

ETHNICITY EFFECTS ON CONFIDENCE IN POLICE: UNIVERSAL HUMAN NATURE FEATURE

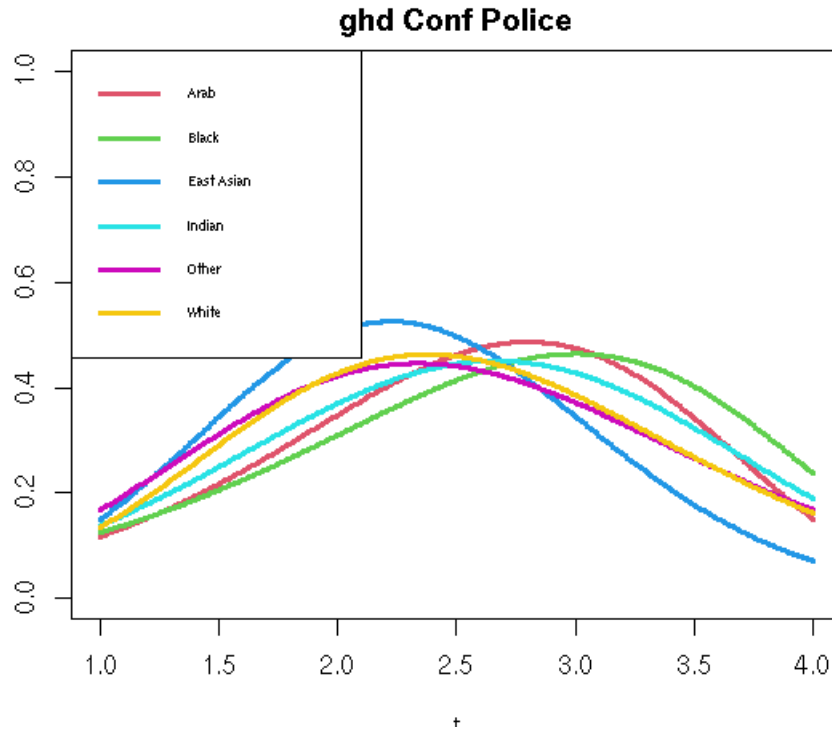
ZULFIKAR MOINUDDIN AHMED

1. INTRODUCTION

Our fitting of Barndorff-Nielsen Hyperbolic Distribution fitting has succeeded sufficiently now that we can just consider inference directly from fitted parametric densities rather than the raw data.

We are going to do this to try to establish that Confidence in Police Distribution is roughly ethnicity-independent.

2. THE CURVES



Let's take a look at the fitted Barndorff-Nielsen Distributions to understand the regularity of the curves. We are interested here in understanding bounds on the parameters.

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3. POSSIBLE DEGENERACY IN FITTING PARAMETERS

I was not aware that there could be degeneracies where very different parameters yield curves that are geometrically similar.

Let's look first at the fitted parameters.

	eth	lambda	mu	sigma	gamma	alpha.bar
1	Arab	-32.31	8.72	0.00	-6.19	27.33
2	Black	-17.77	7.82	0.00	-5.22	14.27
3	East Asian	-33.77	0.00	0.75	2.32	20.16
4	Indian	-630.00	31.17	0.00	-28.58	397.87
5	Other	-12.41	0.00	0.91	2.61	8.03
6	White	-13.29	0.00	0.82	2.64	8.76

Parameters for Indians is anomalous here. Looking at curves we suspect that there is another set of parameters that will give us a fit closer to the others.

Let's just put Indians aside for the moment; we do not believe they are actually far from the rest.

Let's just take them out and compute means and stds as the rest of the fits look good.

Ah, there is a shift of weight from μ to σ in the fits.

That's fine. We can get geometric attribution of ethnicity effects and leave aside the parameter fits for now.

4. ETHNICITY EFFECTS

	eth	effect
1	Arab	0.01607
2	Black	0.04307
3	East Asian	0.05944
4	Indian	0.00356
5	Other	0.00776
6	White	0.00397