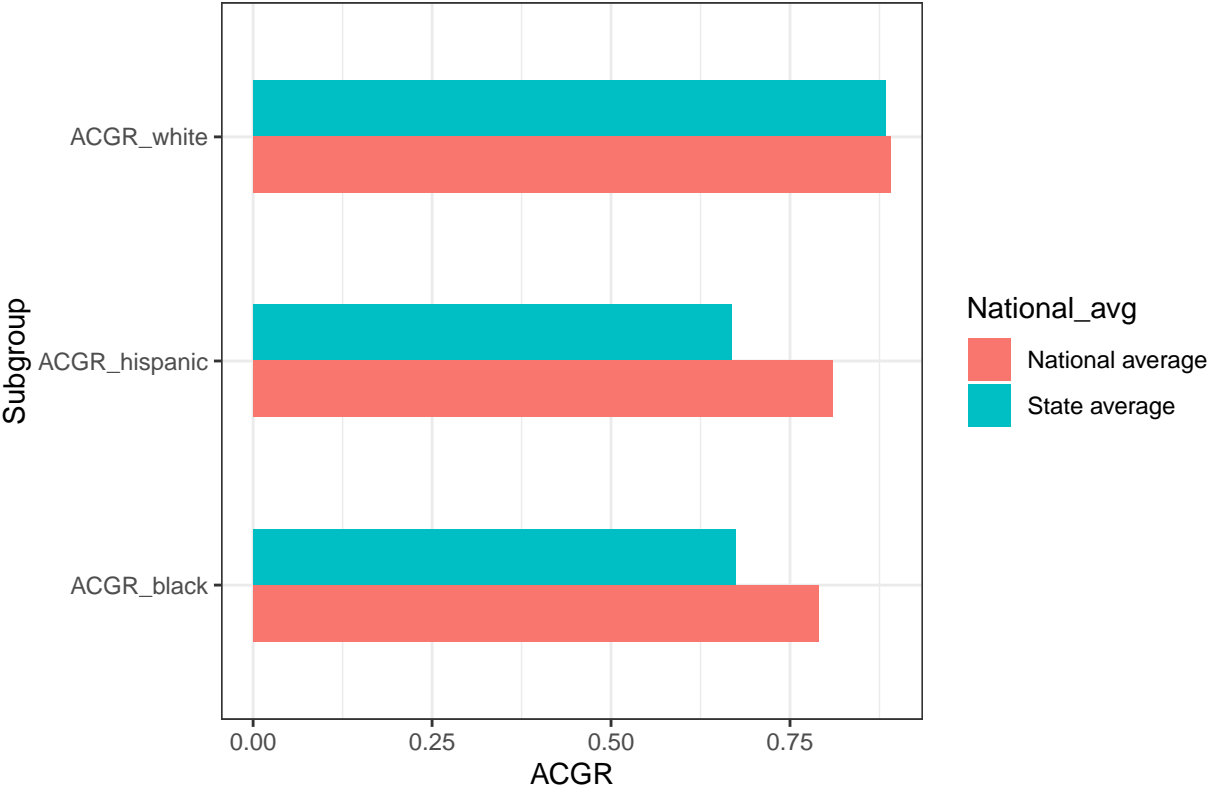
Mississippi

```
##
## $Missouri
```

Missouri

```
##
## $Montana
```
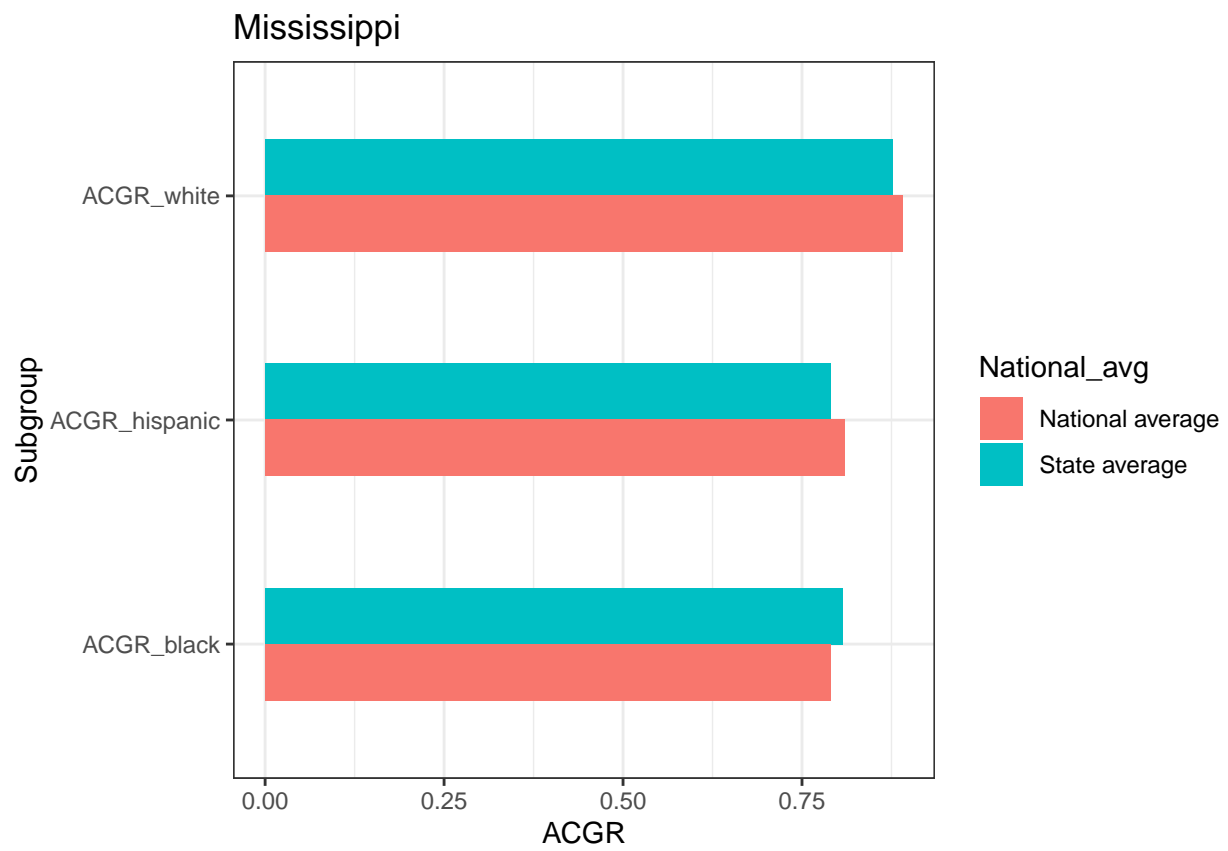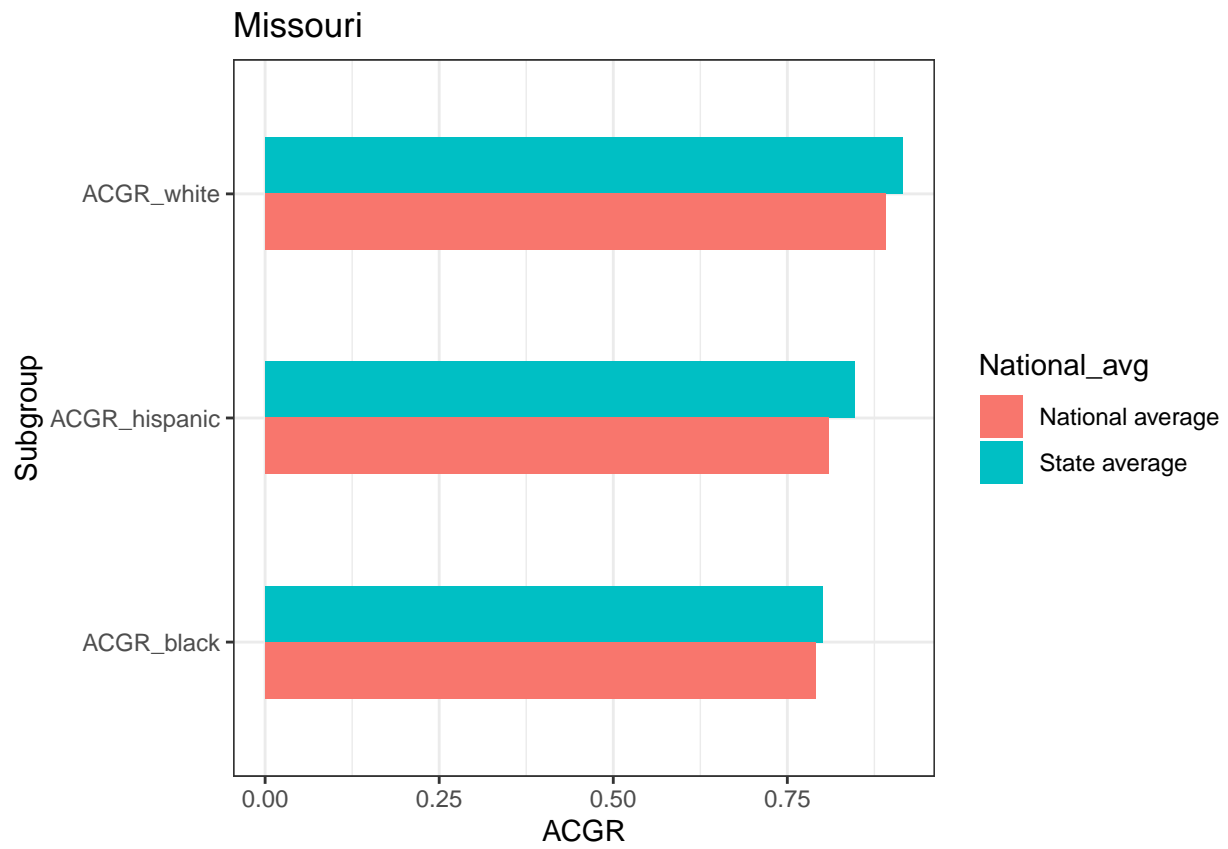
Montana
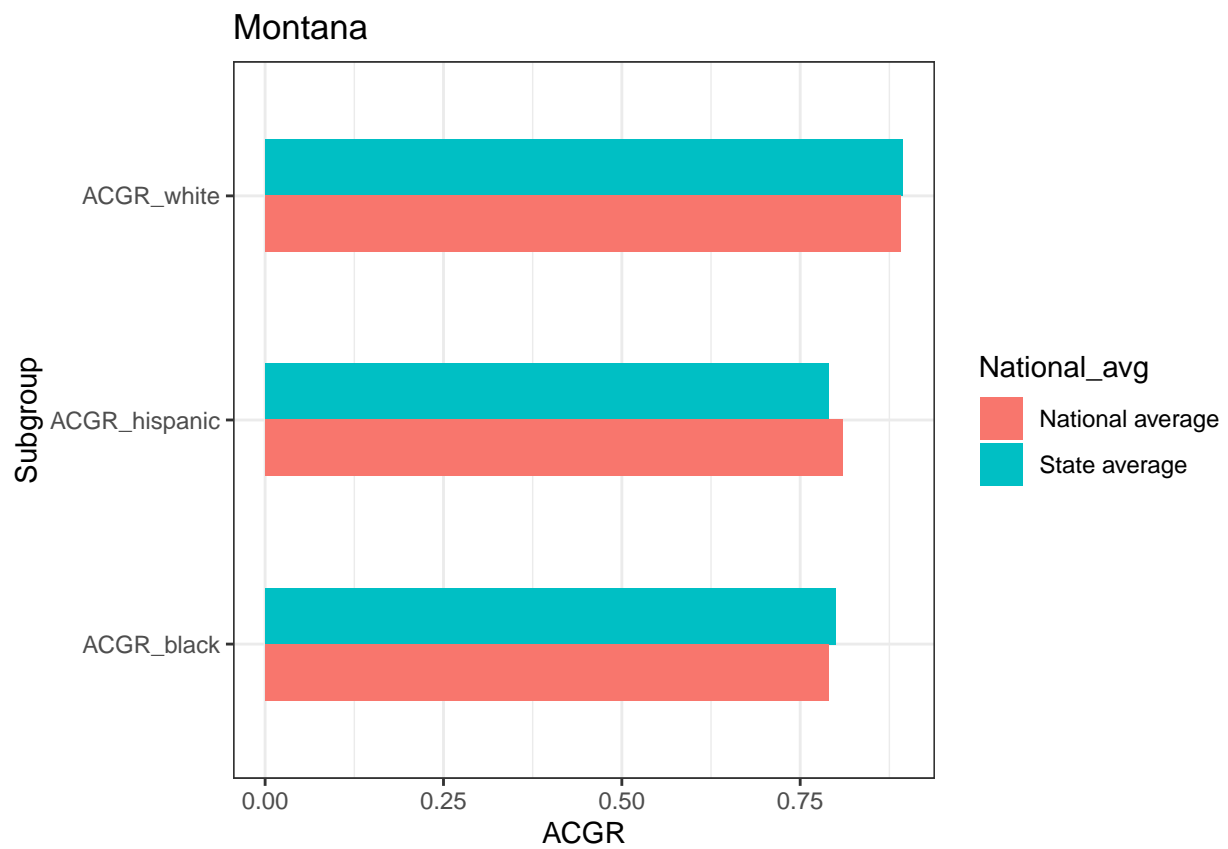
$Nebraska

Nebraska

```
##
## $Nevada
```
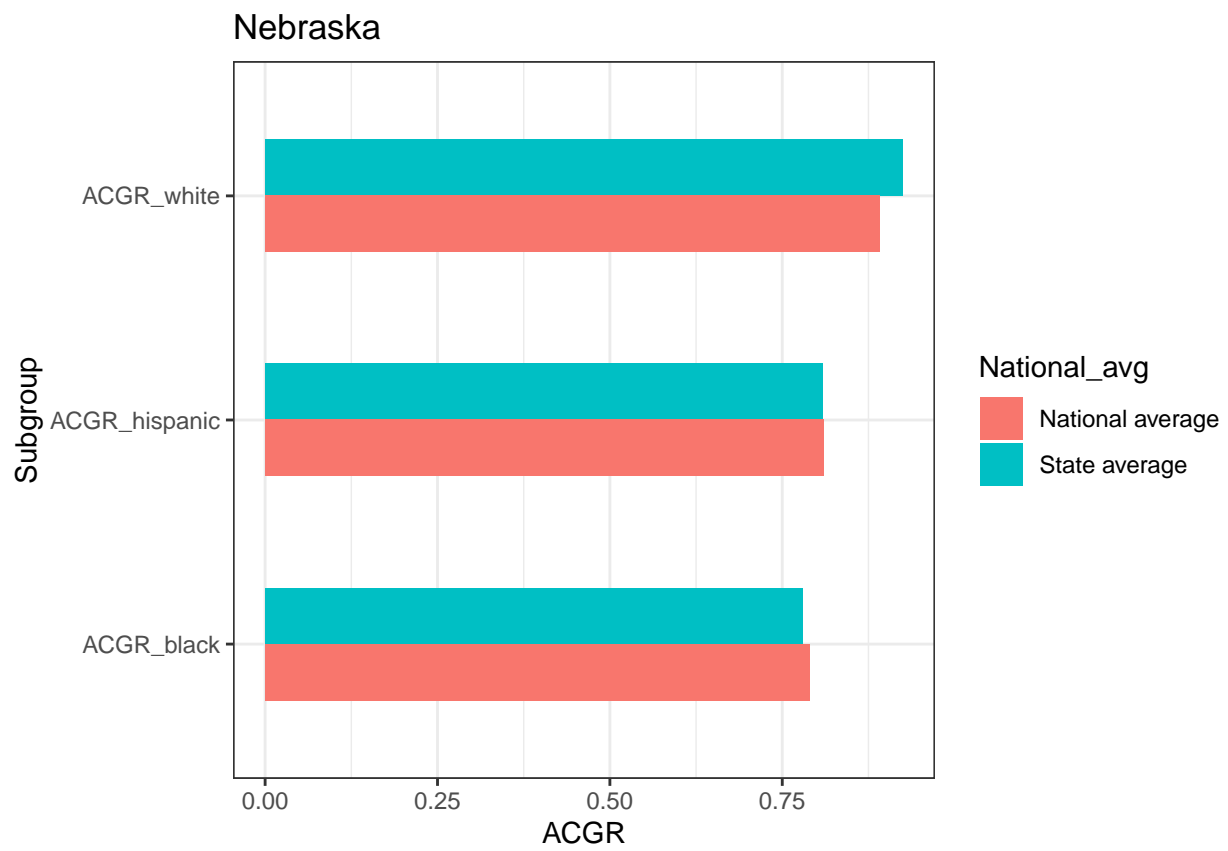
Nevada

```
##
## $`New Hampshire`
```
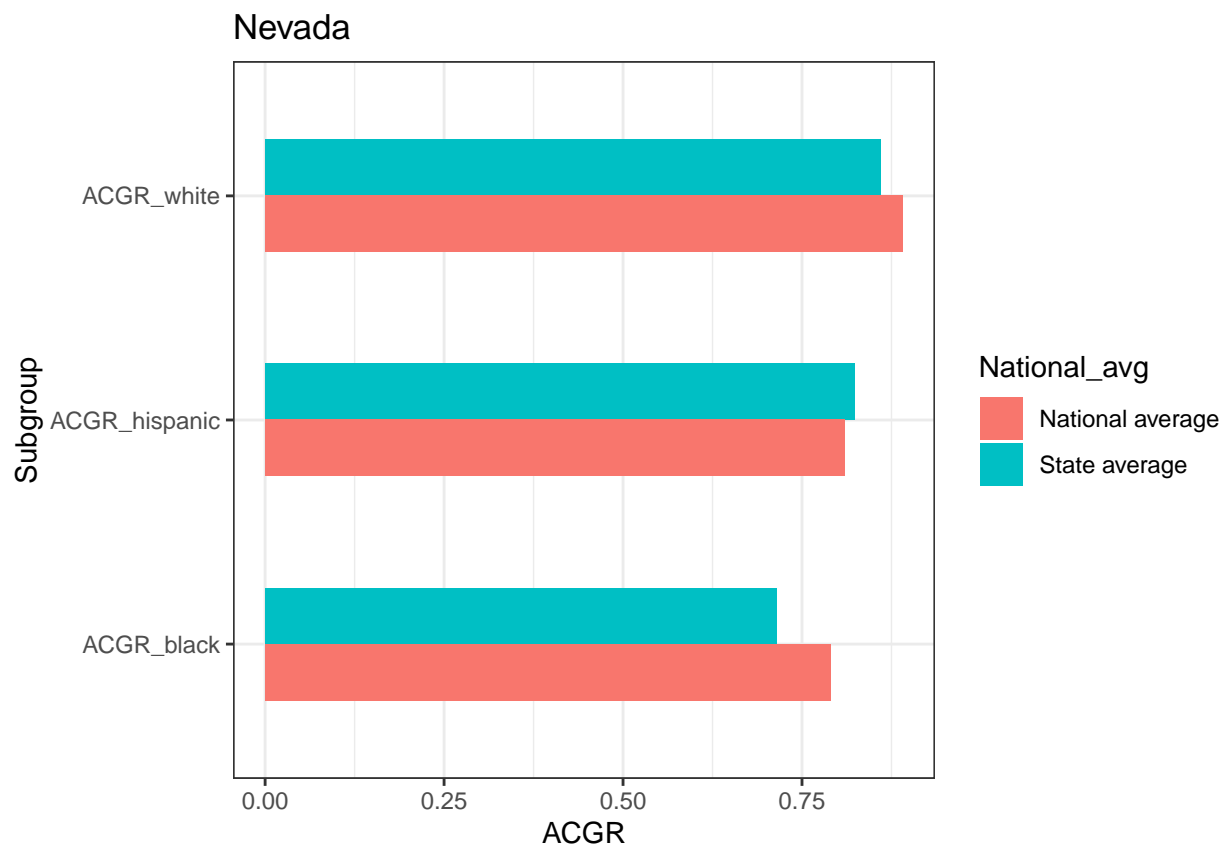
New Hampshire
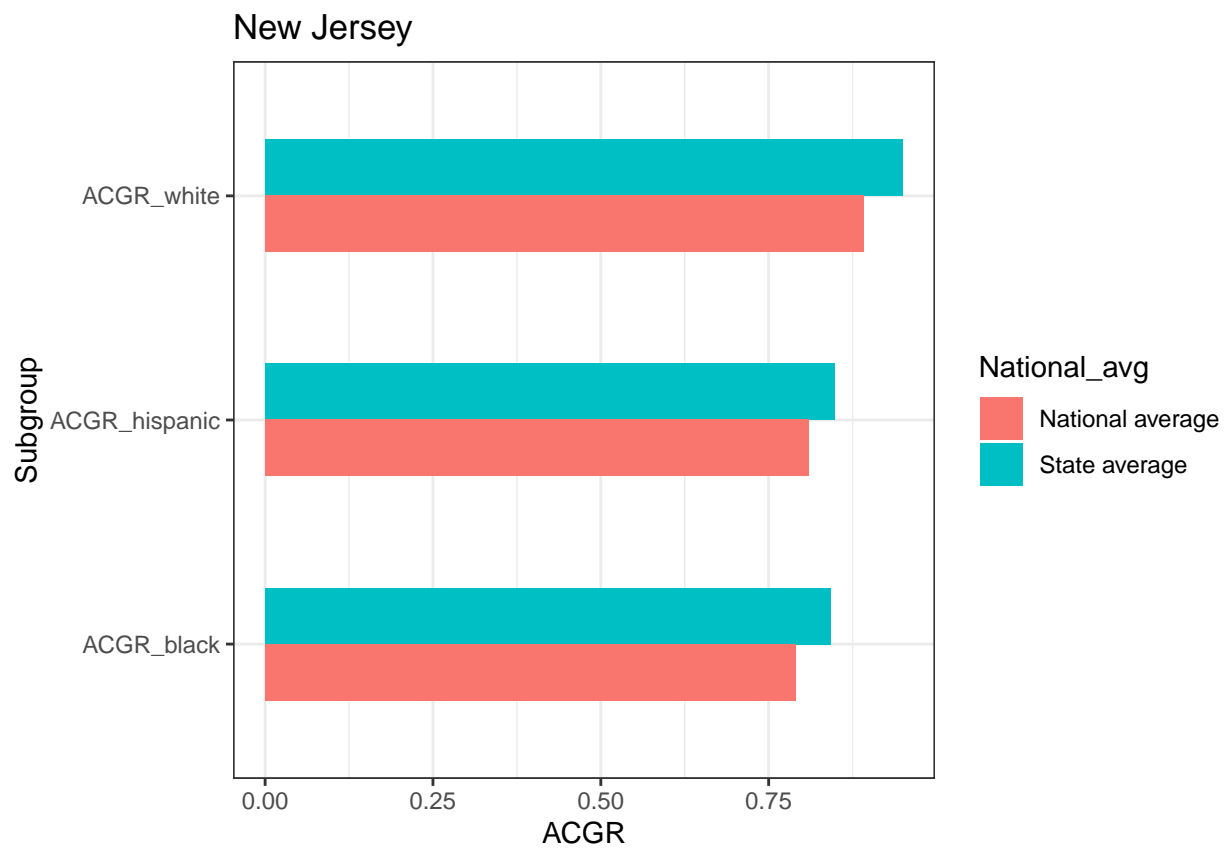
```
##
## $`New Jersey`
```

New Jersey
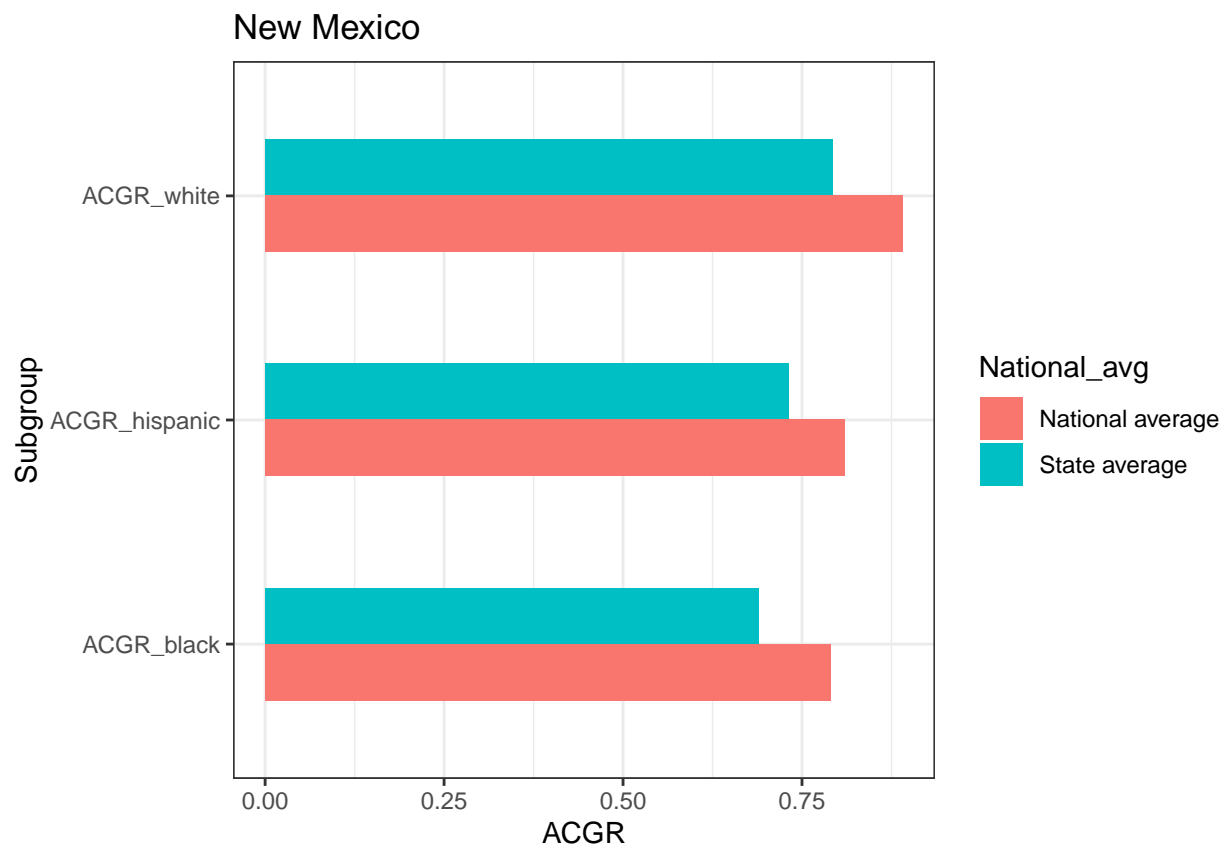
```
##
## $`New Mexico`
```

New Mexico

```
##
## $`New York`
```
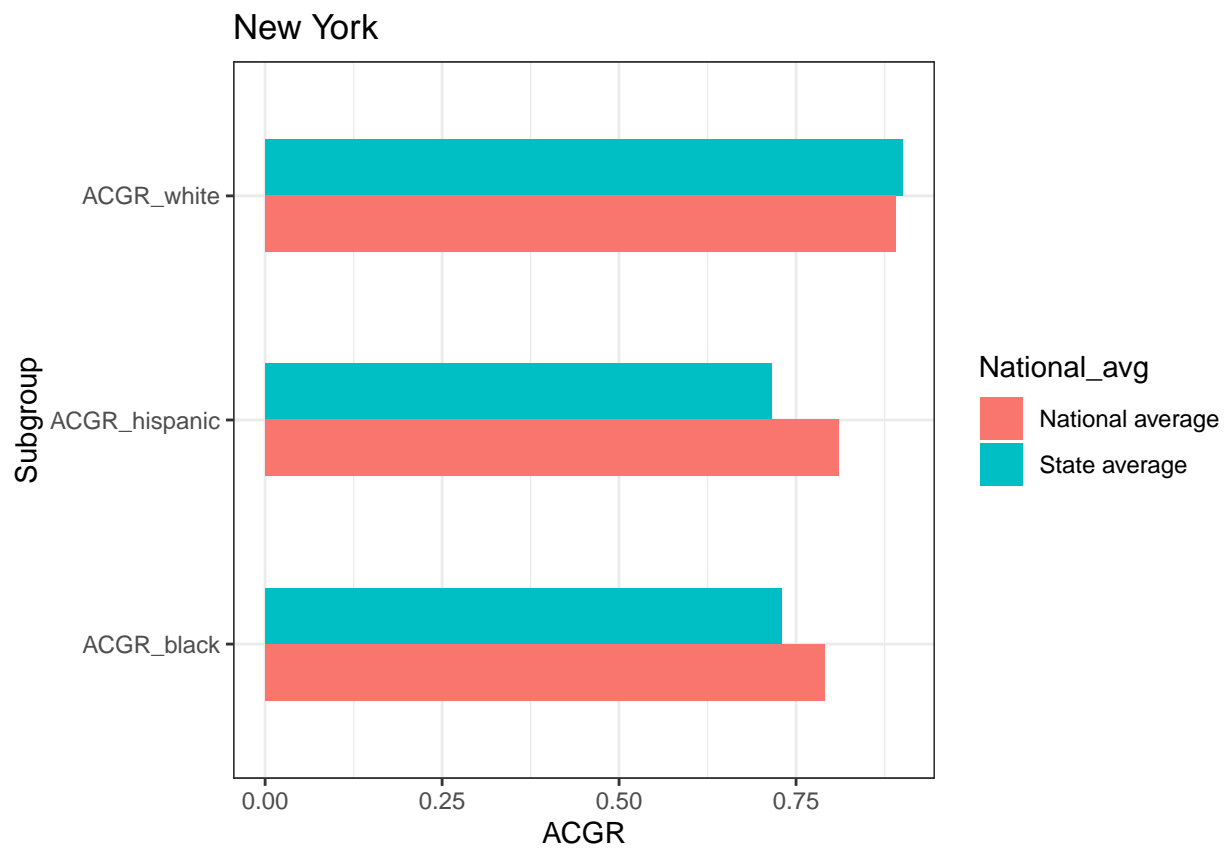
New York
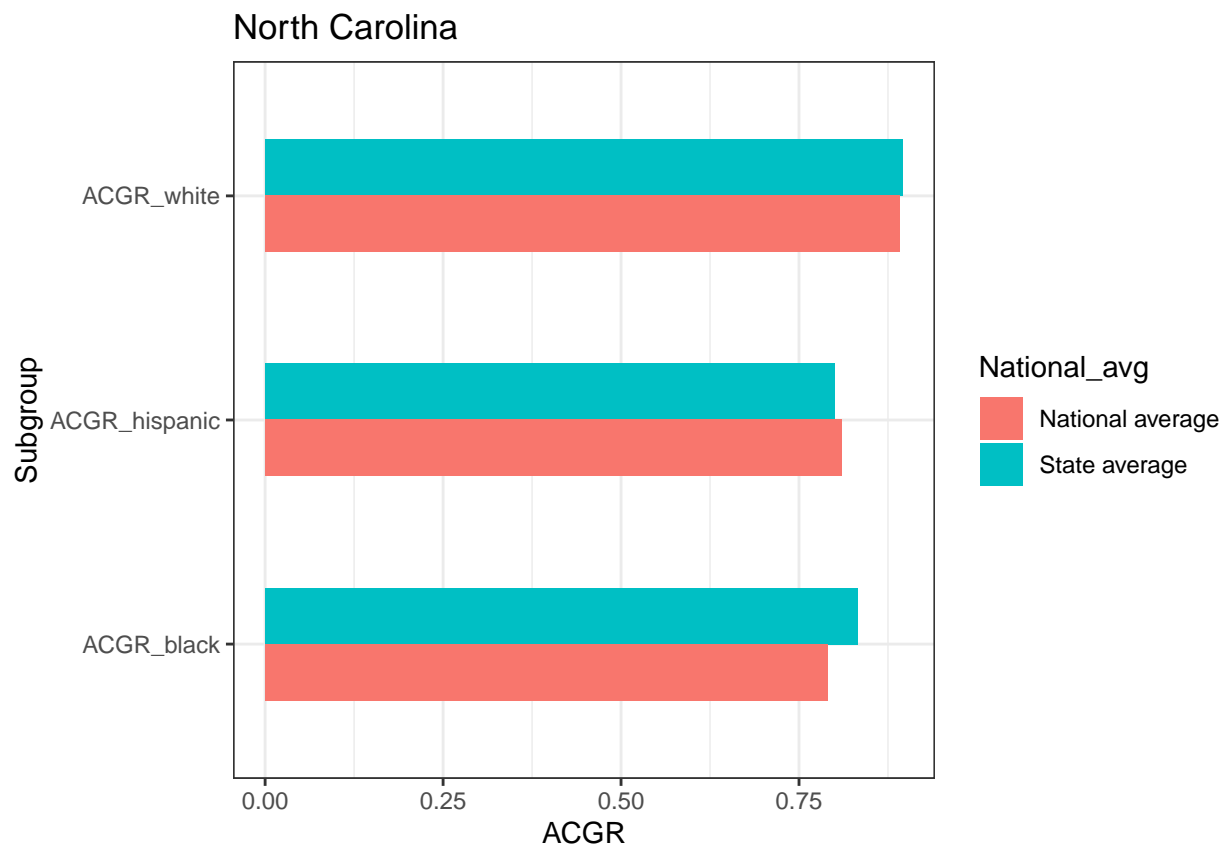
```
##
## $`North Carolina`
```

North Carolina
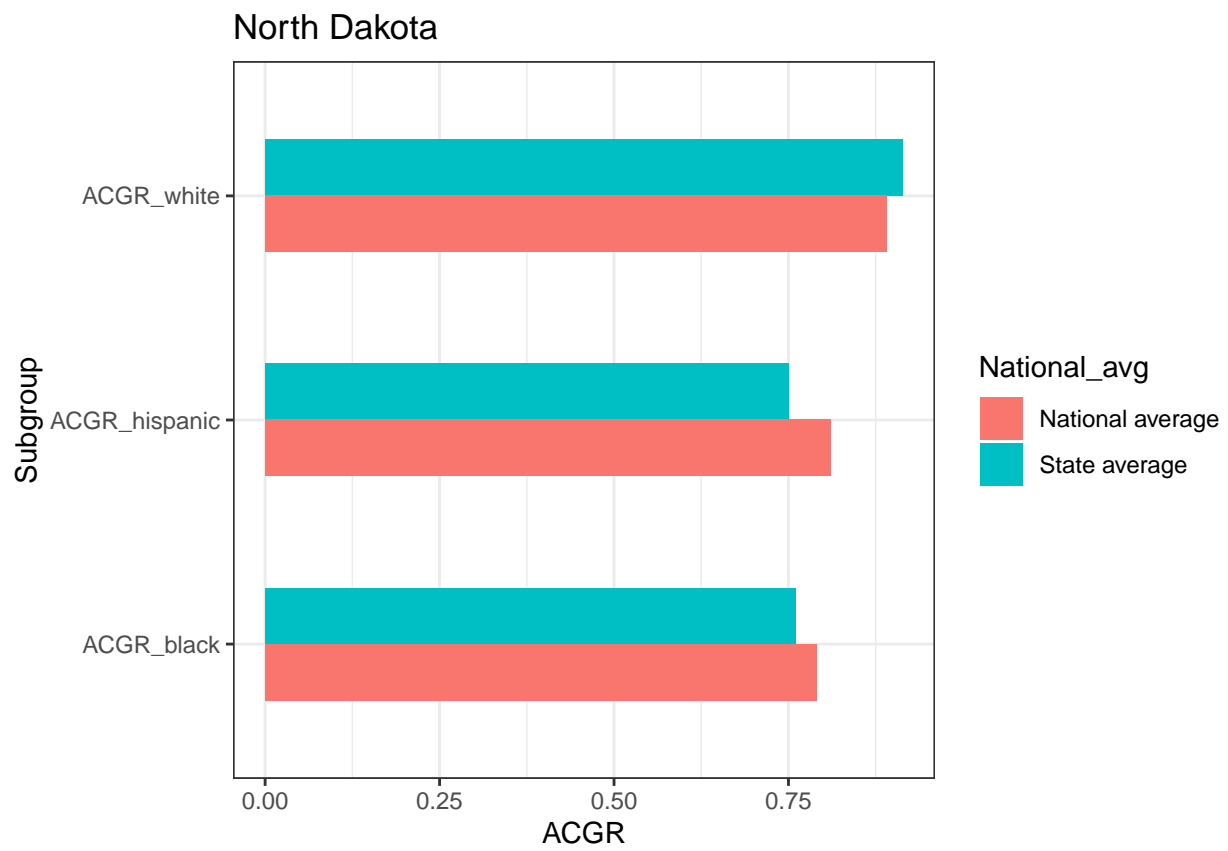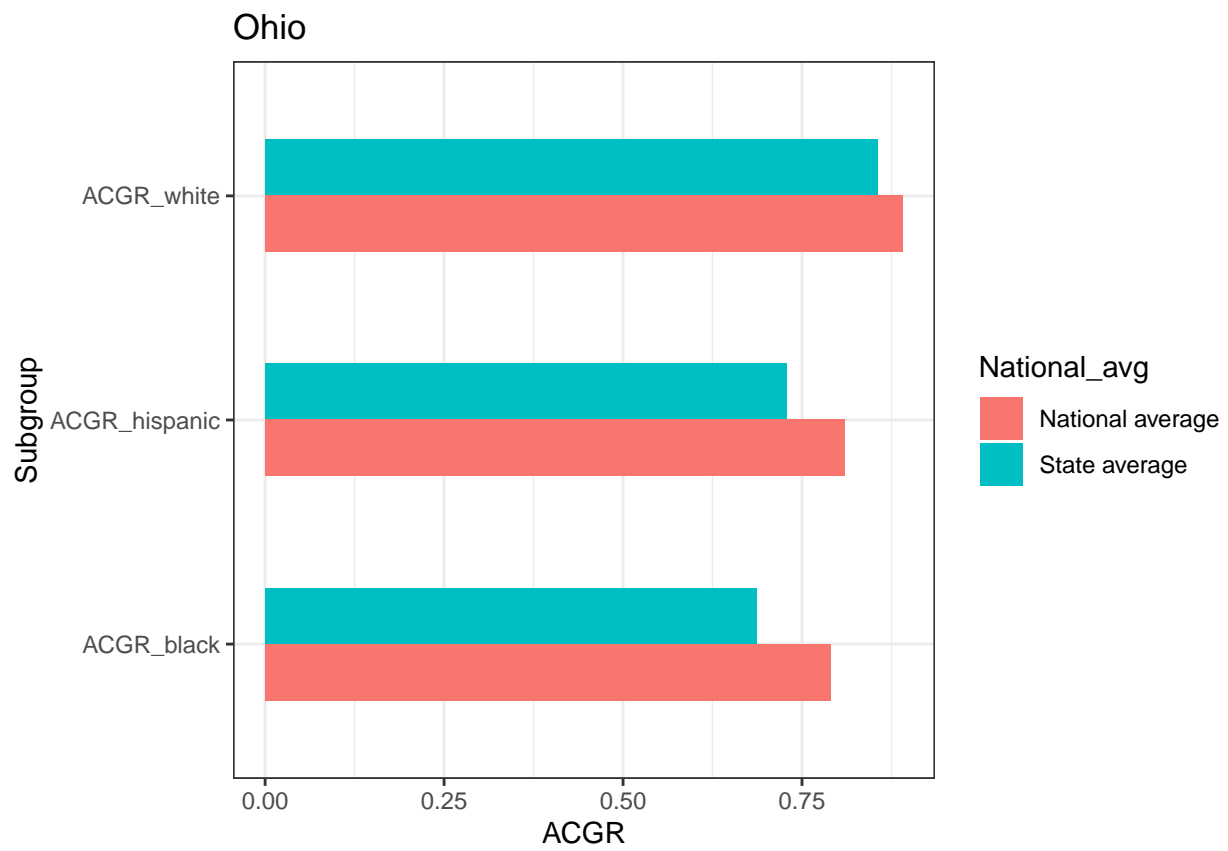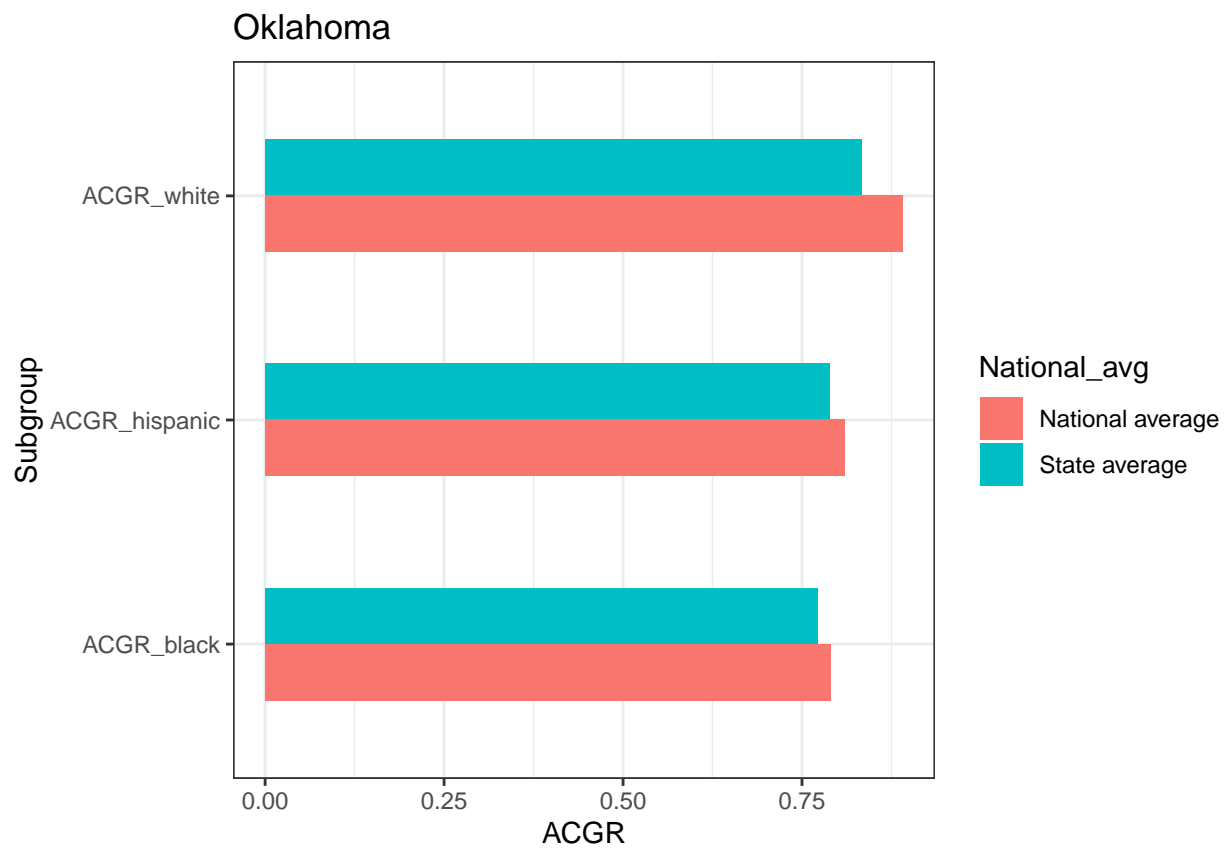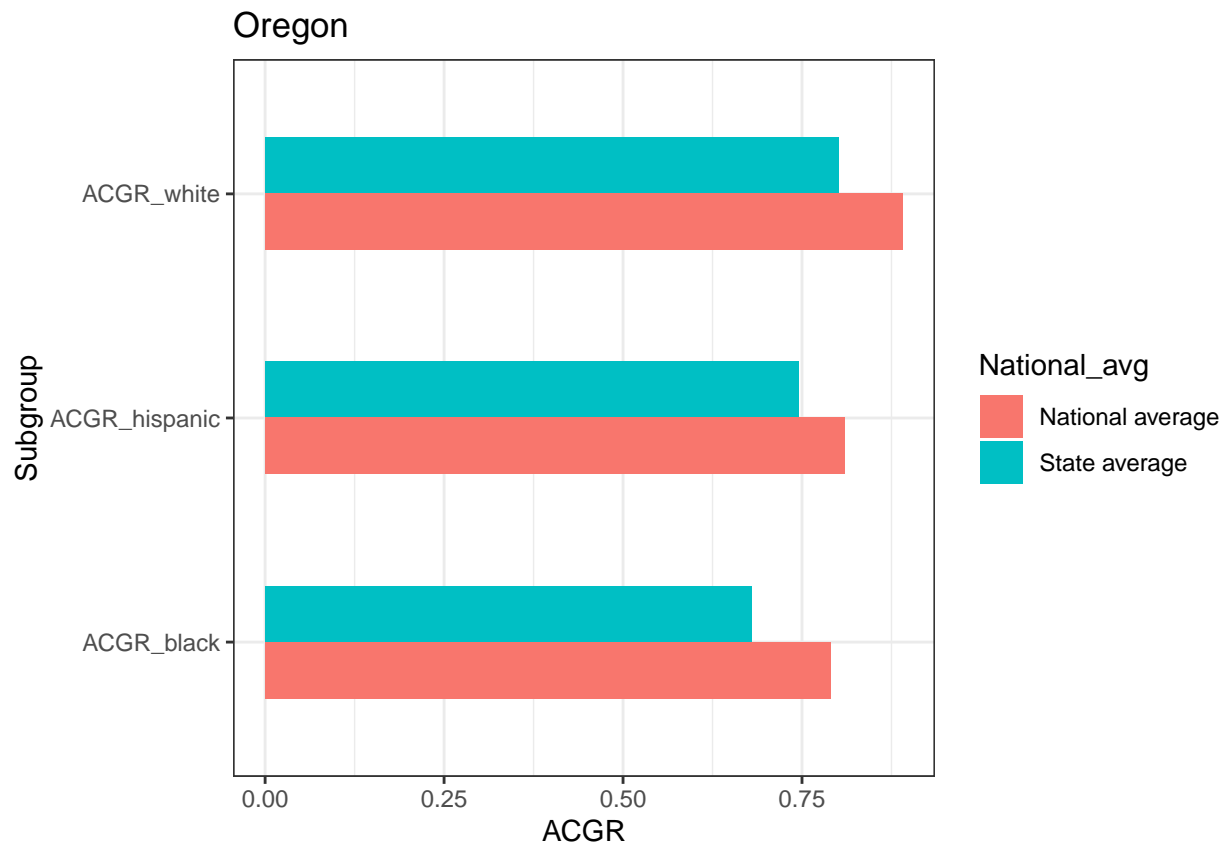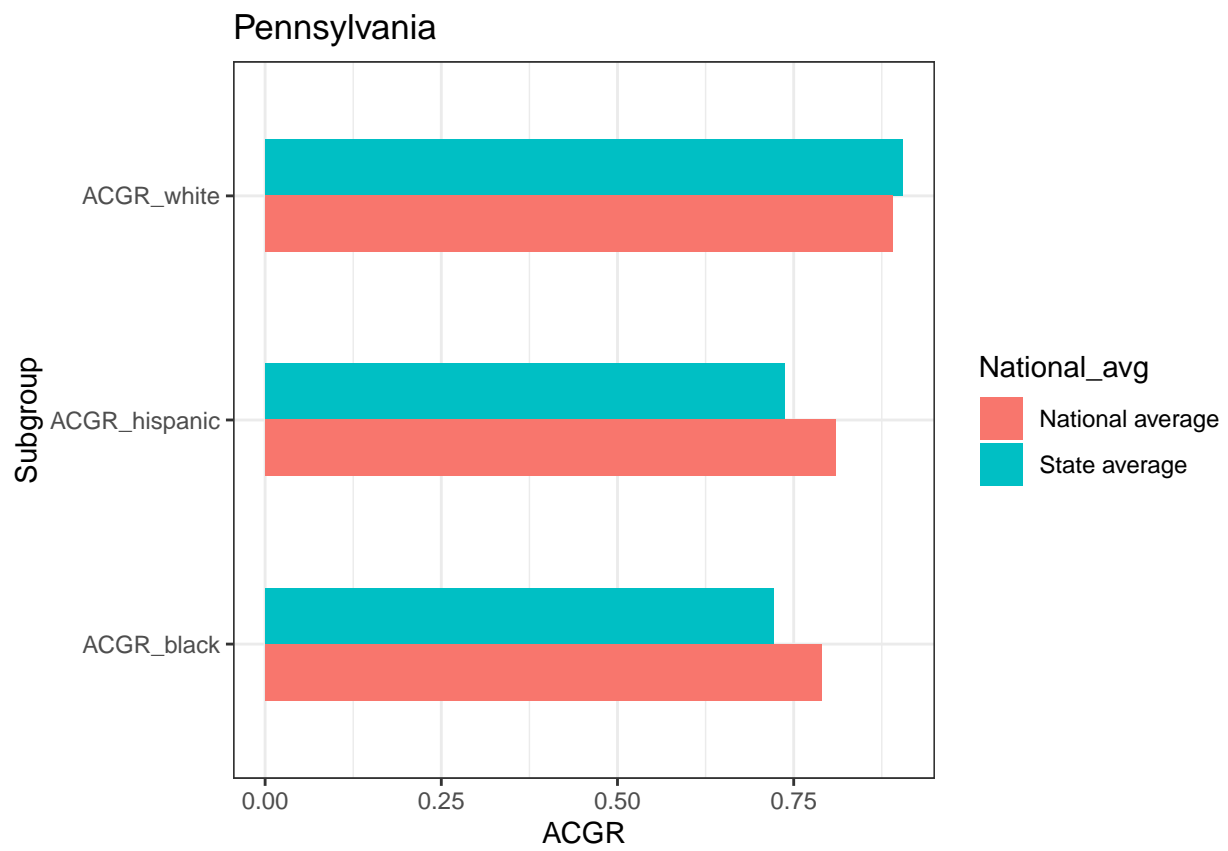
```
## 
## $`North Dakota`
```

North Dakota

```
##
## $Ohio
```

Ohio

```
##
## $Oklahoma
```

Oklahoma

```
##
## $Oregon
```

Oregon

$Pennsylvania

Pennsylvania

```
##
## $`Rhode Island`
```

Rhode Island


```
##
## $`South Carolina`
```

South Carolina

$`South Dakota`

South Dakota

```
##
## $Tennessee
```

Tennessee

```
##
## $Texas
```

Texas

```
##
## $Utah
```

Utah

$Vermont

Vermont

```
## 
## $Virginia
```
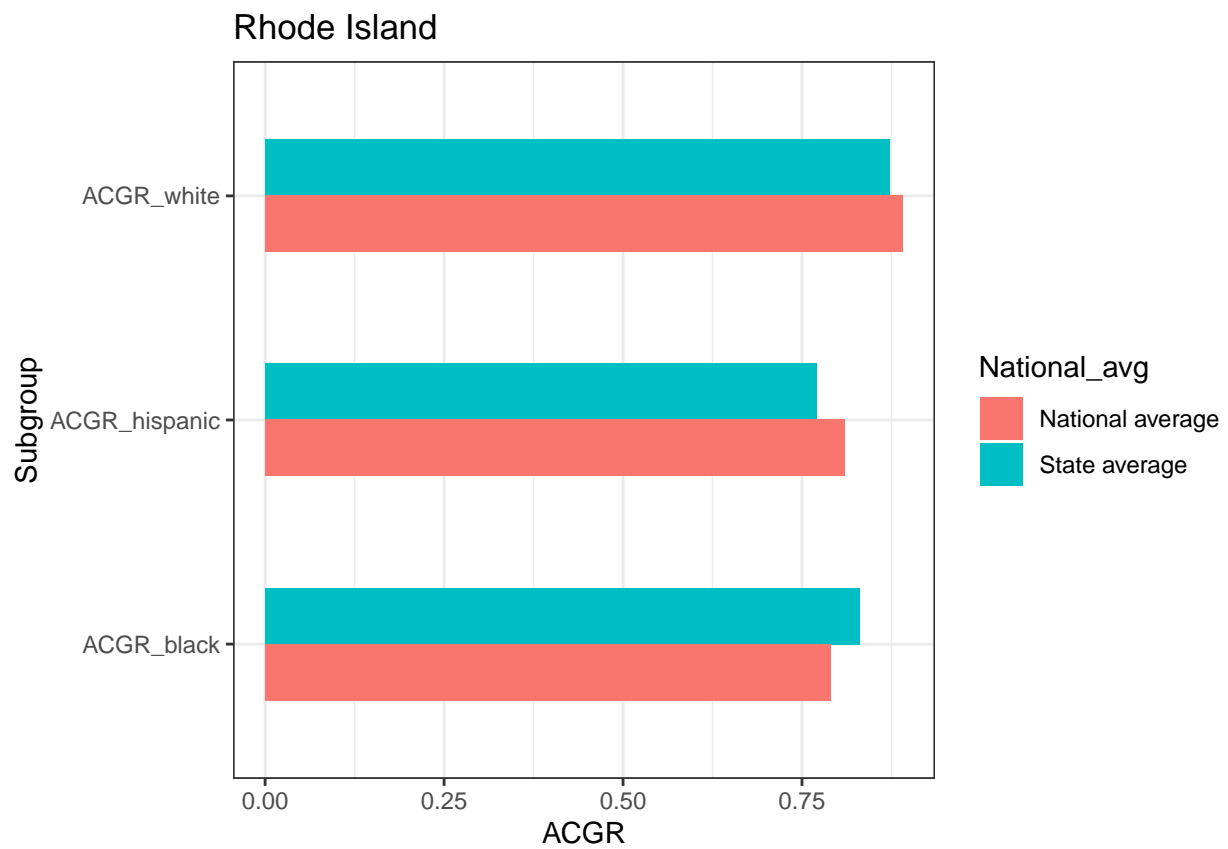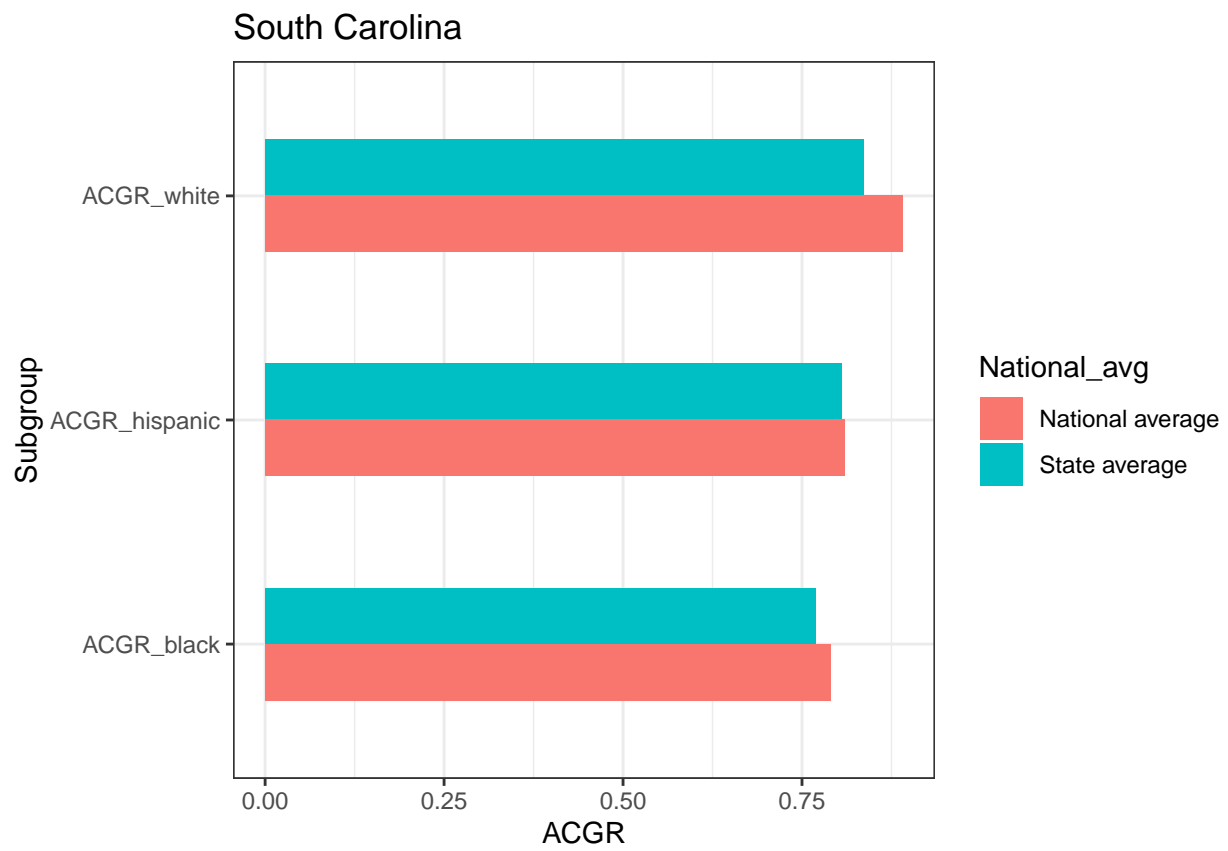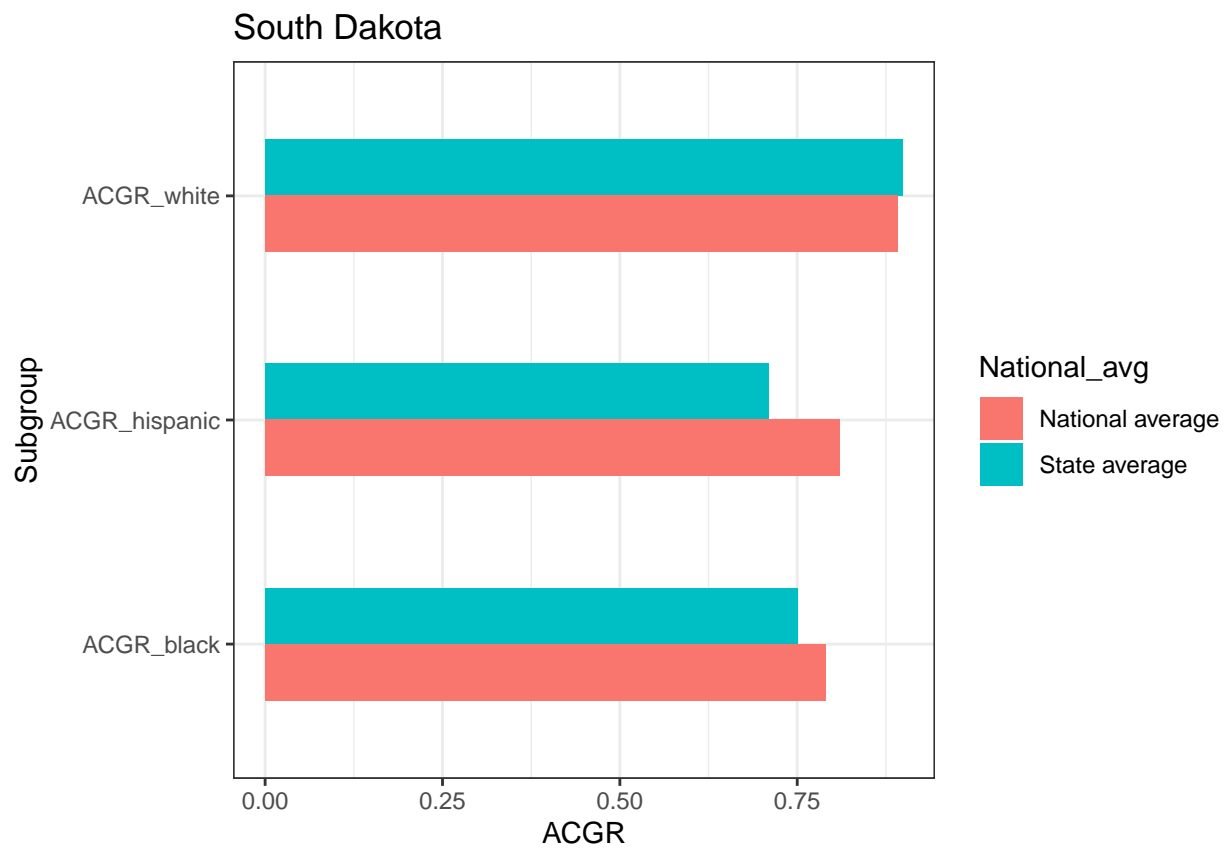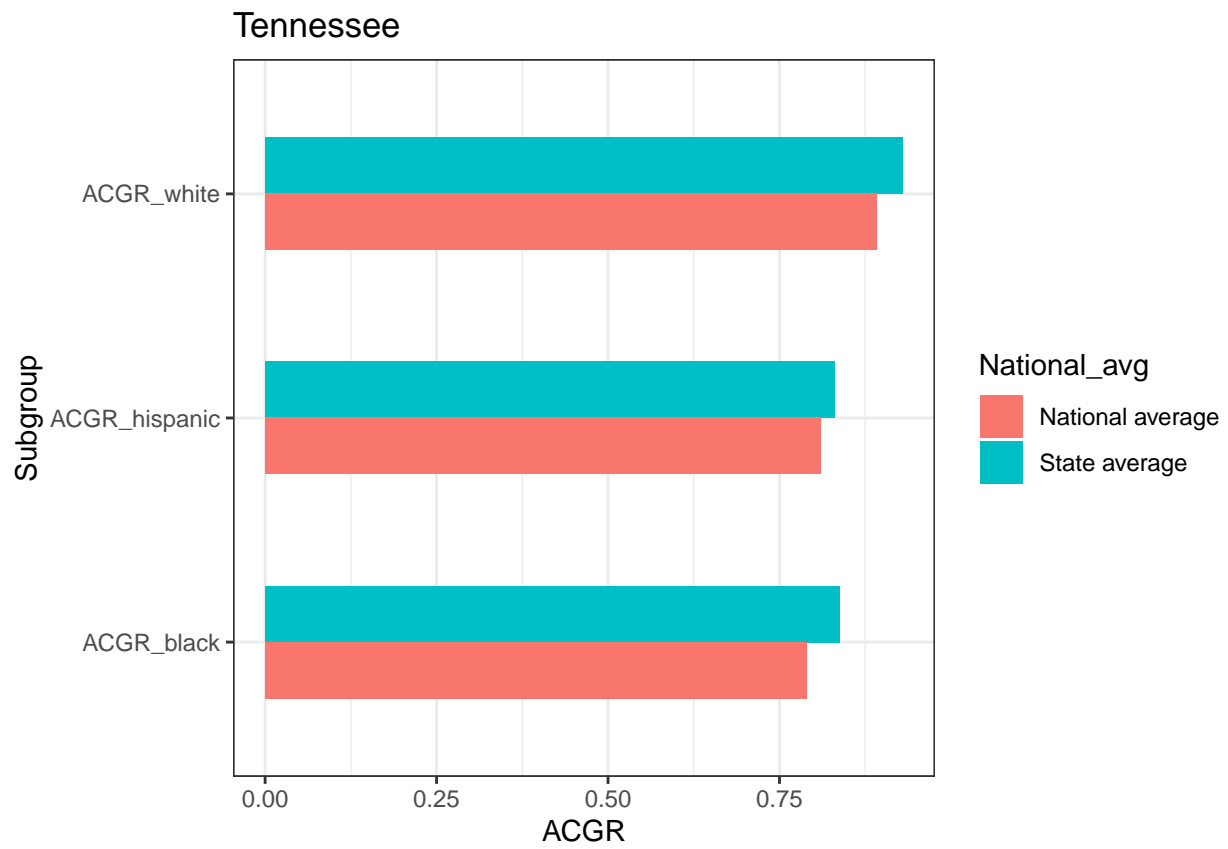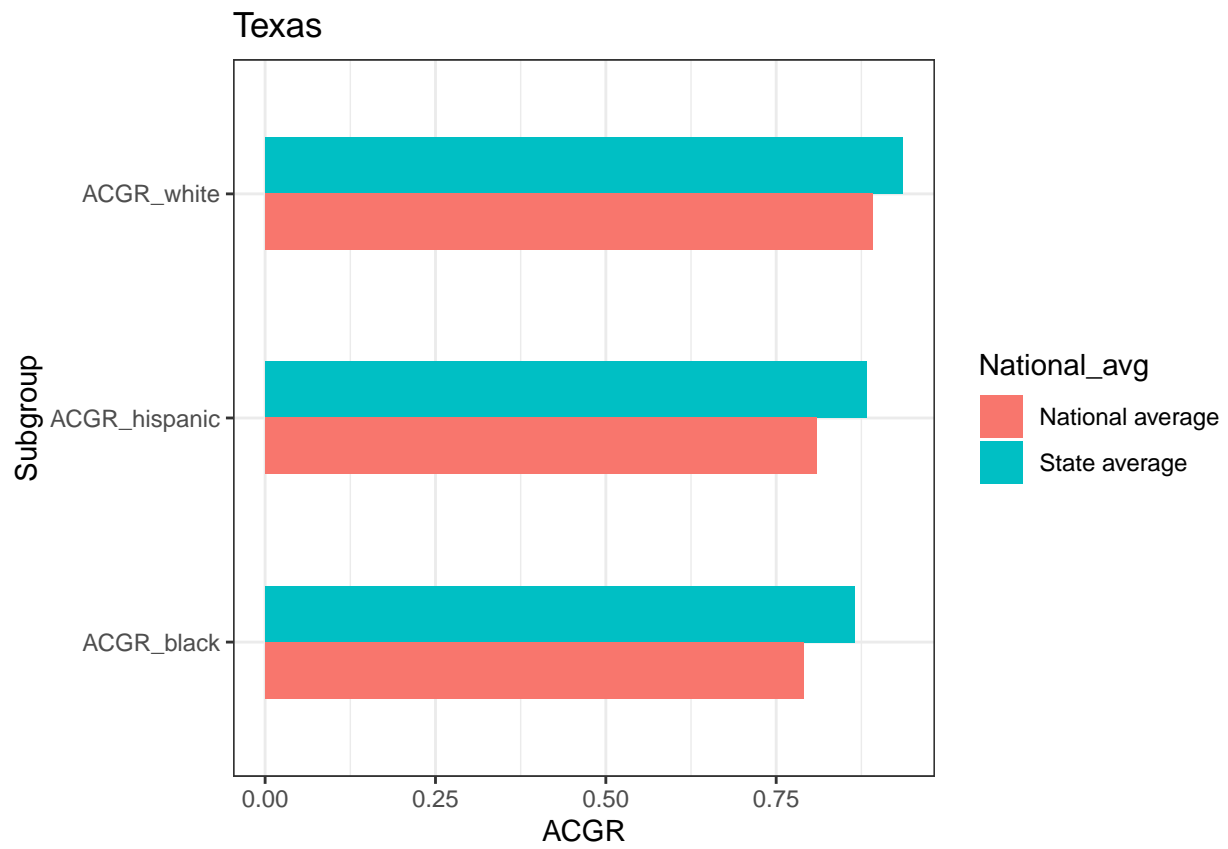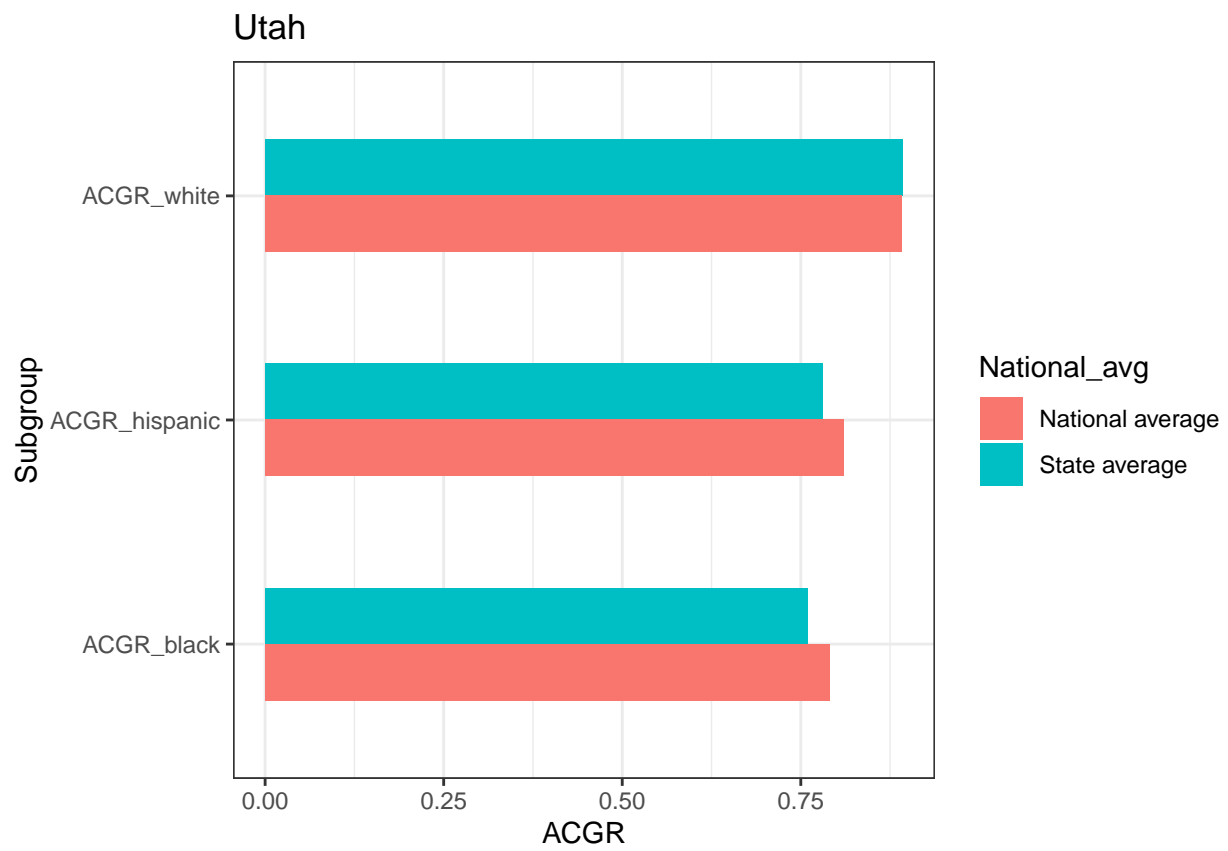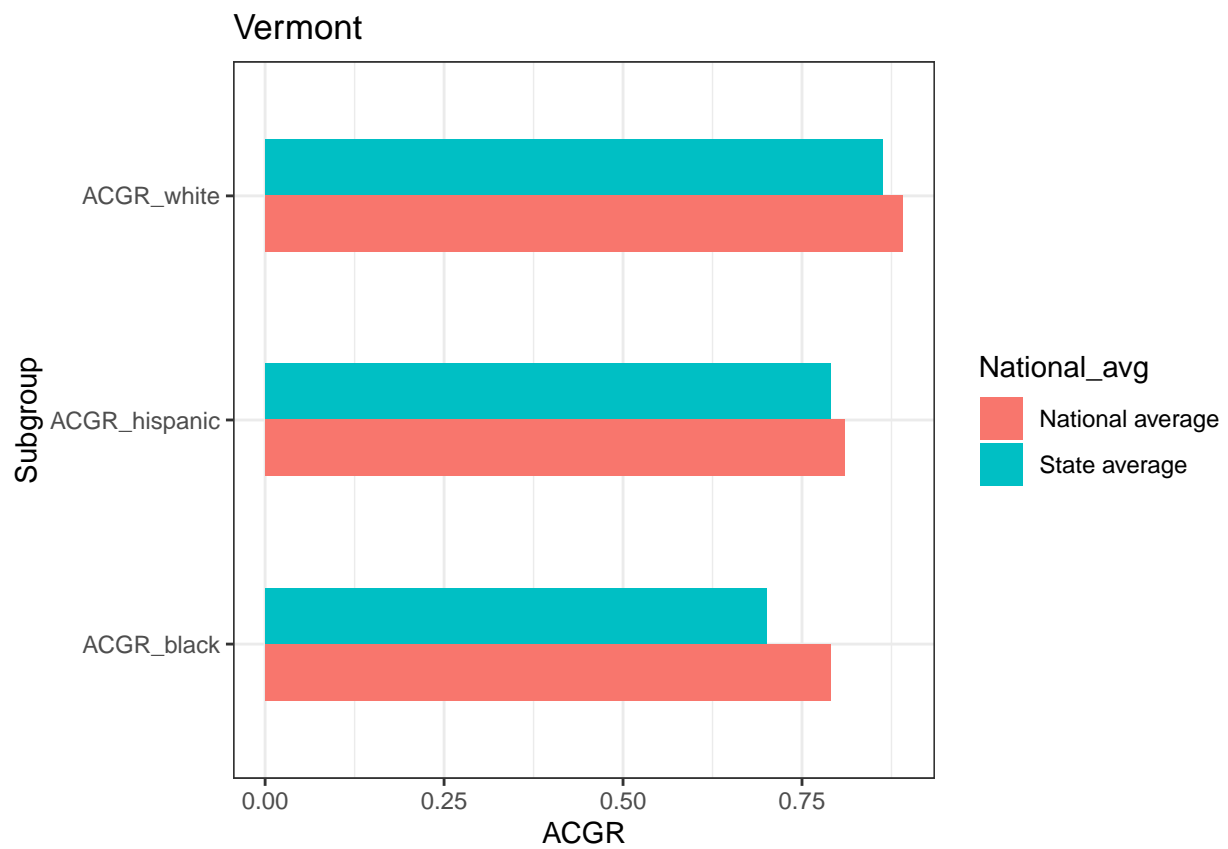
Virginia

```
## 
## $Washington
```
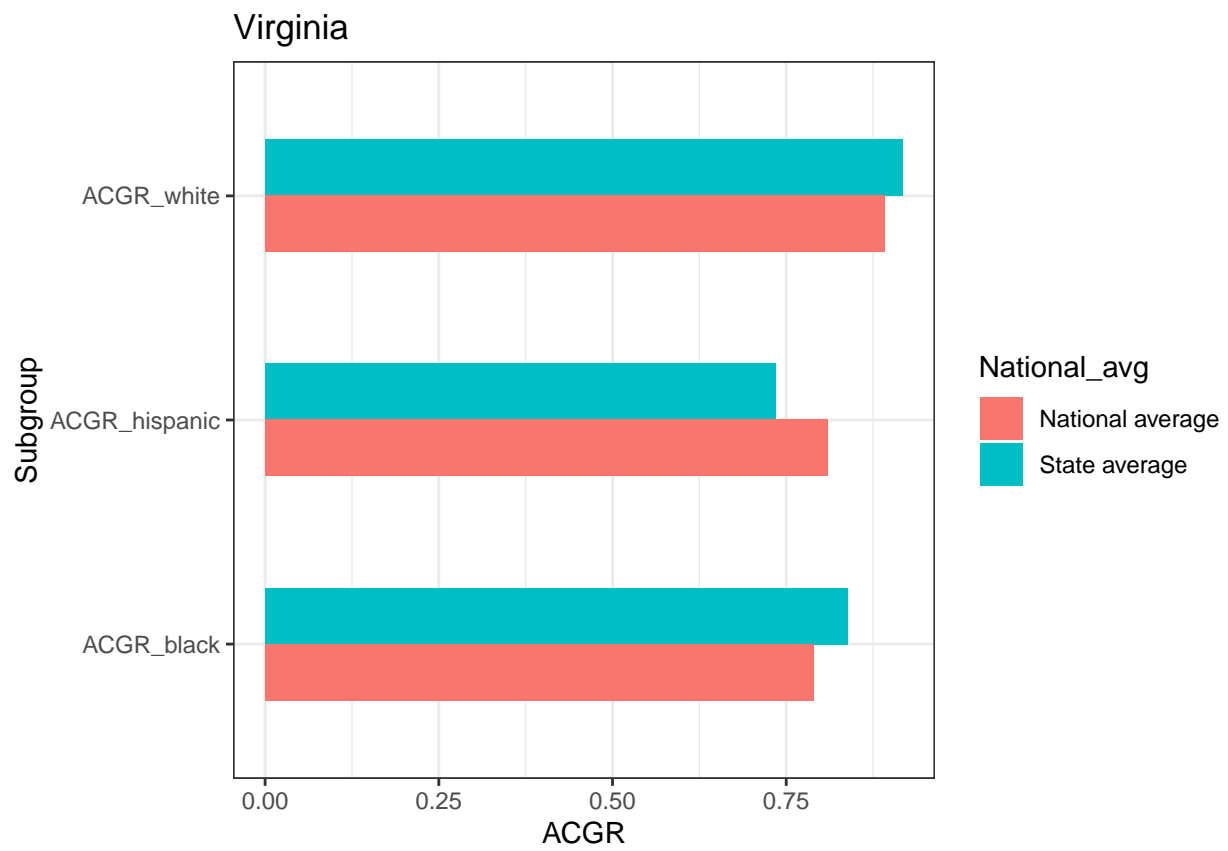
Washington
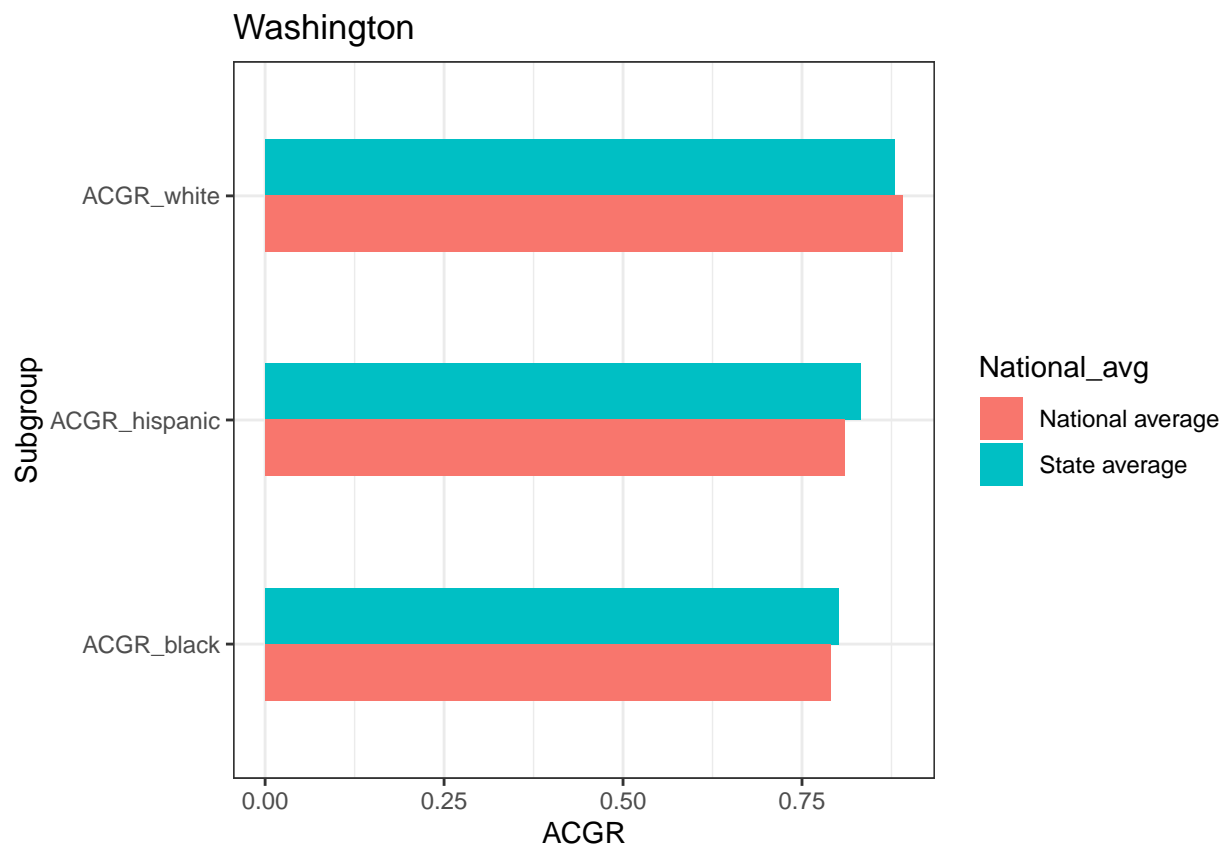
$`West Virginia`

West Virginia

```
##
## $Wisconsin
```
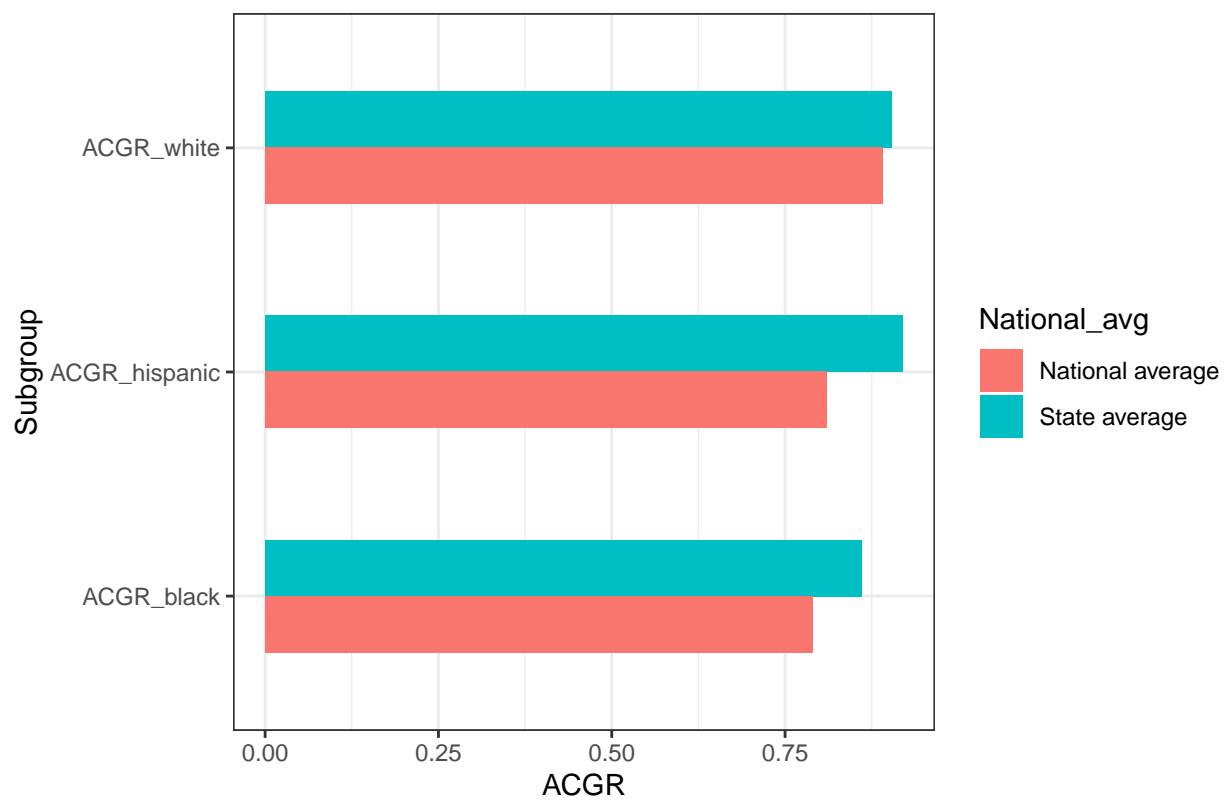
Wisconsin

$Wyoming

$`United States`

United States