

Statistical Analysis - Police Data 2007-2017

Research Questions:

1. Did the number of arrests or criminal cases opened for Ethiopian Jewish Israelis* change during the years 2007- 2017?
2. Does the data reveal possible discrimination by the police against Ethiopian Israelis?

Data

For this analysis, data was provided by the Israel Police regarding the number of arrests by population groups, i.e. Ethiopian Israelis, Jewish Israelis, and all citizens. We specifically looked at the number of cases opened by the police under the specific crime of police assault as well as the number of cases opened by the police for all categories of crimes.

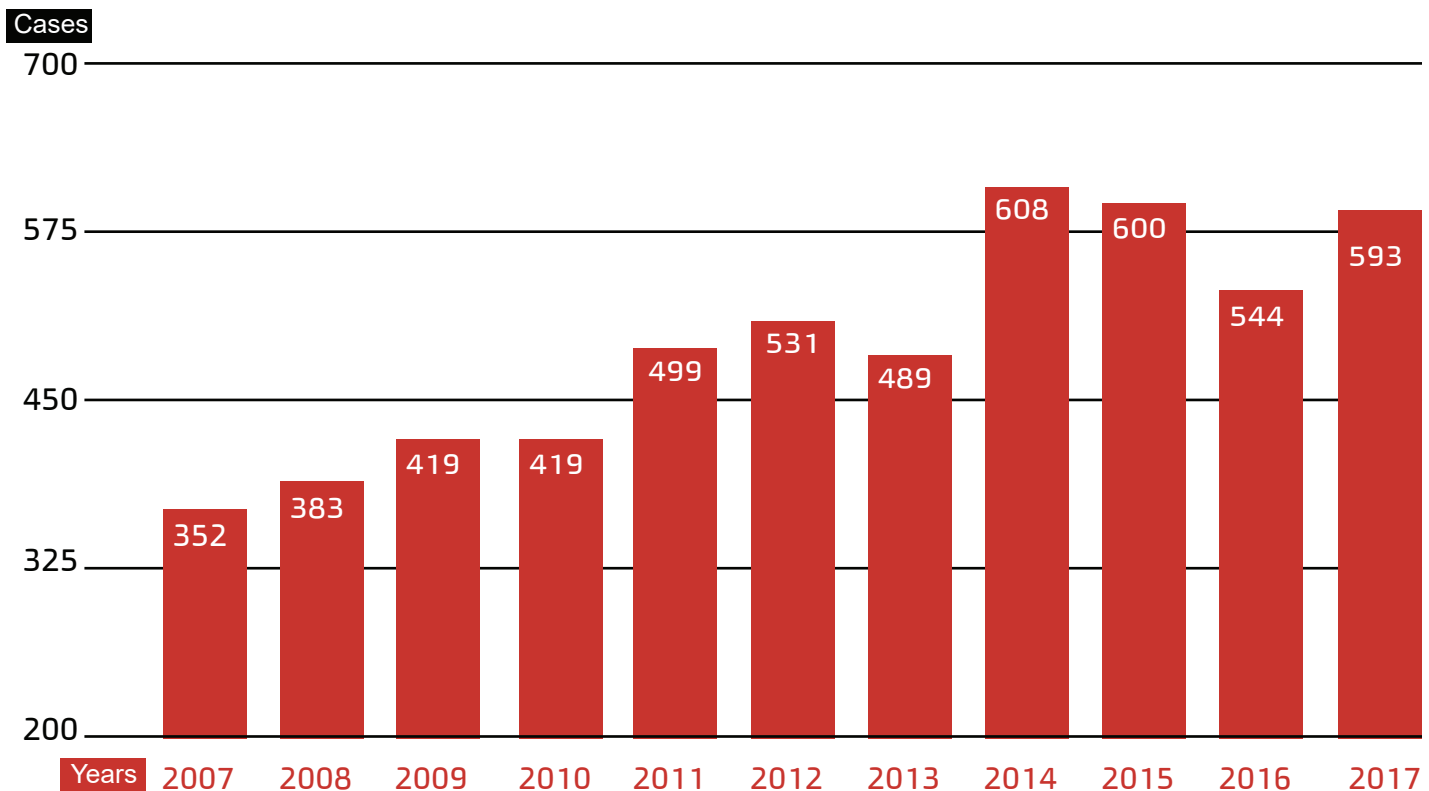
The data contain a variable showing the number of cases opened per year (2007-2017), by city, for 3 population groups: Ethiopian Israelis, Jewish Israelis (including Ethiopian Israelis) and all populations (including Ethiopian Israelis, Jews and others).

Cases Opened for Police Assault

Graph 1 shows that the number of cases increased from 2014, and remained at a higher level in later years up to 2017.

Ethiopian Jewish immigration during the years 2014-2017 was minor and therefore reasonable to assume that a demographic change isn't the main reason for the increase in criminal cases opened.

Graph 1:
 Number of Cases Opened for Ethiopian Israelis
 For Police Assault Between 2007-2017 (per year)



The police department might have adopted a tougher policy leading to an increase in the number of cases opened in the later years regardless of ethnic origin. To check if the observed change in policy isn't discriminatory between the population groups, we looked at the annual average of opened cases for the Ethiopian Israeli group and the Jewish Israeli group. If the increase in the number of cases from 2014 was only due to a tougher police policy, the increase should be similar for both population groups. The results are reported in Table1.

Table 1:
Cases Opened for Police Assault

	Total number Cases Opened for Ethiopian Israelis 2007-2017	Average Number of Cases for Ethiopian Israelis 2007-2014	Average Number of Cases Opened for Ethiopian Israelis 2015-2017	% Change for Ethiopian Israelis 2007-2014 vs. 2015-2017	% Change for Overall Jewish Population* 2007-2014 vs. 2015-2017	Difference in Change between Ethiopian Israelis vs. Overall Jewish Population*
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Total	5,437	463	579	25.2%	-6.1%	31.3%
Beit Shemesh	172	10	23	127.70%	25.80%	101.90%
Ashdod	147	16	32	105.40%	5.70%	99.70%
Bat Yam	140	9	19	103.60%	-25.80%	129.40%
Jerusalem	195	12	24	93.90%	14.90%	79.00%
Petah Tikva	320	21	38	87.30%	16.80%	70.50%
Lod	117	7	13	87.20%	-13.20%	100.40%
Beer Sheba	194	13	24	81.30%	5.70%	75.60%
Kiryat Malachi	120	8	13	77.80%	1.50%	76.30%
Kiryat Gat	109	7	12	69.10%	1.20%	67.90%
Haifa	239	16	26	61.90%	-23.00%	84.90%
Rishon LeZion	435	33	45	37.40%	-22.10%	59.50%
Ramla	151	11	14	29.20%	-6.60%	35.80%
Tel Aviv	570	44	53	21.80%	-18.30%	40.10%
Ashkelon	196	14	17	19.20%	19.10%	0.10%
Rehovot	376	29	32	9.70%	-5.80%	15.50%
Hadera	166	14	14	0.60%	-25.30%	25.90%
Netanya	280	31	30	1.90%	-9.20%	7.30%

*According to police data for files opened for overall Jewish population.

Table 1:
Descriptive Statistics on Police Assaults

Table 1 shows the descriptive statistics by city for the number of cases opened for “Police Assault” against Ethiopian Israelis for the 10 years of the available data (Column 1) is Over 11 years of available data, 5,437 Ethiopian Israelis were charged with police assault.

Further to the findings presented in Graph 1, we divided the analysis period into two time periods. The first time period is from 2007 to 2014, representing 8 years, and the second time periods from 2015 to 2017, representing 3 years. The total number of cases per period, (3704 for period 1 and 1737 for period 2), were then averaged by year for each period.

Column 2 in Table 1 shows the annual average of opened cases between the years 2007-2014 and Column 3 shows the annual average of cases opened between the years 2015-2017.

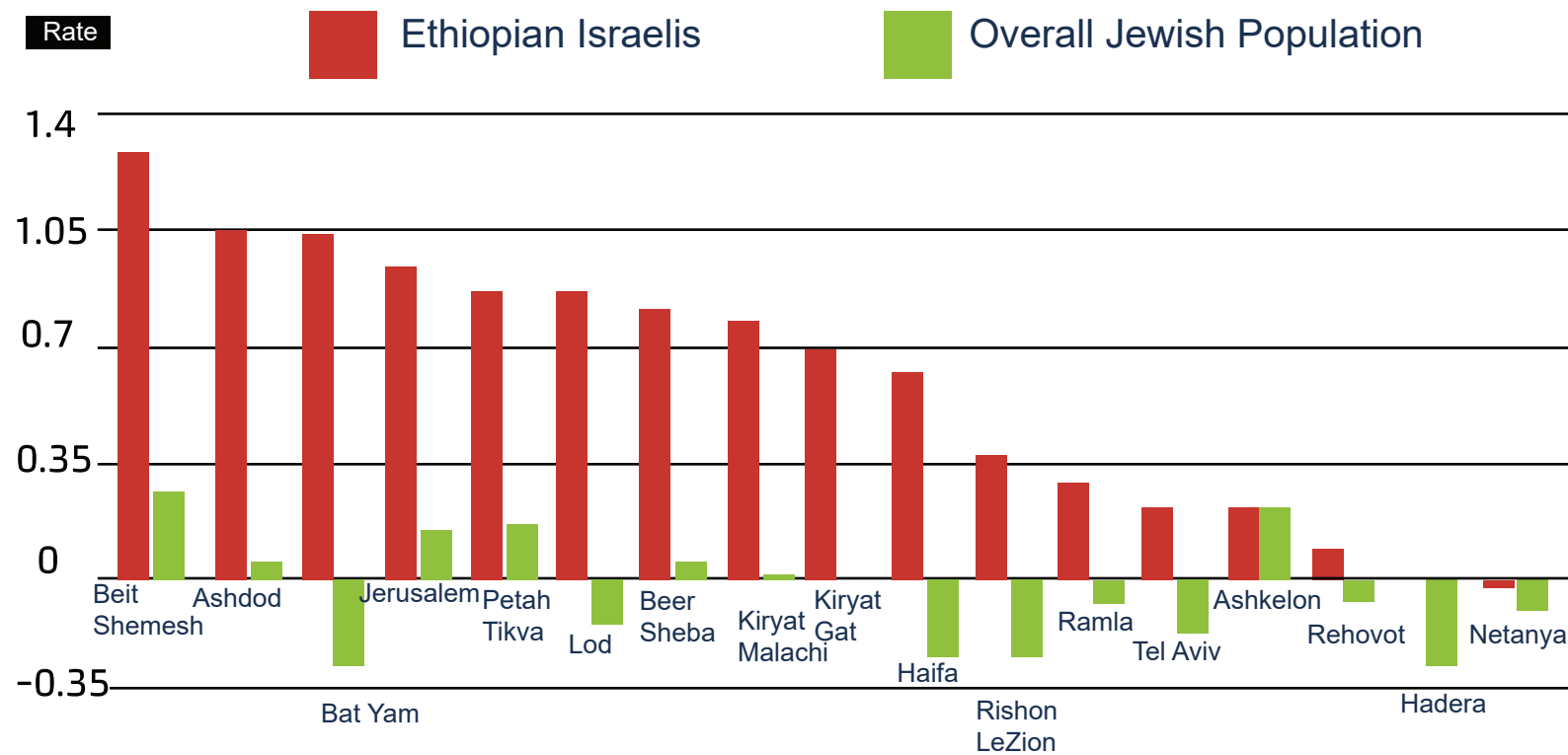
Column 4 shows the rate of increase in the average number of arrests for Ethiopian Israelis between the earlier years (2007-2014) and the later years (2015-2017).

Overall, Ethiopian Israelis were more likely to get arrested in the later period, where the number of cases opened for Police Assault against Ethiopian Israelis was 25% higher between the years 2015 to 2017.

City data shows some interesting variations: Ashdod, Bat Yam and Beit Shemesh show more than double the number of cases opened against Ethiopian Israelis. Only Netanya, Rechovot and Hadera show little change in the number of cases opened against Ethiopian Israelis when comparing between the earlier and later periods.

Column 5 reports the rate of increase of cases for police assault opened against all Jews calculated similarly to the rate in Column 4 for Ethiopian Israelis, where cases opened against Ethiopian Israelis are almost diametrically opposite as presented in Graph 2.

Graph 2:
 Rate of Increase in Average Annual Number of Cases
 Opened for Police Assaults



The most striking results are found in the cities of Bat Yam, Bet Shemesh, Lod, Ashdod, and Haifa.

Comparing the periods between 2007-2014 and 2015-2017 the data shows that Ethiopian Israelis are almost twice more likely to be charged for police assault in those cities in the later years. Ashkelon, Netanya and to a lesser extent Rechovot seem to have less discriminatory policies against Ethiopian Israelis.

The magnitude of the difference between the two population groups cannot be explained by a growth in population of Ethiopian Israelis or by police “productivity”.

If the police had adopted a non-discriminatory tougher policy, the increase in cases opened should have been similar between the two-population groups. Ashkelon, for example, is a city that toughened its policy but didn't discriminate between Ethiopian Israelis compared to the overall Jewish population.

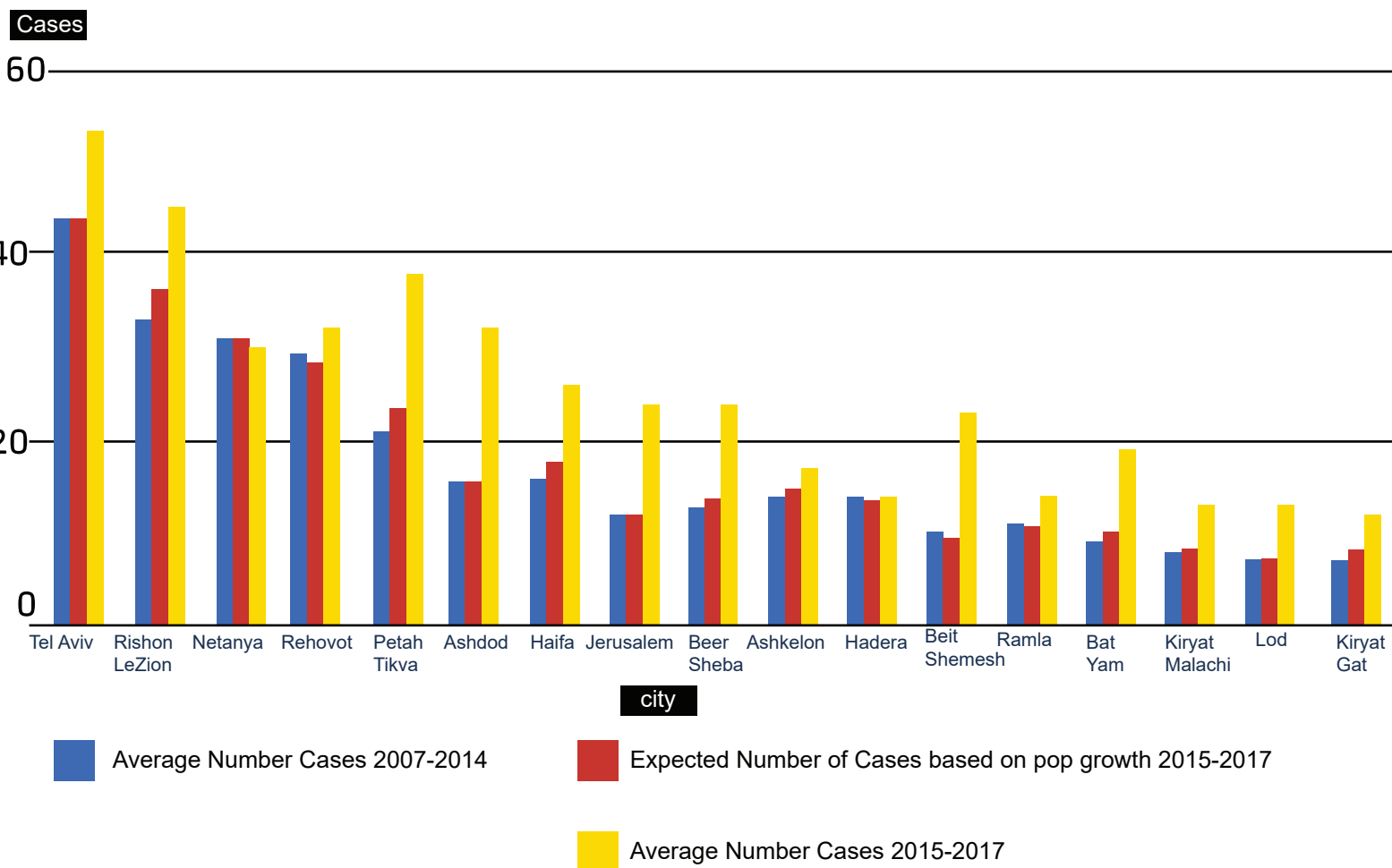
However, from the results shown in Graph 2 and Table 1, it is reasonable to assume that the Ethiopian Israeli population may have been particularly targeted by the police in the years between 2015-2017 compared to the years between 2007-2014 and greater than the overall population.

Graph 3:
 Actual and Expected Number of Cases
 Against Ethiopian Israelis

The variation between cities could be due to intra-immigration between cities by the Ethiopian Israeli population. In order to check this hypothesis, we examined the rate of increase in the Ethiopian Israeli population by city, using public data from the Central Bureau of Statistics (CBS) (see Appendix A, Table 1).

If a city had experienced a high rate of increase of the Ethiopian Israeli population, it is reasonable to assume that the number of cases opened against Ethiopian Israelis would have increased at a similar rate. The data shows that in fact, almost no demographic changes occurred within the Ethiopian Israeli population between 2013 and 2017 (years available and published by CBS).

Graph 3:
 Actual and Expected Number of Cases
 Against Ethiopian Israelis
 Graphical Simulation



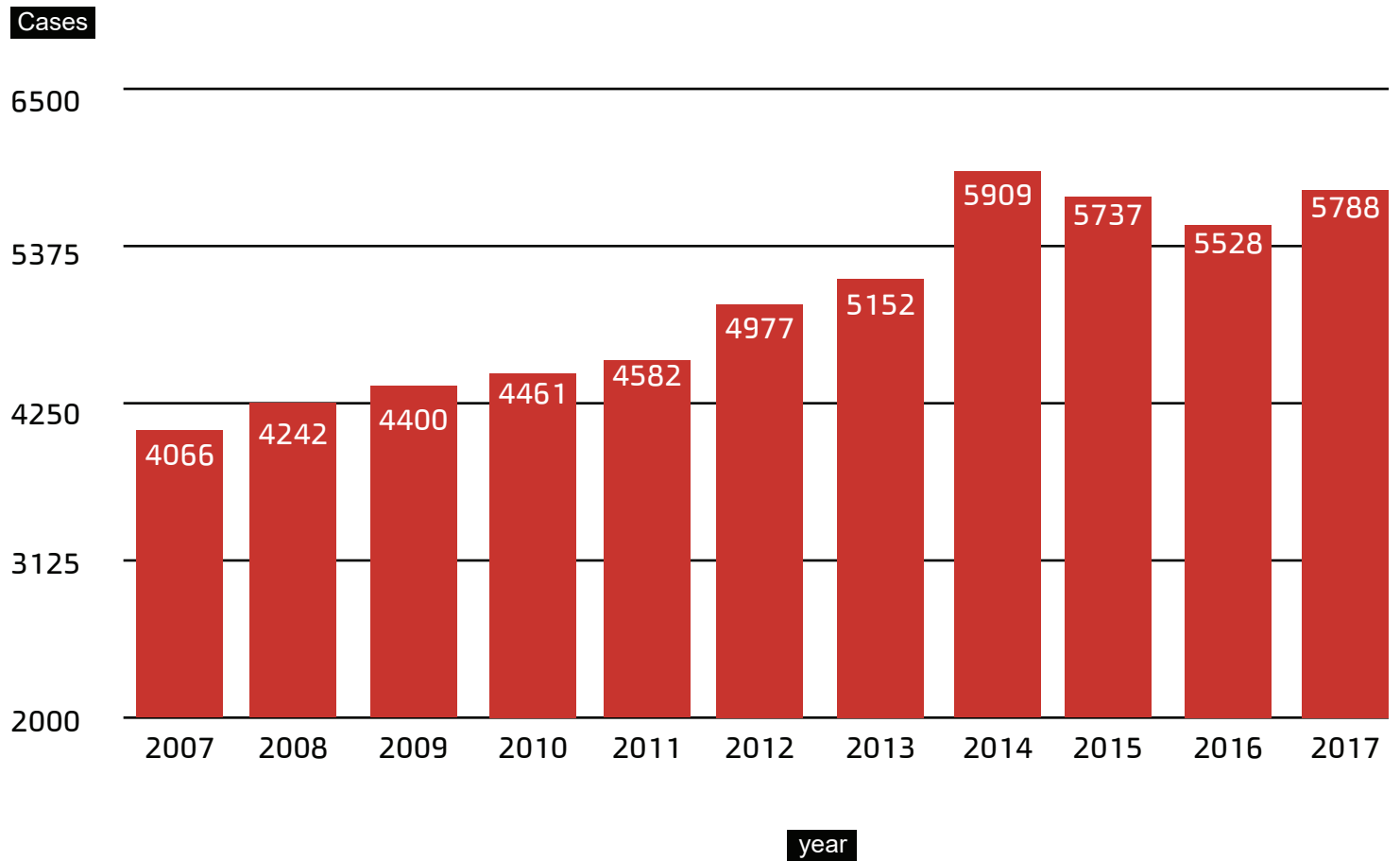
Graph 3 shows in blue the average number of cases opened by each city for the period of 2007-2014.

The red lines refer to the expected number of cases for the years 2015-2017 after controlling for population growth among the Ethiopian Israeli population in those specific cities.

The yellow lines show the actual number of cases.

If population growth had been an explanation for the increase in cases opened, the red and yellow lines should have been almost identical. Only Netanya, Hadera and Ashkelon kept the same policy regarding the number of cases opened against Ethiopian Israelis throughout both time periods. In contrast, Petach Tikva, Bet Shemesh, and Bat Yam seem to have toughened their policies against Ethiopian Israelis.

Graph 4:
Number of Cases Opened for Ethiopian Israelis
For all Crimes (per year)



All Arrests

The analysis described above was re-applied to data for all crimes. The results are very similar to the ones described for the cases involving police assault.

Graph 4 shows an overall general increase in arrests or cases opened against Ethiopian Israelis and not only for police assault.

Table 2: Police Cases Opened For All Crimes

	Total number Cases Opened for Ethiopian Israelis 2007-2017 Column 1	Average Number of Cases for Ethiopian Israelis 2007-2014 Column 2	Average Number of Cases Opened for Ethiopian Israelis 2015-2017 Column 3	% Change For Ethiopian Israelis 2007-2014 vs. 2015-2017 Column 4	% Change For Overall Jewish Population* 2007-2014 vs. 2015-2017 Column 5	Difference in Change Between Ethiopian Israelis vs. Overall Jewish Population* Column 6
Total	54,842**	4,724	5,684	20.3%	-6.1	26.4%
Beit Shemesh	1,443	124	151	21.6%	16.7%	4.9%
Ashdod	2,820	247	282	14.5%	-9.2%	23.7%
Bat Yam	1,515	100	116	16.0%	-22.2%	38.2%
Jerusalem	2,302	195	247	26.6%	0.5%	26.1%
Petah Tikva	2,342	190	274	44.2%	17.3%	26.9%
Lod	1,179	102	121	18.6%	-19.9%	38.5%
Beer Sheva	2,785	241	286	18.9%	-5.2%	24.1%
Kiryat Malach	1,703	159	144	-9.1%	-15.6%	6.5%
Kiryat Gat	1,462	127	150	18.2%	-14.2%	32.4%
Haifa	2,246	202	211	4.7%	-24.7%	29.4%
Rishon LeZion	3,602	252	349	38.8%	6.8%	32.0%
Ramla	1443	124	131	5.7%	-5.3%	11.0%
Tel Aviv	1388	265	349	28.6%	-12.8%	41.4%
Ashkelon	1151	195	234	20.3%	9.7%	10.6%
Rehovot	1703	247	274	11.0%	9.7%	-2.0%
Hadera	1179	208	225	8.0%	-20.36%	28.4%
Netanya	1462	381	453	18.9%	13.0%	28.1%

*According to police data for files opened for overall Jewish population.

** This number represents the total number of criminal cases opened for Ethiopian Israelis for all Israeli cities. This study examines a smaller sample of cities where many Ethiopian Israelis live.

Preliminary Findings

1. After 2014, the number of cases opened against Ethiopian Israelis increased by more than 20% for police assault including for all crimes.
2. The increase in the number of cases opened after 2015, cannot be explained by a demographic change in the Ethiopian Israeli population.
3. The increase in the number of cases opened after 2015, also cannot be explained by a change in police “efficiency” that would have had similar effects on Ethiopian Israelis as on other population groups.
4. Some cities seem to have more discriminatory policies against Ethiopian Israelis than other population groups.

Appendix A

Table 1:

Percentage of Ethiopian Israeli Population by City*

	% Ethiopian Israelis 2006 Column 1	% Ethiopian Israelis 2013 Column 2	% Ethiopian Israelis 2017 Column 3
Tel Aviv	0.6	0.6	0.3
Rishon LeZion	5.4	3.1	2.3
Netanya	5.5	5.5	5.9
Rehovot	5.3	5.4	5.9
Petah Tikva	3.1	2.8	2.2
Ashdod	3.2	3.2	3
Haifa	2	1.8	2.1
Jerusalem	0.7	0.7	0.6
Beer Sheba	3.8	3.6	3.4
Ashkelon	5.1	4.8	4.8
Hadera	6.1	6.2	6.3
Beit Shemesh	3.5	3.7	3.6
Ramla	5.5	5.6	5.2
Bat Yam	2	1.8	1.2
Kiryat Malachi	16.5	16.2	17.3
Lod	5.2	5	4.8
Kiryat Gat	9.3	7.9	6.4

*Source: Israel Central Bureau of Statistics 2017