Draft: Geospatial Chart

From Line 193

# Group1: Proportions by group for city and state variables

city\_prop <- card\_fraud %>%

group\_by(city) %>%

summarise(n = n(), lat = first(lat), long = first(long)) %>%

mutate(prop = n / sum(n)) %>%

arrange(desc(prop))

state\_prop <- card\_fraud %>%

group\_by(state) %>%

summarise(n = n(), lat = first(lat), long = first(long)) %>%

mutate(prop = n / sum(n)) %>%

arrange(desc(prop))

city\_prop

state\_prop

# Geospatial chart: City Proportions

city\_sf <- st\_as\_sf(city\_prop, coords = c("long", "lat"), crs = 4326)

ggplot() +

geom\_sf(data = city\_sf, aes(fill = prop)) +

scale\_fill\_gradient(low = "green", high = "red", name = "Proportion") +

labs(title = "Geospatial Chart: Proportions of Card Fraud by City", x = "Longitude", y = "Latitude") +

theme\_bw()

# Geospatial chart: State Proportions

state\_sf <- st\_as\_sf(state\_prop, coords = c("long", "lat"), crs = 4326)

ggplot() +

geom\_sf(data = state\_sf, aes(fill = prop)) +

scale\_fill\_gradient(low = "green", high = "red", name = "Proportion") +

labs(title = "Geospatial Chart: Proportions of Card Fraud by State", x = "Longitude", y = "Latitude") +

theme\_bw()