

# An Analysis of Structural Racism in Traffic Ticketing Patterns in Selected Jurisdictions within Cuyahoga County

by

Dr. Ronnie A. Dun  
Chief Diversity Officer/Associate Professor  
Cleveland State University

# Background

Structural Racism refers to the many factors that work to produce and maintain racial inequities in American society and identifies aspects of our history and culture that have enabled the privileges associated with “whiteness” and disadvantages associated with “color” to endure overtime

Study commissioned by County Prosecutor to examine police discretion as result of news series on significant racial disparities in county criminal justice system

Charges of disparate treatment of blacks by police persistent throughout US history

Kerner Commission cited confrontations between police and black citizen as precipitating event leading to most urban riots of late 60s

Despite this history issue remained dormant within public agenda & national consciousness until recent highly publicized police involved incidents of deadly use of force against unarmed blacks/minorities

# Study Setting

	Total Population	White	Black	Other Minorities	Avg. Single Family Home
Cuyahoga County	1,280, 122	63.6%	29.7%	6.7%	\$115,000
Cleveland	396,815	37.3%	53.3%	9.4%	\$64,000
Shaker Heights	28,000	57.1%	38.7%	4.2%	\$211,000
Brook Park	19,212	92.2%	3.2%	4.6%	\$114,000
Westlake	32,729	91.2%	1.6%	7.2%	\$228,000

\*Majority of blacks live east of Cuyahoga River, on Cleveland's eastside and in inner-ring suburbs

# Police/Citizen Encounters

Police gatekeepers to criminal justice system

Traffic stops most frequent contact average citizen has with police

Minorities/low-income more likely subject of involuntary interaction with police e.g. “stop & talk/frisk”

Precedence setting cases of *Mapp v. Ohio* (1961) *Terry v. Ohio* (1968) emanated from incidences involving CPD

define admissibility of evidence obtained during search and parameters of stop & frisk procedures

# Racial Profiling

Race/ethnicity or other social/cultural identifier used as primary basis of police suspicion person has broken the law

Term “DWB” coined as result of blacks’ complaints of frequent traffic stops by police due to color of skin

Police prefer term “biased/racially biased” policing

Racial Profiling – using race as a key factor in deciding whether to make a traffic stop (GAO)

# Study of Racial Profiling

Fundamental question: Are minorities more heavily scrutinized, stopped & detained, investigated, and penalized by police than whites?

Various methods have been used to collect, analyze, & interpret traffic stop data

Majority compare racial traffic ticketing data to demographic data of eligible driving population in geographic area

Traffic tickets only reflect those formally processed into CJS

- No record of those receiving only a warning
- Question remains: Who is diverted from the system with only a warning and is there a racial difference?

# Gravity Model

2010 Gravity Model obtained from NOACA

Racial/age demographic data from 2010 Census imputed into gravity model from contributing jurisdictions

Driving age population defined as persons 15-85 yrs. old

% of drivers from each contributing jurisdiction attributed to respective % of each city's driving population

# Gravity Model

## 24-Hour Trip Distribution Model

City	Total Round Trips	White	% DP	Black	% DP	Other	% DP
Cleveland	3,239,555	1,769,759	54.6	1,245,345	38.4	224,744	6.9
Brook Park	191,711	151,103	78.8	31,121	16.2	9,524	5
Shaker Heights	221,502	128,650	58.1	78,138	35.3	14,718	6.6
Westlake	399,163	333,056	83.4	43,908	11	22,144	5.5
*Trip generation: 4 trips per person and roughly 10 trips per household (based on 1994 NOACA Travel Survey)							
**Trip Distribution: Unit is number of trips by person for an average weekday							



Microsoft Excel  
97-2003 W



# Data Analysis

% of each group compared to their % of tickets for each jurisdiction

Ratio of proportional share of tickets to % driving population calculated (1.0 = parity or expected value)

Ratio used to compute likelihood of minorities being ticketed relative to whites

Similar ratios computed to examine arrests

Examined by race & type of charges also

GIS maps show citations in context of racial composition of census tract

# Cleveland Ticketing Patterns

Tickets			Driving Population		Ratios	
					Tickets/DP	Likelihood
Total	83,123	100%	3,239,555	100%	--	--
Black	49,142	59	1,253,953	38.4	1.53	2.55
White	27,739	33	1,771,616	54.6	0.60	--
Other	6,242	7.51	220,751	6.9	1.08	1.80

[1] Driving population estimates taken from NOACA 2010 Compress Trip Distribution Model for Cuyahoga County. Racial group data imputed from 2010 U.S. Census to NOACA gravity model.

[2] The ticket/dp ratio reflects the percentage of tickets received for each group in comparison to their percentage of the driving population. The likelihood ratio represents the chances of nonwhites being ticketed in comparison to whites.

# Tickets within context of Residential Population

Blacks ticketed 15 – 123 times proportional share in some census tracts

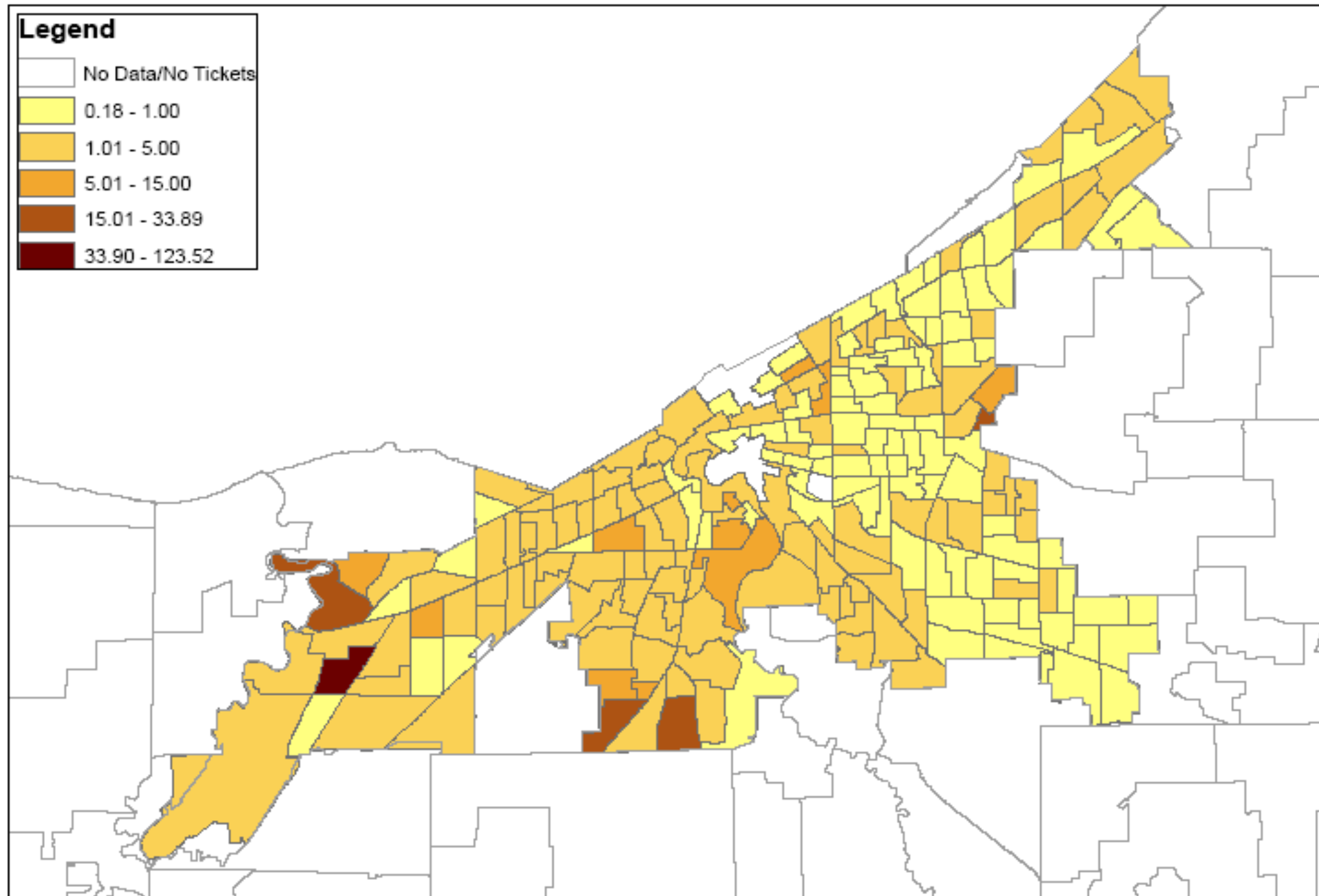
Kamm's Corner, University Circle, & Old Brooklyn

Whites ticketed 17.15 – 23.75 times proportional share in Lee-Miles & Woodland Hills neighborhoods

Hispanics/Latinos ticketed 2 – 4 times proportional share in four census tracts

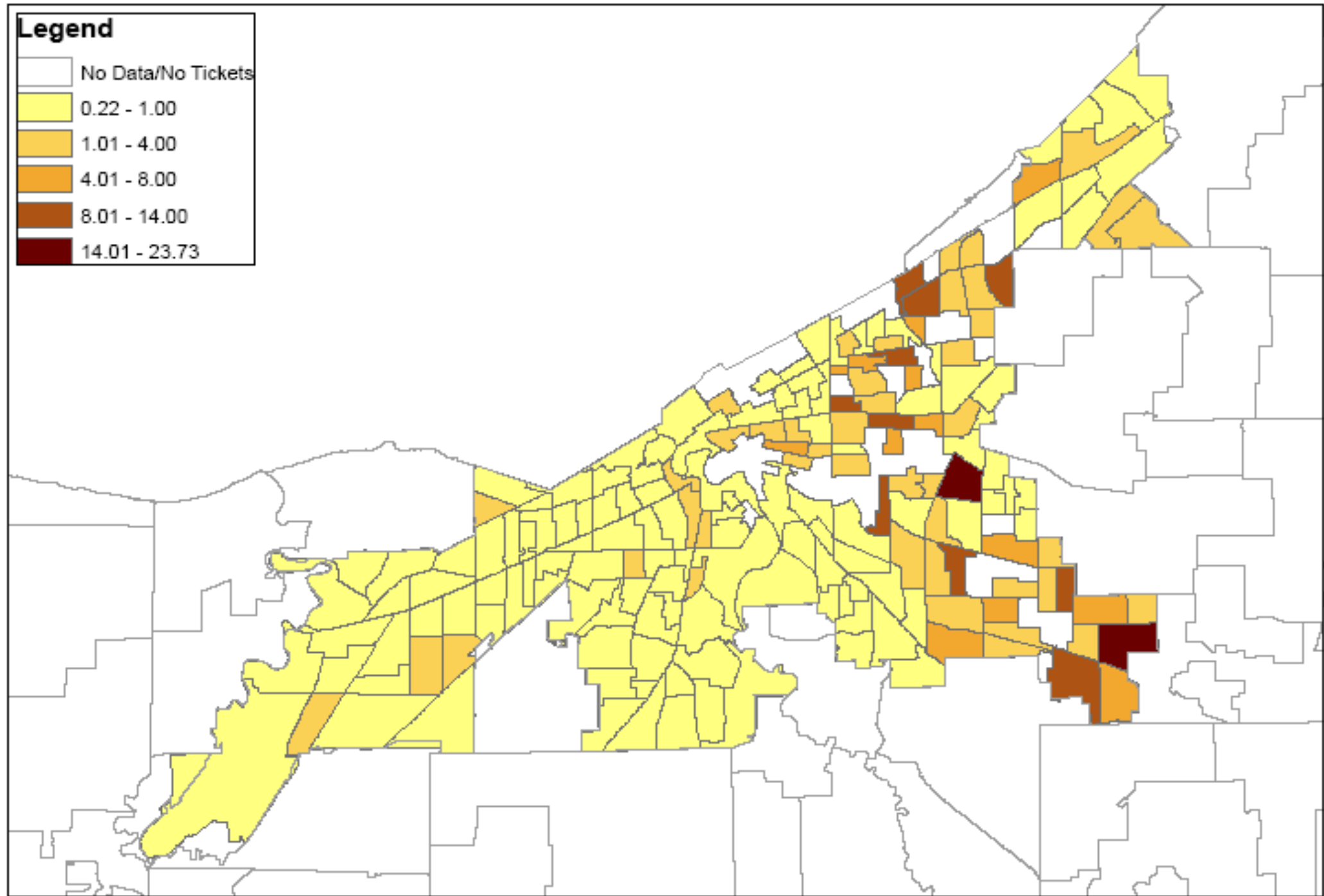
No census tracts above 1 for Asians

# Map 1 Black Index



Created 7/11/2012  
Traffic Ticket Data acquired from Cleveland Police Department  
Municipal Boundary data acquired from Cuyahoga County GIS  
All other data acquired from US Census Bureau

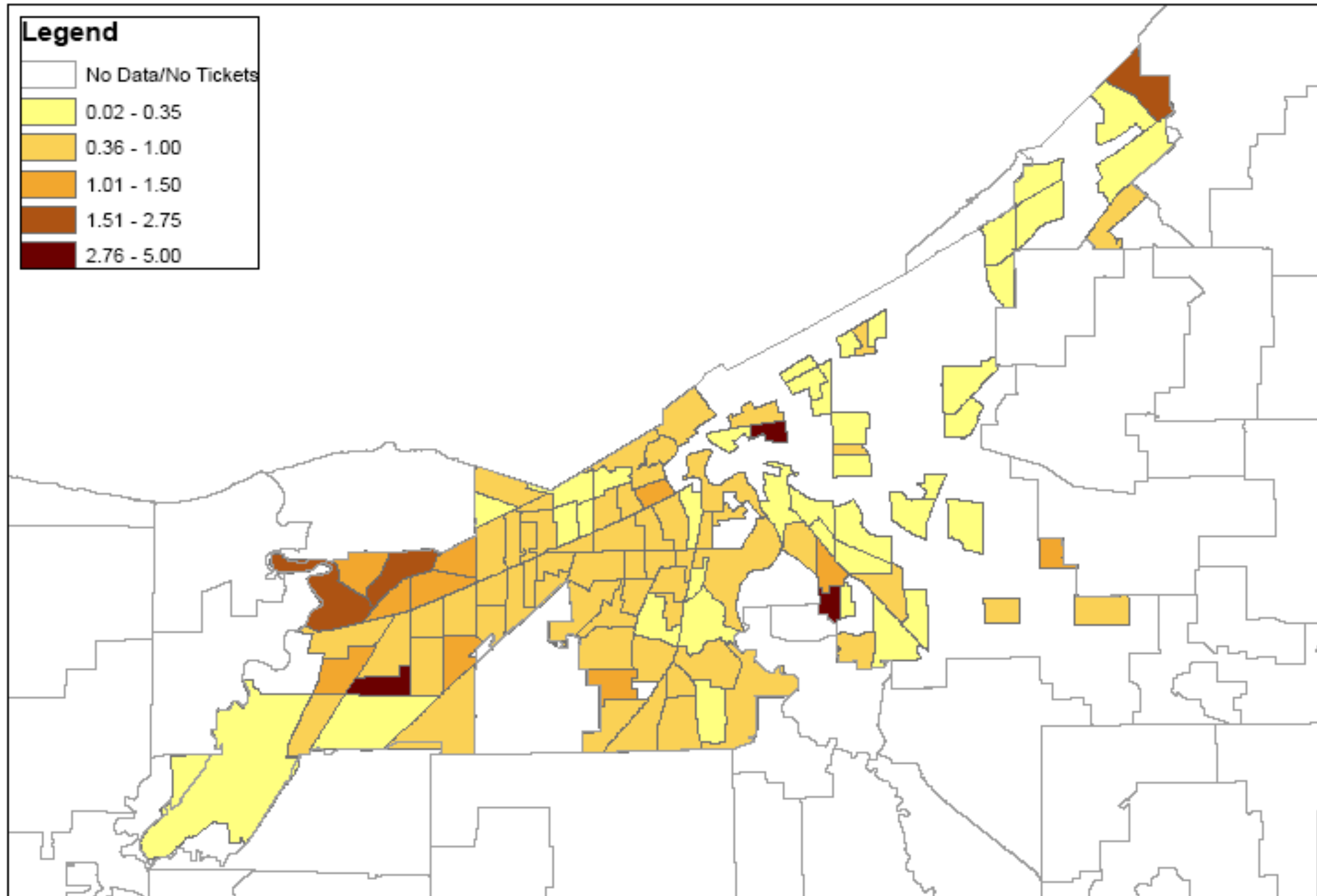
## Map 2 White Index



Created 7/11/2012

Traffic Ticket Data acquired from Cleveland Police Department  
Municipal Boundary data acquired from Cuyahoga County GIS  
All other data acquired from US Census Bureau

### Map 3 Hispanic/Latino Index



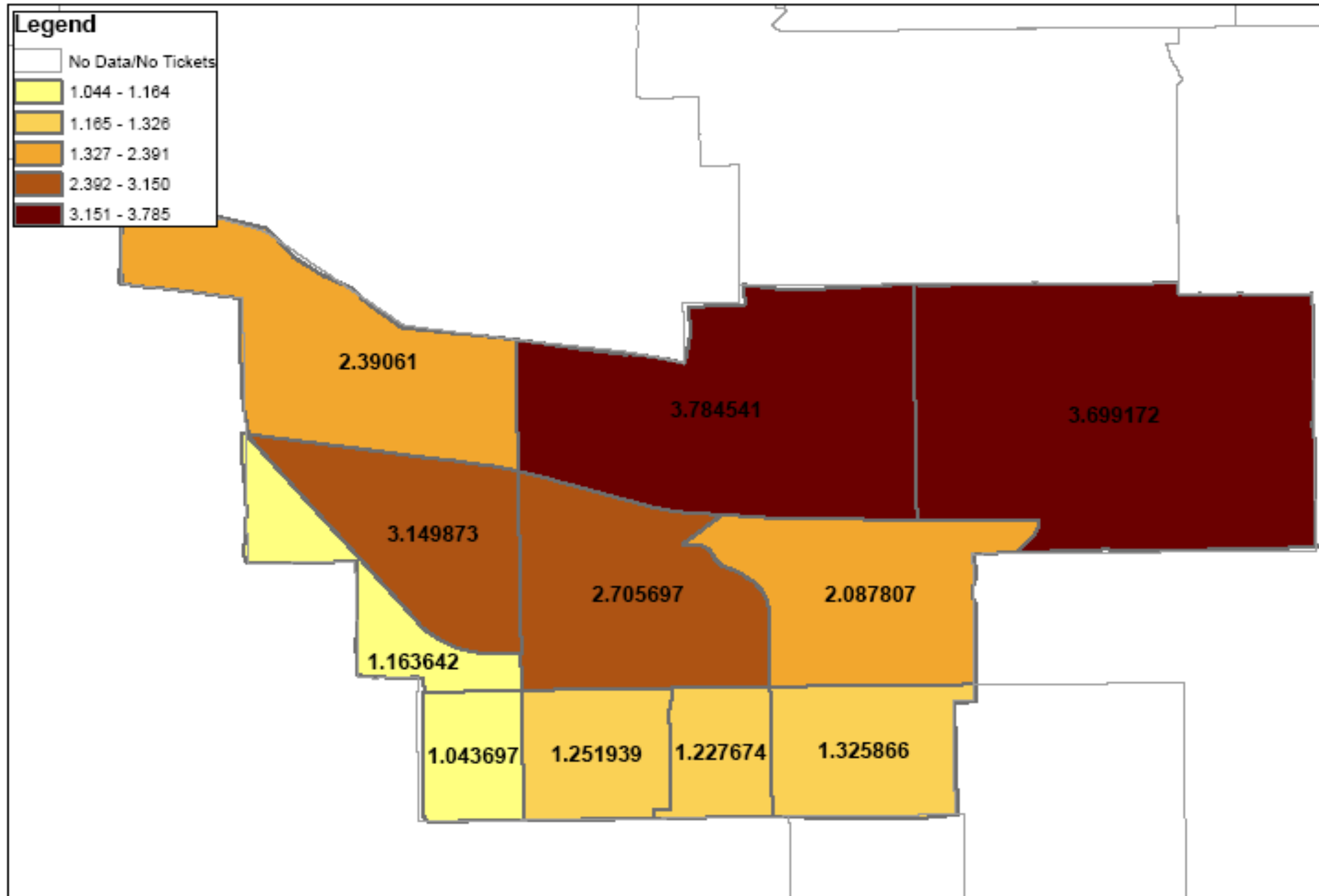
Created 7/11/2012  
Traffic Ticket Data acquired from Cleveland Police Department  
Municipal Boundary data acquired from Cuyahoga County GIS  
All other data acquired from US Census Bureau

# Shaker Ticketing Patterns

Tickets			Driving Population	Ratios			
				Tickets/DP	Likelihood	White Ref.	Black Ref.
Total	12,089	--	221,502	--	--	--	--
Black	7,492	62%	128,625	35%	1.76	2.86	--
White	4,314	36	78,183	58	0.62	--	0.35
Other	283	2	14,612	7	0.35	0.58	0.20

[1] Analysis of traffic tickets based on total citations noting race.

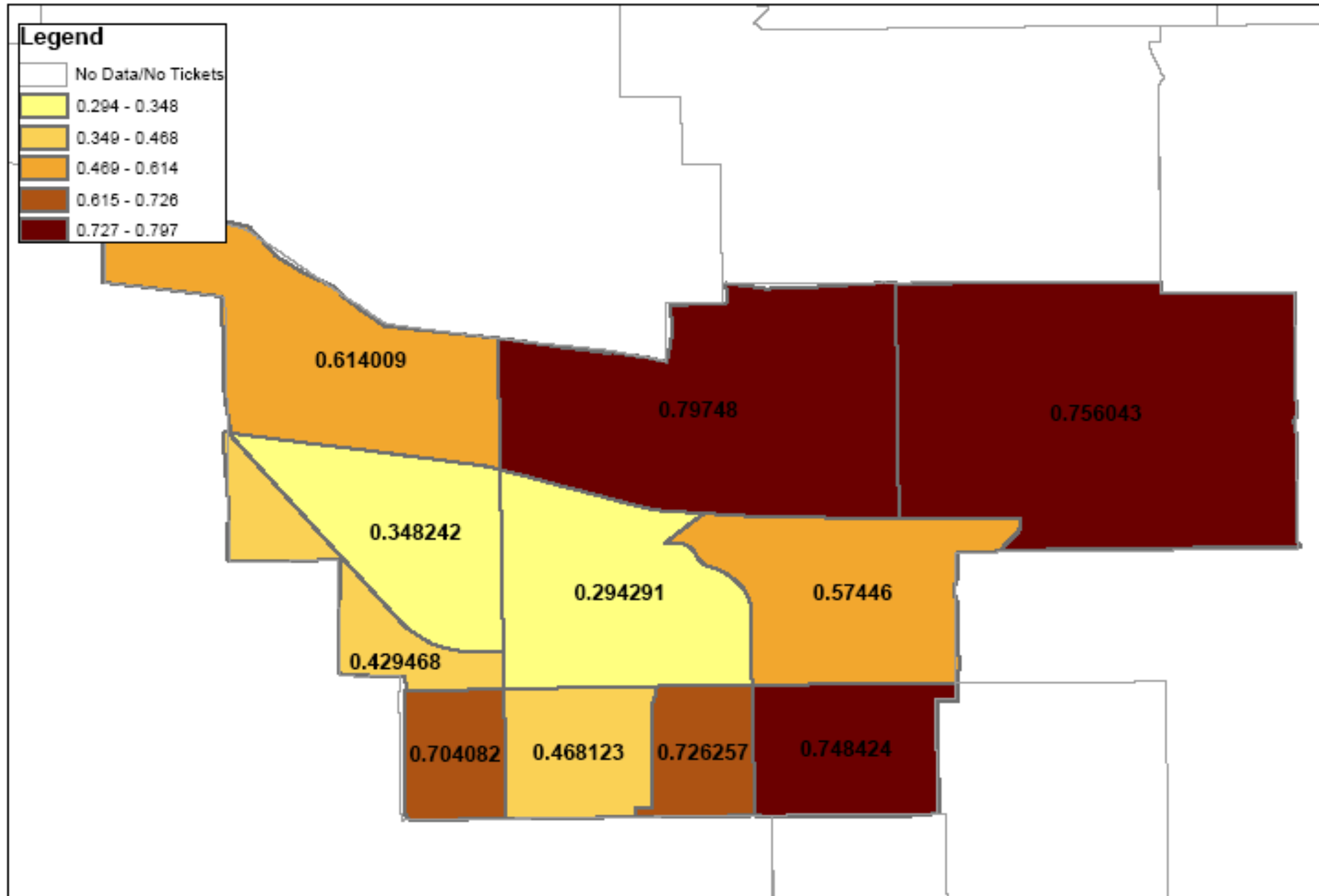
## Map 5 Black Index



Created 7/11/2012  
Traffic Ticket Data acquired from Shaker Heights Police Department  
Municipal Boundary data acquired from Cuyahoga County GIS  
All other data acquired from US Census Bureau



# Map 6 White Index



Created 7/11/2012  
Traffic Ticket Data acquired from Shaker Heights Police Department  
Municipal Boundary data acquired from Cuyahoga County GIS  
All other data acquired from US Census Bureau

# Findings

Racial disparities found in Cleveland & Shaker, i.e., cities with sizeable black/minority driving populations

None in Westlake & Brook Park where whites ticketed slightly above parity

Increase in ticketing of minorities in Cleveland from earlier study (Dunn 2004)

# Findings

Speeding most frequent violation in Cleveland & Shaker, 19.5% & 27% respectively

Whites majority speeders, 47% & 55%

Seatbelts & DUS 2<sup>nd</sup> & 3<sup>rd</sup> most prevalent offenses, both non-moving violations

Blacks 61% & 79% of recipients in Cleveland & 83% & 92% in Shaker

- Seatbelt:
  - Cleve. - 2.77 x likely as whites
  - Shaker - 9.87 x likely as whites
- DUS:
  - Cleve. - 7.63 x likely as whites
  - Shaker - 26.2 x likely as whites

# Discussion

Seatbelt a secondary offense in Ohio (ORC)

According to two police executives, seatbelt violations not readily observable until after a stop

DUS can be determined by “rolling check” before or after a stop

Rolling checks often don't result in stop (relevance of examining MDT data)

Thus, what was reason for stops or checks in the first place?

# Discussion

Given demographics of driving populations, it is statistically improbable that disparities are result of random probability

Ticketing patterns reflect sensitivity to race & place

e.g. ticketing blacks in predominately white census tracts & vice versa i.e. “spatial profiling”

High DUS hit rate among blacks indicative of electronic surveilling or use of expectancy theory

# Implications

Financial burden – fines, court cost, time off work, increased insurance cost, reinstatement fees etc.

Exacerbates jobs/ job skills (spatial) mismatch for many inner-city residents

Disproportionately predisposes blacks/minorities to CJS, reinforces racial stereotypes & racial segregation throughout County

Undermines 4<sup>th</sup> & 14<sup>th</sup> Amendment protections

Perpetuates adversarial police/community relations

Practices have adverse economic affects for NEO region

# Policy Recommendations

Passage of legislation to address racial profiling at the local, county, & state levels

Require uniform collection of demographic data on all traffic stops in state, not just those resulting in tickets; analyze regularly & make findings public

Developed Biased-free Policing legislation introduced to Cleveland City Council June 2016; under review by CPC as part of consent decree; Ohio Collaborative Community-Police Advisory Board established Bias-free Policing Standard requiring collection & reporting of demographic data on all stops

Thank You!

Q & A