

# Presidential Initiative

ON URBAN AND PLACE-BASED RESEARCH

2021 Fall Research Showcase

Learning from the Travel Experiences of Persons with Disabilities (PWDs): Investigating Navigation Challenges Posed by Infrastructure

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## Team

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## Research Questions (Purpose and Objective)

- ❖ For daily travel needs, what stressors do persons with disability (PWDs) internalize?
- ❖ How can infrastructure design accommodate these multiple additional stressors that PWDs face?

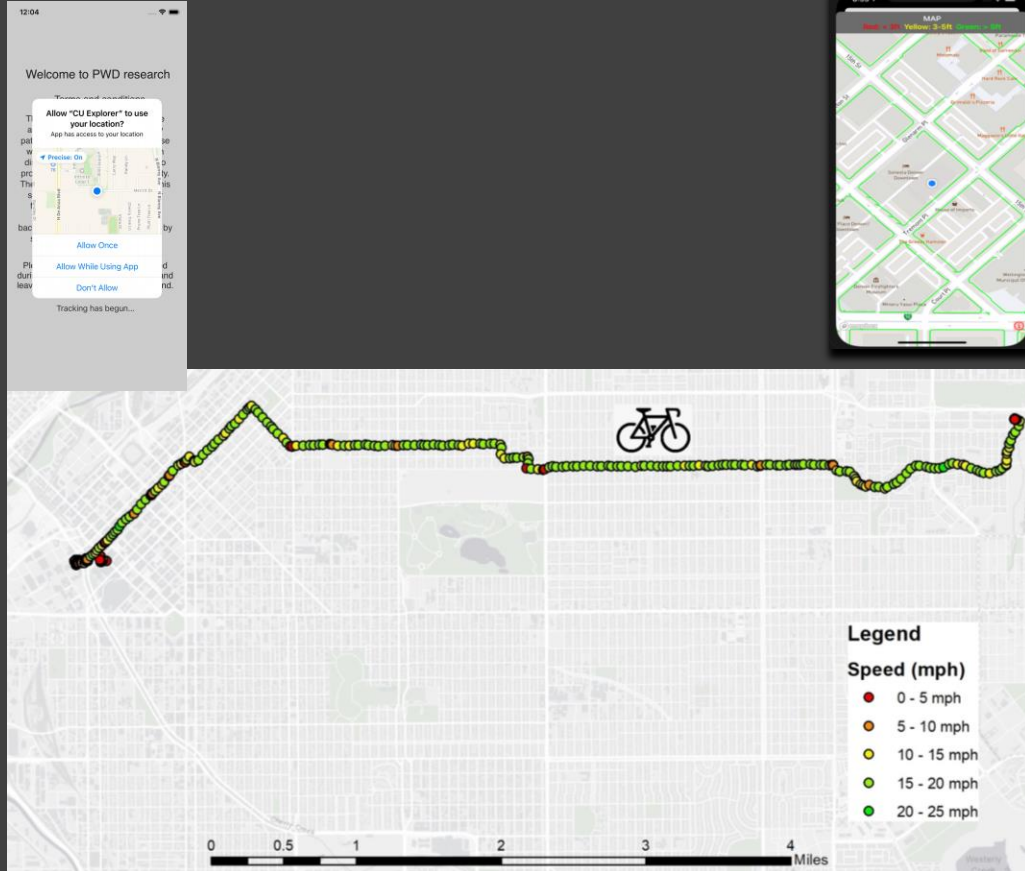


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## Methods and activities

### Smartphone tracking application



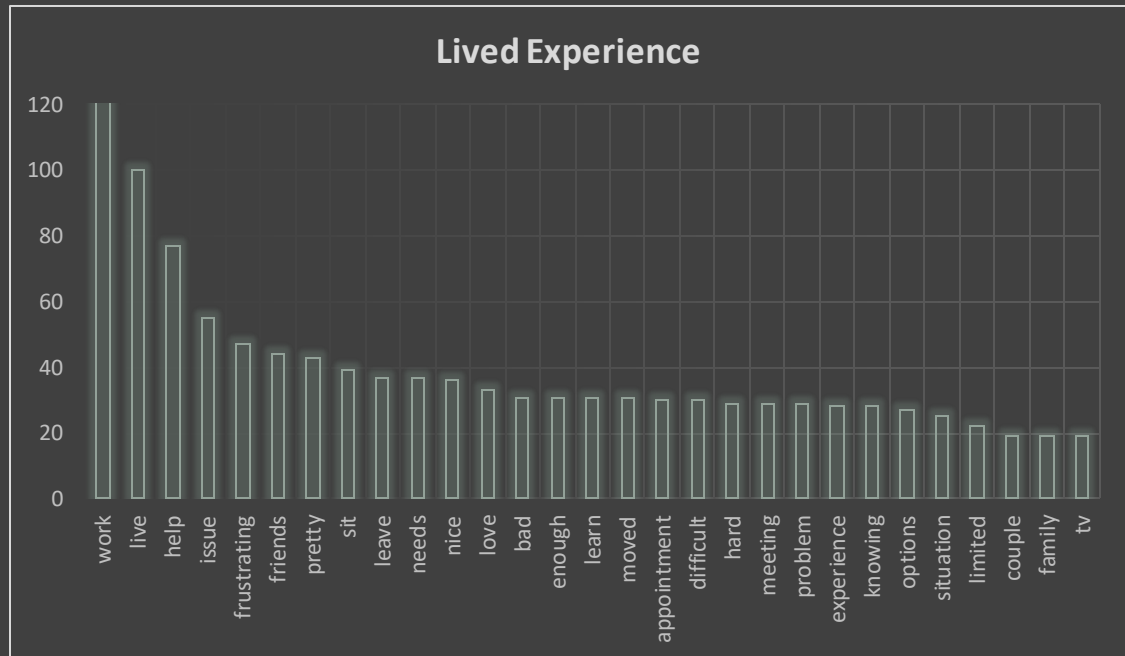
### Semi-structured interviews

able (61) accessible (83) area (70) around (113) best (36) better (42) bike (60) bit (48) blind (72) block (47)  
building (60) **bus** (373) buses (69) car (93) change (51) city (59) comes (52) community (62) cross (56)  
definitely (69) denver (109) depends (44) different (88) disability (89) door (46) downtown (43) drive (47)  
drivers (53) easier (41) easy (38) either (40) **feel** (102) figure (43) friends (44) frustrating (47) **getting** (93) give (37) gonna (37)  
guess (54) half (36) happen (67) help (91) hour (71) issue (59) leave (39) light (76) line (42) live (102) maybe (78)  
minutes (75) needs (42) nice (39) parking (68) person (82) pick (37) places (61) planning (60) point (56) pretty (51)  
probably (103) public (48) question (41) rail (62) ride (45) route (104) safe (49) schedule (46) school (40) service (36)  
**sidewalks** (149) sit (39) snow (45) someone (54) somewhere (45) started (41) station (45) stop (133)  
**street** (147) students (44) stuff (56) sure (82) system (39) taking (46) talk (58) thank (41) times (72) train (113)  
transit (41) transportation (97) travel (95) trip (37) uber (48) used (62) usually (56) wait (50)  
**walk** (149) whatever (71) wheelchair (91) **work** (156) years (80)

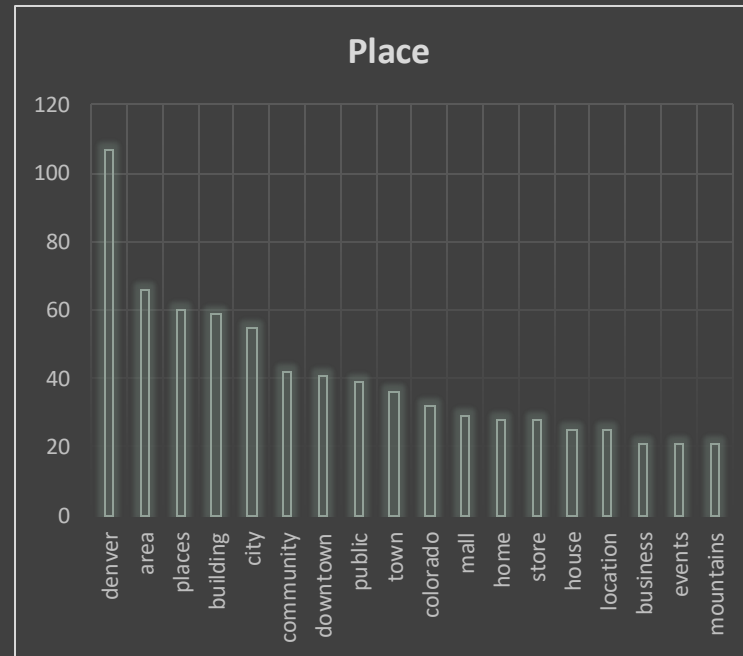
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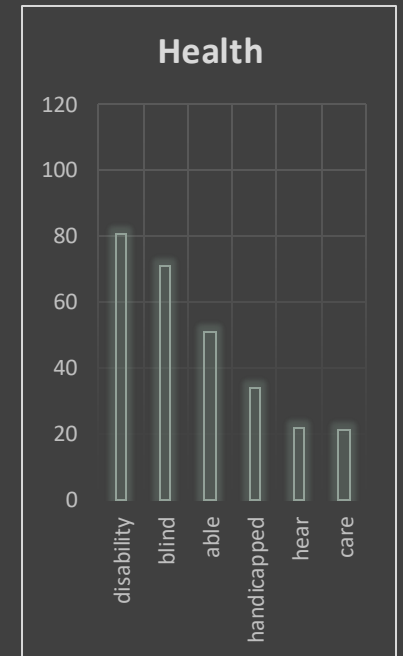
## Findings



Work, Live, Help,  
Issue, Frustrating,  
Friends, Sit, Needs



Area, Places, Building,  
City, Community,  
Downtown



Disability, Blind,  
Able, Handicapped,  
Hear, Care



## Project results and outcomes to date

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### Key takeaways

- Daily travel is time inefficient for PWDs
- Infrastructure is not serving PWDs except for core urban locations – “location advantage”
- Need to study inefficiencies in supply – paratransit, sidewalks, housing, etc.

### Products

- One conference paper presented (October 2021)
- Experience from app design and deployment as a journal “viewpoint”
- After additional data gathering, one paper on “stressors”

## Next Steps

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- \$80,000 funding secured to study inefficiencies on paratransit in the Denver Region
- Partnership with RTD and DRCOG being conceptualized
- Future funding through other avenues being considered to support a doctoral student interested in studying this area through a gender lens

