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| **UTC Project Information** | |
| Project Title | MPC-579 – Where the Sidewalk Ends: Equity Disparities with Respect to Municipal Maintenance Policy |
| University | University of Colorado Denver |
| Principal Investigator | Wesley Marshall, PhD, PE  Bruce Janson, PhD |
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| Funding Source(s) and Amounts Provided (by each agency or organization) | USDOT, Research and Innovative Technology Administration  $129,156.60  University of Colorado Denver  $129,156.60 |
| Total Project Cost | $258,313.20 |
| Agency ID or Contract Number | 69A3551747108 |
| Start and End Dates | December 14, 2018 to July 31, 2022 |
| Brief Description of Research Project | Sidewalks are a fundamental component of urban transportation networks. Yet unlike the rest of the right-of-way, many cities place the financial onus for the maintenance and replacement of sidewalks on the adjacent property owner. The resulting sidewalks can often be inconsistent and the means to fix them inefficient. Moreover, there may be disparities in the provision and quality of sidewalk infrastructure based on race, ethnicity, and/or income.  This issue, unfortunately, remains an under-researched topic, primarily due to a lack of comprehensive sidewalk data. However, some cities are now beginning to collect planimetric spatial data from high resolution aerial imagery. This research project will conduct a comprehensive spatial analysis of the sidewalk infrastructure of two cities that take on the responsibility of sidewalks, and two that put that responsibility onto the abutting property owners.  We will first ask whether variation in sidewalk maintenance policy impacts how sidewalks are being supplied and maintained in cities as well as if there are differences in the provision and condition of sidewalks based on income, race, or ethnicity in neighborhoods across these cities. If we find disparities, we will then seek to see if these are related to differences in pedestrian safety outcomes. This work will account for sidewalk supply, quality, state of disrepair, urban design, street design, and connectivity as well as potentially confounding factors such as land use. Beyond the direct policy implications of this research, this work will also speaks to environmental justice as well as ADA accessibility. |
| Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here | All of the following research objectives were implemented:   1. Investigate municipal sidewalk policies over time as well as data availability in order to select the four study cities 2. Collect sidewalk and built environment data 3. Gather socio-demographic and socio-economic data 4. Collect pedestrian counts and safety data 5. Advance knowledge by carrying out analyses to answer our research questions 6. Advance policy and practice with respect to building safer and more equitable cities 7. Advance education through the training of students 8. Build an evidence base by disseminating findings through publications and presentations |
| Impacts/Benefits of Implementation  (actual, not anticipated) | Sidewalks are a fundamental element of our streets and cities that we can no longer overlook. The research leverages developments in spatial data to advance the literature and improve our understanding of pedestrian infrastructure, citywide sidewalk characteristics, and the fair distribution of sidewalks. This project fills a major gap in the literature and does so in a way that should prove to be helpful for cities that want to improve their sidewalk infrastructure. |
| Web Links   * Reports * Project Website | * [MPC Research Report](https://www.ugpti.org/resources/reports/details.php?id=1046) * Conference Paper – [An Evaluation of Sidewalk Availability and Width: Analyzing Municipal Policy and Equity Disparities](https://doi.org/10.1061/9780784483152.002) |