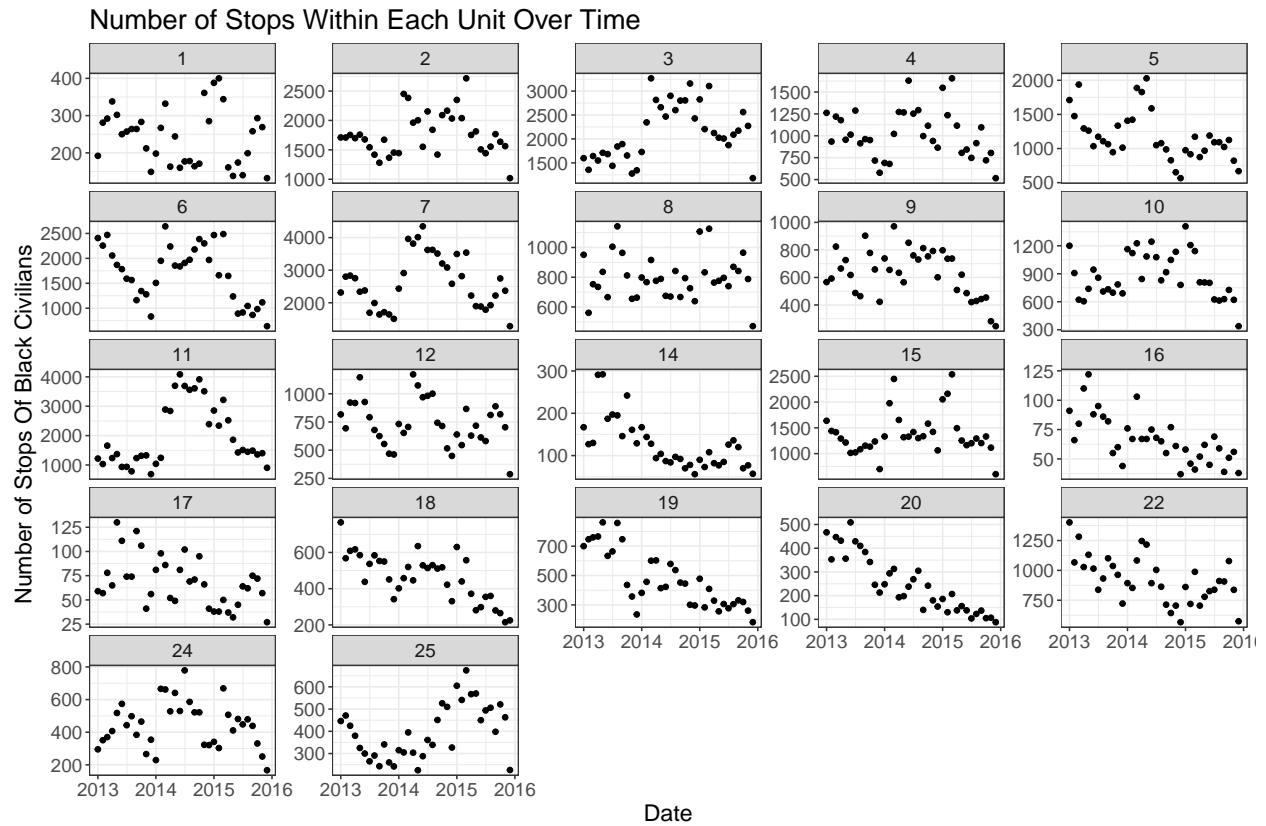


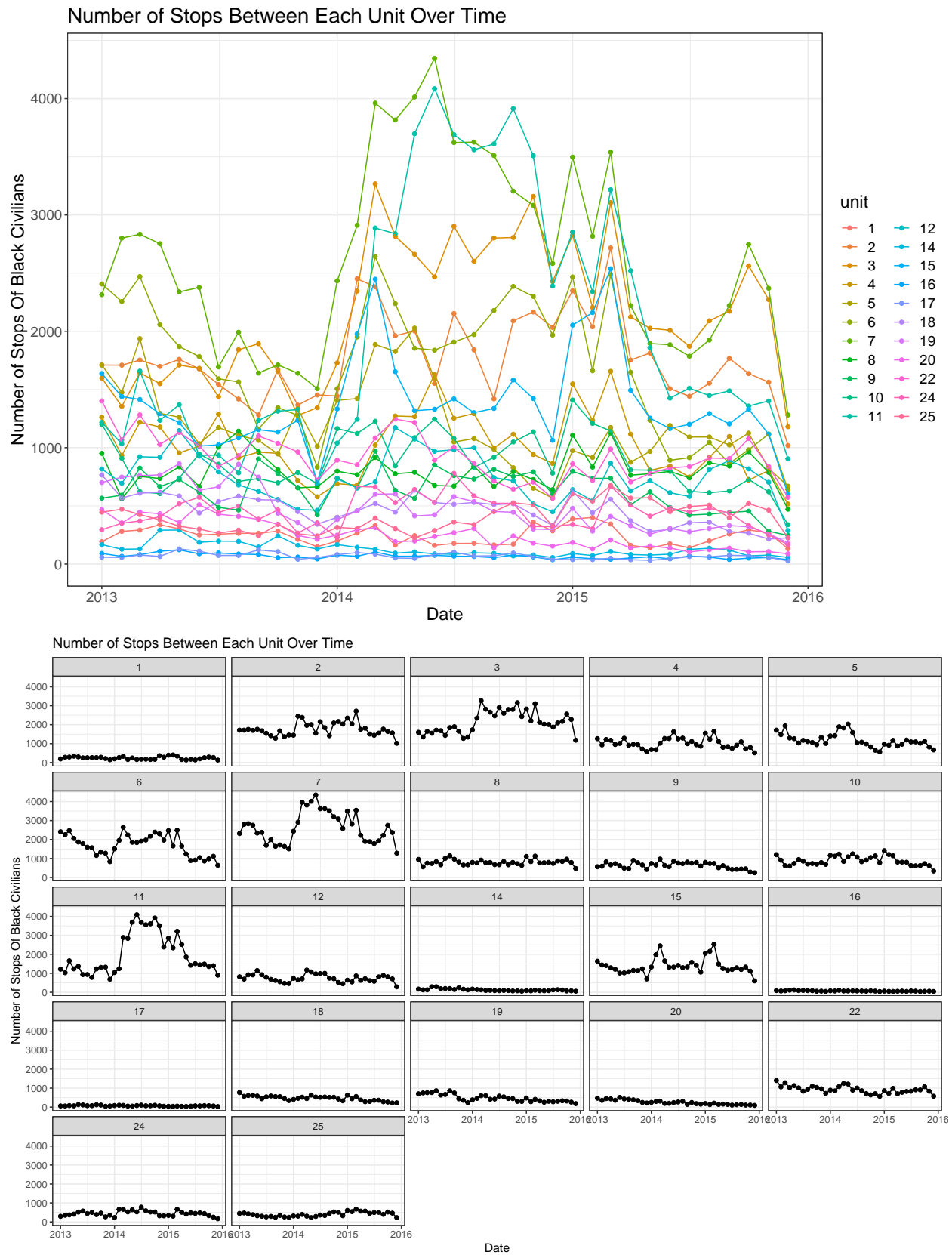
Description of the Data

Dependent Variable

Within Each Unit



Between Each Unit

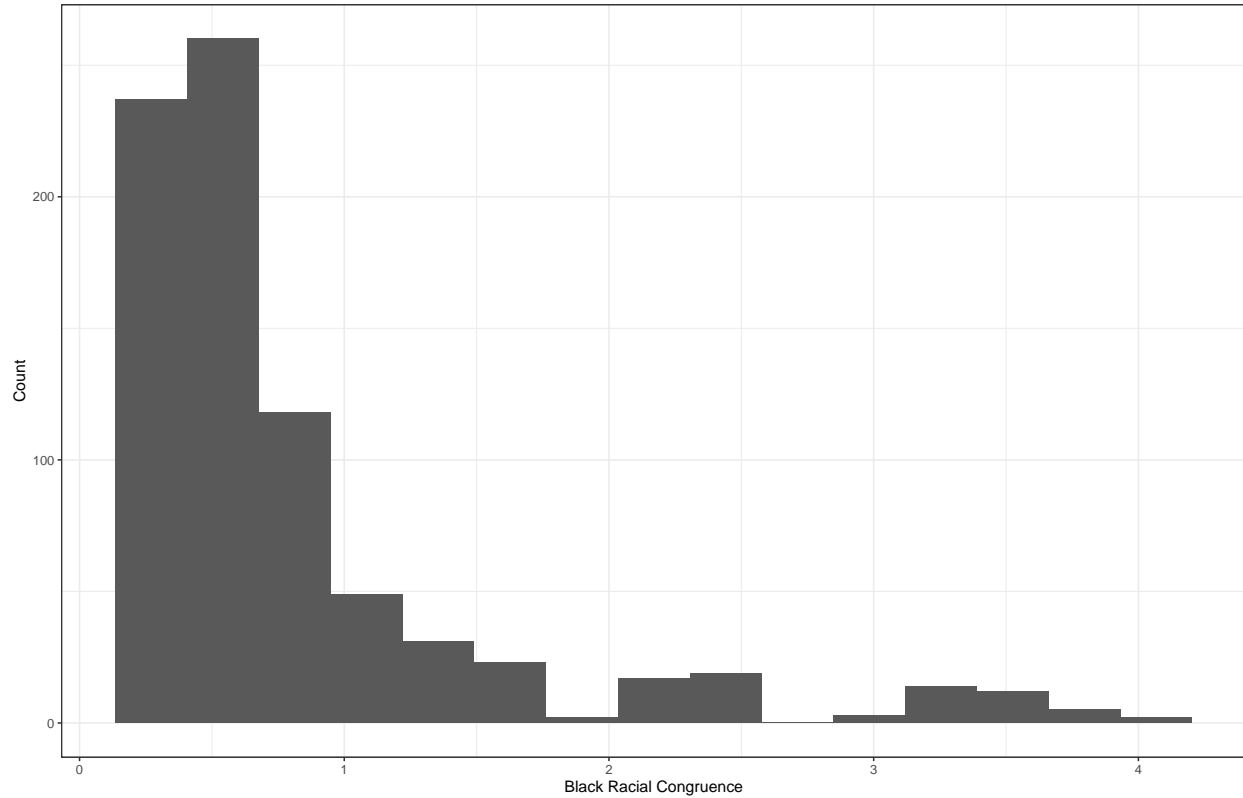


Main Independent Variable - Black Racial Congruence

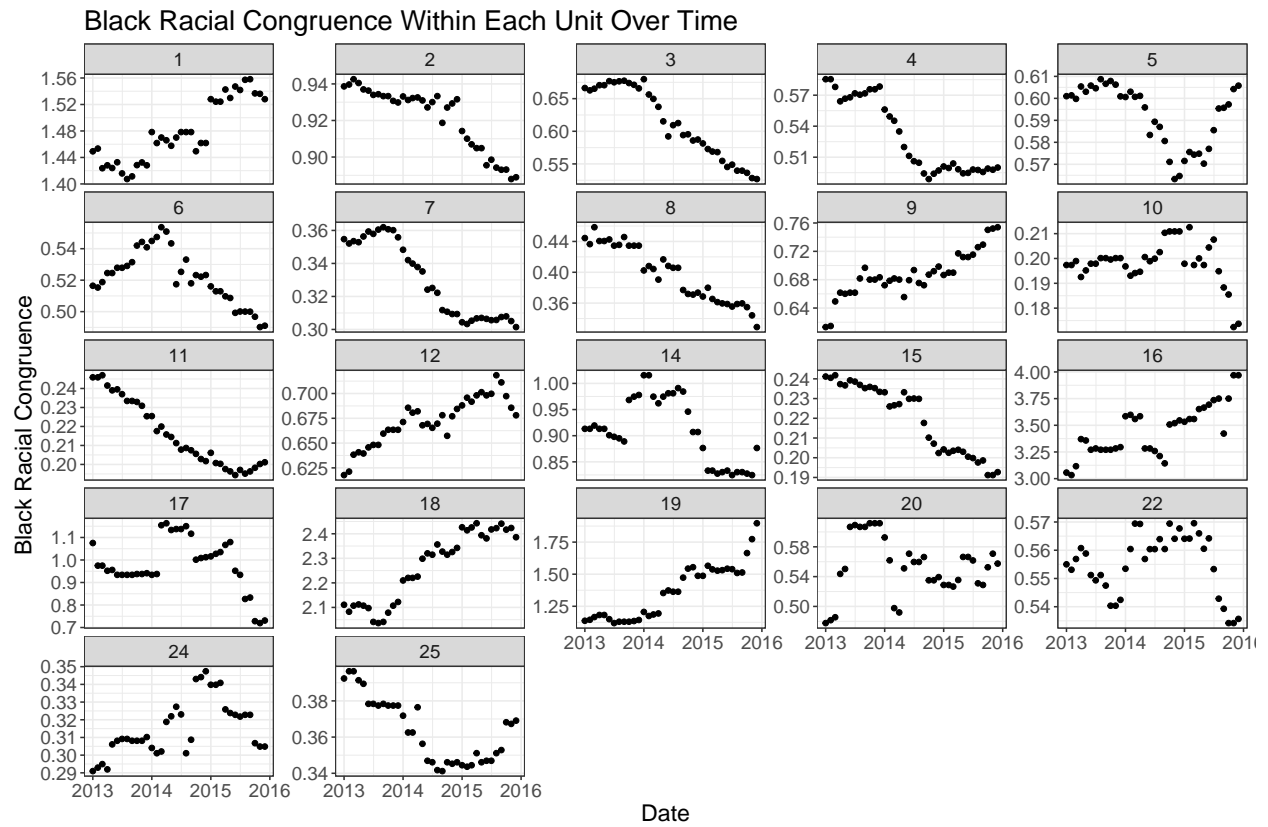
Overall distribution of Black Racial Congruence

- Most police units in most months have a black congruence below 1 meaning the share of the population that is Black is greater than the share of the police force which is Black.

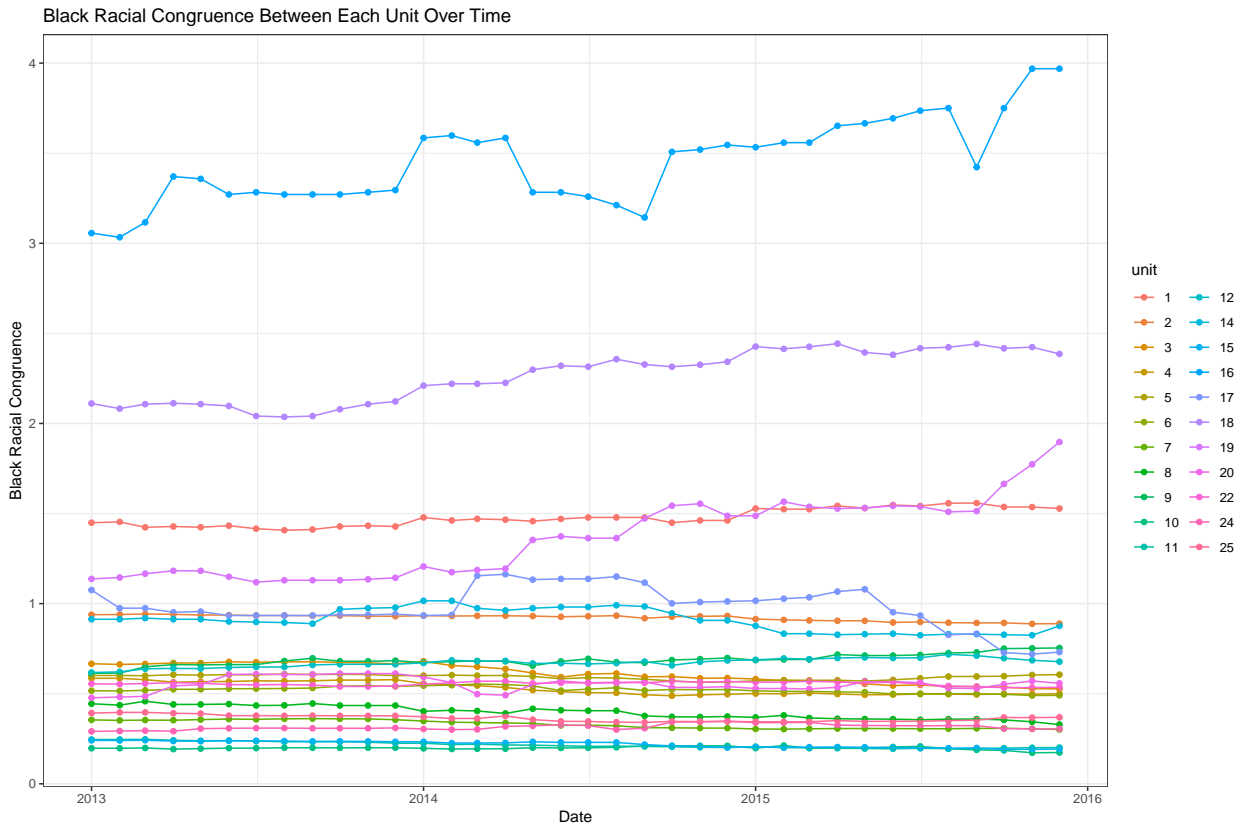
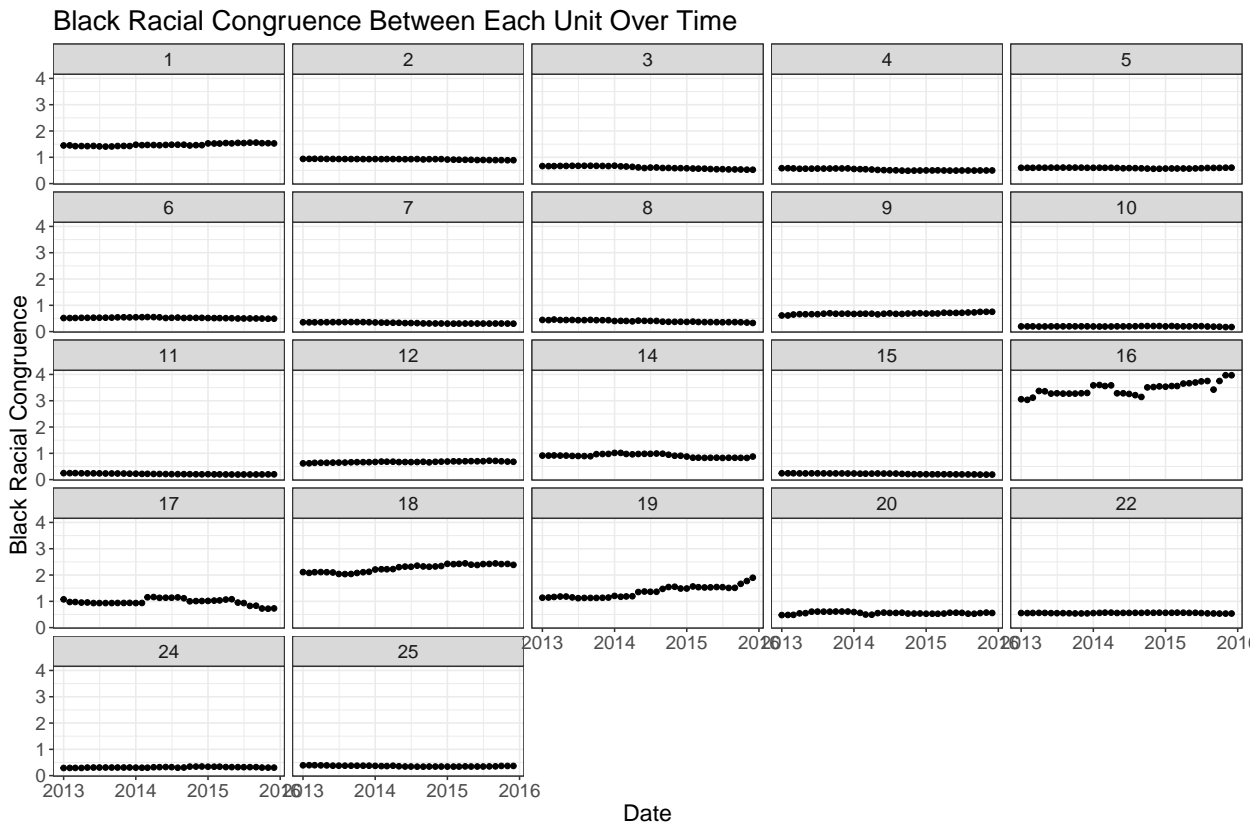
Distribution of Racial Congruence Across Units And Time



Within Each Unit



Between Each Unit



What's the connection between the number of black officers in a unit and racial congruence?

- Generally within units, as more black officers are added to the unit, racial congruence increases. For some very large units the relationship is less strong which makes sense. When the share of civilians in the population who are Black is relatively large **and/or** when the size of the police unit is large, many more Black officers would have to join the police unit vs. another unit which was smaller or where the share of the civilian population which is Black is smaller.
- This distills why I use Black Racial Congruence as a measure. Adding 1 Black officer to a unit should *theoretically* have different effects depending on the unit and the population being policed.

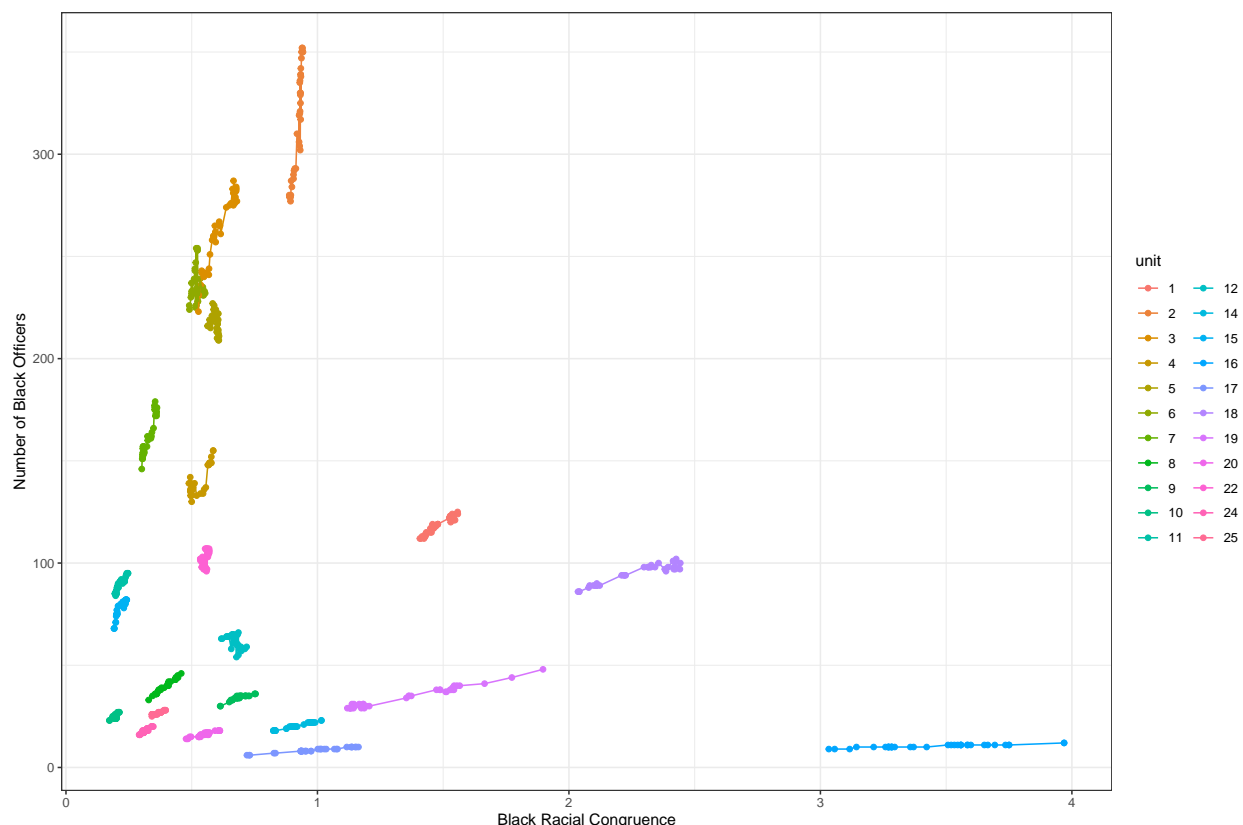


Table demonstrating variation in black racial congruence within each unit

- Each row represents the maximum or minimum Black Racial Congruence achieved by each police unit during the period of observation (2013 - 2015).
- Along with the maximum or minimum racial congruence, the total number of police officers, the total number of Black officers, the percentage of Black officers, and the percentage of the civilian population that is Black are also included. It is designed to help the reader (and me) get a feel for what increasing Black racial congruence looks like. Typically it means adding more Black officers to the unit. Bigger increases come when the rate at which Black officers are being added is greater than the rate at which the total size of force is growing (or if the force is shrinking). Occasionally Black Racial Congruence can increase even when the number of Black officers is decreasing, and this is because the rate of decrease for the number of Black officers is less than the rate of decrease for the unit as a whole.
- Increasing Black Racial Congruence means an increase in the share of the police force that is Black relative to the share of the civilian population which is Black.

Unit	Officers	Black Officers	Pr. Black Officers	Pr. Black Pop.	Racial Congruence	Max/Min Congruence
1	348	112	0.3218391	0.2286817	1.4073669	Min
1	348	124	0.3563218	0.2286817	1.5581562	Max
2	428	280	0.6542056	0.7367585	0.8879513	Min
2	504	350	0.6944444	0.7367585	0.9425673	Max
3	455	223	0.4901099	0.9303506	0.5268013	Min
3	438	277	0.6324201	0.9303506	0.6797653	Max
4	479	139	0.2901879	0.5936194	0.4888451	Min
4	446	155	0.3475336	0.5936194	0.5854486	Max
5	406	216	0.5320197	0.9445097	0.5632761	Min
5	367	211	0.5749319	0.9445097	0.6087093	Max
6	472	226	0.4788136	0.9767865	0.4901926	Min
6	429	232	0.5407925	0.9767865	0.5536445	Max
7	501	146	0.2914172	0.9667348	0.3014448	Min
7	503	176	0.3499006	0.9667348	0.3619406	Max
8	434	33	0.0760369	0.2311908	0.3288922	Min
8	434	46	0.1059908	0.2311908	0.4584558	Max
9	414	30	0.0724638	0.1181805	0.6131616	Min
9	404	36	0.0891089	0.1181805	0.7540066	Max
10	395	23	0.0582278	0.3377920	0.1723778	Min
10	376	27	0.0718085	0.3377920	0.2125821	Max
11	507	85	0.1676529	0.8624566	0.1943899	Min
11	446	95	0.2130045	0.8624566	0.2469741	Max
12	534	63	0.1179775	0.1909890	0.6177189	Min
12	430	59	0.1372093	0.1909890	0.7184146	Max
14	293	18	0.0614334	0.0744935	0.8246816	Min
14	304	23	0.0756579	0.0744935	1.0156304	Max
15	387	68	0.1757106	0.9189600	0.1912059	Min
15	369	82	0.2222222	0.9189600	0.2418192	Max
16	263	9	0.0342205	0.0112814	3.0333690	Min
16	268	12	0.0447761	0.0112814	3.9690351	Max
17	256	6	0.0234375	0.0325660	0.7196922	Min
17	264	10	0.0378788	0.0325660	1.1631389	Max
18	422	86	0.2037915	0.1000874	2.0361346	Min
18	409	100	0.2444988	0.1000874	2.4428521	Max
19	424	29	0.0683962	0.0611214	1.1190234	Min
19	414	48	0.1159420	0.0611214	1.8969152	Max
20	248	14	0.0564516	0.1181928	0.4776233	Min
20	249	18	0.0722892	0.1181928	0.6116208	Max
22	319	102	0.3197492	0.5985544	0.5342024	Min
22	308	105	0.3409091	0.5985544	0.5695540	Max
24	298	16	0.0536913	0.1845175	0.2909820	Min
24	312	20	0.0641026	0.1845175	0.3474064	Max
25	425	26	0.0611765	0.1792960	0.3412038	Min
25	394	28	0.07106607	0.1792960	0.3963613	Max

Scatterplot of Black Racial Congruence Vs. Number of Stops of Black Civilians

- Overall trend suggests a negative relationship wherein increasing Black Racial Congruence is correlated with less stops of Black civilians.
- Differences in the within unit trend though. Some units exhibit a negative relationship while other units exhibit no relationship. The variation in racial congruence also *varies* by unit making it hard to discern the trend (if any) in some of the units.
- The bottom graph makes it easier to see trends **within-unit**. There a few units with a positive relationship and there are a few others with no relationship, but most units demonstrate a slight to moderately negative relationship.
- As above table suggests though, there are a lot of moving parts. Black officers are being hired (or in some cases leaving), and the total size of the police force is changing **all** relative to the share of the population that is Black.
- Interpreting this graph, there is an association between the share of the police force that is Black and the share of population that is Black such that as this ratio increases (indicating parity and in a few cases over-representation), the number of stops of Black civilians declines.

