

Ephraim Adjei

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library(tidyverse)

library(sf)

library(modelsummary)

income_data<- read_csv("ontario_low_income.csv")

facility_data<- read_sf("npri_facility/npri_facility.shp")
csd_data<-read_sf("ontario_csd_boundaries/ontario_csd_boundaries.shp")

income_data <- income_data %>%
  mutate(CSDUID = as.character(CSDUID))

csd_data <- csd_data %>%
  mutate(CSDUID = as.character(CSDUID))

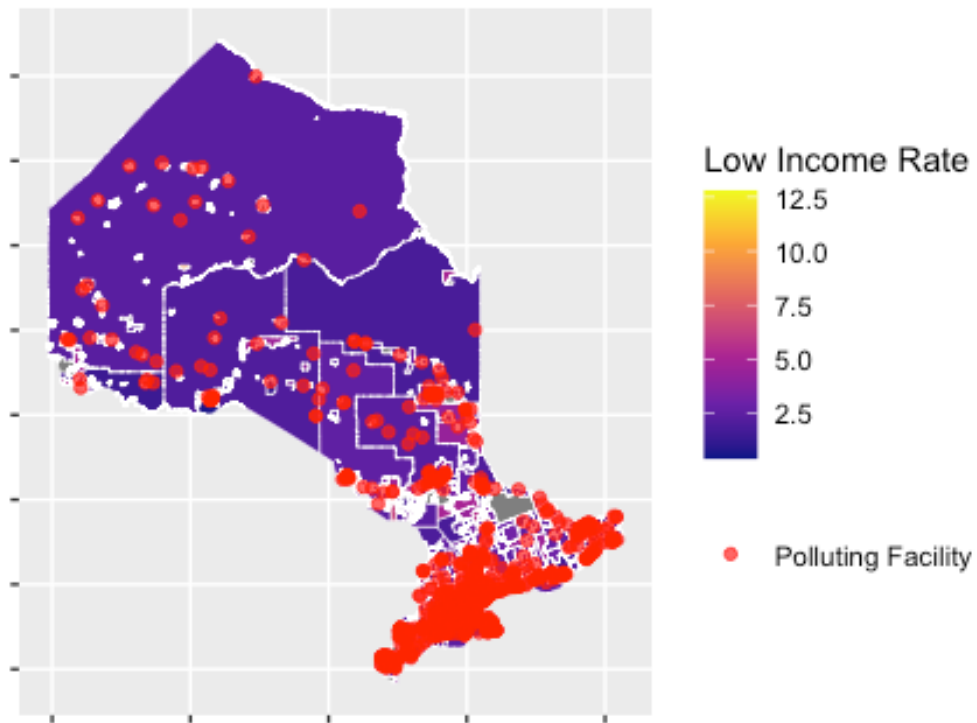
merged_data <- csd_data %>%
  left_join(income_data, by = "CSDUID")

polluting_data <- facility_data %>%
  st_transform(st_crs(csd_data))

ggplot() +
  geom_sf(data = merged_data, aes(fill = low_income), color = "white", size =
0.2) +
  geom_sf(data = polluting_data, aes(color = "Polluting Facility"), size =
1.5, alpha = 0.7) +
  scale_fill_viridis_c(option = "plasma", name = "Low Income Rate") +
  scale_color_manual(values = c("Polluting Facility" = "red"), name = NULL)+
  labs(title = "Low Income Status by Census Subdivision",
  subtitle = "Locations of Polluting Facilities Overlaid with low income
areas",
  caption = "Data: CSD Boundaries, Low Income Rates, Polluting
Facilities")+
  theme(legend.position = "right",
  plot.title = element_text(size = 12, face = "bold"),
  plot.subtitle = element_text(size = 12),
  axis.text = element_blank(),
  axis.title = element_blank(),
  legend.key = element_blank())
```

Low Income Status by Census Subdivision

Locations of Polluting Facilities Overlaid with low income areas



a: CSD Boundaries, Low Income Rates, Polluting Facilities