

November 9th, 2023

Dear Emily Chenette,

Editor-in-Chief, PLOS ONE

This letter is in support of the revised manuscript submitted titled *Multimodal spatial availability: a singly-constrained measure of accessibility considering multiple modes*. I am the lead and corresponding author, and a doctoral graduate candidate in the School of Earth, Environment and Society at McMaster University. The co-authors are Javier Tarriño-Ortiz, a doctoral graduate from Universidad Politécnica de Madrid, Spain; Prof. Julio A. Soria-Lara from the Urban and Regional Planning at Universidad Politécnica de Madrid, Spain; and Prof. Antonio Paez from the School of Earth, Environment and Society at McMaster University.

As a continuation of our research efforts and an extension of our previously published work in PLOS ONE titled *Introducing spatial availability, a singly-constrained measure of competitive accessibility* published in January 2023 (DOI), this present submission expands spatial availability to quantify differences in accessibility offered by mode. An increasing number of studies within this field are concerned with inequities, particularly those arising from differences in access by mode type or other heterogenous population characteristics. However, existing methods for assessing accessibility fall short in accounting for aspects of competition for opportunities and the finite nature of opportunities themselves. In this vein, we first illustrate the features of spatial availability that make it suitable for multimodal analysis. Subsequently, we demonstrate its application through a case study of Low Emission Zones (LEZ) in Madrid (Spain), showcasing how the measure could be used to discuss competition between modes within the LEZ.

We are sincerely appreciative of the comments provided by the reviewers. We considered them carefully and revised the manuscript to clarify key concepts and define the boundaries and scope of our approach especially as related to the empirical example. We also improved the overall flow of the manuscript by splitting sub-sections into sections, reducing superfluous explanations, and adding additional literature to support certain ideas.

We look forward to hearing again from you and your expert reviewers. On behalf of my co-authors, I would like to thank you in advance for you're attention.

Sincerely,

Anastasia Soukhov, MASc, B.Eng.

PhD Candidate,

School of Earth, Environment and Society, McMaster University

Email: soukhoa@mcmaster.ca