Using Data to Address Biased Policing

By Ken Barone

Editor’s Note—The concept of “defunding police” has recently gained popularity among those seeking reform in law enforcement. In fact, a handful of jurisdictions in the United States have embraced this idea and turned over traffic enforcement, along with the funding for it, to non-police agencies.¹ Most jurisdictions, however, recognize the inherent danger faced by those enforcing traffic laws and continue the practice of traffic enforcement by law enforcement officers. How then, are those agencies balancing the public appetite for positive changes in law enforcement, while maintaining safety for the motoring public? This is the second Between the Lines article in a two-part series examining this issue. Last month’s article examined how local leadership can embrace the public’s expectations for equity and implement policies and procedures to create an environment of equitable traffic law enforcement while also keeping the motoring public safe. This month’s edition examines Connecticut’s data-driven approach to address biased policing.

¹ See, for example, this news story about Berkeley, California, proposing to remove police from traffic stops, accessed April 4, 2022).
Disparities in the criminal justice system, particularly police enforcement, have been a major source of political protest and social unrest in the United States. Motor vehicle enforcement is a common focus of these conversations since it is the public’s most frequent interaction with law enforcement. Connecticut has spent more than a decade trying to understand these routine interactions and move beyond anecdotal conversations and develop robust data collection and analysis programs.

Connecticut first enacted an anti-racial profiling law in 1999. A well-publicized 2011 case of police profiling in East Haven, CT renewed public and legislative attention to the efficacy of the state’s existing racial profiling law. Legislators responded by strengthening the state law, which had largely been ignored a few years after its initial passage in 1999. The reforms established a 20-member advisory board to help with the development, implementation, and oversight of the new law. Advisory board members consist of advocates, law enforcement administrators, academics, policymakers, and community members. The board has continually worked to create an efficient data collection system, centralized traffic stop repository, and a rigorous analytical process.

The new law allowed for the creation of a robust, data-driven system for evaluating and addressing concerns about racial profiling. To date, we have collected over 104 million data points from 4 million traffic stops. Unique to Connecticut’s approach is the application of multiple statistical tests for ascertaining the presence of racial and ethnic disparities. The idea behind using more than one test to identify discrimination was an insight made by members of the advisory board after observing that most other states typically chose a single method for evaluating disparities. The board observed that this choice often divided stakeholders when one group did not agree with the results or assumptions of a particular test, therefore sowing doubt as to whether racial disparities exist or not. Such an approach to analyzing traffic stop records only served to further fracture the distrust between law enforcement and communities of color.

The use of multiple tests in Connecticut is designed to serve as a screening tool by which stakeholders could then focus attention on those departments displaying the greatest level of disparity. Rather than treating the analysis as evidence of wrongdoing, we utilize the analysis as an early intervention system. Departmental interventions are designed to be a collaboration between researchers, the police agency, and community stakeholders, which involves a deeper dive into the department’s data in an effort to identify specific policies and enforcement activities driving the disparities. This phase of the process includes a quantitative and qualitative analysis at the department and individual officer levels.

In the final phase of the analytical process, stakeholders and community members are invited into the process and encouraged to engage in a dialogue with policing administrators and local elected officials. In cases when there has been a particular stakeholder or community group with concerns about an identified department, they have been invited to participate in the process at an earlier stage. Following the conclusion of the in-depth analysis, researchers and the advisory board host a community forum in the identified communities. The forums include a presentation of the research team’s findings, a discussion with policing administrators, and a period for public comment/question. By the time the research team hosts these community forums, they have already identified the factors believed to be contributing to the disparity. These factors typically fall into two categories: 1) specific enforcement patterns or 2) (infrequently) individualized actions by subsets of officers. During the forum, the research team outlines an independent set of recommendations for reforms and allows the public and stakeholders to provide input as to their efficacy. Ultimately, the decision to enact the recommended reforms is left to the community and police administrators. However, the value-added of this approach is that it allows for transparent data-driven dialogue between stakeholders and policing administrators about how specific enforcement policies contribute to observed patterns of disparity.

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Although the primary motivation behind our work has been to identify and address racial and ethnic disparities in traffic enforcement, an added benefit to the program has been the accumulation of a rich dataset that helps to inform researchers, practitioners, and transportation and law enforcement administrators about the enforcement techniques that are most effective in improving roadway safety. Our research has been able to substantially contribute to the ongoing conversation about traffic safety in Connecticut. For example, we have found that racial and ethnic disparities in traffic enforcement have largely been driven by police enforcement of lower-level equipment and administrative violations. Our studies have consistently found that racial and ethnic disparities are significantly decreased when law enforcement primarily focuses on safety-related violations. We also know that safety-related motor vehicle violations are significantly more likely to be a contributing factor in motor vehicle crashes. On the other hand, racial and ethnic disparities are greatest when law enforcement focuses more on equipment and administrative offenses. Although legitimate reasons may exist for the enforcement of these violations, we cannot ignore that on balance they disproportionately impact Black and Hispanic drivers. Additionally, when police spend their time pulling over drivers for relatively minor traffic violations, they are committing resources that cannot be used for other activities that may have a greater impact on roadway safety.

Connecticut has numerous examples of successful departmental interventions that reduce racial disparities and improve roadway safety. One such example comes from a suburban community located outside of Connecticut's capital city of Hartford. During the intervention, researchers identified that defective lighting violations were a primary driver of the department's disparity. In fact, nearly 40% of the traffic stops in this department were for defective lighting violations. In discussions with the department, police administrators attributed the lighting violations to a roving DUI patrol largely enacted based on concerns about college students from a local university. Researchers presented these administrators with data suggesting only one of the 1,608 traffic stops made for defective lighting violations that year had actually resulted in the driver being charged with a DUI. In fact, drivers had been significantly more likely to be charged with a DUI offense when stopped for speeding violations. As a result of the intervention, the department altered its DUI strategy and reduced the use of defective lighting violations as a reason to stop cars, specifically to look for impaired drivers. The department went from 1,608 defective lighting stops during the study period to 671 in the year following the intervention. This new approach resulted in both more effective enforcement and mitigated the disparity in subsequent years. Since the disparity was largely driven by a disproportionate number of minorities stopped for defective lighting, the observed disparity was significantly reduced, and they were not identified in subsequent reports following the intervention.

Another success story comes from a small urban police department that had been attempting to address a statewide increase in unregistered motor vehicles. The department began deploying license plate reader technology to identify and target drivers of such vehicles. During the follow-up intervention, researchers identified this specific enforcement activity as being the largest contributor to the department's observed disparity. The underlying belief from police administrators was that poverty was the true culprit of this disparity due to increases in the state's registration fees. Thus, most of this enforcement activity was concentrated in the lowest-income neighborhoods where residents were largely Hispanic. Researchers used the department's geographically mapped traffic stop data to demonstrate that this enforcement activity was the driver of their disparity and that registration violations were actually being found at similar rates in many other areas of their community. As a result of the intervention, the department employed a more broad-based and equitable deployment of their license plate readers that helped to mitigate the disparity in the proceeding years. This department's high search rate and observed disparities in stop outcomes were significantly reduced and this department was not identified in any subsequent reports following the intervention.

These examples highlight the benefits of Connecticut's hands-on approach to identifying the underlying drivers of disparities and finding strategies to help mitigate them. Engaging stakeholders throughout the intervention process has allowed racial and ethnic minority advocates, law enforcement, academics, and government administrators to work together to improve traffic enforcement practices and ensure equitable treatment of all drivers.
officials to come together in ways unimaginable even a decade ago. What previously had been a war of anecdotes has been transformed into a constructive data-driven conversation about policy. Stakeholders and policing administrators now regularly attend panel conversations around the state and speak in similar tones about the statewide effort. The vitriol is gone from most conversations and has been replaced by a focus on what more can be done. Connecticut is proud to be working towards a fair and equitable traffic enforcement system that will also reduce traffic fatalities and injuries.

About the Author

Ken Barone is the Associate Director at the Institute for Municipal and Regional Policy. Since 2012, he has managed the Connecticut Racial Profiling Prohibition Project (CTRP3) on behalf of the Institute for Municipal and Regional Policy at the University of Connecticut. This project works to implement the state of Connecticut’s Alvin W. Penn Racial Profiling law. The Alvin W. Penn law requires law enforcement agencies to collect information on traffic stops and report that information to the state. Mr. Barone is responsible for coordinating data collection and submission from 107 law enforcement agencies. He has co-authored seven statewide reports analyzing municipal and state police data for evidence of discrimination. He has also conducted investigations of significant racial and ethnic disparities identified in more than 30 municipal police departments throughout Connecticut.

In addition to his work overseeing the state’s racial profiling program, Mr. Barone has also been at the forefront of criminal justice policy reform in Connecticut for a decade. He served as a member of the Connecticut Bar Association’s Policing Task Force and co-chaired its Data Subcommittee. He provided staffing and research support to the Connecticut Police Transparency and Accountability Task Force. Mr. Barone also serves as a member of the Connecticut Police Officer Standards and Training Council Social Justice Committee.

Mr. Barone’s work extends beyond the state of Connecticut. He also managed the Rhode Island Comprehensive Community-Police Relationship Act study project. He has co-authored four statewide reports analyzing municipal and state police data for evidence of discrimination in Rhode Island. He has conducted investigations of significant racial and ethnic disparities identified in 12 municipal police departments in Rhode Island. Mr. Barone has consulted with numerous states, including California and Oregon, on the implementation of their statewide traffic stop data collection programs. This includes helping states design electronic data collection systems, developing analytical tools for identifying racial disparities in traffic stop data, and implementing training programs to address implicit bias in policing.

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