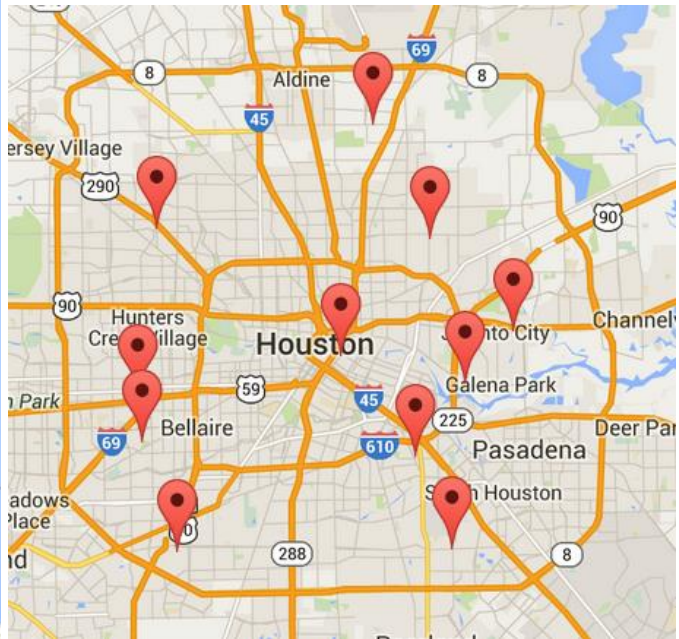


# Air Monitoring Station Locations by City

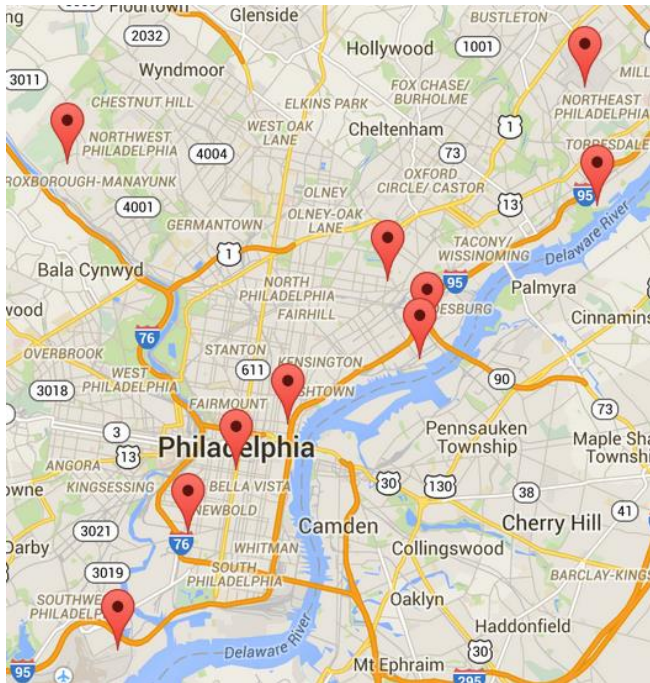
## Chicago



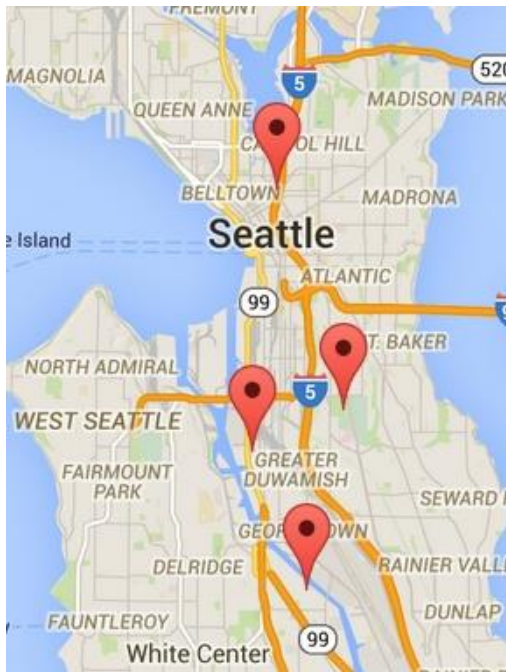
## Houston



## Philadelphia



## Seattle



(created online using MapCustomizer.com)

## Apparent Temperature Equation

$$AT = T * (0.33 * e) - (0.7 * w) - 4$$

T= Temperature (C°)

$$e = 6.112 * 10^{((7.5 * T) / (237.7 + T))} * (H / 100)$$

w= wind speed (meters per second)

H= Humidity (C°)

(Meng et al, 2012; Steadman, 1984)

Humidex Equation

$$Hx = T + \left(\frac{5}{9}\right) * (e - 10)$$

T = Temperature (C°)

$$e = 6.112 * 10^{\left(\frac{7.5 * T}{237.7 + T}\right)} * \left(\frac{H}{100}\right)$$

H = Humidity (C°)

(Masterson and Richardson, 1979)

## Calculation of Variance within and Between Cities

$$[(1/(1-c)) * (\beta_i - \beta)^2] + [(1/c)(se^2)]$$

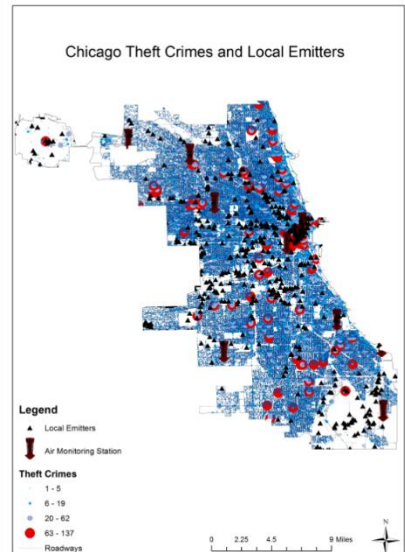
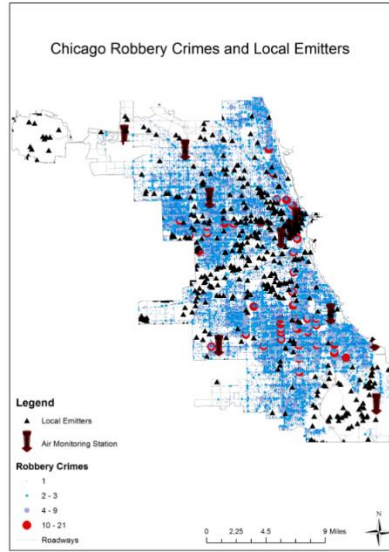
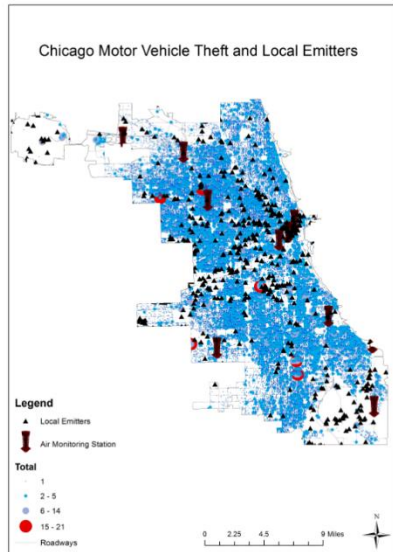
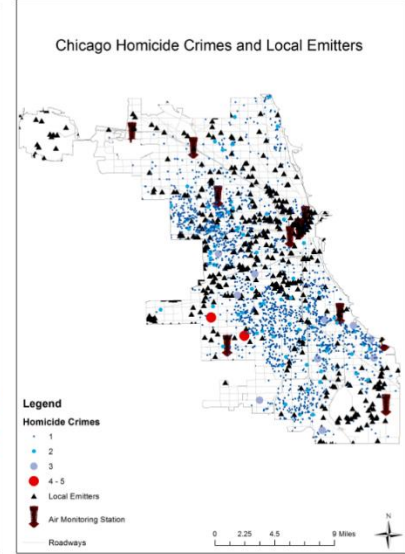
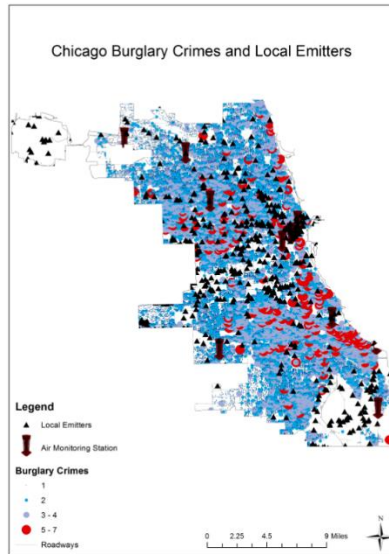
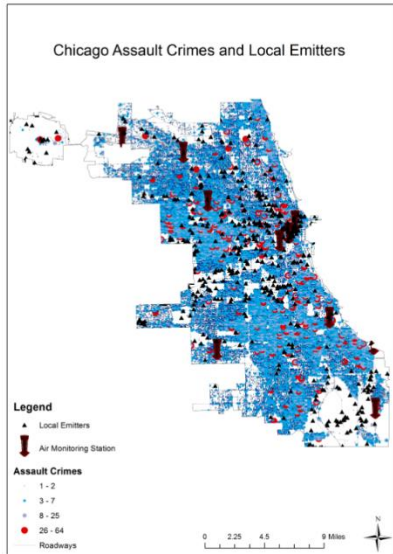
$c$  = Number of cities

$\beta_i$  = estimate for  $i$ th city

$\beta$  = estimate across study cities

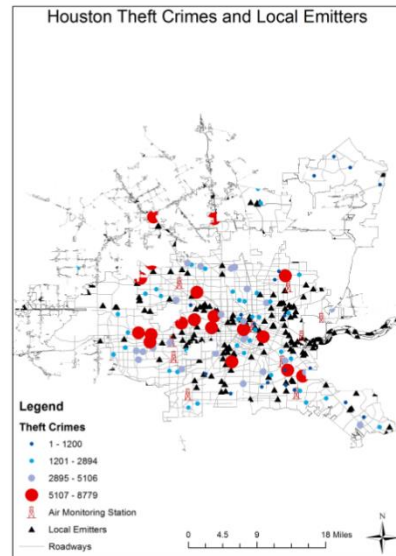
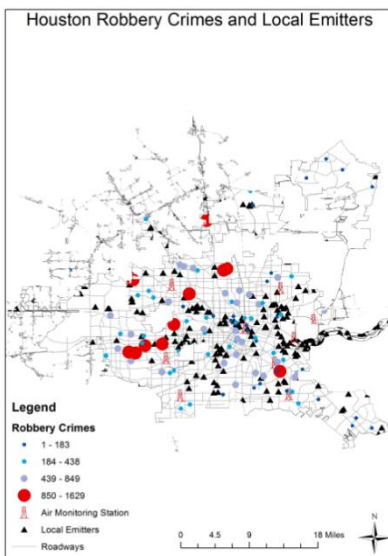
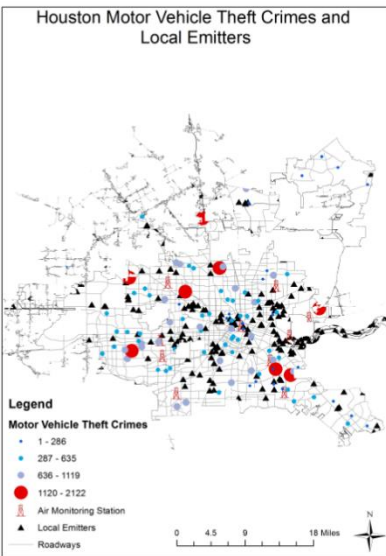
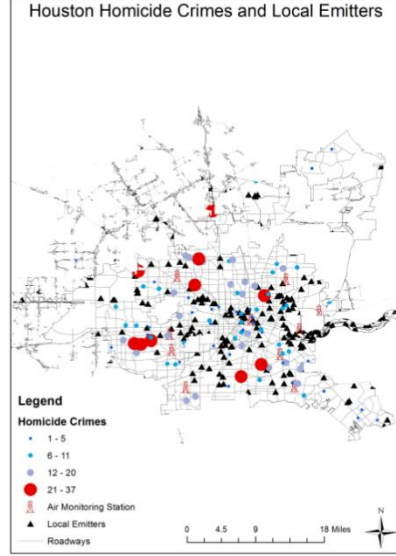
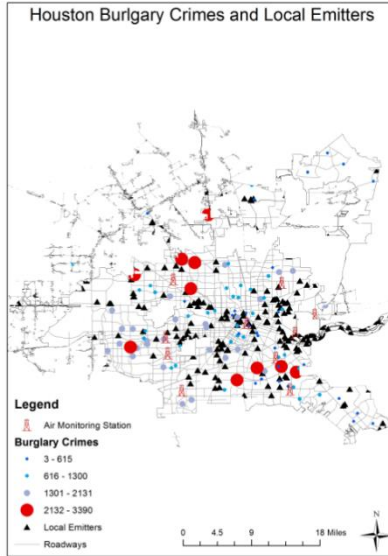
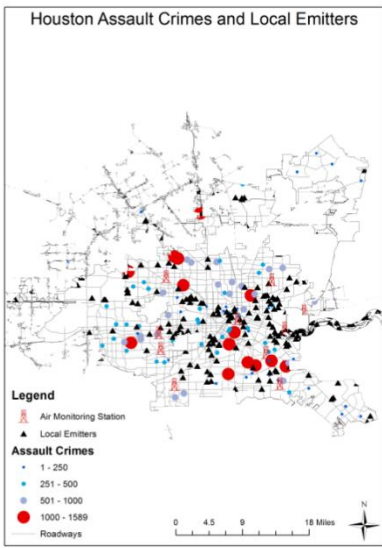
$se$  = standard error of  $\beta_i$

# Chicago Crimes and Local Emitters

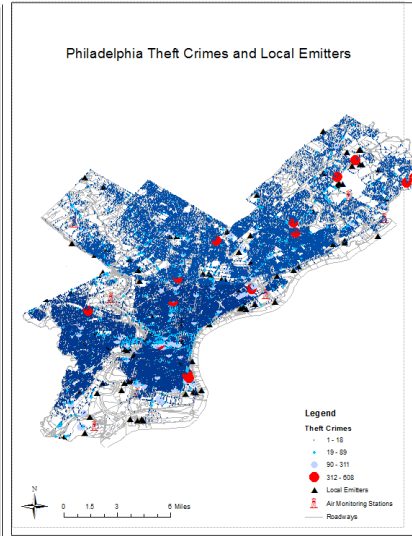
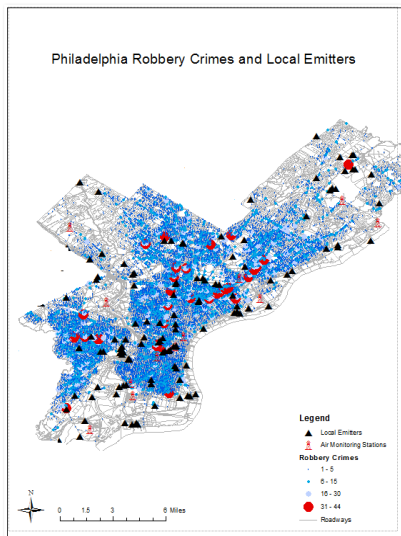
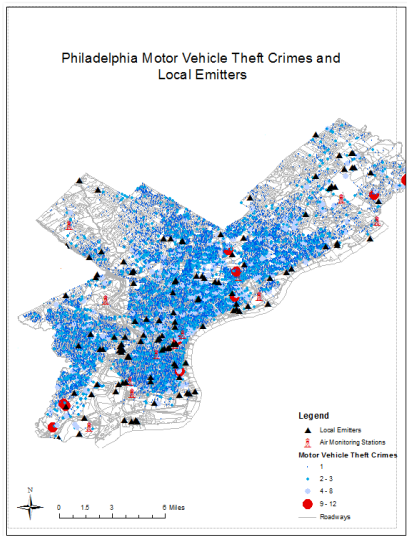
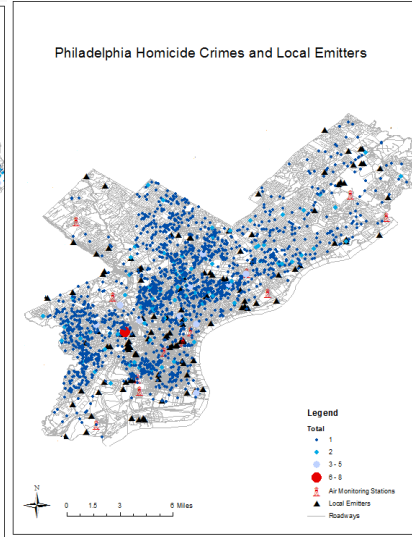
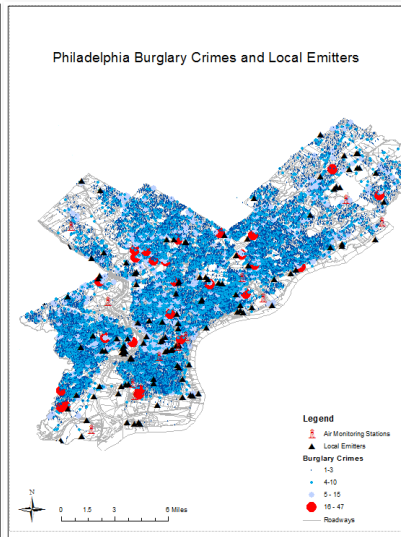
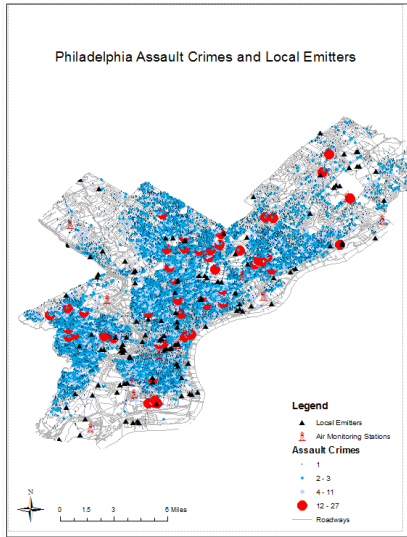




# Houston Crimes and Local Emitters



# Philadelphia Crimes and Local Emitters



# Seattle Crimes and Local Emitters

