

## HEALTHCARE FACILITY LOCATION: A DEA APPROACH

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### ABSTRACT

This presentation applies DEA to the healthcare facility location problem. A published research study will be used to identify demographic factors considered in the selection of candidate towns for the location of a healthcare facility, and to classify these factors into inputs and outputs. A DEA model will be developed and solved for each one of the towns in the study, and the results compared to those obtained through the published study's proposed factor-weighted approach. Results will be analyzed to recognize the DEA approach's strengths over the published study's results. In addition, a DEA sensitivity analysis will be conducted to establish the necessary changes that must happen to the demographic factors of some towns considered in the original study in order for them to achieve DEA efficiency improvements and thus increase their selection desirability level.