Reproducing the negative result

We see that LA has high proportion of viewers even after the introduction of commercial including local mayors

city	
Los Angeles	23.734760
New York	15.783703
Chicago	7.332690
Dallas	5.767038
Houston	5.560916
Boston	5.556530
Atlanta	5.394264
San Francisco	5.306552
Phoenix	4.455749
Tampa	4.201386
Minneapolis	4.004035
Detroit	3.942637
Miami	3.863696
Philadelphia	2.960267
Seattle	2.135778

Figure A

city	test	
Los Angeles	0	0.237348
New York	0	0.079291
	1	0.078546
Chicago	1	0.038505
	0	0.034822
Boston	1	0.029033
Houston	1	0.029033
Dallas	1	0.028945
	0	0.028726
Atlanta	1	0.028112
San Francisco	1	0.027454
Houston	0	0.026577
Boston	0	0.026533
Atlanta	0	0.025831
San Francisco	0	0.025612
Philadelphia	1	0.025217
Phoenix	1	0.022630
Tampa	1	0.021972
Phoenix	0	0.021928
Detroit	1	0.021445
Minneapolis	1	0.020919
Miami	1	0.020568
Tampa	0	0.020042
Minneapolis	0	0.019121
Miami	0	0.018069
Detroit	0	0.017981
Seattle	1	0.017849
Philadelphia	0	0.004386
Seattle	0	0.003508

Figure B

Further Investigation

I investigated different factors using visualization technique. I observed no other factors contributed viewers to watch the show.

Comments on Experiment

I couldn’t find anything wrong with the experiment. Based on the following data which shows the average of total_watched_time, we observe that the mean time for watching the show in the test and the control condition is almost the same. The producer may stop showing the new commercials.

		sum	mean
test	watched		
0	0	2002804.75	10.029318
	1	135190.00	10.052796
1	0	1959861.75	10.051965
	1	93636.25	10.010290