Empirical Economics Letters, 25 (10): (October 2026), pp. 65-72 *ISSN 1681 8997*
https://doi.org/10.5281/zenodo.23285125

Regression to the Mean and the Measurement of Police Efficiency

Erik Alda

School of Social and Behavioral Sciences
Marymount University, Arlington, Virginia, USA

Email: ealda@marymount.edu

Abstract: Police agencies frequently use the crime drop following a deployment as proof of their efficient use of police officers. However, they typically deploy officers in locations that just experienced an exceptionally high crime year. I analyze the role of regression to the mean in the calculation of efficiency scores for 77 New York City police precincts during the summer months of 2012–2025. Efficiency scores derived from the unadjusted reduction in crime are positively associated with crime growth in the preceding year. When I predict the level of crime in a precinct using its own historical trends, the positive relationship vanishes. Simulations show that the adjusted score outperforms the original score at all four noise levels, even though both decline as noise increases.

Keywords: Data Envelopment Analysis, Regression to the Mean, Police Efficiency, Undesirable Outputs, Hot Spots Policing

JEL Classification Number: C61, D24, H76, K42