

Spatial Analysis of the Walk-shed and Bike-shed for the City of Phoenix, AZ

INTRODUCTION

- Daily exercise has many health benefits such as increasing blood flow, releasing endorphins, and reducing stress. Choosing travel modes such as biking and walking could help achieve these health benefits. Additionally, choosing to bike or walk instead of driving could help reduce carbon emissions.



PURPOSE:

- The purpose of this study was to analyze the City of Phoenix walk-shed and bike-shed for individuals traveling to career centers.

METHODS:

- Data was provided by the U.S. Census Bureau, ACS, and the City of Phoenix
- A Network Dataset was created using bike paths and roads available to pedestrians (sidewalk availability).
- 5, 10, and 15 minute service areas were created for bike and walking travel modes.
- Census data were overlayed to analyze percentage of households that drove to work
- Additionally, census data were used to analyze percentage of households that do not have vehicles available.

ANALYSIS:

- There are many households near Phoenix Career Centers that could greatly benefit from choosing to bike or walk to work, rather than driving. (between 0.18% and 0.71% are the highest values).
- Additionally, households without vehicles available are closer to career centers, which would be beneficial to individuals needing to bike or walk to work.

