

Professional Development Grant 2017 (Feb Cycle)

Final Report

A. Title Page

Attending the Association of American Geographers Annual Meeting 2017

April 5-9, 2017

Boston, Massachusetts

Dr. Xiang Chen

Assistant Professor

Department of Emergency Management

Arkansas Tech University

xchen7@atu.edu

479-498-6016

B. Restatement of the professional enhancement opportunity

Presentation: "Take the Edge Off": A Hybrid Geographic Food Access Measure

Abstract: Measures of geographic food access overlook an important source of statistical biases, termed the edge effect. The edge effect refers to the fallacy that events contributing to the spatial pattern of an analysis unit may be outside of that unit; thus merely summarizing events within the unit may lead to distortion of the estimation. Food procurement activities can happen beyond existing administrative boundaries. Delineating food access using unit based metrics may misrepresent the true space within which food stores are accessible. To overcome this problem, this paper proposes a gravity based accessibility measure to improve unit based statistical approaches in food access research. In addition, this method accounts for the spatial interaction between food supply (e.g., food items in stock) and demand (e.g., population) as well as how this interaction is mediated by the spatiotemporal separation (e.g., travel time, modality) effecting geographic food access. The method is applied to the case of Franklin County, OH and has revealed the food access inequity for African Americans by modes of transport, including walking, biking, and driving. With modifications, the proposed method can help evaluate food access for a target population group, such as selected ethnic minorities who may face acute difficulties in procuring economically affordable and culturally appropriate foods.

Conference: Association of American Geographers Annual Meeting 2016. San Francisco, CA.

Dates: April 5-9, 2017

Conference Website: <http://www.aag.org/cs/annualmeeting>

C. Brief review of the professional enhancement opportunity

The presentation at the conference stems from my dissertation research and several recent publications, focused on geographic food access in urban areas. This question has raised a broad interest and feedback from the research community. This year, my research on geographic food access has been accepted for presentation at the Annual Meeting of the Association of American Geographers (AAG) held in Boston, MA April 5 – 9, 2017. Serving as a board member for the AAG Health and Medical Geography Specialty Group (HMGSG), I am also required to attend the panel discussion, evaluate student paper awards, and evaluate strategic plans for future group development.

D. Summary of findings and experiences

Presenting at the conference benefited my personal career development and also served to extend the scholarship of ATU. More importantly, the trip allowed me to communicate with several board members of the AAG HMGSG. With the support of the grant, I was able to network with professionals in the field.

E. Conclusions and recommendations

This research extended from the presentation was recently published in a peer-review journal, as below.

Chen, X. (2017). Take the edge off: A hybrid geographic food access measure. *Applied Geography*, 87, 149-159.