The Public Transit Agency: Movement and Mobility in the Climate Change Era

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Intrigue surrounds institutions responsible for mass population movement within and between urban regions during the course of hazard events, as this very hard and complicated task carries with it enormous risks and significant rewards. One mobility institution, in particular, the public transit agency, has entered our field of vision in recent years because severe weather events have exposed its operational systems and hard infrastructure (e.g., transit vehicles, rails, tunnels, etc.) weaknesses at great spatial and temporal scales. Across the ‘global North’ and ‘global South’ these weaknesses are being further exacerbated by exposures to budget shortfalls due to global economic crises; aging modal and civil infrastructure; increasing ridership resulting from rising gas prices; and fluctuating city and regional boundaries due to industrialization, urbanization or a combination thereof.

My dissertation explores how one public transit agency—the Southeastern Pennsylvania Transportation Authority (SEPTA) which serves the Philadelphia metropolitan region—orders and organizes movement and differentiates mobility or ‘the social character of movement’ across different types of human and physical borders in the face of changing societal trends and accumulating and intense heat waves, snow storms, and flooding from heavy rainfalls.

The project calls into academic question the severe weather goals SEPTA shares with nearly every public transit agency around the globe that serves a city and its region: (1) provide passenger safety and security; and (2) ensure transit system resilience to shocks and disturbances. The implementation of both goals is interrogated through the theoretical lens of mobility. Discovering the benefits and consequences of how transit managers, planners, engineers, and operators perceive and their response toward avoiding the sharp end of weather-induced crises that disparate social and physical geographies, operational circumstances, and severe weather’s localized impacts help aid in producing is my research objective. My investigation proceeds from the assumption that, in the face of increasing climate variability and change over varying spatial and temporal scales, goal achievement is unlikely to yield uniform benefits in safety and resilience across a transit agency’s diverse ridership and systems because their differential movement capacities and uneven mobilities have grown more widely spread across city and regional landscapes.

Gaining a clearer understanding of when, how, for whom and under what conditions or circumstances a public transit agency responds to severe weather is of critical importance to this project which acknowledges the roles that process and meaning play in mitigating or aggravating the production of natural hazard risk and ‘small’ or ‘large’ disaster in an urban region. From this viewpoint, the ‘politics of mobility’ in a transit agency's response to severe weather at city and regional scales is thus examined through a mixed methods approach that incorporates semi-structured interviews, participant observation, intercept surveys, GIS mapping, and journals.
into this empirical investigation whose overall goal is to make a valuable contribution to discipline subfields such as the human dimensions of global climate change, economic, hazards, and urban geography.