Measuring a Predicting the Potential for Car Independence

# Abstract

No more than 200 words

# Introduction

Mostly signposting

# Defining car dependence

Cite prior literature on defining car dependence

## Relative accessibility as car dependence

Which destinations?

Which mode?

Selection of the decay function

# Data and methods

I propose the ratio of average car-free accessibility to average accessibility by car as a measure of the potential for car independence. I have calculated this metric for each of 917 metropolitan areas in the United States. This section describes how I calculated this metric, how I validated it as a predictor of observed travel behavior, and how I determined the degree to which certain built environment characteristics predict the potential for car independence in metropolitan areas across the United States.

## Potential for Car Independence Metric

I calculated the potential for car independence as the ratio of destination access without a car to destination access with a car, as shown in Equation 1.