# GIS APPLICATIONS

- **GIS is a tool just like a hammer**
- **The power of GIS depends on how to use it**

# An Urban GIS Application

- A Neighborhood Complaint Example

# The Complaint

- **A Community group in Metro Toronto has been complaining that access to public parks is biased towards affluent neighborhoods.**

# Objective

- **Provide concrete evidence that the complaint is either true or false**

# Evidence

- **Distribution of Neighborhoods**
  - **Higher no. of poor neighborhoods farther away**
- **Distribution of Population**
  - **Larger poor population in more distant neighborhoods**
- **Distribution of Per Capita Income**
  - **Lower value in farther neighborhoods**

# Variables

- **Wealth of Neighborhood**
  - **Income**
- **Accessibility**
  - **Distance to Parks**

# Definition

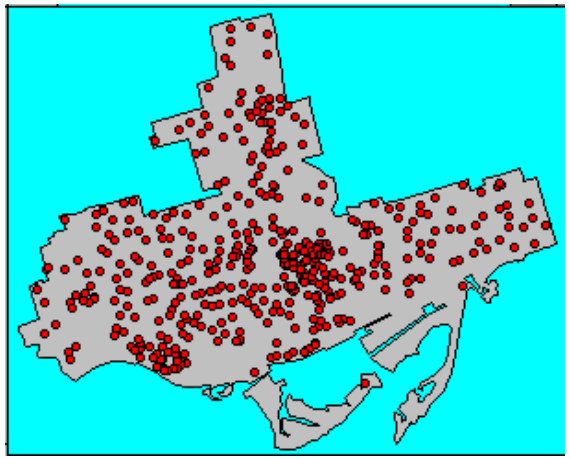
- **Wealth**
  - **Rich if income >= average income**
  - **Poor if income < average income**
- **Accessibility to parks**
  - **Closer if distance <= average distance**
  - **Farther if distance > average distance**

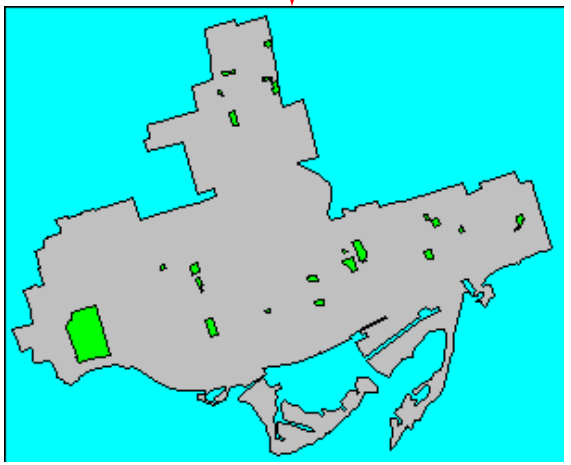
# Data

## EA Data and Locations

## Park Locations

| Prfedea | Eapop | E90hhaggin |
|---|---|---|
| 35002154 | 795 | 9709 |
| 35002157 | 944 | 18479 |
| 35002160 | 1078 | 18995 |
| 35002163 | 935 | 11911 |
| 35002201 | 614 | 10879 |
| 35002204 | 889 | 19251 |
| 35002207 | 877 | 16945 |
| 35002210 | 884 | 14384 |
| 35002213 | 724 | 10043 |
| 35002251 | 922 | 23178 |



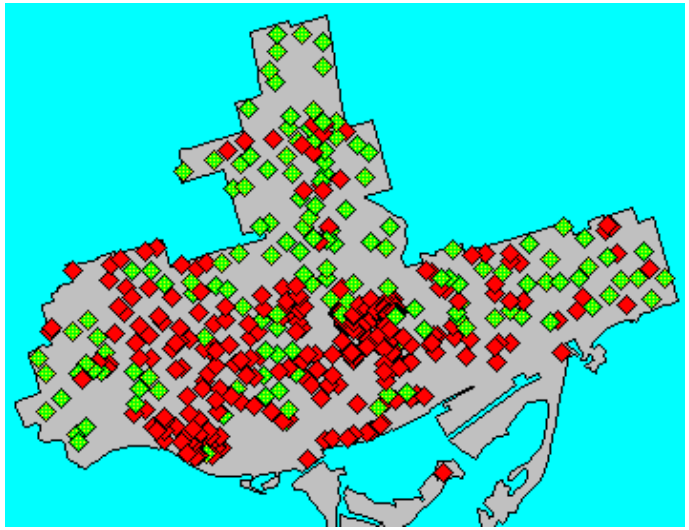


**Wealth**

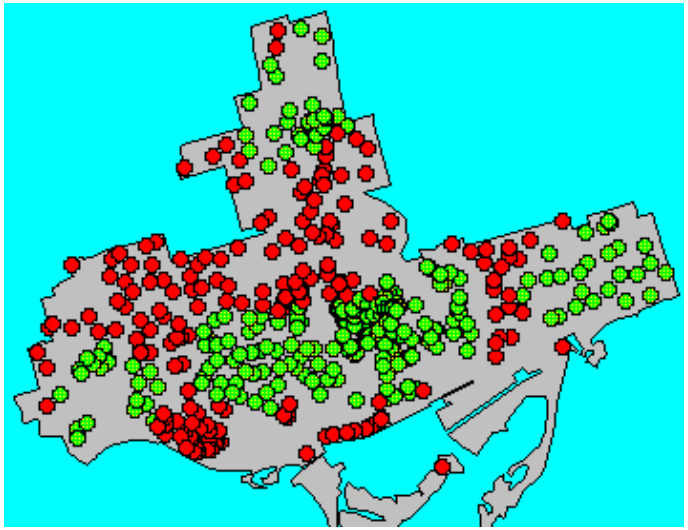
**Accessibility to parks**

# Wealth and Accessibility

- Poor Neighborhoods
- Rich Neighborhoods



- Easy Access to Parks
- Less Access to Parks



# Results

- **Distribution of Poor Neighborhoods**
  - **40% of poor neighborhoods farther away**
- **Distribution of Population**
  - **45.5% of lower income people farther away**
- **Distribution of Per Capita Income (PCI)**
  - **PCI near: 22.04K; away: 25.31K**

# Conclusion

- **The claim cannot be supported by the available data and its analysis.**