

An Introduction to Columbia Police Department Traffic Stop Data

Summary

The Columbia Police Department is required by law to submit basic traffic stop data to the Attorney General for the annual Vehicle Stops Report. When the data reveal that members of racial and ethnic groups are affected disproportionately by officer actions, the public has a right to know its law enforcement is free from discrimination or that the CPD is taking steps to fix problems.

Disproportions do not prove discriminatory policing because disproportions can be caused by many legitimate factors. CPD must do what it can to document that a disproportion is caused by legitimate factors.

CPD might, for instance, be able to make a convincing case that a disproportion is the result of faulty benchmarks, or of different rates of violations among groups, or that officers are more likely to observe violations committed by some groups for reasons that are clearly independent of discrimination.

A disproportion might be the result of actions taken by officers on patrol, but it might also be the result of upper-level officers directing patrol officers to follow specific tactics. Officers assigned to patrol areas with a high proportion of minority drivers will stop a high proportion of minority drivers. The officers are obeying orders, but the leaders must base their orders on legitimate factors.

The VSR supplies entry-level data. CPD has much more detailed incident-based data that can be analyzed with more sophisticated techniques. Survey data, such as from Columbia's 2018 survey of residents, can also add insights.

When possible, CPD needs to document convincing intelligence to justify actions taken by officers and agency leaders. But CPD might find that it cannot easily assemble all the documentation it needs. It might need to collect more data or make information easier to retrieve.

When a disproportion cannot be adequately explained, CPD has a responsibility to its stakeholders to explain what it is doing to make sure that law enforcement will be free of discrimination.

Discrimination and Bias-Free Policing

Looking at [590.650](#), the 2000 law that mandates the [Vehicle Stops Report](#), it's not clear what problem it is intended to address. The first words in it are "racial profiling." They're in a heading that seems to list topics, but they never occur again, no definition is given.

Racial profiling is problematic. To the public it means the police profile of a criminal seems to always include the words "black male"—when officers see a black male, they immediately think "criminal." According to Dr. Lorie Fridell, a national expert on implicit bias training and traffic stop analysis, officers, like most humans will be influenced by stereotypes perpetuated by culture:

Barring any direction to the contrary, officers told to engage in some high-discretion activity geared toward preventing or solving crimes will, says the science [of bias], default to the demographic groups they link through stereotypes to crime and violence. In most humans, this will be males of color between 18 and 25.¹

¹ Fridell, Lorie. (2017) *Producing Bias-Free Policing: A Science-Based Approach*. Switzerland: Springer International Publishing. Page 83.

Law enforcement often defines racial profiling as stopping someone solely on the basis of race. Most everyone agrees this would be discrimination. But law enforcement understands its definition as meaning race can be a factor as long as even a minor violation has been observed. An officer can see two drivers from different groups commit the same violation and decide to stop one or the other because of group membership. Dr. Fridell has campaigned to remove these “solely” policies.

Later, the law says agencies are to have policies that control race-based traffic stops:

5. Each law enforcement agency shall adopt a policy on race-based traffic stops that:

(1) Prohibits the practice of routinely stopping members of minority groups for violations of vehicle laws as a pretext for investigating other violations of criminal law.

But pretext stops are standard procedure for law enforcement; every investigation starts with unproven suspicions. It’s doubtful any law enforcement agency has enforced a policy that says this. And it’s still unclear what “race-based” means; when is it appropriate to consider race when making a decision?

Dr. Fridell asks then answers this question:

When, in the context of police decision-making, is it legitimate NOT TO treat members of all demographic groups the same? The answer is: when there is actionable intelligence that justifies differential treatment.²

Differential treatment is discrimination when it can’t be justified by convincing facts.

It would be better if the law addressed discriminatory policing. A reform of 590.650, HB484, says officers are not to base their actions on protected categories, such as race and ethnicity, and they must apply the same evidentiary standards to everyone.

CPD has a “bias-free policing policy” with these elements.³ It is based on a model policy provided by Dr. Fridell. 402.5 reads:

Biased policing is strictly prohibited. Agency personnel may not consider the specified characteristics except when credible, timely intelligence relevant to the locality links a person or people of a specified characteristic to a specific unlawful incident, or to specific unlawful incidents, criminal patterns or schemes. In those circumstances, personnel may rely on these specified characteristics only in combination with other appropriate factors.⁴

Fridell uses “actionable intelligence” to summarize the wording starting with “credible, timely intelligence.” It allows the agency to act when a specific individual has not been identified, but Dr. Fridell warns the more general the link the more likely discrimination will occur.

A crucial requirement in 402 is that:

Officers detaining any person shall be prepared to articulate sufficient reasonable suspicion to justify the detention independent of the individual's membership in a protected class.⁵

“Detaining” means “stopping.” “Reasonable suspicion” means that officers must be able to cite specific, articulable facts. Another section uses the terms, “credible, timely intelligence.” There’s some flexibility in the terminology, but the sense is officers’ actions must be fact-based, not based on racial stereotypes.

² Fridell. (2017) Page 35. Italics in the original.

³ It is [402](#).

⁴ See link to 402 and Fridell. (2017). Pages 36ff.

⁵ 402.6.1

“Reasonable suspicion” derives from the 1968 Supreme Court [Terry v. Ohio](#) decision that said officers could conduct a quick pat down to keep a weapon from being used if they could cite “specific and articulable facts.” When there is no evidence that an officer has intentionally discriminated against an individual, discrimination has to be determined by the facts cited by the officer.

“Actionable intelligence,” “credible intelligence,” “specific and articulable facts,” “sufficient reasonable suspicion” all come down to someone’s determination of whether facts cited by an officer are strong enough to preclude the influence of stereotypes.⁶

In court cases, judges have tended to accept loose standards. “Specific and articulable facts” in Terry v. Ohio immediately became “reasonable suspicion,” and to vulnerable drivers “reasonable suspicion” seemed to become any suspicion, even those based only on stereotypes.

CPD’s bias-free policing policy, as intended by Dr. Fridell, moves the criteria back to facts, but they still need to be worked out in practice.

The CPD disproportion in consent searches of black drivers dropped dramatically when officers were required to read drivers their rights and document the fact of consent. Black drivers were affected by consent searches at a rate 4.39 times the white rate in 2014 but in 2017 the rate was only 18% higher than the rate for white drivers.

Is that good enough, or should officers be required to cite the facts that made them suspicious? That question needs to be answered in part by the interaction between officers and supervisors and in part by the interaction between CPD and the public.

590.650 addresses only traffic stops, but the intention of the law and the implications of the VSR data go further. If groups are disproportionately affected by traffic stops, and if officers need more help avoiding racial discrimination in traffic stops, then the same issues will arise in other aspects of law enforcement, including use of lethal force. At stake is needless loss of valuable lives.

[The Vehicle Stops Report](#)

Agencies collect data on **58 categories of officer actions** for the VSR, plus demographic information on drivers—age, gender, residency and race or ethnicity. The 58 categories are broken down by race. Stops are also broken down by age and gender. For 2018 reports, stops will also be broken down by residency in the jurisdiction. This data is comprehensive enough to give an initial assessment of agency performance.

A few more categories would be helpful: When consent is requested but refused, when a drug dog is summoned but doesn’t alert, when an officer uses force, when an officer handcuffs a driver of passenger before making an arrest, whether it’s alcohol or drugs that are involved are involved in a search, whether an arrest is for an illegal weapon.

Stop disproportions for racial and ethnic groups are a weakness of the VSR. The disproportions are based on the group’s proportion of driver-age residents of the jurisdiction in census data, its **benchmark**, but these are misleading when drivers cross boundaries in large numbers and for other

⁶ Dr. Fridell uses “actionable intelligence” to cover situations in which agencies need more latitude to take actions that affect someone who has not been specifically identified.

reasons.⁷ The measurement, a **disparity index**, is also difficult to understand and can be misleading. The Executive Summary of the VSR even says it's better not to rely on them but to compare them by dividing minority disparity indexes by the white disparity index.

Columbia Stop Data

	Computation	Asian	Black	Hispanic	Native	Other	White	Total
Group Population%	VSR Benchmark	5.17%	9.96%	2.97%	0.27%	1.92%	79.71%	100.00%
Stops	number of incidents	360	4062	228	7	223	7,557	12,437
Group% of Stops	grp stops/total stops	2.9%	32.7%	1.8%	0.1%	1.8%	60.8%	100.0%
Disparity Indexes	grp% of stops/grp% of Pop	0.56	3.28	0.62	0.21	0.94	0.76	
Disproportions	grp di/white di	0.74	4.30	0.81	0.27	1.23	1.00	

A disparity index is a group's percentage of stops divided by its benchmark percentage of the population. The black disparity index says black drivers are stopped 3.28 times more frequently than expected based on their proportion of the population.

The black disparity index divided by the white disparity index is $3.28 / 0.76 = 4.30$; black drivers are stopped at a rate 4.30 times the white rate. This measure is called a ratio of disparity. I usually refer to it as the disproportion.

Notice that the table says each disproportion is the group disparity index divided by the white disparity index, but mathematically this works out to, for instance, black stops per driver divided by white stops per driver, where drivers are taken to be the number of driving-age residents for each group.⁸

For actions officers take after a stop has been made the information is more straightforward. Rates can be based on the group's number of stops, for instance, black consent searches per black stops. Then the rates can be compared.

2017 Post-Stop Disproportions		Columbia Police Dept.					
	Calculation	Asian	Black	Hispanic	American	Other	White
Total Stops	Count	360	4062	228	7	223	7557
Consent Searches	Count	6	137	7	0	4	215
Consent Search Rate	incidents / stop	0.017	0.034	0.031	0.000	0.018	0.028
Consent Search Disproportion	grp rate/white rate	0.59	1.19	1.08	0.00	0.63	1.00

The rate for black drivers is $137 / 4062 = 0.034$ —that is, 34 consent searches per 1000 stops. The disproportion for black drivers is $0.034 / 0.028 = 1.19$: black drivers are affected at a rate 1.19 times the white rate. Or, black drivers are 19% more likely to be affected than white drivers.

Analysis of an agency's VSR data is limited to disproportions because it contains only totals for the 58 categories by group, age, gender and residency. It is impossible to tell how the categories work together,

⁷ Access to vehicles, access to public transportation, locations of housing and jobs, miles driven and so on also affect group proportions of drivers.

⁸ Ask if you would like to see a mathematical explanation of why dividing disparity indexes produces a comparison of stop rates.

for instance, the number of citations for Asian males over the age of 18. Or the disproportions which result when officers make an equipment stop then ask for consent to a search. To see how the categories work together, the agency's internal incident-based data must be examined.

But just the disproportions are powerful. When agencies have a disproportion high enough to be a concern to stakeholders, then the agency owes them an explanation; the agency has an obligation as the institution entrusted with equal enforcement of the law to present convincing evidence that officers are not influenced by group characteristics, that they apply the same standards to everyone regardless of personal characteristics. We the People have established a list of protected groups: race, religion, national origin, age, and so on. Columbia's list is more extensive, but race is the main concern in the VSR because of our heritage of slavery and segregation.

If an agency can tell a disproportion is in whole or in part the result differential treatment of individuals because of race, it must say so and say what it is doing to fix the problem. Other laws require officers and agencies to provide equal protection. Intentional discrimination by officers must be identified and stopped.

Differential treatment can, however, be the result of many factors. Individuals in groups might violate laws at different rates. Socioeconomic factors might be involved in a disproportion. Circumstances might result in officers observing some violations and not others. Policies and enforcement tactics might distort disproportions.

If factors clearly independent of discrimination contribute to disproportions, the agency must present evidence so that stakeholders know that discrimination was not involved. If the agency cannot document convincing alternative factors, then it must look more closely at officer performance and at the tactics approved by command staff. A crucial point is whether agency personnel can cite convincing reasons for their actions, reasons so good that a reasonable skeptic would not think that the influence of racial stereotypes could be involved.

Benchmarks: Group Proportions of Drivers

Because the VSR uses population-based benchmarks for group proportions of drivers, one factor could always be faulty benchmarks. The benchmark for black drivers in Columbia is 9.96%. If the proportion of black drivers were really 20%, then Columbia's stop disproportion would be halved.

Researchers say an observational study is the most dependable way to document benchmarks. Researchers figure out which intersections and which times of day would produce an accurate sample of drivers, then teams count them.

Sometimes regional group proportions are likely to be a reasonable estimate. The Secretary of State's Missouri Census Data Center offers the Circular Area Profiling System, [CAPS](#), returns statistics from the American Community Survey for a specified radius around a point.⁹ It reports the highest proportion of black residents for a 5-mile radius around the Columbia city hall: 10.1%, close to the VSR's 9.96%. Larger radii, up to 40 miles, return smaller proportions of potential black commuters, so there is unlikely to be an influx of black drivers.

⁹ VSR benchmarks are drawn from census data for individuals 16 years of age and older. CAPS data covers all age groups. CAPS uses racial and ethnic groups in a slightly different way.

Radius from City Hall (mi)	Asian	Black	Hispanic	Nat Am	Pacific Is	Other	White
5	5.20%	10.10%	3.70%	0.10%	0.00%	4.80%	76.10%
10	4.70%	9.60%	3.50%	0.10%	0.10%	4.50%	77.50%
20	3.80%	8.10%	3.10%	0.10%	0.10%	4.20%	80.60%
30	2.50%	8.10%	3.00%	0.20%	0.10%	3.40%	82.70%
40	2.10%	7.50%	2.70%	0.20%	0.10%	3.30%	84.10%

The stop disproportion does not seem likely to be caused by faulty benchmarks. So CPD needs to look elsewhere.

Reasons for Stops

Officers check off their reasons for making stops.

2017 Stops by Population Estimate of Group Proportions			Columbia Police Dept.						
		Computation	Asian	Black	Hispanic	Native Am	Other	White	Total
	Group Population%	VSR Benchmark	5.17%	9.96%	2.97%	0.27%	1.92%	79.71%	100.00%
Reason for Stop	Moving Violation	number of incidents	225	1602	104	3	87	3,686	5,707
	Group% of Stops	grp incid/total incid	3.9%	28.1%	1.8%	0.1%	1.5%	64.6%	100.0%
	Disparity Indexes	grp% of incid/grp% of pop	0.76	2.82	0.61	0.20	0.80	0.81	
	Disproportions	grp di/white di	0.94	3.48	0.76	0.24	0.98	1.00	
	Equipment	number of incidents	81	1097	76	0	76	2,094	3,424
	Group% of Incidents	grp incid/total incid	2.4%	32.0%	2.2%	0.0%	2.2%	61.2%	100.0%
	Disparity Indexes	grp% of incid/grp% of pop	0.46	3.22	0.75	0.00	1.16	0.77	
	Disproportions	grp di/white di	0.60	4.19	0.97	0.00	1.51	1.00	
	License	number of incidents	94	1679	65	4	71	2,351	4,264
	Group% of Incidents	grp incid/total incid	2.2%	39.4%	1.5%	0.1%	1.7%	55.1%	100.0%
	Disparity Indexes	grp% of incid/grp% of pop	0.43	3.95	0.51	0.35	0.87	0.69	
	Disproportions	grp di/white di	0.62	5.71	0.74	0.50	1.26	1.00	
	Investigative	number of incidents	4	156	5	0	4	138	307
	Group% of Incidents	grp incid/total incid	1.3%	50.8%	1.6%	0.0%	1.3%	45.0%	100.0%
	Disparity Indexes	grp% of incid/grp% of pop	0.25	5.10	0.55	0.00	0.68	0.56	
	Disproportions	grp di/white di	0.45	9.04	0.97	0.00	1.20	1.00	

The disproportions in the reasons officers give for making stops are also high for black drivers. Are there alternative, legitimate reasons why black drivers are stopped for moving violations at a rate 3.48 times the white rate?

Black drivers could be committing more **moving violations** than white drivers, but research generally shows we all have similar driving habits, regardless of race. In *Pulled Over*, University of Kansas professors Charles Epp, Stephen Maynard-Moody and Donald Haider-Markel report on studies of moving violations by group:

A recent observational study of Cincinnati drivers found that African Americans were marginally more likely to speed than whites, but the differences were not large (although blacks were somewhat more likely than whites to speed at higher rates of speed). In all, these studies

suggest that if black drivers violate traffic laws more than whites—and this is by no means certain—the difference is not great.¹⁰

Officer discrimination is not likely to be involved in severe violations, violations that clearly pose a threat to public safety; officers just can't ignore them or invent them. CPD can look at its internal, incident-based data to see if a difference in group behavior can be documented, but, according to researchers, a disproportion of 3.48 is highly unlikely.

Economic Factors

Economic factors could contribute to the disproportions. Black residents of Missouri are twice as likely as white residents to have incomes below the federal poverty level.¹¹ So black drivers may put off renewing their **license plates** and may drive older cars with more **equipment defects**, but economic factors seem unlikely to result in a disproportion this high. The CPD VSR shows disproportions for black drivers in license plate and equipment defect stops above 4.00, using the VSR's benchmarks. If CPD thinks a high disproportion for black drivers in these categories is the result of economic factors it should document why black drivers are affected differently.

CPD might, for instance, be able to document that there is a closer correlation between equipment violations and the age of cars than between violations and race. Or CPD might be able to find a correlation between violations and economic status of the driver's census block or tract.

Assuming low-income drivers experience equipment stops at twice the rate for affluent drivers, there would be about a 15% disproportion for black drivers attributable to economic factors. If low-income drivers experience equipment stops at three times the rate for affluent drivers, the disproportion goes up to 25%.¹²

The Distribution of Reasons for Stops

Sometimes it's interesting to look at how situations are distributed for groups:

¹⁰ Epp, Charles R.; Maynard-Moody, Steven; Haider-Markel, Donald P. (2014-04-04). *Pulled Over: How Police Stops Define Race and Citizenship* (Chicago Series in Law and Society) University of Chicago Press. Kindle Edition location 1326; page 56.

¹¹ According to the U.S. Census Bureau's American FactFinder 13.6% of whites and 28.9% of blacks in Missouri were below the federal poverty level in 2015.

¹² Ask to see my back-of-an-envelope computation. Confirmation by an expert would be best.

2017 Stops		Columbia Police Dept.						
	Computation	Asian	Black	Hispanic	Native Am	Other	White	Total
Reasons for Stops	Total of Reasons	404	4534	250	7	238	8269	13702
Moving Violation	Count	225	1602	104	3	87	3,686	5,707
percentages	count / total	55.7%	35.3%	41.6%	42.9%	36.6%	44.6%	41.7%
comparisons of %	grp% / white%	1.25	0.79	0.93	0.96	0.82	1.00	
Equipment	Count	81	1097	76	0	76	2,094	3,424
percentages	count / total	20.0%	24.2%	30.4%	0.0%	31.9%	25.3%	25.0%
comparisons of %	grp% / white%	0.79	0.96	1.20	0.00	1.26	1.00	
License	Count	94	1679	65	4	71	2,351	4,264
percentages	count / total	23.3%	37.0%	26.0%	57.1%	29.8%	28.4%	31.1%
comparisons of %	grp% / white%	0.82	1.30	0.91	2.01	1.05	1.00	
Investigative	Count	4	156	5	0	4	138	307
percentages	count / total	1.0%	3.4%	2.0%	0.0%	1.7%	1.7%	2.2%
comparisons of %	grp% / white%	0.59	2.06	1.20	0.00	1.01	1.00	

Officers are told to check more than one reason for a stop if appropriate. They might observe both an equipment and a license plate violation, for instance.

35% of the reasons for black stops are moving violations while moving violations are the reason for 45% of white stops. The exact significant of this difference isn't clear, but it doesn't seem to indicate black drivers are more likely to be committing moving violations.

If economic factors made a huge difference in equipment and license plate stops, then one would expect the distributions to be further off. Perhaps the 1.30 disproportion suggests an upper limit for the effect economic factors could be having on license plate disproportions.

Investigative Stops

If faulty benchmarks do not account for the 4.30 disproportion for black stops, and moving, equipment and license plate violations could only account for a much lower disproportion, what is causing the stop disproportion? The only other category is stops for investigative reasons, but officers reported making only 156 of these for black drivers, not enough to skew the overall stop disproportion even though the disproportion for investigative stops is 9.04.

I hypothesize that investigative stops do account for the black stop disproportion but officers are not recording them, at least in part because the Code of State Regulations, which tells agencies how to apply the law, does not say anything about them.

Investigative stops could involve at least these situations:

1. 911 calls—calls for service. An officer might be dispatched to respond to the report of a suspicious call in a neighborhood. If not for the need to investigate the call, the officer would not have made the stop;
2. officers making a stop as part of an ongoing agency investigation, in which convincing evidence has already been gathered against of suspect;

3. “high-discretion, crime-control-focused activities,”¹³ Dr. Lorie Fridell’s term for situations in which agencies target patrols to combat high rates of accidents, violations and crime;
4. officers conducting their own spontaneous investigations of suspicious behavior;
5. pretext stops in which officers have some sort of investigative motive but wait until the driver makes a violation—even a minor one—so that they can cite probable cause for the action;
6. DWI checkpoints, but these are excluded from the VSR by the current law.

Some of these situations give officers a high degree of discretion, which makes them vulnerable to stereotypes; others require officers to perform well-defined actions. An officer must obey dispatch when told to respond to a call for service, but while away from an assigned patrol area the officer might make several pretext stops.

If CPD discovers from an investigation of its internal data that pretext stops are contributing to the black stop disproportion, then, following its bias-free policing policy, it is required to find out what reasonable suspicions—specific and articulable facts—officers were acting on. As supervisors counsel officers to apply the same high standards for facts to everyone, disproportions will decline. Or so I hypothesize.

Hotspot or saturation patrols are one form of crime-control-focused activity. CPD leaders might order officers to make as many no-tolerance stops as possible in a specific area where shots have been fired. The officer is following orders, not acting on stereotypes. Dr. Fridell observes,

Many complaints of bias reflect a concern about the actions of an individual officer. In contrast, a complaint of “operational bias” reflects concern about a department’s policies or practices. As examples, the complaint in Chicago from community members was that the locations of seatbelt checkpoints were selected to target low-income, African-American neighborhoods. The key objective here is for the leader of an agency to be ready and willing to take such complaints seriously, instead of dismissing them in a knee-jerk reaction. Knowing what we now know about how bias manifests in even well-intentioned individuals, and because we have humans in policy-making positions within the departments, a police leader must acknowledge the possibility that an agency’s practices could reflect or promote bias—even if wholly unintentional.¹⁴

If saturation patrols are contributing to CPD’s high stop disproportion against black drivers, then CPD has an obligation to explain them to the public. Are they an effective way to control violent crime? Or do they alienate residents of the area so that officers lose the help they need to build probable cause cases against violent offenders? Would it be more effective to commit more resources to real investigations? Or to address the root causes of violence?

In the past, CPD has not been able to easily track investigative stops but improvements in data collection and analysis in the past year provide more information. VSR data will still include only a total of all types of investigative stops, but CPD should be able to use its incident-based data to break them down into subcategories.

I expect that, going forward, CPD will increasingly document when an officer makes a stop in which there was an investigative reason and that CPD will be able to evaluate whether the officer can cite specific and articulable facts sufficient to dispel any role for racial stereotypes. CPD will issue a report on its annual VSR detailing the reasons for disproportions and explaining what is being done when alternative reasons cannot be documented.

¹³ Fridell. (2017). Page 83

¹⁴ Fridell. (2017) Page 81.

Until there is better internal data on types of investigative stops, analysis can't go much further with stop disproportions. GIS mapping of stops might reveal patterns but results so far have been inconclusive. Hotspots may be too small, too transient to show up. Officers may too often be out of assigned patrol areas.

Post-Stop Disproportions.

Post-stop disproportions are simpler to deal with. Empirical benchmarks are available to compute them. They involve a narrower range of circumstances, which makes them easier to investigate. The post-stop disproportions are often lower than the stop disproportions. When a disproportion occurs in one situation, it is easier for supervisors to track the facts cited by officers and give them feedback when their facts need to be upgraded.

Consent Searches

We already have a good example of how this process works. CPD had a high **consent search** disproportion for years. In 2014, black drivers were subjected to consent searches at a rate 4.39 times the rate for white drivers.

Columbia Consent Search Disproportions by Year				
Year	Race	Consent Searches	Rate	Disproportion
		count	grp incidents / grp stops	grp rate / white rate
2001	Black	166	0.055	1.82
2009	Black	220	0.046	3.49
2013	Black	232	0.055	4.16
2014	Black	200	0.050	4.39
2015	Black	208	0.062	2.01
2016	Black	216	0.059	1.45
2017	Black	137	0.034	1.19

CPD posted incident-based data for 2015 in the fall of 2016. The data allowed hit rates for consent searches to be computed, the rates at which contraband was found. Black drivers were twice as likely to be subjected to a consent search, but white drivers were twice as likely to be found with contraband. The hit rate for all drivers was not high enough to document that officers were basing their decisions to ask for consent on facts indicating criminal behavior—about 20%. The hit rate for black drivers was about 10%.

CPD's consent search policy was rewritten so that officers began explaining to drivers that they had a right to refuse and began recording consent. For the last three months of 2016 the disproportion dropped from 2.04 to 1.45. For 2017 the disproportion dropped to 1.19.

With the incident-based data, strings of events can be tracked. Below, all traffic stops that lead to consent searches. Then all traffic stops leading to consent searches leading to contraband found. And finally, an arrest added on. A search could also be made that starts with a type of stops, such as an equipment stop.

2017 CPD Internal Data: Consent Searches									
Reason for Stop	All Traffic Stops								
Search Type	Consent			Consent			Consent		
Hits:				Contraband Found			Contraband Found		
Outcome							Driver Arrested		
	Count	Searches / Stop Reason	Grp Rate/ White Rate	Count	Hits / Search Type	Grp Rate/ White Rate	Count	Arrest / Search Type	Grp Rate/ White Rate
Asian	6	0.017	0.59	3	0.500	1.81	3	0.500	2.42
Black	135	0.033	1.18	28	0.207	0.75	11	0.081	0.39
Hispanic	7	0.031	1.09	1	0.143	0.52	1	0.143	0.69
American Indian	0	0.000	0.00	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!
Other	4	0.018	0.64	0	0.000	0.00	0	0.000	0.00
White	213	0.028	1.00	59	0.277	1.00	44	0.207	1.00
Total	365	0.029		91	0.249		59	0.162	

CPD's internal incident-based data gives a disproportion of 1.18—probably because of some late updates.¹⁵ The contraband hit rates are up from 2015, probably because officers are being more selective, but the black hit rate is 75% of the white hit rate. Following consent searches, white drivers are arrested at a rate 2.56 times the rate for black drivers.¹⁶

With the CPD data that has been posted, it's possible to slice and dice in all sorts of ways. There aren't big differences, for instance, related to the reason for the stop. The disproportion for black drivers is largest for consent searches following moving violation stops. With more detailed internal data it would be possible to see if consent searches tend to follow stops for minor violations—they could be following pretext stops conducted as part of hotspot patrols.

More detailed internal data has officers' names, so supervisors can easily retrieve, for instance, a list of an officer's consent searches. Even if information about an investigation is not included, the supervisor can tell from the locations whether the officer was in a hotspot. Depending on how data bases are linked, the supervisor can see information about the driver—home address, make of vehicle and so on. The supervisor should be able to find a video of the stop and look at any, more detailed information about the stop.

The crucial aspect of the stop regarding discrimination is whether the officer has or can articulate sufficient reasonable suspicion to justify the detention, according to CPD policy.

High-Discretion Post-Stop Disproportions

Here is what the VSR data say about high-discretion post-stop actions:

¹⁵ The data is available on the Columbia [website](#). Ask me for the ap I used to generate these tables.

¹⁶ $1/0.39 = 2.56$

2017 High Discretion Post Stop		Columbia Police Dept.					
Subcategory	Calculation	Asian	Black	Hispanic	Native Am	Other	White
Total Stops	Count	360	4062	228	7	223	7557
Resisting Arrest	Count	0	13	1	0	0	11
Resisting Arrest Rate (group RA/Group Stops)	incidents / stop	0.000	0.003	0.004	0.000	0.000	0.001
Resisting Arrest Disproportion	grp rate/white rate	0.00	2.20	3.01	0.00	0.00	1.00
Consent Searches	Count	6	137	7	0	4	215
Consent Search Rate	incidents / stop	0.017	0.034	0.031	0.000	0.018	0.028
Consent Search Disproportion	grp rate/white rate	0.59	1.19	1.08	0.00	0.63	1.00
Drug Alcohol Odor Search	Count	5	248	3	0	3	102
D/A Odor Rate	incidents / stop	0.014	0.061	0.013	0.000	0.013	0.013
D/A Odor Disproportion	grp rate/white rate	1.03	4.52	0.97	0.00	1.00	1.00
Reasonable Suspicion-Weapon Searches	Count	0	53	1	0	1	31
Reasonable Suspicion Rate	incidents / stop	0.000	0.013	0.004	0.000	0.004	0.004
Reasonable Suspicion Disproportion	grp rate/white rate	0.00	3.18	1.07	0.00	1.09	1.00
Drug-Dog Alert Searches	Count	1	39	2	1	0	54
Drug-Dog Rate	incidents / stop	0.003	0.010	0.009	0.143	0.000	0.007
Drug-Dog Disproportion	grp rate/white rate	0.39	1.34	1.23	19.99	0.00	1.00

Resisting Arrest

Resisting Arrest charges may result from situations in which officers have no option but to use force, or they may result from situations in which officers failed to use de-escalation skills. Because only 25 incidents occurred, CPD can review each one and report to the public whether use of force was unavoidable or whether the officer received additional de-escalation training.

In looking at the CPD internal data, it seems odd that 9 of the resisting arrest incidents follow stops for a license plate violation, and there's a large disproportion against black drivers:

2017 CPD Internal Data: License Stop>Resisting Arrest			
Reason for Stop:	License		
Search Type			
Hits:			
Outcome			
Arrest Charge	Resist_Arrest		
	Count	Arrest Charge / Stop Reason	Grp Rate/ White Rate
Asian	0	0.0000	0.00
Black	6	0.0036	2.84
Hispanic	0	0.0000	0.00
American Indian	0	0.0000	0.00
Other	0	0.0000	0.00
White	3	0.0013	1.00
Total	9		

Why would a license stop lead to an officer needing to use force? Because there are only 9 incidents, the incident-based data can be presented as an example of the information available:

Incident_Number	2017031013	2017121904	2017133640	2017137055	2017146572	2017147785	2017194837	2017236399	2017240057
ADDRAPT	VANDIVER D	BODIE DR-CO	404 KEENE S	GRINDSTONE	PARIS RD-CO	OAK ST-CO/L	100 BUSINES	1103 MADISC	PARIS RD
Date_	2/19/2017	7/3/2017	7/19/2017	7/23/2017	8/5/2017	8/7/2017	10/14/2017	12/17/2017	12/22/2017
Time_	1:16 PM	1:15 AM	10:54 AM	7:24 PM	11:56 PM	10:29 PM	6:31 PM	2:14 AM	8:50 PM
Race	W	B	B	W	B	B	B	B	W
age_category	18-29	18-29	over 40	18-29	18-29	18-29	18-29	18-29	30-39
Sex	F	M	F	M	M	M	M	M	M
Moving_Violations					1				
Speed					1				
Lane_Violation					1				
Equipment	1								
License	1	1	1	1	1	1	1	1	1
Outcome									
Citation		1				1		1	
Warning				1			1		
Search Reason									
Inventory						1			
Drug_Alcohol_Odor		1					1		
Incident_to_Arrest								1	
Plain_View_Contraband				1				1	1
Reasonable_Suspicion		1							
Weapon									
Contraband Found									
Drugs_alcohol		1		1			1	1	1
Currency_		1							
Weapon		1					1		
Arrests									
Outstanding_Warrant	1	1	1	1	1	1	1	1	1
Drug_Violation	1	1		1			1	1	1
Resist_Arrest	1	1	1	1	1	1	1	1	1
Traffic_Violation		1	1		1	1		1	
Other_Violation	1	1	1	1			1		

Lines with no information are left out. Descriptive information about the incident are condensed. Each incident appears in a row when displayed as a spreadsheet; here they appear as columns to fit a page.

Besides the license plate violation, one incident (2/19/17) involved an equipment violation, and another (8/5/17) involved speeding and a lane violation.

All of the incidents involved an arrest for an outstanding warrant. Was this a coincidence? 14 of the 25 incidents of resisting arrest also involved a outstanding warrant arrest.

A total of 33 arrest charges were filed over these 9 incidents.

The officers conducted several searches before having to make an arrest for resisting. If the resistance had occurred early in the stop, they officer would have made an arrest and then conducted an “incident to arrest” search.

Weapons, drugs and currency were found.

So, the stops appear to have occurred for routine moving violations, but the officers encountered multiple other violations with an eventual loss of control. The data don’t reveal whether the officers involved were doing everything that can be expected of them, but the data indicate that a closer review is called for, with implications for policies, training and supervision.

Drug/Alcohol Odor Searches

Drug/Alcohol Odor searches could involve a range of situations. An officer could, for instance, see a dangerous lane violation, detect a slur in the speech of the driver and then combine those observations with the odor of alcohol to decide to make a search. At the other end of the spectrum, an officer could also make a search based solely on odor, with no evidence of intoxication. Interpreting an odor can be subjective, with no other evidence to validate the officer's decision to make a search. If there is any indication officers are misusing odor searches, then closer scrutiny by supervisors is warranted.

In Columbia, black drivers are affected by odor searches at a rate 4.52 times the white rate, based on group stops.

An agency might be able to demonstrate that odor searches were justified because officers found contraband or observed erratic driving, or made an arrest for intoxicated driving. The agency would have to look at internal data because hits are reported in the VSR for all types of searches, not by individual categories of search.

CPD has made some internal data available so it is possible to take analysis further. Officers conducted 248 odor searches of black drivers and found drugs or alcohol 143 times for a hit rate of 58%. Officers conducted 102 odor searches of white drivers and found drugs or alcohol 68 times for a hit rate of 67%. So officers are finding contraband based on odor. Contraband in this data includes alcohol, drugs and paraphernalia. Officers found white drivers with contraband at a rate 16% higher¹⁷ than the black rate.

2017 CPD Internal Data									
Search Type	Drug_Alcohol_Odor			Drug_Alcohol_Odor			Drug_Alcohol_Odor		
Hits:	Drugs_alcohol			Drugs_alcohol			Drugs_alcohol		
Outcome				Driver_Arrested			Driver_Arrested		
Arrest Charge							Drug_Violation		
	Incidents	Rate	Disproportion	Incidents	Rate	Disproportion	Incidents	Rate	Disproportion
	Count	Hits / Search Type	Non-white Rate/ White Rate	Count	Outcome / Search Type	Non-white Rate/ White Rate	Count	Arrest Charge / Search Type	Non-white Rate/ White Rate
Asian	5	1.000	1.50	3	0.600	1.46	3	0.600	1.65
Black	143	0.577	0.86	84	0.339	0.82	62	0.250	0.69
Hispanic	1	0.333	0.50	0	0.000	0.00	0	0.000	0.00
American Indian	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!
Other	3	1.000	1.50	2	0.667	1.62	2	0.667	1.84
White	68	0.667	1.00	42	0.412	1.00	37	0.363	1.00
Total	220			131			104		

There is no breakdown into either alcohol, drugs, or paraphernalia being smelled. There is no record for incidents of illegal alcohol being found, presumably an open container, although a status violation might be involved. Perhaps most of the incidents involve drugs, not alcohol; CPD would have to look deeper into internal records.

Officers made 62 arrests of black drivers for possession of drugs after an odor search, and 37 arrests of white drivers; white drivers have an arrest/search rate 45% higher¹⁸ than the rate for black drivers.

¹⁷ Using mathematical inverses: $1/0.86 = 1.16$.

¹⁸ $1/0.69 = 1.45$

So, again, officers are finding probable cause for arrests. CPD could report on the drug charges filed. Is marijuana the source of the odor? Officers would write citations for small quantities of marijuana rather than make arrests. Are officers making arrests for large quantities of marijuana or for other drugs?

Officers made 3 DWI arrests of black drivers after an odor search, and 8 arrests of white drivers, for an arrest/search disproportion of 0.15; white drivers were affected by DWI arrests at a rate 6.48 times the black rate, but the low number of incidents does not document a strong pattern. Over all, white drivers were arrested for DWIs at a rate 1.49 times the black rate.

2017 CPD Internal Data: Odor Searches>DWI												
Reason for Stop:												
Search Type	Drug_Alcohol_Odor			Drug_Alcohol_Odor			Drug_Alcohol_Odor			Drug_Alcohol_Odor		
Hits:				Drugs_alcohol			Drugs_alcohol			Drugs_alcohol		
Outcome							Driver_Arrested			Driver_Arrested		
Arrest Charge										DWI_BAC		
	Search Type	Rate	Disproportion	Search type > hit type	Hit Rate	Disproportion	Type of Search > Arrest	Hit Rate	Disproportion	Stop > Arrest Charge	Arrest Charge Rate	Disproportion
	Count	incidents / stop	Grp Rate / white rate	Count	Hits / Search Type	Grp Rate / White Rate	Count	Arrest / Search Type	Grp Rate / White Rate	Count	Arrest Charge / Search Type	Grp Rate / White Rate
Asian	5	0.014	1.03	5	1.000	1.50	3	0.600	1.46	0	0.000	0.00
Black	248	0.061	4.52	143	0.577	0.86	84	0.339	0.82	3	0.012	0.15
Hispanic	3	0.013	0.97	1	0.333	0.50	0	0.000	0.00	0	0.000	0.00
American Indian	0	0.000	0.00	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!
Other	3	0.013	1.00	3	1.000	1.50	2	0.667	1.62	0	0.000	0.00
White	102	0.013	1.00	68	0.667	1.00	42	0.412	1.00	8	0.078	1.00
Total	361			220			131			11		

The low number of DWI arrests, however, raises the question of how useful searches based on alcohol odor are if they do not lead to the arrest of impaired drivers.

Data do not capture instances in which officers could take action but choose not to. For instance, the officer stops a white driver on the way home from work and ignores the odor of alcohol. But the officer stops a black driver on the way home from work and searches the car because of the odor of alcohol.

If an agency gets enough complaints that odor searches are made when there was no sign of impairment, it can look into the complaints, but individuals who feel officers have treated them unfairly are not likely to complain. The Bureau of Justice's Police-Public Contact Survey documents that black drivers are more likely than white drivers to report that officer actions were not legitimate:

About eight in 10 drivers involved in traffic stops and six in 10 persons involved in street stops believed they were stopped for a legitimate reason. Regardless of the reason for the traffic stop, a smaller percentage of black drivers (67 percent) than Hispanic (74 percent) and white (84 percent) drivers believed the reason for the stop was legitimate.¹⁹

In the 2018 Columbia city survey of residents, black drivers were five times more likely than white drivers to report that they had been stopped for illegitimate reasons. The numbers are small. About 100 residents reported being stopped and about 10 of them were black. The disproportion may not be

¹⁹ From a Bureau of Justice [press release](#) on its 2011 Police-Public Contact Survey. See *Pulled Over*, location 201, note 10.

statistically significant, but it should be taken seriously because it backs up stop data and concerns raised in public discussion.

As for consent searches, officers have a high level of discretion in when to use odor searches so it's easy for racial stereotypes to be a distraction. Odor searches would be an easy tool for officers to use in hotspot patrols. Perhaps a policy is needed to require officers to cite some evidence in addition to the odor for these searches, such as a lane violation or slurred speech.

Reasonable Suspicion Searches

Officers are allowed to do a quick pat down of a person or check accessible areas of a vehicle if they think a weapon might be present. Courts apply a low standard for specific facts in this case for the sake of safety. A disproportion against black drivers of 3/18, however, justifies public concerns that officers might be acting on stereotypes.

In the 1968 Terry v. Ohio case, the Supreme Court ruled that an officer could search individuals he had observed for an extended period inspecting a business as if to rob it. Even though the officer did not have probable cause for a search, the search did not violate the Fourth Amendment protection from unreasonable searches; it is reasonable for an officer with "specific and articulable facts" to make sure a suspect is not dangerous.

When there is a disproportion against members of a group, the public has probable cause to ask for evidence that officers are acting on facts and not stereotypes. Because a reasonable suspicion-weapon search is just for a weapon and the importance of protecting public safety is clear, officers should get some leeway, but they still need to be held accountable for controlling implicit biases.

Using the internal CPD internal data, during the 53 reasonable suspicion searches of black drivers, officers found 12 weapons and made 9 arrests. During the 31 reasonable suspicion searches of white drivers, officers found 4 weapons and made 1 arrest.

2017 CPD Internal Data: Reasonable Suspicion-Weapon Searches									
Reason for Stop:	All_Traffic_Stops								
Search Type	Reasonable_SuspicionWeapon			Reasonable_SuspicionWeapon			Reasonable_SuspicionWeapon		
Hits:				Weapon			Weapon		
Outcome							Driver_Arrested		
Arrest Charge									
	Stop Reason > Search Type	Hit Rate	Disproportion	Search type > hit type	Hit Rate	Disproportion	Search Type > Arrest	Arrest Rate	Disproportion
	Count	Searches / Stop Reason	Grp Rate/ White Rate	Count	Hits / Search Type	Grp Rate/ White Rate	Count	Arrest / Search Type	Grp Rate/ White Rate
Asian	0	0.000	0.00	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!
Black	53	0.013	3.18	12	0.226	1.75	9	0.170	5.26
Hispanic	1	0.004	1.07	0	0.000	0.00	0	0.000	0.00
American Indian	0	0.000	0.00	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!
Other	1	0.004	1.09	0	0.000	0.00	0	0.000	0.00
White	31	0.004	1.00	4	0.129	1.00	1	0.032	1.00
Total	86			16			10		

Black drivers are searched at a rate 3.18 times the rate for white drivers, but officers find black drivers with illegal weapons at a rate 75% higher than the white rate. Hit rates are low for all drivers, which isn't surprising because officers do not have evidence of a weapon; they are just being careful.

Some weapons-found do not result in arrest. Perhaps the weapons were legal. Perhaps the arrest was for something other than a weapons violation. The VSR does not have a category for weapons arrests.

Keeping weapons out of reach during a stop is important for public safety, but because of the high arrest disproportion against black drivers—5.26--CPD should review the incidents to make sure officers acted on specific and articulable facts and not on racial stereotypes.

Drug-Dog Alert Searches

Officers may already have high standards for the facts that justify calling for a drug dog. Extra expense is involved. The drug-dog handlers are trained to make sure dogs are used in acceptable ways. Officers do not have to have probable cause of a violation to call for a dog, but a vague suspicion cannot be enough, especially when the suspicion results in a group disproportion.

Neither VSR data nor internal CPD data record when a dog is summoned but does not alert. There must be some record of every time a dog is summoned, but this information needs to be integrated into general record keeping.

2017 CPD Internal Data: Drug-Dog Alerts												
Reason for Stop:	All_Traffic_Stops			All_Traffic_Stops			All_Traffic_Stops			All_Traffic_Stops		
Search Type	Drug_Dog_Alert			Drug_Dog_Alert			Drug_Dog_Alert			Drug_Dog_Alert		
Hits:				Drugs_alcohol			Drugs_alcohol			Drugs_alcohol		
Outcome							Driver_Arrested			Driver_Arrested		
Arrest Charge										Drug_Violation		
	Count	Searches / Stop Reason	Grp Rate Rate/ White Rate	Count	Hits/ Search Type	Grp Rate Rate/ White Rate	Count	Outcome / Stop Reason	Grp Rate Rate/ White Rate	Count	Arrest Charge / Stop Reason	Grp Rate Rate/ White Rate
Asian	1	0.003	0.39	1	1.000	1.46	1	0.003	0.75	1	0.003	0.87
Black	39	0.010	1.34	19	0.487	0.71	10	0.002	0.66	4	0.001	0.31
Hispanic	2	0.009	1.23	0	0.000	0.00	0	0.000	0.00	0	0.000	0.00
American Indian	1	0.143	19.99	1	1.000	1.46	1	0.143	38.56	1	0.143	44.98
Other	0	0.000	0.00	0	#DIV/0!	#DIV/0!	0	0.000	0.00	0	0.000	0.00
White	54	0.007	1.00	37	0.685	1.00	28	0.004	1.00	24	0.003	1.00
Total	97			58			40			30		

By the internal data, black drivers are 34% more likely than white drivers to experience a drug-dog search, but white drivers are 41% more likely to have contraband found, 51% more likely to be arrested and 3.22 times more likely to be charged with a drug violation.²⁰

The VSR data does not include when the dog does not alert or contraband is not found but this information can be found in CPD's incident-based data:

²⁰ These are inverses of the disproportions. $1/0.71 = 1.41$

DDA Search: Dog did not alert or contraband not found									
	DDA Searches			Hits for DDA Search			No Hits		
	Count	Searches / Stop	Grp Rate/ White Rate	Count	Hits/ Search	Grp Rate/ White Rate	Count	No Hits / Search	Grp Rate / White Rate
Asian	1	0.003	0.39	1	1.000	1.46	0	0.000	0.00
Black	39	0.010	1.34	19	0.487	0.71	20	0.513	1.63
Hispanic	2	0.009	1.23	0	0.000	0.00	2	1.000	3.18
American Indian	1	0.143	19.99	1	1.000	1.46	0	0.000	0.00
Other	0	0.000	0.00	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!
White	54	0.007	1.00	37	0.685	1.00	17	0.315	1.00
Total	97			58	0.598		39	0.402	

The searches fail 40% of the time—32% for white drivers, 51% for black drivers. Black drivers are 63% more likely have a drug-dog search fail than white drivers.

Supervisors should monitor the reasons officers cite for summoning a dog. Are they convincing? Are the officers distracted by racial stereotypes?

Are policy changes needed? Perhaps officers are calling for dogs when they suspect marijuana usage and finding only small amounts.

Conclusions

Any disproportion against any group needs to be investigated to make sure that officers are applying the same high standards for the facts they base their actions on to everyone, regardless of protected category.

The data collected for the VSR provide good opportunities to begin this process. Sometimes an agency will have to troubleshoot its benchmarks. An agency needs to compute its own disproportions, but the math is simple. Sometimes an agency will find it needs to collect more data to answer questions raised by the disproportions or raised by stakeholders.

Traffic stop data gives clues about the skills officers have. If they are good at focusing on facts and not on racial stereotypes when they make traffic stops, they will probable do the same when they are called to help with domestic disputes or investigate crimes. If they can de-escalate traffic stops, their ability to use force appropriately in other circumstance may be good too.

Traffic stop data does not document when an officer chose not to do something, but survey data, including data from the Columbia survey, is very good at doing this. If one group reports that officers make stops for minor violations that could have been ignored and another group reports that officers make stops only for violations that pose a clear threat to public safety, then the agency needs to look back at those stops for minor violations. Do they make the city safer or do they alienate residents whose help officers depend on?

The Columbia survey data is minimal: less than 100 respondents had been stopped. But the proportion of black respondents saying their stops were illegitimate is so high that the results should not be ignored, especially since they confirm the stop data. If the questions are repeated in the next annual

survey, enough data will be available to deliver statistically significant results. An additional survey could be conducted now, based on a random sample of drivers stopped by officers.

VSR data is a simplified form of the CPD internal, incident-based data. The data posted by CPD on the city website is also simplified. Supervisors and researchers have access to much more information: information on officers and drivers, locations, date and time of day, charges filed and so on. Locations of stops can be mapped. It might be possible to use census blocks to detect patterns in the socioeconomic status of drivers.

Much more can be done with the data than check for disproportions—especially CPD’s internal, incident-based data. Dr. Jeff Milyo used a multivariate statistical technique to demonstrate that there is no statistical difference in the way CPD officers treat drivers just before and just after light conditions make it possible to see drivers before a stop.

Dr. Fridell explains these techniques in *By the Numbers*.²¹ She gives the example of a study that: examined the effect of driver characteristics (that is, race, gender, age) and stop characteristics (for instance, reason for the stop) on five stop outcomes: whether or not a search was conducted, whether or not a consent search was conducted, whether a discretionary versus nondiscretionary search was conducted, whether a search produced contraband, and whether the officer invoked a formal sanction versus providing only a warning.²²

Such studies can reveal broader patterns and suggest more nuanced responses by law enforcement.

Frank Baumgartner is the lead author of *Suspect Citizens*,²³ a study based on the North Carolina equivalent of the VSR. The authors look at the data for all larger agencies, not just one agency. They start by comparing rates for stops and post-stop situations, and make some observations, then they move to a multivariate analysis, which allows them to consider all the variables included in the data at once: race, age, gender, time of day, whether the stop was for a public safety issue or was investigatory, whether contraband was found. The rates were good indicators, they found, but the multivariate analysis allowed more detailed conclusions.

...These multivariate results corroborate and extend the findings from our earlier presentations of simple ratios and percentages. Minorities are much more likely to be searched and arrested than similarly situated whites, controlling for every variable that the state of North Carolina mandates to be collected when traffic stops are carried out.²⁴

Whatever method of analysis flags situations that need more attention, from the point of view of an agency guiding officers with policies, training and supervision, the bottom line comes down to whether officers are basing their decisions to act on the same trustworthy evidentiary standards for all individuals. The data analysis tells the agency where to look: at the reasons cited by officers. Can they “articulate sufficient reasonable suspicion to justify the detention independent of the individual's membership in a protected class”?

²¹ *By the Numbers*. Page 339.

²² *By the Numbers*. Page 342.

²³ Baumgartner, F., Epp, D., & Shoub, K. (2018). *Suspect Citizens: What 20 Million Traffic Stops Tell Us About Policing and Race*. Cambridge: Cambridge University Press. doi:10.1017/9781108553599

²⁴ *Suspect Citizens*. Page 93.

At some point the question passes from quantitative considerations—disproportions and confidence intervals—to qualitative considerations, Dr. Fridell says.²⁵ Researchers offer up their best assessments of situations in which individuals might be subjected to discrimination, then stakeholders—law enforcement and members of the public—try to reach a consensus about what the right evidentiary standards might be and how to write them into policies, cover them in training and apply them through supervision.

Dr. Fridell goes so far as to say communities can skip the quantitative part—the data collection and analysis. If everyone agrees that officers need help ignoring racial stereotypes because we’re all vulnerable to implicit biases, then the corrective steps are the same whether specific problems are flagged or not:

Data collection imperfectly measures biased policing; all the other components of the Comprehensive Program described here actually do something about it. It is legitimate therefore, in an era of finite resources, to decide that resources might more effectively be dedicated to, for instance, training, instead of measurement.²⁶

There is still, of course, an advantage in knowing, for instance, that resisting arrest situations are not a problem, but odor searches are.

In Missouri, deciding to collect data isn’t an issue. All agencies are required to collect a basic level of data adequate to flag problematic situations. Most larger agencies have records systems to help them keep track of what crimes are occurring and where, so it’s not much of a leap to use the data to see whether groups are disproportionately affected.

Dr. Fridell’s Comprehensive Program is discussed in Chapter 3 of *Producing Bias-Free Policing*.²⁷ CPD has multiple copies of the book.

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²⁵ *By the Numbers*. Pages 368-372.

²⁶ Fridell. (2017). Page 71.

²⁷ A few brief pages are enough to get started on. Pages 34-36 on bias-free policing policies; pages 81-83 on operational bias; and pages 83-85 on high-discretion, crime-detection-focused activities.