

Racial Inequity in Traffic Stops and Arrests

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Outline of my talk

- Two short videos about traffic stops to give a feel for the data to come.
- Some background and updates on the topic of driving-while-black.
- Preliminary analyses of NC AOC database of all arrests from 2013 through 2019 (work in progress; about 7.5 million individuals with 13 million charges)
- Q&A with the audience

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Some links to give a feel for what we are talking about (please feel free to watch later)


- From Texas, searching a work truck because it is "too clean" and the owner "claims" to be a city councilman, which he was:
<http://specials.mystatesman.com/dps-profiling-complaints/>
- From Louisville, searching a young man for an "illegal right turn"
<https://www.courier-journal.com/story/news/investigations/2019/04/04/louisville-kentucky-police-stopped-trisked-handcuffed-black-teen-for-wide-turn/5210229002>

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Two recent studies, besides our 2018 book

Sarah Seo, 2019



POLICING THE OPEN ROAD
How Data Transformed American Policing

Epp et al., 2014



PULLED OVER
How Police Profile, Stop, and Search

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Seo, a law professor, has a long historical view

- The invention of the car, she writes, transformed policing.
- Suddenly, it was "law abiding" and "respectable", people breaking the law.
- Correspondence historically with the period of prohibition / liquor running / (and NASCAR).
- Great decline in public assumption of privacy.
 - Is the car like your house, or like the sidewalk?
 - Supreme Court: it's more like the sidewalk.
- 1960s, 1970s, police strategy of using technical violations of the law to conduct quick investigations of people
 - Supreme Court validates all these decisions: Citizens should be willing to endure an "occasional" "momentary inconvenience" for the sake of public safety...
 - (Note that Philando Castile was stopped 47 times before his fatal encounter.)

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Safety and investigations

- Epp and colleagues (2014) do a survey of motorists and find that drivers know when they were pulled over for a legitimate and straightforward traffic violation (generally, speeding), and when it was a "pretext". And, while they accept the traffic-safety stops, they resent the pretextual stops. These, of course, are targeted on people who fit a "criminal profile" or stereotype.
- We can't tell which stops are pretexts
- But we do have 10 stop purposes in the NC SBI 122 form, so we can have a look. That's what we do here. It's an imperfect methodology but it points to something potentially of interest, particularly to those interested in enhancing traffic and highway safety.

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A quick summary of a long book:

- Black drivers in NC 2x as likely to be pulled over
- Once pulled over, 2x as likely to be searched
- Typical contraband "hit" is very small
- Only about 10 percent of searches lead to arrest.
- Disparities are ubiquitous: all states and localities show similar patterns
- Targeting seems clearly based on stereotyping.
 - Each time we find a new database with another variable, we find more evidence of stereotypes: out of state plates, older cars, luxury & less expensive vehicles, cars w/ work vans, each variable predicts higher rate of search.
 - If we had a variable for "air freshener: hanging from the rear-view mirror", that would probably predict search as well.

FRANK R. BAUMGARTNER
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SUSPECT CITIZENS

WHAT 20 MILLION TRAFFIC STOPS TELL US ABOUT POLICING and RACE

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The Database, and why we collect it

- 1996 investigative reports by Raleigh N&O reporter Joe Neff
 - Drug unit of the State Highway Patrol searched blacks twice as often as whites
- Legislative black caucus in the General Assembly mobilizes
- Bi-partisan support for legislation
- N&O editorial, 1999: either put to rest these allegations, or police leaders will take immediate steps to correct the situation
- NC was the first state to mandate data collection
- Initial focus on the SHP, but expanded in 2001 to all police agencies

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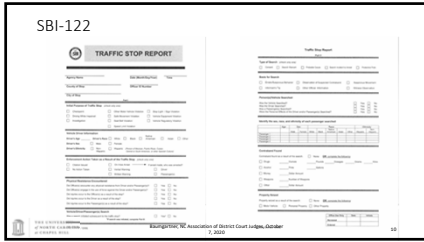
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The Database (con't)

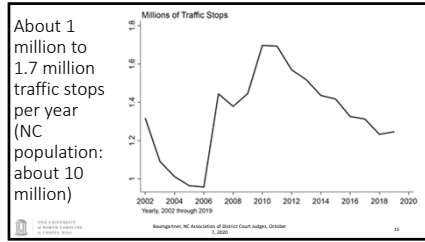
- All traffic stops since Jan 1, 2002
- Demographics about the driver
- Stop purpose (speeding, equipment violation, etc.)
- Stop outcome (no action, warning, citation, arrest, etc.)
- Whether a search was conducted
- Contraband
- Officer ID (anonymous number, not linked to any other public information)
- Time, agency of the stop, no precise location recorded

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Most common form of interaction with police

- Traffic stops are the single most common way US citizens interact with the police, and vice-versa.
- NC has between 1.0 and 1.7 million stops, and a population of 10M
 - Obviously, that's a lot of stops; about 10-17% of the population...

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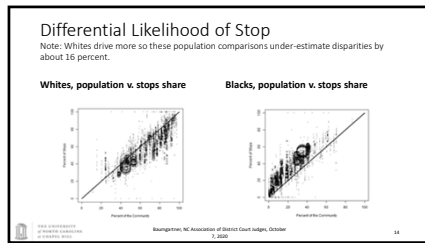
Who gets stopped? Blacks 63 percent more likely than whites. (.22 odds v. .13 odds)

Year	Population Share	Share of Stops
2010		
White	68%	60%
Black	22%	32%
Hispanic	9%	8%

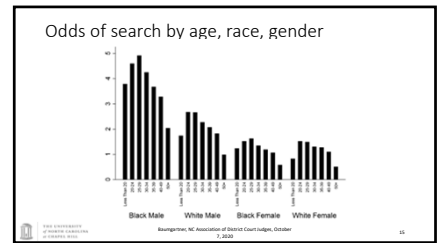
Year	Population Size	Number of Stops	Stops / Person
2010			
White	6.3M	843,060	.13
Black	2.0M	449,012	.22
Hispanic	0.8M	110,248	.14

Note: Whites drive more so these population comparisons under-estimate disparities by about 16 percent.

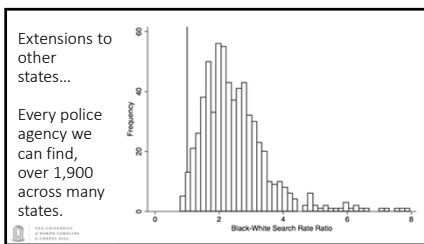
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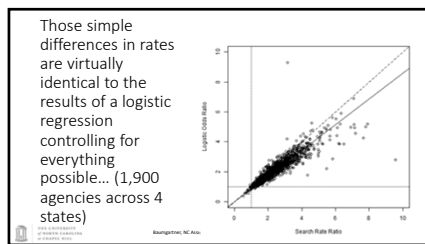
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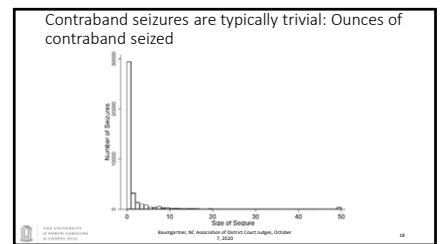
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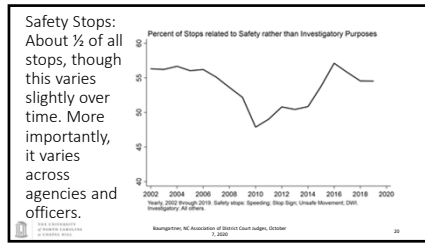


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Safety and Investigatory Stops

Purpose	# of Stops	% of Stops
Safety	10,903,991	52.41
Speed Limit	8,575,792	41.22
Stop Light/Sign	992,374	4.77
Driving Impaired	182,558	0.88
Safe Movement	1,153,267	5.54
Investigatory	9,628,598	46.27
Vehicle Equipment	1,833,213	8.81
Vehicle Regulatory	3,556,772	17.09
Seat Belt	1,812,175	8.71
Investigation	1,410,390	6.78
Other Vehicle	1,016,048	4.88
Other	273,526	1.31
Checkpoint	273,526	1.31
Total Stops (Drivers only)	20,806,115	100.00

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Search rates

Stop type	White	Black	Hispanic	B-W Ratio	H-W Ratio
Safety	1.07	1.59	2.51	1.49	2.35
Investigatory	1.31	3.54	2.30	2.70	1.76
All Stops	2.38	5.13	4.81	2.16	2.02

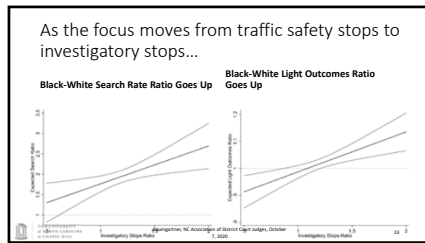
Overall, blacks searched 116 percent more than whites, Hispanics 102 percent more. Investigatory stops: equipment, registration, seat belt, etc., have much higher disparities.

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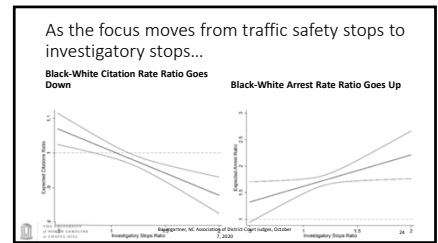
The Investigatory / Safety Stop Ratio

- Number of Investigatory Purpose Stops / Number of Safety Stops
- High values: the police are doing more stops for equipment violations, expired tags, etc.
- Low values: the police are focusing on keeping the roads safe from speeders, drunk drivers, those running stop signs, etc.
- Recall: Safety stops = speeding, stop signs, DUI, unsafe movement. Investigatory stops = all others.

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Why would this be?

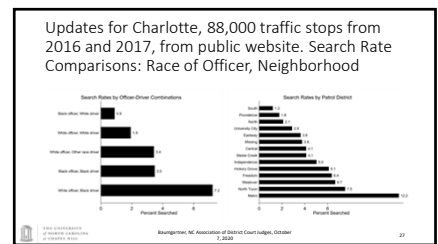
- A focus on safety enforcement means that people are more likely to get pulled over for a serious traffic violation. They get a ticket or are arrested, and the officer moves on. Low racial bias here.
- A focus on using the details of the traffic or the vehicle code to fight the war on drugs means that relatively more traffic stops are for things like cracked tail lights, etc., and these are used to investigate an individual for a possible involvement in a crime. This is often based on visual cues / stereotypes.
- Contraband hit rates: about 25 percent, but almost always trivial amounts of contraband. Very expensive strategy for such searches; requires huge numbers of searches to find a large cache of drugs or weapons; other investigative tools would be more efficient.

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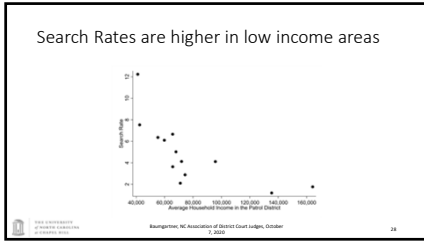
Police culture shifted in the 1970s

- Using the traffic and the vehicle codes became a "best practice".
- Rather than just profile people, find a technical violation of the law first, then you have the legal right to detain them temporarily. During that time, you can do a quick investigation...
- Legally: This is fully supported by the US Supreme Court
- Politically: It only applies to marginalized communities, not to white middle-class voters, so there is little backlash.
- But: It subjects people to differential policing. And it is not efficient.

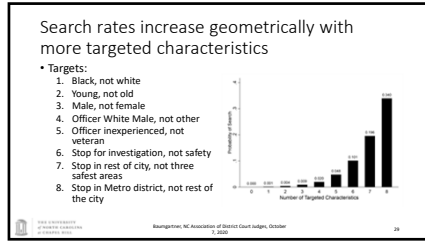
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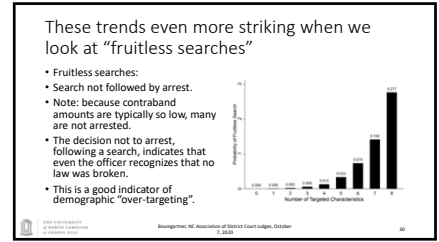
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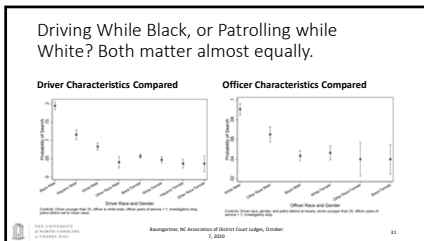
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Summary on traffic stops

- One's odds of search relate to:
 - Where one lives
 - One's demographic characteristics
 - Police policies
 - Which officer conducted the stop
 - (and other factors not measured, of course)
- Every visible cue has the impact one would expect based on stereotypes.
- If this is what is coming in the door of the court system, it would be hard to have a system that was not generating racial and identity-based disparities...

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NC-AOC database on arrests

- Work in progress with three graduate students: Christian Caron (UNC); Marty Davidson (Michigan); Kaneesha Johnson (Harvard). (Marty and Kaneesha were UNC undergraduates.)
- Book project: Who gets arrested, how do people come through the system (e.g., types of attorneys, types of pleas, relative punitiveness of the outcomes, given the initial charges); what parts of the system appear to be driving whatever inequalities we may observe?
- Key elements: assess identity factors, including age, race, gender, estimate of income based on home address and age, neighborhood effects. Assess both class and race/gender.

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A focus here on Orange and Chatham Counties

- Our book will be state-wide.
- We're working with DA Woodall and former PD Williams to analyze one judicial district and make sure our analyses pass the smell test.
- Since the work is in-progress, and the database is very complex, we're not yet ready to present the state-wide results. Please treat these results as preliminary as well.

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An overview, 2013 through 2019

- **Charges:** from 1.2M to 2.2M per year
- **Arrests** (multiple charges for the same event or episode): .9M to 1.3M per year.
- **Resolutions:** The same person might have 3 arrest incidents and multiple charges before there is a plea agreement or a trial. .8 to 1.1M per year.
- **Individuals:** The same person could have multiple cases. .8 to 1.1M per year.
- **Convictions:** 390,000 to 560,000 per year
- **Felony convictions:** 20,000 to 35,000 per year
- **Serious felony convictions** (with a potential of => 1 year in prison): 2,500 to 5,600 per year
- (State-wide numbers; following slides focus only on District 18)

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Share of charges v. share of population

Demographic Group	Share of charges	Share of 2010 population	Ratio
White male	30	41	0.73
Black male	25	6	4.17
White female	16	43	0.37
Black female	11	7	1.57
Others available but not shown here)			

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Types of Offenses, revised

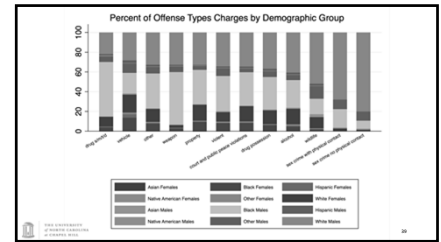
Offense Type	Frequency	Percent
Vehicle / traffic	178281	71.98
property	20484	8.27
court and public peace violations	12125	4.90
violent	10706	4.32
drug possession	8573	3.46
drug s/m/t/d	5014	2.02
alcohol	4752	1.92
other	3943	1.59
wildlife	1709	0.69
weapon	1349	0.54
sex crime with physical contact	654	0.26
sex crime no physical contact	75	0.03

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Who gets arrested for which crimes?

- Beyond just who has contact, can we assess which parts of the criminal code target which demographic groups?
- For each type of crime, we can construct the demographic profile of those most commonly arrested for it.
- Who gets arrested for dog-fighting, cruelty to animals, homicide, sexual crimes, passing bad checks, speeding, etc.?
- 12 demographic groups: (White, Black, Hispanic, Asian, Native, Other) x (Male, Female). Every class of crime is assessed in terms of what percent of those arrested come from each of these 12 groups.

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Most common charges for ... White females

Rank	Offense Description	Offense Category	Count	Percent of Offenses
1	CRUELTY TO ANIMALS(F)	Wildlife	19	61.29
2	LARCENY BY CHANGING PRICE TAG	Larcenies & Related	19	54.29
3	ATT OBTAIN CS FORGERY/FRAUD(F)	Fraud, False Pretense, & Cheats	14	46.67
4	SCHOOL ATTENDANCE LAW VIOL	Child Abuse	136	45.03
5	FAIL WEAR SEAT BELT-FRONT SEAT	Vehicle	13	41.94
6	MANUFACTURE METHAMPHETAMINE	Drug Offenses	21	39.62
7	SHOPLIFTING CONCEALMENT	Larcenies & Related	222	39.15
8	MISREP TO OBTAIN ESC BENEFIT-M	Fraud, False Pretense, & Cheats	23	38.98
9	POSSESS/PRODUCE METH	Drug Offenses	65	37.79
10	FAKELY FORGED ENDORSEMENT	Forgery & Counterfeiting	44	37.61

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Most common charges for ... Black females

Rank	Offense Description	Offense Category	Frequency	Percent of Offenses
1	INSURANCE FRAUD	Fraud, False Pretense, & Cheats	16	51.61
2	CONSP OBTAIN PROP FALSE PRET	Fraud, False Pretense, & Cheats	36	42.35
3	EXPLOIT DISABLE/ELDER TRUST	Assaults	17	34.69
4	UNLAWFUL OBTAINING CREDIT CARD	Extortion & Gangs	14	32.56
5	CHILD NOT IN SEAT SEAT	Vehicle	36	31.03
6	ASA DWLR NOT IMPAIRED REV	Vehicle	18	31.03
7	ACCESSORY AFTER THE FACT (F)	Other	9	30.00
8	DISORDERLY CONDUCT-SCHOOL	Public Peace	15	28.30
9	FAIL TO SECURE PASSEN UNDER 16	Vehicle	194	27.06
10	INTOXIC INFO TO OFFICER	Vehicle	29	26.61

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Most common charges for ... White males

Rank	Offense Description	Offense Category	Count	Percent of Offenses
1	SEX ACT WITH A STUDENT	Sex Crimes	36	97.30
2	THIRD DEG SEX EXPLOIT MINOR	Sex Crimes	167	96.53
3	USE UNPLUGGED SHOTGUN	Wildlife	35	92.86
4	DWI - MOTOR BOAT/VESSEL	Wildlife	54	90.00
5	SOLICITATION TO COMMIT STAT SEX OFFENSE CHILD	Sex Crimes	76	89.41
6	DEFACING PUBLIC BUILDING	Property Damage	30	88.24
7	FAIL REPORT/TAG BIG GAME	Wildlife	55	84.62
8	SEX ACT: SUB PARENT/CUSTODIAN	Sex Crimes	53	82.81
9	DRIVE ON GAMELANDS ILLEGALLY	Wildlife	59	80.82
10	MANUFACTURE MARIJUANA	Drug Offenses	46	79.31

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Most common charges for ... Black males

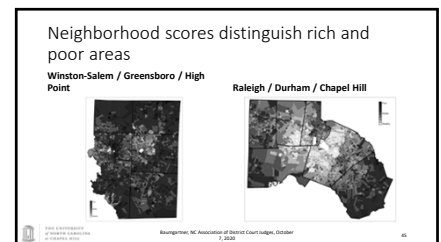
Rank	Offense Description	Offense Category	count	Percent of offenses
1	DELIVER COCAINE	Drug Offenses	27	92.37
2	DOG FIGHTING	Wildlife	77	96.25
3	SELL COCAINE	Drug Offenses	85	94.44
4	INVADE PRIVACY - FREE TEXT	Vehicle	30	90.91
5	SECOND DEGREE BURGLARY	Breaking & Entering / Burglary	45	90.00
6	CONSPIRE SELL/DELIVER COCAINE	Drug Offenses	36	83.72
7	WISD COCAINE	Drug Offenses	518	80.47
8	SELL/DELIVER COCAINE	Drug Offenses	334	80.29
9	WISD COCAINE	Drug Offenses	118	79.73
10	ROBBERY WITH DANGEROUS WEAPON	Robbery	203	76.89

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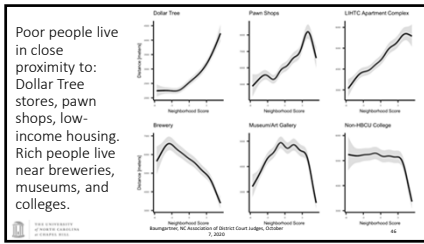
Neighborhoods matter...

- AOC database includes the home address of the offender
- UNC Odum Institute geo-coded all of these addresses
- Marty Davidson linked these addresses to databases of housing values and generated a set of "neighborhoods" defined as places with relatively similar housing prices, per square foot. Where the price changes, that's the boundary of the "neighborhood." It works quite well in distinguishing between people living in poor and wealthy areas.
- We can use this then in two ways: assess the odds of contact with the criminal justice system, based on your neighborhood; also estimate your income, based on your neighborhood and age.

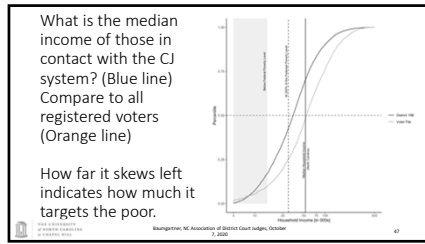
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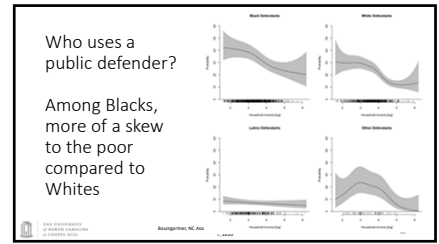
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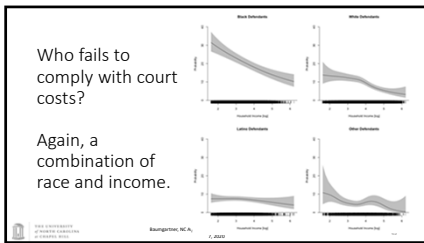
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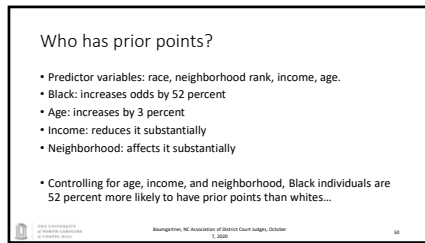
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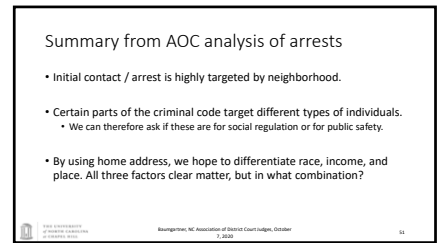
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Conclusions

- Obviously we want to reduce racial disparities if possible
 - Actually we have to ask if we really do.
 - Many people are very comfortable with a system that leaves them alone, and such people may assume that it's working just fine, only targeting criminals and bringing them to the justice they deserve. This may be the majority of NC voters. Other than traffic tickets, most of us have no contact...
 - These people might be surprised by my statistic above that of 1 to 2 million charges per year, only 2,000 to 5,000 lead to convictions leading to more than 12 months in prison. 5,000 is 0.25 percent of 2 million. So 99.75% of these charges could be called "minor."
- To reduce disparities, we have to understand what parts of the system are generating. That's what we're trying to do here.

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Thank you!

Please feel free to ask your questions and to contact me.

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