

Summary of Fayetteville Stops and Searches Before and After Written Consent Ruling Effective 2 March 2012

June 16, 2015

Frank R. Baumgartner, Derek Epp, and Kelsey Shoub
University of North Carolina
Department of Political Science
<http://www.unc.edu/~fbaum/traffic.htm>

In March 2012, Fayetteville, NC became the first city in the state to adopt a written form for consent searches. Discussion of the change was publicly announced the previous September. What follows is a brief analysis of how announcement and adoption of this policy altered the number of stops and searches conducted by the city. This analysis runs includes traffic stops data from March 2010 to March 2014, which provides a two-year window before and after the policy was introduced for analysis. During this time period there were 165,216 stops and 7,607 searches (4.60% search rate); both numbers exclude passengers and checkpoint stops. The average number of consent searches went from just over 60 before the reform to six per month afterwards: more than a 90 percent decline. These significant changes occurred with no significant corresponding increase in the numbers of probable cause searches, though there was a slight increase in incident-to-arrest searches. The number of traffic stops conducted by Fayetteville officers also declined. There was no increase in the crime rate.

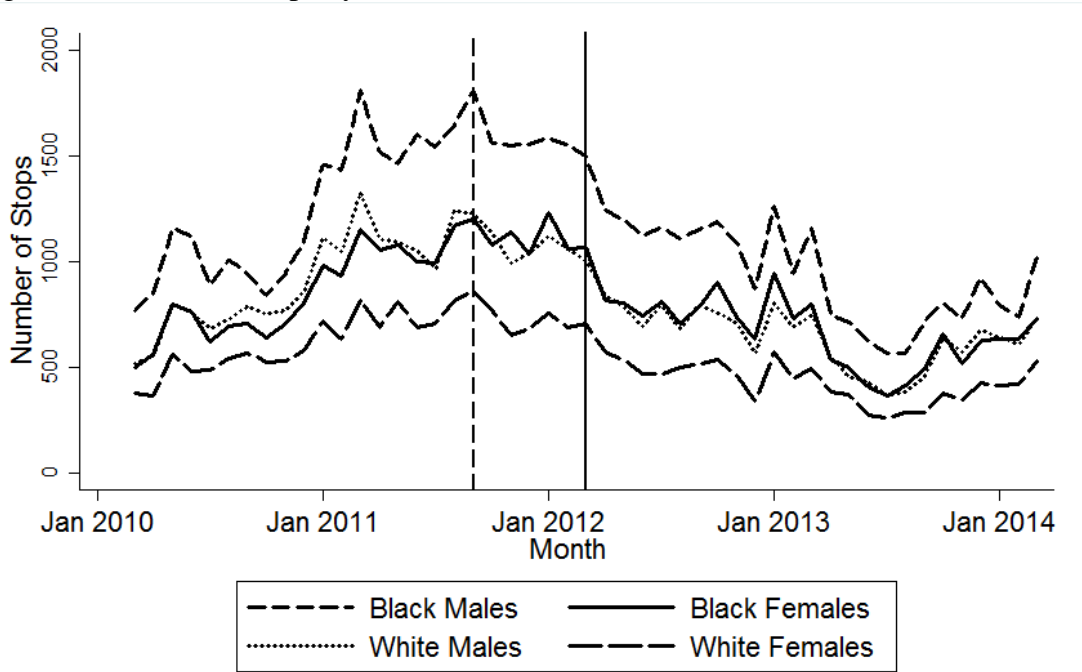
Figure 1 shows the trends in monthly stop numbers during this period by race and gender. The solid vertical line denotes when police officers in Fayetteville officially started using the written consent form. The dashed vertical line denotes when the *Raleigh News and Observer* first reported that the change might occur. As can be seen after both points in time (the first news report on the then potential policy shift and the policy enactment), the number of traffic stops for every category decreases and has continued to decrease over time. Figure 2 shows the trends for the number of searches per month by race and gender. Similar to the stops figure, the solid vertical line marks the date the policy took effect, while the dashed line marks the policy announcement. Also similar to the first figure, there is a marked decrease in the overall number of searches regardless of race or gender since this policy's adoption.

These differences in the numbers of stops and searches by race and gender during this time can be more clearly seen in Figures 3a and 3b. The first bar in each case is the number of stops or searches before the written consent forms were used. The second is the number after the written consent forms went into use. As can be seen, the greatest drop occurred for black men for both stops and searches.

One argument against the use of the written consent form is that police officers will simply find other reasons to search a vehicle, which we might call a "substitution effect." Evidence of this would be a rise in either probable-cause searches or incident-to-arrest searches. (There are two other types of searches - protective frisk and warrant - but these occur infrequently and have very restrictive definitions so they are excluded.) Figure 4 shows the relevant patterns. In fact, the use of consent searches, probable-cause searches, and incident-to-arrest searches generally

went down during this time period. This means that at least in the case of Fayetteville no “substitution effect” occurred. If anything, in fact, there was a spillover effect.

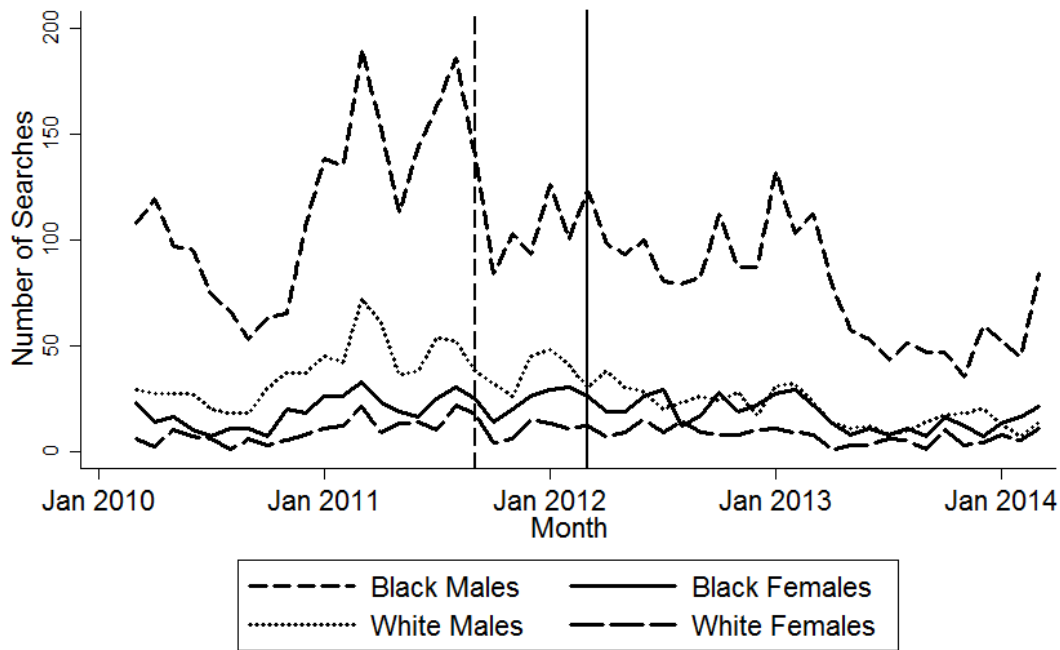
Figure 1. Number of Stops by Race and Gender



Note: March 2010 - March 2014

Note: The vertical black line is at March, 2012. After the 1st of this month, Fayetteville police were required to obtain written consent. The vertical dashed line is at September. Discussion of changes were first reported at the beginning of this month.

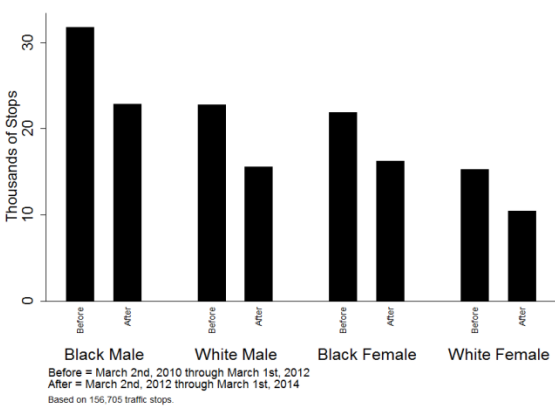
Figure 2. Number of Searches by Race and Gender



Note: March 2010 - March 2014
 Note: The vertical black line is at March, 2012. After the 1st of this month, Fayetteville police were required to obtain written consent. The vertical dashed line is at September. Discussion of changes were first reported at the beginning of this month.

Figure 3. Number of Stops and Searches Before and After Written Consent Required, by Race and Gender

A) Stops



B) Searches

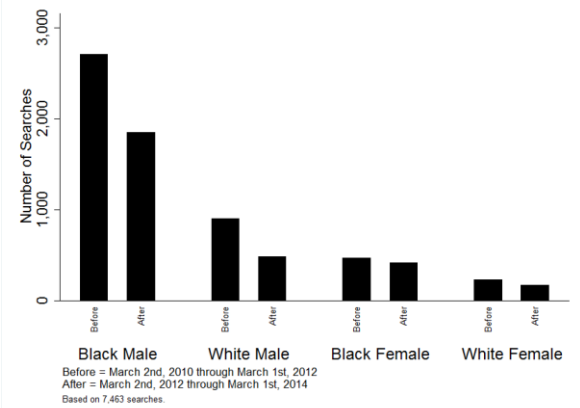
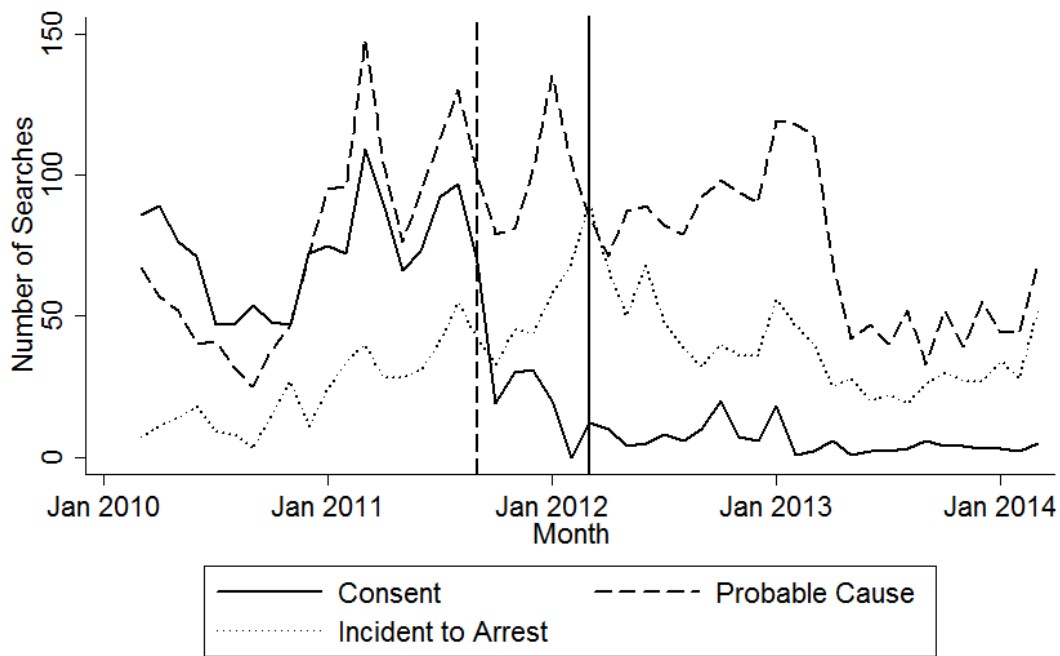


Figure 4. Searches by Type



Note: March 2010 - March 2014

Note: The vertical black line is at March, 2012. After the 1st of this month, Fayetteville police were required to obtain written consent. The vertical dashed line is at September. Discussion of changes were first reported at the beginning of this month.

In addition to the visual evidence provided by Figures 1, 2 3, and 4, we calculated whether the introduction of the written consent form generated a statistically significantly different rate of search. Table 1 presents the results of this analysis. As can be seen, the overall search rate and rate of consent searches specifically decreased after the introduction of the policy. However, the rate of probable cause and incident to arrest searches did increase modestly. Because the number of stops also decreased after the introduction of these reforms, Table 2 shows the average number (not rate) of searches. Here, the analysis indicates large decreases of searches overall, a 90 percent decrease in consent searches (to an average of just six per month), no significant increase or decline in the number of probable cause searches, and a slight increase in the number of incident-to-arrest searches.

Table 1. Average Search Rates by Month Before and After the Written Consent Form

	Mean Before	Mean After	Difference
Policy Announced			
Search	4.97	4.33	-0.64*
Consent	2.06	0.27	-1.79*
Probable Cause	1.95	2.46	0.51*
Incident to Arrest	0.57	1.30	0.73*
Policy Enacted			
Search	4.72	4.42	-0.30
Consent	1.69	0.20	-1.49*
Probable Cause	1.99	2.54	0.55*
Incident to Arrest	0.68	1.36	0.68*

*Denotes statistical significance at the 0.05 level.

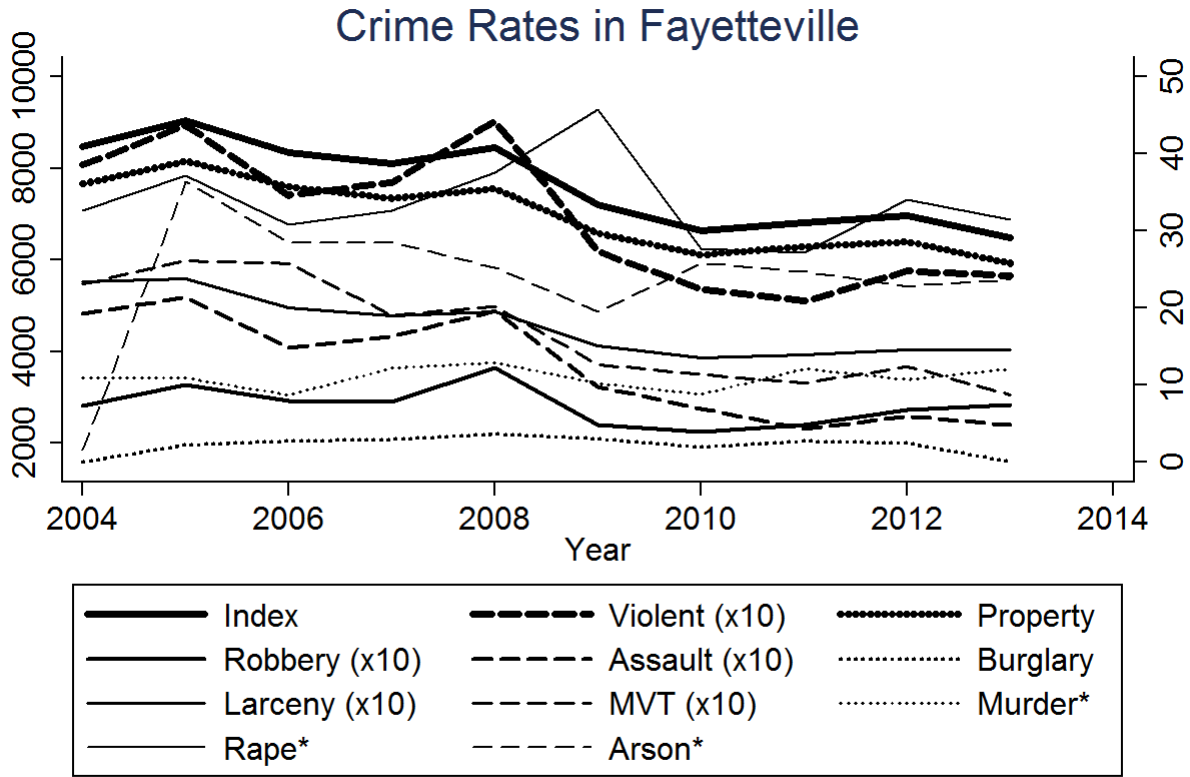
Table 2. Average Number of Searches by Month Before and After the Written Consent Form

	Mean Before	Mean After	Difference
Policy Announced			
Search	184.33	138.35	-45.98*
Consent	72.83	10.29	-62.54*
Probable Cause	73.72	77.61	3.89
Incident to Arrest	22.44	41.19	18.75*
Policy Enacted			
Search	185.17	126.52	-58.65*
Consent	61.67	6.00	-55.67*
Probable Cause	80.38	72.16	8.22
Incident to Arrest	28.92	39.48	10.56*

*Denotes statistical significance at the 0.05 level.

Did this change lead to an increase in crime in Fayetteville? Figure 5 assesses this question using NC DOJ data on crimes from 2004 through 2013. Of course, traffic stops are not necessarily related to many of these crimes, such as arson or larceny. However, a general “pulling back” of the police might be expected to relate to greater criminal activity. If police action relating to consent searches were related to crimes, we would expect to see a sharp increase in crimes immediately after the March 2012 policy change. Figure 5 shows annual data so it should show some increase in 2012 (when the policy was in effect only for part of the year) and a more substantial increase in 2013, compared to previous years. The figure shows some variability across the different types of crimes reported, but mostly a continued downward trend in various crime rates after the implementation of the new policy. Thus, we can conclude that the Fayetteville written consent policy, as implemented, has led to a dramatic reduction in consent searches, little to no “substitution effect” searches of other types, and has been accompanied by a continued decline in most crimes in the community.

Figure 5. Fayetteville Crime rates over time.



Source <http://crimereporting.ncdoj.gov/Reports.aspx>
 * indicates variable measured on the right scale