

Equitable Fire Hydrant Placement

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We investigate the equitability of fire hydrant placement throughout the Denver Metro area. We do this by assigning each home in select neighborhoods to a fire hydrant, and consider how far away houses can get from their assigned hydrants. We pay special attention to regions of both relatively large and small size, which have room for potential improvement. The former would mean we have few hydrants per building while the latter means the area would be more densely populated. Our aim is to highlight these areas especially in the context of costs for potential locations for new housing, and the safety of the occupants by proposing locations to add new hydrants in order to increase equitability. Furthermore, we aim to see if fire hydrant density is correlated to other socioeconomic factors which could warrant further study around potential effects or other mitigating factors.