Data Science Project Proposal

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Theme:

We would like to explore the relationship between officer compliance with department medical policy including but not limited to incidents of drug and alcohol abuse, with allegations of police misconduct, officer salary and rank, use of force by police, location and type of police work conducted, and distribution of awards given by the department. We will explore these relationships with other aspects of health as the data allows for.

We are specifically submitting an update to Checkpoint 4, graph analytics:

Question 1:

Is there a link between award winning and race, among officers who have drug and

alcohol abuse allegations? Is it that certain race groups win more or less awards?

We will investigate this by creating a graph, with officers represented as nodes

and links between officers (edges) as race groups. Officer nodes will be color coded

by the number of awards they have won. If patches of one particular color stand out

among connected officers, this will suggest a particular predilection for award

winning among race groups.

Question 2:

Is there a link between salary and gender, among officers who have drug and

alcohol abuse allegations? We will investigate this by creating a graph, with officers represented as nodes and links between officers (edges) as gender. Officers nodes will be sized in proportion to their salary pay grade. This analysis may suggest it that men or women are more likely to up the pay scale to make greater income within the police department, even with drug and alcohol abuse allegations.