Intersectoral Needs from a National Survey on Transportation Equity

Mobilizing Justice

MOBILIZING JUSTICE

Towards Evidence-Based Transportation Equity Policy

About Mobilizing Justice

The Mobilizing Justice Partnership is funded by the Social Sciences and Humanities Research Council (SSHRC). Based at the University of Toronto Scarborough, the national intersectoral research partnership aims to understand and address transportation poverty in Canada and to improve the well-being of Canadians at risk of transport poverty. Learn more at www.mobilizingjustice.ca.

Our Partners

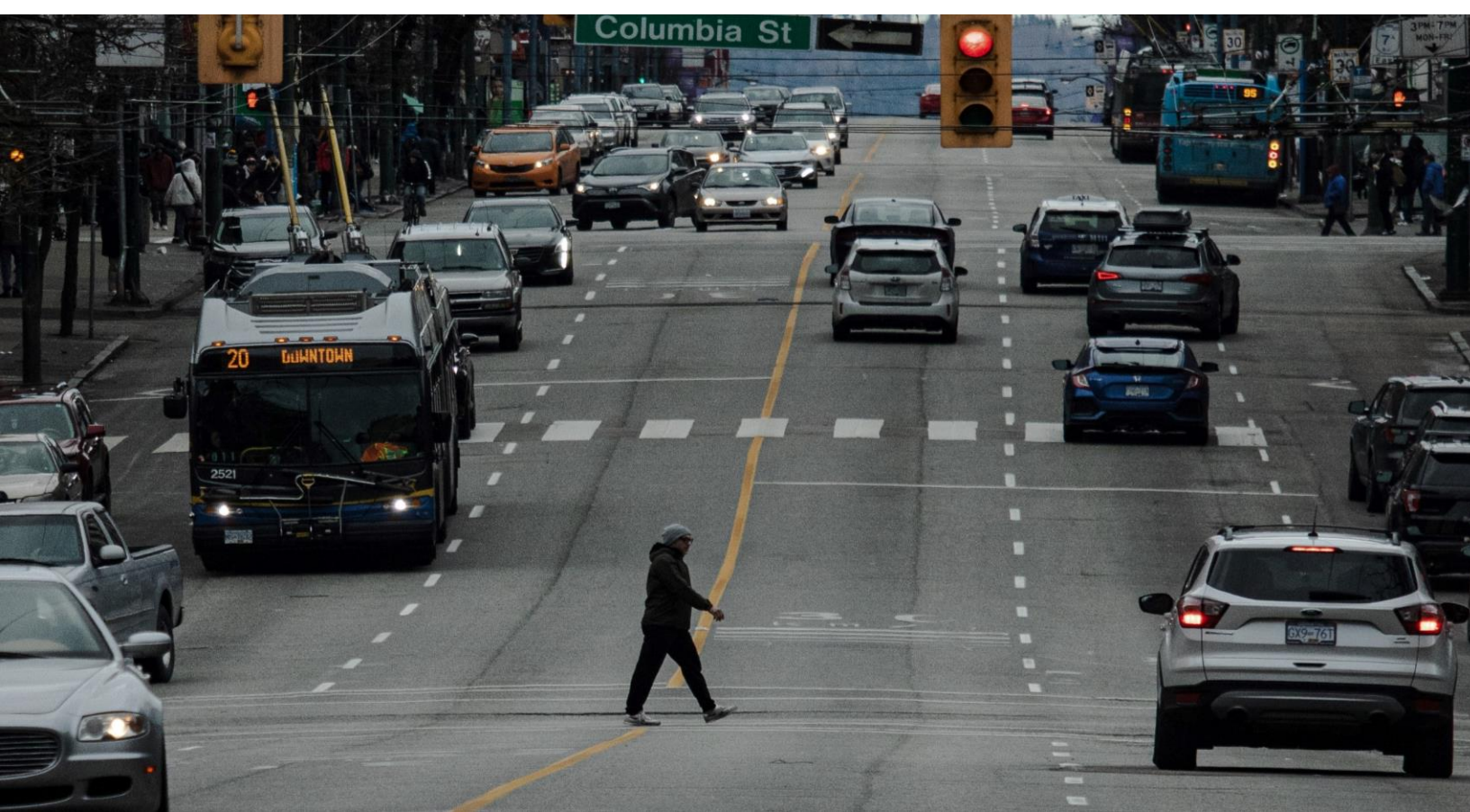|		
Amalgamated Transit Union Canada	Federation of Canadian Municipalities	Toronto Transit Committee (TTC)
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Canadian Institute of Planners	McGill University	Translink
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Author Contributions

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Executive Summary

The National Survey working group of the Mobilizing Justice Partnership convened a workshop of 65 stakeholders to discuss the major themes of a planned national survey addressing transportation related social exclusion and mobility justice. At the workshop, which took place over zoom on November 5, 2021, participants rotated between five breakout rooms on different themes to quietly brainstorm and then discuss answers to the following questions:

- Which kinds of **mobility aspirations** should we ask about in the survey?
- What **barriers and constraints** should we ask about in the survey?
- What **social, economic, and wellbeing outcomes** should we ask about?
- Which aspects of mobility, access, & the built environment should we ask about respondents' **satisfaction** with?
- What types of **suppressed travel** should we ask about; what types of **excess travel** should we document?

Findings

Participants brainstormed **938 responses** in Mentimeter, and raised another **140 points** in breakout discussions. Workshop organizers coded Mentimeter comments into key topics. The distribution of these topics across all breakouts is presented in Figure 1 below.

The most commonly raised issues pertained to **safety** (16% of comments), followed by **access to destinations** (15%), **public transit** (13%), and access to or wellbeing outcomes related to **social, cultural and religious activities** (13%).
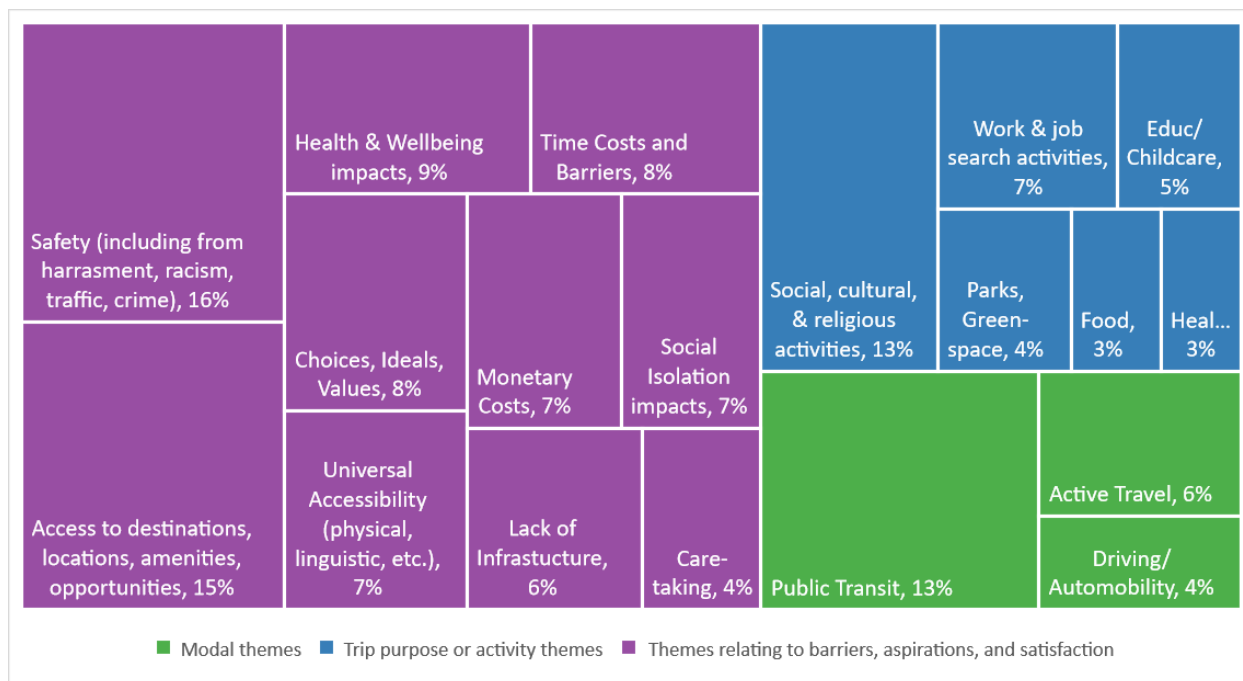

Figure 1: Synthesis of topics raised across workshop breakouts

Participants were also prompted to discuss how they would use survey data on the major workshop themes. MJ partners are primarily interested in the survey as a tool to **deepen their own understanding of transportation inequities** and **identify gaps in their own thinking** (27.7% percent of responses). They also hoped that the survey would **inform their infrastructure investments, strategies, plans, and non-infrastructure interventions** (24%). Additionally, participants believed the survey can **inform their own research** (11% responses). Finally, fewer responses discussed using the survey to **support advocacy** (10%), **map need** (6%), **improve transit** (6%), **develop visions** (5%), and **promote equitable sustainability** (5%).

Representation and Engagement

The workshop included representatives from federal and regional agencies, municipalities, academia, nonprofits, industry, and community advocacy. However, participants from academia and government agencies made up two-thirds of those in attendance. In contrast, community advocates and NGOs made up just over 10% of attendees. Despite this imbalance, many topics raised at the workshop focused on the safety, infrastructure needs, and mobility aspirations of equity- and sovereignty deserving communities. Conducting equitable research on these topics will require the partnership to develop an **equitable community co-creation process and engagement plan**.

Recommendations for the National Survey

In addition to providing an initial picture of current stakeholders' data needs and interests, workshop discussions yielded several recommendations for the National Survey team:

1. Develop an equitable co-creation process and engagement plan prior to taking further steps on survey development.
2. Ensure adequate contextual variables are gathered in the survey to accurately represent complex topics like excess and suppressed travel.
3. Address how the season of survey deployment will influence respondents' perceptions of many topics, including mobility barriers and suppressed travel.
4. The survey should be resourced to enable deployment in many languages.
5. Survey design should not be biased by assumptions that certain barriers or aspirations are only relevant to certain people.
6. Several concepts require further refinement: the project may need to consider suppressed *activity participation*, rather than just travel; infrastructure aspirations raised by the survey may need to be calibrated to what partners can practicably deliver (i.e., not self-driving private cars).

Introduction

Mobilizing Justice is funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) to conduct the first-ever large-scale survey of transportation poverty and transportation-related social exclusion. Transportation poverty refers to situations where socio-economic marginalization combines with transportation barriers to mutually reinforce problems in peoples' lives, preventing them from thriving. Transportation-related social exclusion is the outcome of transport poverty, as it results from the activities that people miss out on due to one's transportation situation, things like missing job interviews and doctors' visits, as well as feelings of isolation. The theoretical scope of the survey has grown since its initial conception as our partners have called for greater focus on transportation and mobility justice. Transportation justice refers to the prioritization of marginalized and disadvantaged travelers in the allocation of transportation resources, while mobility justice calls us to center the voices, needs, and aspirations of residents from equity- and sovereignty-deserving communities.

Mobilizing Justice's National Survey Working Group convened the workshop to ask government staff, academics, industry, NGOs, and community advocates what they felt was important to include in the survey. The workshop took place for two hours over zoom on November 5, 2021. In five sessions, small groups of participants silently brainstormed responses to a series of prompts using Mentimeter. They then collectively reviewed and discussed the resulting output, identifying Mentimeter comments that resonated with them, asking for clarification, and elaborating on points of interest. The five sessions were organized thematically, based on concepts articulated in Mobilizing Justice's SSHRC application. They include potential survey respondents'

- mobility aspirations,
- barriers & constraints,
- life & wellbeing outcomes,
- satisfaction with travel,
- trips not taken (suppressed travel), and trips made that people would rather not make (excess travel).

Sections 2-6 of this report present the results for each of these five themes. They start with definitions of terms and the questions asked about those terms in the workshop, followed by syntheses of Mentimeter results and summaries of break out discussions. Section 7 presents a summary of responses to questions on how MJ partners anticipate using data from the survey. Section 8 presents a more detailed discussion of who attended the workshop and who needs to be invited into the survey development process. The conclusions discuss the emergence of a framework for understanding the relationships between the survey's major themes.

Aspirations

Mobility aspirations were defined in the workshop as **what people want, need, or desire from their transportation system and built environment**. Aspirations could be conceptualized at any scale, from the personal (I desire a better car), to the neighbourhood (I need more frequent bus service in my area), to the regional (I want a rail link between Edmonton and Calgary). They could relate to specific infrastructure (I wish my neighbourhood had enough street lighting) to lifestyle considerations (My transportation options allow me to live the active lifestyle I want) to residential selection (I want to live in a more walkable neighbourhood). On this topic, participants were asked to consider the following:

BRAINSTORM: WHICH KINDS OF <u>**MOBILITY ASPIRATIONS**</u> SHOULD WE ASK ABOUT IN THE SURVEY?

Participants provided 134 comments on this topic that the authors inductively coded into 45 topics organized into 8 categories. These topics and categories are presented in Figure 2 below. At a high level, participants were interested in residents' **mobility ideals or preferences**. If there were no constraints, what would residents' preferred mode of travel be, and what would the ideal experience of that mode be like? These themes overlapped with interest in **residential aspirations**: what kinds of neighbourhoods do residents want to live in, with what kinds of amenities, design, and aesthetics? How important is walkability? One comment highlighted some residents' desire to stay in-place in neighbourhoods undergoing gentrification.

Access to destinations

Participants want to understand residents' aspirations regarding access to destinations, including the type of destinations that residents find important to access, and what 'good access' means to different people (i.e. diversity, universal accessibility, price, quality, etc.) Participants mentioned parks, greenspace, schools, social-services, activity-centres, and workplaces.

Public transit, active travel & automobility

Partners are also interested in mode-specific aspirations. For public transit, what level of frequency, service span, and connectivity might meet residents' aspirations for public transit in their community? What does the ideal first/last mile look like? For active travel, one participant suggested that the survey should ask what modes residents would like to become an 'expert' in using that they currently do not use. Participants also suggested exploring respondents' views on ideal bike and pedestrian infrastructure. For automobility, the aspirations groups brainstormed only two topics: what car purchase aspirations do residents have, and how important is congestion relief for drivers?

Person-specific aspirations

Person-specific aspirations referred to both age and ability. How do residents' aspirations vary over the life course? For people with physical limitations, what does an ideal mobility system mean?

Quality of life

Quality of life aspirations provided the broadest range of ideas. Do residents' aspire for their children to have more independent travel, and what would it take to enable that? Do residents experience an ideal freedom of movement, independence, level of safety, and ease of travel? What does an anti-racist transportation system look like for residents who fear harassment and profiling?
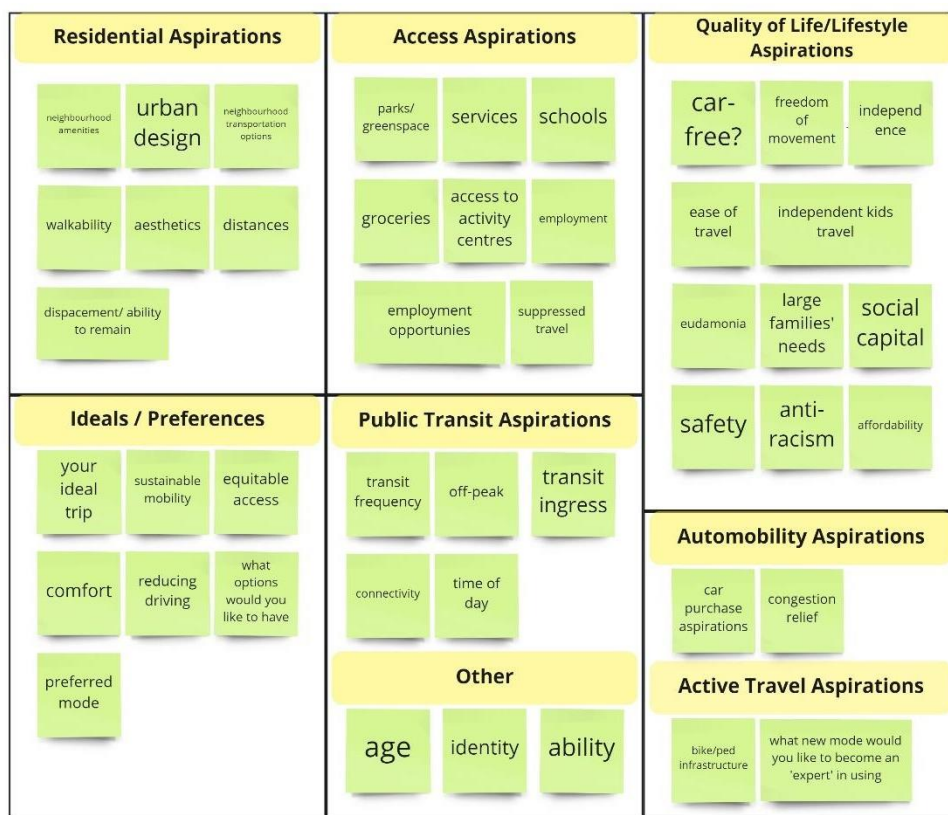

Figure 2: Synthesis of Mobility Aspirations Brainstorm

DISCUSSION ON MOBILITY ASPIRATIONS

In open discussion on the initial brainstorm, participants offered several frank suggestions for the partnership to consider moving forward. These discussions centered on the diversity of aspirations in the community, the challenges of operationalizing aspirations in a survey, and the value-added of documenting aspirations.

Aspirations are very personal, and will vary significantly depending on who the respondent is and what their current living situations, barriers, and constraints are. Further, many people are unlikely to have a clear and consistent vision of their aspirations. As one participant noted, "there might be an alternative future that can take shape that is not really spelled out in people's heads. It's incredibly rich to think about how people shape their aspirations. But how do we draw useful information out of that." Another participant noted that while people may aspire to a lot, that doesn't mean they embrace what it takes to get there, "I feel like everyone wants improvement, but not many people want change. And it's kind of understanding what people are willing to pay, what kind of price in terms of construction or even barriers to undergo to achieve these mobility aspirations?" The survey design team will need to consider the practicality of any aspirational questions asked. Partners may prefer questions asked on aspirations for infrastructure and services they can deliver (cycletracks, dedicated bus lanes) versus those they cannot (inter-city high speed rail).

Further, focused questions on aspiration risk leading on respondents, and several participants believed the survey should be as mode-agnostic as possible. In response to a suggestion about using the '15 minute city' as a framing for many of the brainstormed ideas, a respondent stated that "there's lots of people who just

want to drive a new car without any traffic and have an easy place to park it for free." Workshop participants agreed that if the survey asks explicitly about peoples' aspirations, it must include all of these potential conflicting aspirations in our framing.

As difficult as aspirations may be to operationalize, several respondents embraced the broadness of this theme as a framework. One city staffer stated that, "as transportation departments, we focus a lot on needs and deprivation. And I think that there is something valuable in thinking about desires and aspirations and things that don't feel like just basic needs. [Aspirations] allows us to also consider transportation as something that enriches life." As part of a theoretical approach for the survey, aspirations may be a more inclusive vehicle for capturing the impacts of transportation on peoples' lives than other frameworks.

Barriers and Constraints

Barriers were defined in the workshop as the **things that prevent peoples' movement or access**. This can include lack of infrastructure like sidewalks, fear of COVID-19 transmission, needing a smartphone to access some transportation services, etc. **Constraints** were defined in the workshop as the **things that limit how much people can move or access**. Examples include time constraints, familial obligations, needing to share a car with a spouse, etc. On this topic, participants were asked to consider the following:

BRAINSTORM: WHAT **BARRIERS AND CONSTRAINTS** SHOULD WE ASK ABOUT IN THE SURVEY?

Barriers and constraints yielded 175 Mentimeter comments that the authors coded into 80 disaggregated topics. These topics were further organized into five distinct categories: social and institutional, digital and transactional, safety, design & active travel, and public transit. A sixth 'catch-all' category, general/multi-modal, covered barriers that spanned modes, lived experiences, and geographic contexts. A graphical summary of these topics is provided as Figure 3.

Social and institutional barriers

This included issues like policing and fare enforcement making residents feel unsafe in travel. Social problems like racism, homophobia, and transphobia also featured prominently in this category, as respondents' may feel like a 'fish out of water' traveling in some spaces, and may fear harassment as a result. The relationships between different modes of travel and social acceptability also fall into this category, as workplace norms, social status associations with modes, and cultural norms can all constrain peoples' choices. Caretaking responsibilities were also mentioned.

Digital and transactional barriers

This included individuals not having a credit card, bank account, smart phone, or adequate data plan. Participants also highlighted public places having poor/inadequate wifi, making it harder for individuals to plan trips or way find. One participant also raised the issue of residents' having too few places to purchase transit passes using cash.

Safety barriers

Safety was the most commonly raised barrier in the workshop. It encompassed traffic safety, lack of safe infrastructure for all modes of travel, lack of lighting, and lack of safe biking parking that could prevent bike theft. Overlapping with social/institutional barriers, comments on safety also referenced fear of hate crimes, profiling, discrimination, and targeted harassment.

Design and active travel barriers

These ranged from poor design (i.e. lack of adequate street lighting or curb cuts), to the total absence of basic infrastructure (i.e. no sidewalks or crosswalks at all), to the lack of maintenance (uneven sidewalks). It also included more general issues with the built environment, such as a lack of shade, bike parking, and comfortable places to sit. The needs of people with disabilities also featured prominently in the brainstorm, needs such as tactile pavement, safe alternatives to stairwells, and sound signals at intersections. Maintenance also encompassed removal of leaves, snow, and ice from pathways and bikeways. Inadequate connectivity of safe and well-maintained infrastructure was also mentioned by several commenters.

Public transit barriers

Public transit barriers and constraints refer to either stop/station barriers, vehicles barriers, or overall service barriers. Stop/station barriers included lack of shelters, seating, and restrooms, lack of universally accessible design at older stations (no elevators, small & heavy doors, etc.), and inaccessible signage (i.e. due to small print, language barriers, etc.). Vehicle-related barriers included lack of room for strollers, groceries, and mobility devices, vehicles that cannot serve wheelchairs, crowding, lack of seating, perceptions of hostility from other riders, and lack of safety. Overall service barriers focused mostly on lack of service, i.e. at specific times of day, for specific places, or lack of capacity for paratransit services. It also included service quality issues like transfer times, reliability, and options for connections.

General/multi-modal barriers

This group contained some of the most basic or fundamental mobility challenges for residents of Canadian cities, such as the lack of a car, the weather, housing costs, and the lack of universal design in not just transport infrastructure but also destinations and services. Several of these general barriers also referred to cognitive and psychological barriers like cognitive limitations, mental health, language barriers in signage and public information, lack of confidence in one's ability to use a mode, and lack of information/knowledge on transportation options.
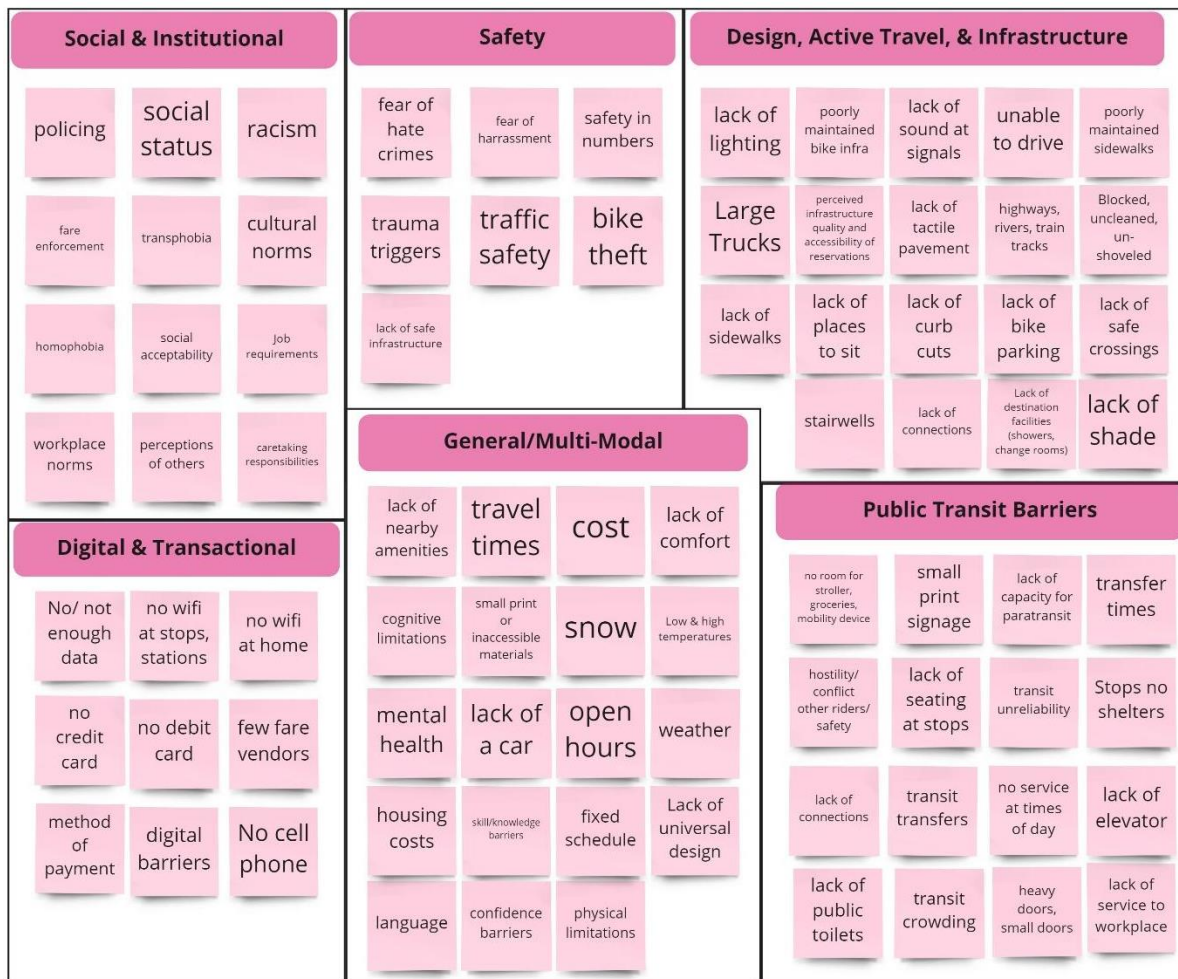
Figure 3: Synthesis of Barriers & Constraint Brainstorm

DISCUSSION ON BARRIERS AND CONSTRAINTS

Participants elevated several of the brainstormed topics as particularly important, including children's independent travel, fear of discrimination or the perceptions of others, language barriers, and the need to consider barriers intersectionally. Participants highlighted the value of measuring perceptions of barriers so they could be compared with objective measures used in practice. Mobilizing Justice's **Data Driven Standards** working group is tasked with establishing standards, and **the survey could be used to identify what levels of service or infrastructure provision correlate with the absence of perceived barriers**.

Perceptions and norms around children's travel may function as barriers to both children and parents. As one respondent pointed out, "There's this social idea that [walking alone places] is dangerous for children. But that's not necessarily true. But the socially appropriate behavior is that they would always be escorted. So that creates a barrier for young children and families with young children." Participants also noted that the workshop did not include any children as participants, and this might constitute a gap.

Participants highlighted a need to unpack the interrelated issues of other peoples' perceptions of riders in travel, and fear of harassment. A participant said, "being part of a racialized group, when I've spoken to

other women they're not comfortable riding transit at some points of the day or at night, like just because they might get accosted, yelled at. Like I know, I have had experiences on transit where people said things." Participants discussed how travelers adapt or get around this barrier, "for example, women wouldn't take transit, at certain times during the day, but if they will intentionally try to take transit during these times, they'll utilize a buddy system. So, they're not alone, at certain times of the day while using transit, like buses or trains." Participants also noted that the prominence of language barriers impacting transit use should be reflected in the survey as well, in that **it should be delivered in as many languages as possible**.

Respondents noted that many of the barriers that impact groups differentially intersect enough that removing a barrier that is particularly difficult for one group of riders can benefit all riders. One respondent noted that requiring the vehicles to announce the next stop, while intended to help those with visual impairments, benefited everyone, "I find it very helpful for myself just because when I'm travelling in a new area, I don't always know which bus stop I'm looking for. And I think that's very helpful." The **survey's design should not assume that only some barriers matter only to certain types of respondents, as that would risk failing to document these intersections**.

Life and Wellbeing Outcomes

Mobilizing Justice's working group on **Data Driven Standards** will use the national survey to evaluate the relationship between transportation supply (level of bus service, bike lanes, etc.) with individuals' life outcomes (employment, etc.) and wellbeing outcomes (self-rated physical health, mental health, etc.). The results will help transportation planners model the socio-economic impacts of their infrastructure investments. This breakout group challenged participants to brainstorm what types of life and wellbeing outcomes should be included on the national survey for this purpose.

BRAINSTORM: WHAT SOCIAL, ECONOMIC, AND WELLBEING OUTCOMES SHOULD WE ASK ABOUT?

Participants were asked two separate questions, one on socio-economic outcomes, and another on wellbeing outcomes. However, responses to the two questions overlapped significantly, enabling us to present them as one set of findings. A graphical summary of this section is provided in Figure 4. The 176 answers to these questions were given up to 73 thematic codes that were organized into eight categories:

Employment and educational outcomes

Participants were interested in comparing transportation access to employment, unemployment, the frequency and duration of respondents' unemployment spells, and job retention. One comment suggested documenting respondents' self-reported ability to perform their job effectively. Participants also felt that aspects of the **employment search process** could be compared to transportation availability, including job search radius, respondents' ability to switch jobs, and number of interviews taken. On education, **participants were interested in transportation's role in student's grades, absences, and lateness**. At the adult level, participants were interested in respondents' participation in training and educational programs and, if they were students, whether being a commuter student influenced their campus participation.

Wellbeing outcomes

The broadest and most common category of responses pertained to wellbeing. This included perceived levels of happiness, isolation, subjective wellbeing, life satisfaction, and stress. Comments extended more deeply into individuals' self-perception, suggesting topics like respondents' sense of self-command, ability to achieve ambitions, feelings of connection to what matters, sense of contribution to society, eudemonic and hedonic wellbeing, and sense of access to opportunities. Wellbeing comments also pertained to minority stress and the need to live free of racism and other forms of prejudice.

Participation outcomes

Workshop participants suggested the survey document activity participation across diverse domains. This included participation in community programs, social events, education, extra-curricular activities (for students), sports, fitness and recreational activities, cultural and religious activities, and social service utilization.

Social connections

Outcomes relating to social connections included social capital, social cohesion, respondents' sense of belonging, sense of connection, knowledge of and relationship with neighbors, trust in others, and ease of

access to social contacts and support. One participant suggested measuring respondents' sense of citizenship or civic identification with their city.

Health outcomes

Responses relating to health outcomes focused on self-rated physical and mental health, as well as self-rated diet. Others focused more on healthcare, including healthcare utilization and perceived level of healthcare access. One comment suggested that respondents rate their sleep quality.

Financial outcomes

Financial outcomes concerned respondents' financial status and ability to build wealth. One comment called for documenting the percent of income that respondents spend on travel.

General wellbeing outcomes

This category encompassed broad perceptions, like respondents' ability to accomplish daily tasks, satisfaction with food access, and ability to travel. One comment in this category recommended documenting what people sacrifice to pay for transportation.
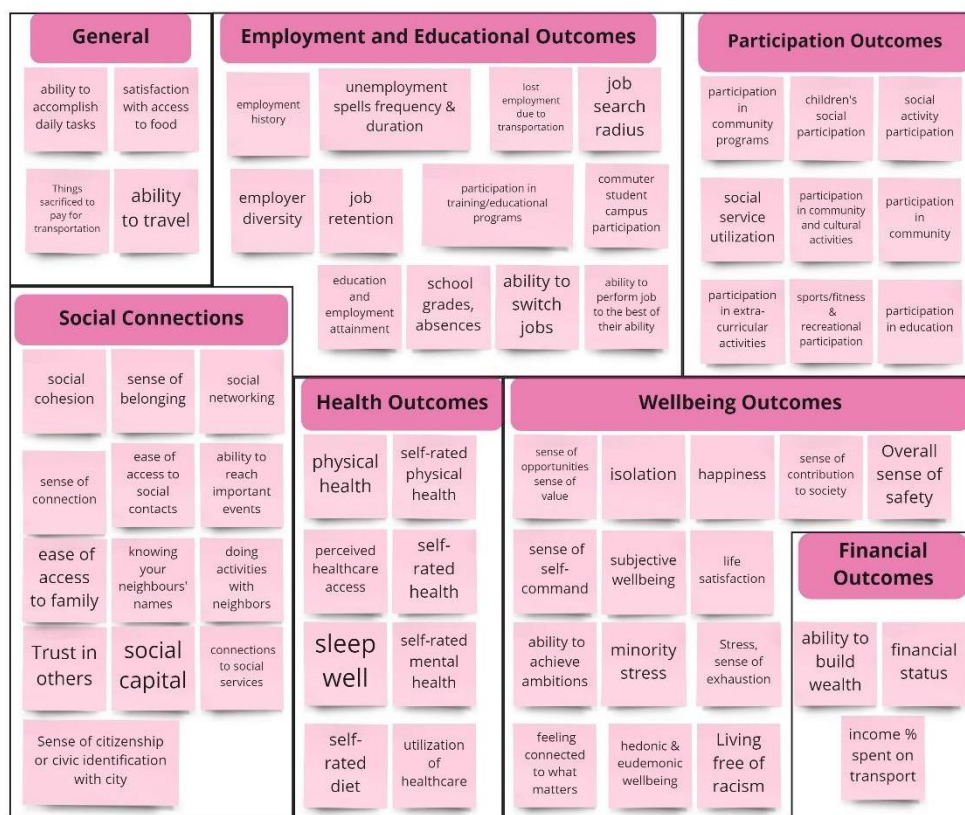

Figure 4: Synthesis of Social, Economic, and Wellbeing Brainstorm

DISCUSSION ON SOCIAL, ECONOMIC, AND WELLBEING OUTCOMES

Participants highlighted the importance of social outcomes as a significant factor influencing other outcomes, particularly employment and wellbeing. As one participant noted, "I think the growing understanding of how

critical social capital is can be seen in some of these [Mentimeter answers]. [Social activities are] actually just as relevant and important as that nine to five, as the getting into school or getting to work. And so, I just wanted to reiterate that piece: it's those many [after work] things that can actually open the doors to opportunities for work." Participants called attention to the negative social outcomes stemming from a lack of transportation. Another participant discussed recent research they found, stating that " [the researchers] talked about a kind of universe that people feel like they enter once they live in a very low-density area and don't have access to a car or can't, or can't afford to drive their car often, where they just, without really even thinking about it, refrain from doing pretty much anything that's not necessary or going anywhere. That's not necessary, because they've just resigned themselves to a very deep sense of isolation."

Participants also discussed the limits of physical health and nutrition on a survey with so many other sensitive topics. A participant pointed out that "We don't want to go into nutrition, there's, you know, sort of a limited scope on how many questions we can include here. And I think sometimes people are going to try and throw in height and weight to get BMI and nutrition. And I'm like, that's not a call to come over study setting. That's a compromise that I'm comfortable making here. And [the BMI question] also turns people off sometimes." At most, some participants agreed that self-rated physical and mental health were as detailed as the survey should go into health.

Satisfaction with travel

Mobility satisfaction was defined for the workshop as **individuals' contentment with their mobility options, access, and built environment**. This included satisfaction with the travel resources and built form of one's neighbourhood, satisfaction with access to destinations, and satisfaction with particular trips, modes or routes. On this topic, participants were asked to consider the following:

BRAINSTORM: WHICH ASPECTS OF MOBILITY, ACCESS, & BUILT ENVIRONMENT SHOULD WE ASK ABOUT RESPONDENTS' **<u>SATISFACTION</u>** WITH?

Workshop participants generated 140 Mentimeter comments on satisfaction which were organized into 80 topics grouped into seven categories. These are summarized in Figure 5 below. One participant noted that satisfaction with travel could be split into two categories: functional ability of travel to meet needs, and the experiential component of travel itself. Nearly all general points about travel satisfaction that did not fit into other categories fell into either of these two components. This discussion begins with these topics before going into the other categories of: mode-specific satisfaction, built environment and accessibility satisfaction, and emotional/psychological satisfaction.

Functional ability of travel to meet needs

This included satisfaction with speed, cost, safety, ease of use, the amount of preparation needed for travel and its predictability, as well as travel times and availability of different modes or routes to choose from.

Experiential components of travel

This referred to the comfort, enjoyment, convenience, and the overall 'quality' of the travel people make. It also included satisfaction with social interactions made during travel.

Mode-specific satisfaction

Participants were interested in the level of satisfaction respondents have with modes related to specific aspects of those modes. For transit, this included service characteristics and performance, stop and station amenities, seating, interactions on transit, the first/last mile experience, and interactions with staff or drivers. For active travel participants considered satisfaction with the quality of the walking environment, level of traffic danger, traffic speeds, end-of-trip facilities (showers, etc), bike parking, lighting, safe crossing, and inter-vehicle/inter-modal interactions.

Built Environment and access

Participants identified satisfaction with various amenities as an important topic, specifically access to: groceries, healthcare, parks/open-space, essential services, and the overall distance to amenities in general. Participants also raised interest in satisfaction with aspects of the built environment that are less commonly discussed in transportation, such as aesthetics, public art, and greenery 'beyond just trees!' These themes also included more established transportation concerns, like quality of infrastructure and pollution.

Emotional/Psychological satisfaction

This category included the impact of travel on participants' sense of self, such as respondents' ability to self-express while traveling, the alignment of their travel choices with their values, respondents' confidence in

their transportation system, and their sense of duty in doing the right thing. One participant called for a focus on dignity, or whether the transportation system treats people with, and allows people to travel with, dignity.
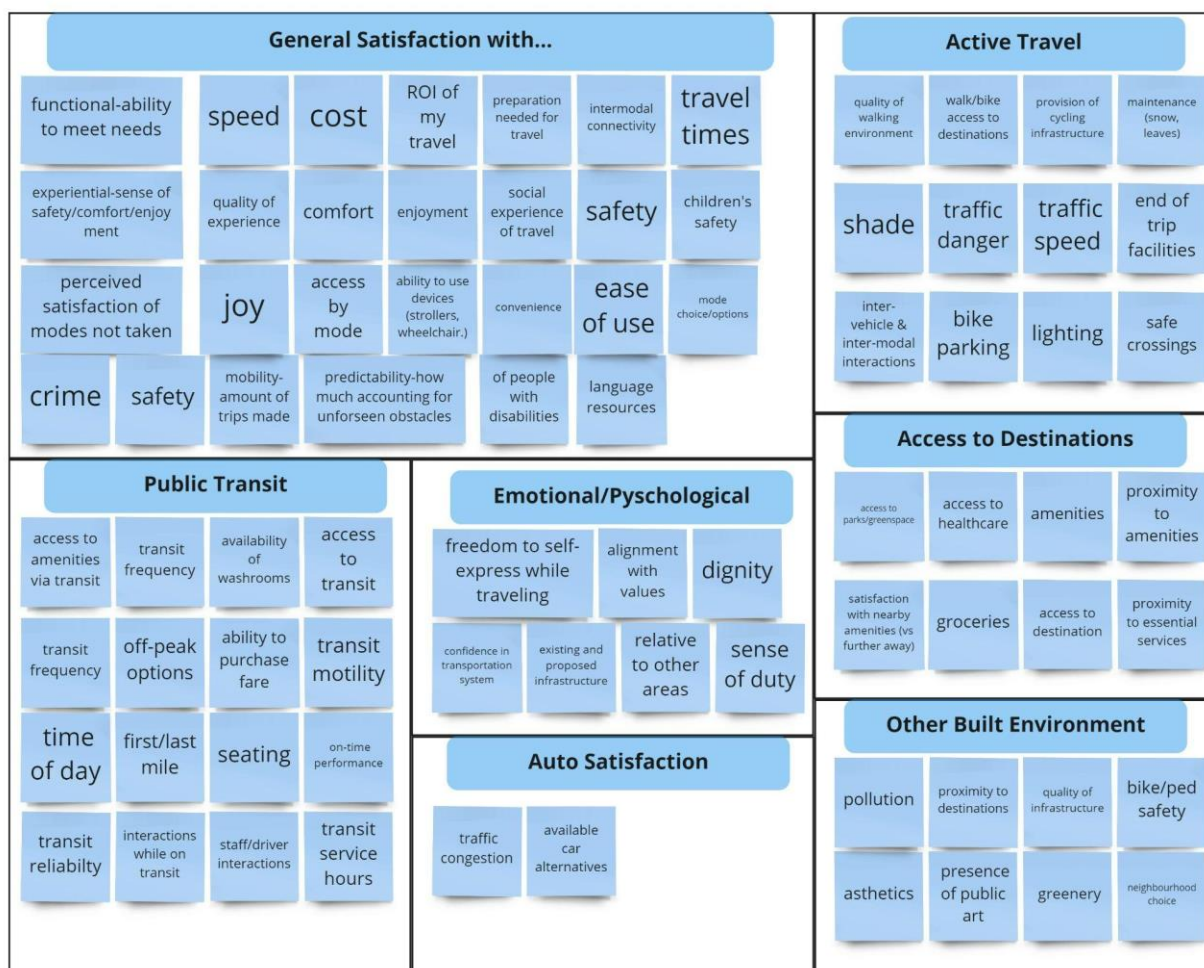

Figure 5: Synthesis of Satisfaction Brainstorm

DISCUSSION ON SATISFACTION WITH TRAVEL

In group discussions on satisfaction, respondents elaborated on two major themes: emotional/psychological satisfaction and the need to carefully measure each mode's specific satisfaction criteria in the context of how much respondents use them.

Dignity featured prominently in discussions of psychological satisfaction, though participants did not quite agree on its definition. One participant embraced dignity as a way to frame satisfaction questions, but noted a need for clarity: "Speaking of long words, maybe dignity is hard to interpret, but you know, how good you feel when you move around. It really encompasses a lot, like safety, experience, etc." But for some participants, dignity encompassed important aspects of emotional wellbeing that were not included in the brainstorm: "I think [dignity] is a really great way to, to approach travelers' sense of power or agency. It helps to understand whether people feel that they have this sort of agency to make different choices about how

they get around." Some respondents found asking about dignity in travel proved fruitful, "something in Quebec City we asked is like, whether you feel like a second-class citizen in the mode that you use."

Participants discussed the challenge of satisfaction with modes being a relative phenomenon, as respondents' lack of experience with modes they don't use biasing their satisfaction with their own mode. A participant highlighted the need to understand survey respondents' understanding of the "the relative convenience or competitiveness of it with other modes especially if you're stuck with that mode." Participants with experience researching travel satisfaction suggested focusing on the last trip, i.e. "When we [asked about] satisfaction in general, we found that people are not giving good answers. So we always ask about satisfaction, and we have done a couple of papers on that. We found that asking for satisfaction should be regarding your last trip. And when you refer to the last trip, the answer you get is specific to the mode the respondent used in that trip."

Suppressed and Excess Travel

We defined **suppressed travel** as **the trips people want/need to make but cannot**. This can include appointments missed due to congestion or late buses (i.e. missed doctor's visits, hairdressers, etc.) as well as trips not made because individuals ran out of time (i.e. skipping the gym after getting home late). It can also encompass things that people do not bother trying to do because of a lack of transportation, that they might consider doing if they had better mobility (i.e. not interviewing for jobs one town over due to a lack of a car).

We defined **excess travel** as aspects of **the travel people have to make, but do not want to make**. This includes things like excessive travel times (i.e. people who commute over 90 minutes to work, but not by choice), as well as situations where respondents feel forced into particular modes or times of travel (i.e., I would not own a car if my neighbourhood had better transit, I have to drive to work at 5am to avoid traffic).

BRAINSTORM: WHAT TYPES OF <u>SUPPRESSED TRAVEL</u> SHOULD WE ASK ABOUT?

The brainstorm on suppressed travel yielded 176 Mentimeter comments that received 71 thematic codes that we organized into six overarching themes: suppressed essential activities, missed work or school, suppressed physical/outdoor activities, missed social activities, and children's activities. These are presented in Figure 6.

Suppressed essential activities focused on health and household care, ranging from missing non-emergency and primary care appointments to not being able to reach a culturally preferred grocer. For **missed or late to work or school**, participants were interested in how a lack of transportation hinders' peoples' ability to get to work and school, but also how transportation constrains where people look for work, are willing to take interviews, or are willing to take educational opportunities. Around **suppressed physical/outdoor activities**, participants also highlighted a need to understand how transportation limits participation in nature, sports, fitness and fitness activities, whether that be extreme commuters not having time to exercise or car-less residents not having a bus route to a national park. **Children's activities** that were discussed included missed or suppressed physical activity, after school program participation, after-school activities, social activities, and recreation. As with other themes, social wellbeing featured prominently in this brainstorm. **Social suppressed activities** received the most comments, ranging from missing out on religious and holiday activities to suppressed participation in family life and the loss of spontaneous social activities.

Participants also found it valuable to explicitly ask what prevented people from conducting this travel that may not come up in other survey sections. This included lack of paratransit service or issues with paratransit booking, time poverty, and uneven public transit service by time of day. Participants also reiterated the importance of considering travel costs, with one comment suggesting the **survey should measure what people are forced to sacrifice to be able to afford transportation.**
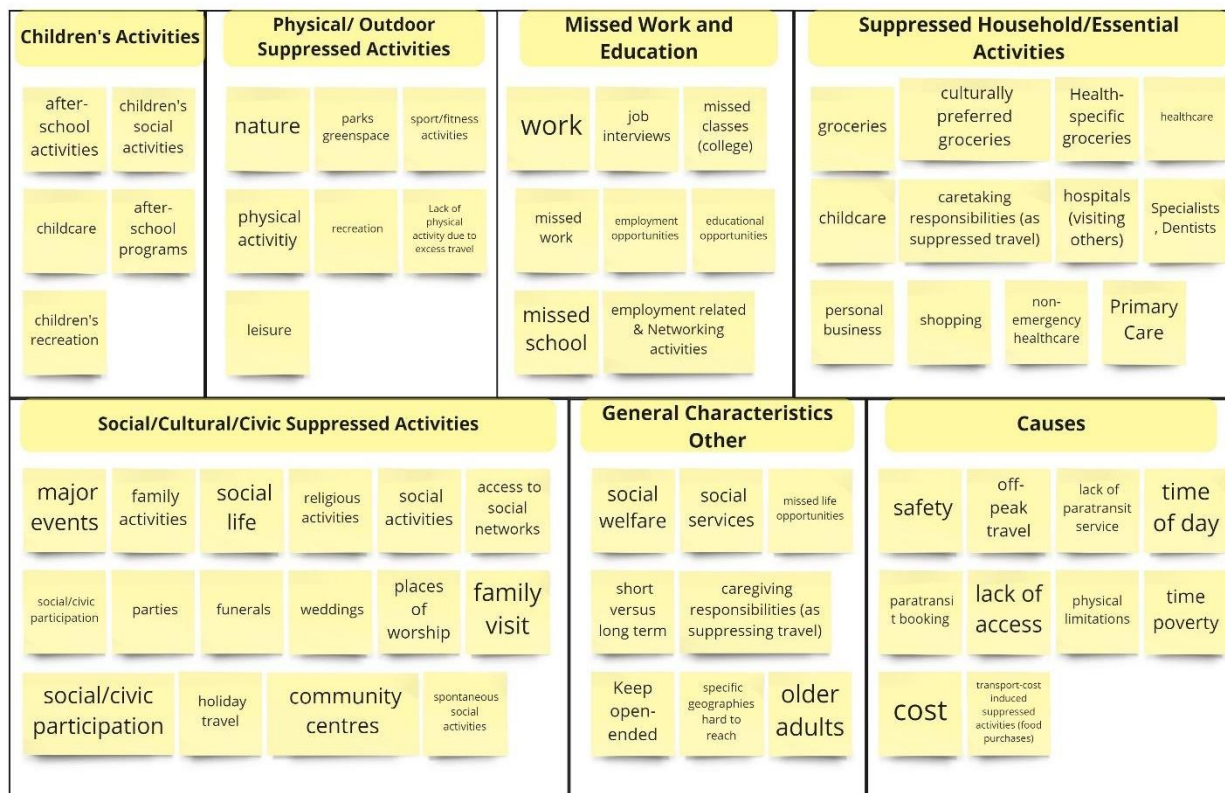
Figure 6: Synthesis of Suppressed and Excess Travel Brainstorm

BRAINSTORM: WHAT TYPES OF **EXCESS TRAVEL** SHOULD WE DOCUMENT?

Participants offered generally fewer examples of excess travel (63 comments coded into under 30 topics). Some participants also expressed hesitations towards any attempt to arbitrarily label travel as excessive when travelers themselves might not agree. Regardless, workshop attendees' brainstorms on excess travel led to 8 categories. These findings are summarized graphically in Figure 7.

Framing excess travel

Several comments focused on how to frame different types of excess travel. These included extreme commuting, forced car ownership, any situation wherein the traveler perceives their travel to be excessive, and 'joy driving' or 'joy riding.' One participant commented that in the context of COVID-19, any commuting to jobs that could be done from home was arguably excess travel. Another comment suggested the survey ask respondents their ideal commute time, and consider any time above that as excess. Another commenter suggested that peoples' value of time might play a role in how excess travel is defined, and so the survey should carefully consider whether and how to control for peoples' varied values of time before asking about perceived excess travel. A couple of comments pointed to COVID-19 redefining what travel respondents' might call 'excess,' requiring the survey team to carefully consider what is meant by 'excess travel.'

Public transit excess travel

Comments in this theme focused on how inadequate service means that transit travelers go further distances or spend more time traveling than people using other modes. Participants noted how the

circuitousness of some transit trips, due to a lack of connectivity and coverage, could arguably constitute excess travel. The delays induced by waiting for a less crowded bus, or waiting for any bus, as well as the time spent reaching the first stop, are all arguably excess travel that transit riders have to endure. One commenter noted that the distances people must travel to get to a place where they can top up their transit passes constitutes excess travel induced by the transportation system.

Destination induced excess travel

Participants also considered how issues with destinations might trigger excess travel. For example, an individual might live within walking distance of a store, but since the store is not accessible for someone using a personal mobility device, the individual might have to travel much further to reach an accessible store.   Participants also suggested that lack of nearby amenities might be a cause of excess travel, such as driving to distant, big-box retailers, or reaching the culturally or health-appropriate grocer on the other side of town, as well as having to get out of the city to access nature and recreation. Respondents also referred to major social gatherings like weddings, and infrequent but important bureaucratic trips, like to Service Canada, as potential excess travel given the dispersion of where these activities take place.

Costs and tradeoffs

A participant suggested that some people may incur excess travel to avoid the monetary costs of faster modes. For example, low income people walk longer distances, likely to avoid having to pay fares. Costs and tradeoffs also referred to forced car ownership, or individuals in transit-poor areas owning cars they struggle to afford. Tradeoffs also referred to both housing and salary, as individuals may drive further to make more, or live further from work to be able to afford the kind of home they want.

Household induced

Some participants suggested that social norms around dependents not being able to travel alone creates excess travel, as caretakers are chaperoning dependents more often than perhaps they would need to. The number of vehicles in the household could also be a marker of excess travel, as the extra available vehicle(s) may induce additional driving.

Built form/urban design

Some participants suggested that the unavailability of neighbourhood amenities could be understood as a cause of excess travel. Similarly, the impact of the dispersion of destinations in a suburban environment on travel times could arguably constitute excess travel. Finally, one participant noted that people often take longer routes because they are safer, with lack of safety/safe infrastructure contributing to excess travel in that way.
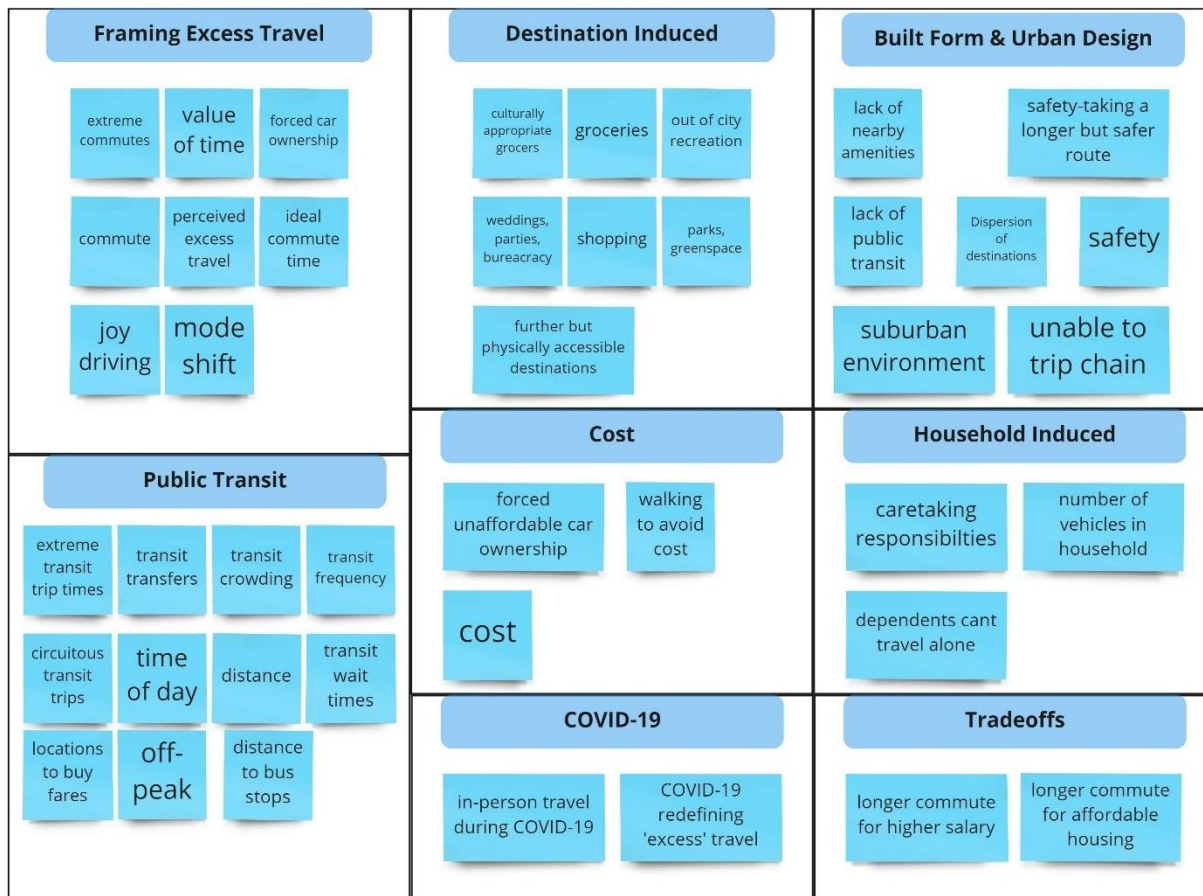
Figure 7: Synthesis of Brainstorm on Excess Travel

DISCUSSION ON SUPPRESSED AND EXCESS TRAVEL

Discussions in these breakouts focused mostly on suppressed travel, and the need to creatively overcome challenges in conceptualizing and measuring it. Several respondents suggested that the partnership **refer to 'suppressed activity participation' rather than 'suppressed travel.'** As one participant stated, "I also think those that suppressed travel might not be seen as that [by survey respondents] because the person might just not be able to participate. And so, they don't talk about suppressed travel, but missed activity, missed opportunities in them on a much grander scale, like not being able to get a job, or not being able to visit their parents." Others discussed the challenge of helping people think about suppressed activity participation when it's been so long since they've tried to participate in those suppressed activities. Another participant stated, "I know for a lot of folks in communities that I work with, if I were to ask them about missed opportunities, they wouldn't think about it, because it's just like, not part of their routine. It's like 'I have no business doing this, because I can't do it.' But if you ask them about what their peers do or what their friends do, that they want to do as well… That might force them to start thinking about what they could be doing versus what they're not doing."

Participants discussed the merits of different approaches to teasing out suppressed travel in a survey. Some considered it a multi-step process or one that required survey respondents to consider different scenarios. Others suggested a more iterative approach: "we often start by just saying to them, what can you do in your local area? And then what are the things that you are not able to do? Are you able

to get to work and if not, is that a travel issue? Quite often, that's the way we start: with what they know, to build on what they're not then able to attain. And I agree with a divide between wants and needs. But also, I think, something that might be somebody's necessity or might not necessarily appear to be necessity to someone else, especially your travel planners." Another participant noted that some suppressed trips might be spontaneous, and the respondent wouldn't know they were suppressed unless the better transportation option was available.

The temporal dynamics of suppressed and excess travel also interested participants. This included **questions like what times of day travel is most suppressed**, and what role having to book in advance plays in suppressing travel, i.e. the advanced notification a paratransit service needs when a ride is being booked. Respondents also noted that in colder places, **suppressed travel might vary significantly by season, making the survey's data collection dates an important methodological concern for this topic**.

Participants expressed concerns about excess travel, including definitions and labeling some travel as 'excess' when the survey respondent might not. One participant said, "Where do you place the cut on what is excess travel? Because to me, I commute for an hour. I don't think it is excess travel. On the other hand, if I would normally be traveling for half an hour, I might think differently." As another participant noted, "One thing that stood out to me was how excess travel is maybe a social construct and it varies from person to person. So, [excess travel] might need to be defined in the survey as well or elaborated on."

Finally, participants emphasized the importance of individual perceptions and the relational nature of both suppressed and excess travel. As one speaker noted, "It [excess travel] is relational if you have to travel a very long way for something that your next-door neighbor gets very quickly, very easily. Because you have a special need or you have a different circumstance, then if the average population is traveling 30 miles, 30 miles to work, and you're traveling 100 Miles then just to be able to get a job then maybe that's a problem." **This meant survey designers must be careful to understand respondents' geographic contexts when asking respondents' whether they feel their travel is excessive.**

How data on these topics can advance equity

In three breakouts participants were asked follow up questions on how they might use data generated by the national survey. Responses were very similar across themes, so this section presents a combined analysis. Participants generated 148 answers that were grouped into 11 categories. Figure 8 presents a frequency distribution of these categories.
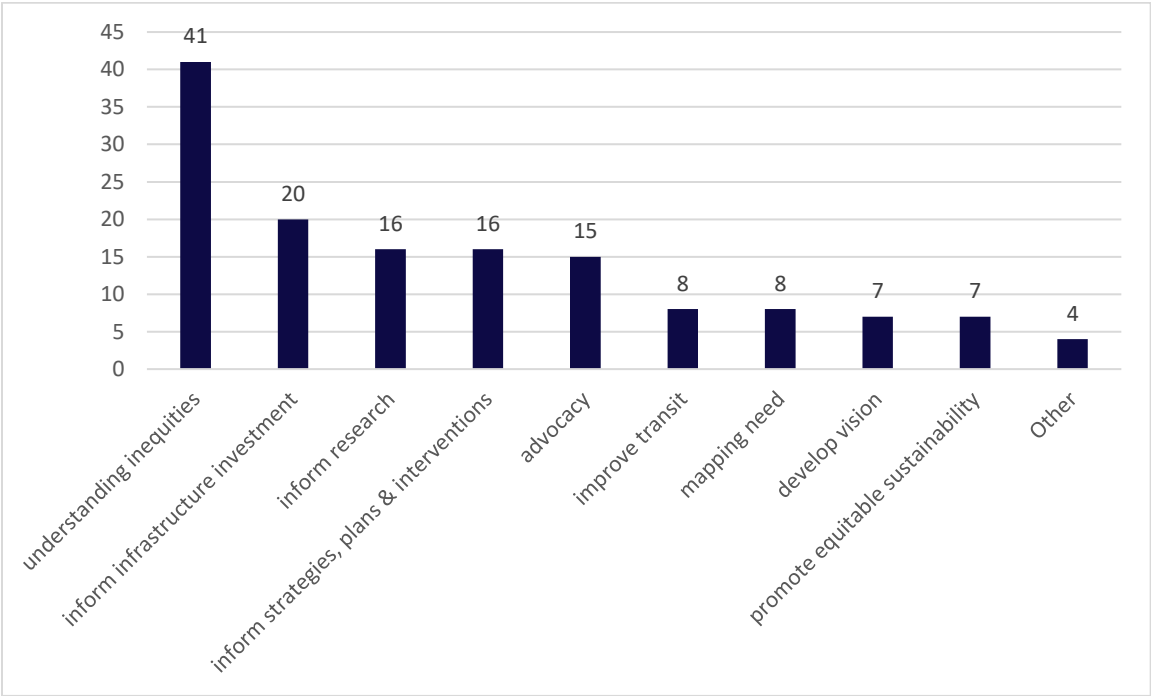

Figure 8: Potential Data Uses Identified By Participants

The most common category, understanding inequities, reflects participants interest in improving their organizations' understanding of transportation inequities across Canada. These comments are best represented by one participant who said "We want to understand what we are doing well and where gaps exist, and further our understanding of the size and intersections of all relevant gaps." Participants across the project still support the original vision of the survey as a tool to document the breadth, depth, and nature of peoples' transportation problems. Specifically, partners **hope the survey can shed light on limitations in agencies' own thinking**: "we want to know the gaps between what we think are transportation barriers and what people say are their barriers."

Participants also highlighted the role of the survey in advancing research needs. This included Mobilizing Justice's needs (i.e., "relate survey perceptions to observed measures of access"). Several participants also mentioned potential applications to enhance common planning tools. As one comment said, "In travel demand models we usually do not understand well the constraints that people often face with respect to usage of various modes, choice of destinations, time of day of travel, frequency of trip-making." And, as another stated, "We always model with 'utility'. 'Satisfaction' is fairly different. Insights into satisfaction could be extremely useful."

Twenty comments described using the data to improve infrastructure investments, while 16 referred to improving non-infrastructure strategies, plans, and interventions. The latter uses included informing targeted mobility programs, supporting human-centric design, conducting transportation needs assessments, and informing internal policy priorities. Comments on informing infrastructure investments focused on guiding resources towards gaps in infrastructure, incorporating equity impacts into project evaluation, and better evaluating investment programs. These comments focused specifically on incorporating equity into evaluation methods. As one comment stated, "We would use the data to incorporate equity into prioritization frameworks for transportation projects & assess opportunities for aligned initiatives with other departments doing public realm work."

Advocacy was another theme on potential survey uses by the partnership. This included advocacy at the municipal, provincial, and national levels. Potential data users also pointed to the value of using the data to advocate for transportation resources at the neighbourhood level, including helping cities to see "how transportation is implicated in broader safety issues in public space." These comments mentioned both public transit and active modes, focusing especially on gaps in paratransit service. Finally, **potential users stressed the importance of a survey design that enables comparisons between municipalities**. In discussion on data use, one participant stated, "and if our city's level of satisfaction on these particular indicators is not as good then, we [can advocate for] getting more work or some changes to address that." Or, as another participant put it, "A big policy lever is comparisons. Apples to apples comparisons… Comparison really motivates policymakers and especially elected officials."

Public transit was the only mode mentioned explicitly in data comments and discussion, **suggesting strong interest in the survey assisting in improving the equity of public transit**. Other interests in survey data included assistance with mapping need, support in developing policy visions, and promoting sustainable mobility in a more equitable way.

Attendance and Representation

Forty-eight people attended some portion of the workshop. These participants were spread across six sectors: non-municipal government agencies (transit agencies, federal agencies), academics, municipalities, community groups, industry, and non-governmental organizations. As illustrated in Figure 9, the vast majority of participants represented academic or government perspectives, while NGOs and community groups were underrepresented. Industry attendance was also low, although few industry partners expressed interest in the national survey.
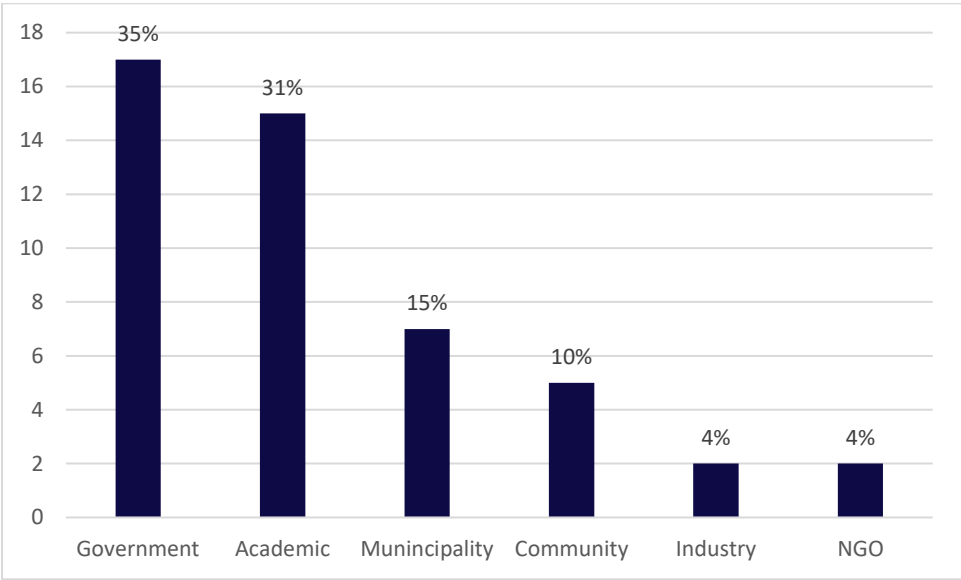

Figure 9: Distribution of workshop attendees by sector

We also examined attendance by region, which is plotted in Figure 10 below. Roughly half of participants came from Ontario or British Columbia, while another 21% came from federal entities with national jurisdiction. Just over a fifth of respondents came from the Prairies, the Maritimes, or Quebec. Mobilizing Justice will need to focus on better representation from participants from these regions going forward.
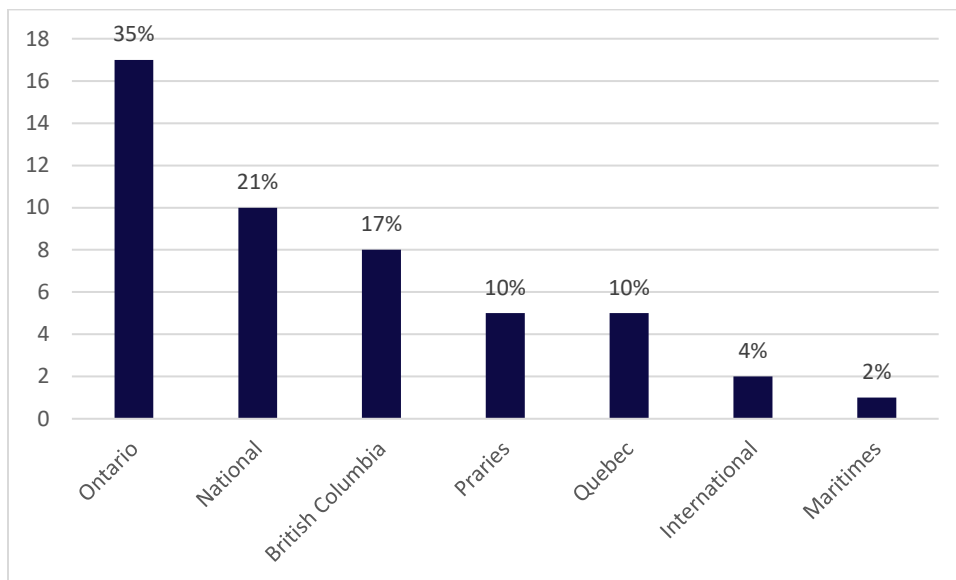
Figure 10: Distribution of workshop attendees by geography

Many of the issues raised at the workshop require deeper engagement with voices and organizations from communities impacted by those issues across the country, including topics such as anti-racism, safety from harassment, universal accessibility, transportation needs on reservations, and language barriers, among others. But the workshop's attendance contained gaps in professional expertise grounded in these communities' needs, particularly representation from NGO and community voices, and voices outside of Ontario and BC. **Deeper engagement may require re-allocating space on the survey to meet the needs and considerations identified by co-creation partners**, and will also require re-allocation of spending to equitably compensate organizations. These actions will keep the national survey development process in line with the partnership's goals and values.

Based on workshop feedback, **we recommend Activity 1 develop a formal engagement and co-creation plan that ensures an equitable co-creation process**. This must include involvement from organizations and voices from specific communities, including:
- Anti-poverty advocates;
- Black communities;
- Children;
- Indigenous communities, both urban and remote;
- LGBTQ2S+;
- Newcomers;
- Racialized communities;
- Mental health advocates;
- Older adults;
- Women;
- People with disabilities.

The MJ central team will need to ensure adequate funding for this plan, and the Leadership Committee will need to provide oversight and guidance on its implementation.

Recommendations and Conclusions

MJ partners and researchers collaboratively generated over 938 comments and ideas on Mentimeter with another 140 provided in follow up discussions. This engagement demonstrates partners' strong commitment to co-creating a survey that will advance transportation equity by documenting residents' transportation aspirations, barriers, unmet needs, and satisfaction, among other topics. This concluding section synthesizes workshop findings, with a focus on the implications for survey development.

Participants raised many of the same topics across the multiple thematic breakout rooms. Safety issues, for example, can be examined as barriers to travel, suppressors of travel, inducements of excess travel, adverse impacts on wellbeing, and can impact safety aspirations. To understand which issues spanned workshop themes, we summed thematic codes across all five breakout themes and aggregated them together to present Figure 11 below. Safety issues were mentioned in 16% of the workshop comments, making safety the most common topic mentioned at the workshop. Transit was the most frequently mentioned mode, reflecting many partners' interest in the survey advancing equity in transit. The percentages in Figure 11 exceed 100%, as many comments touched on multiple issues.
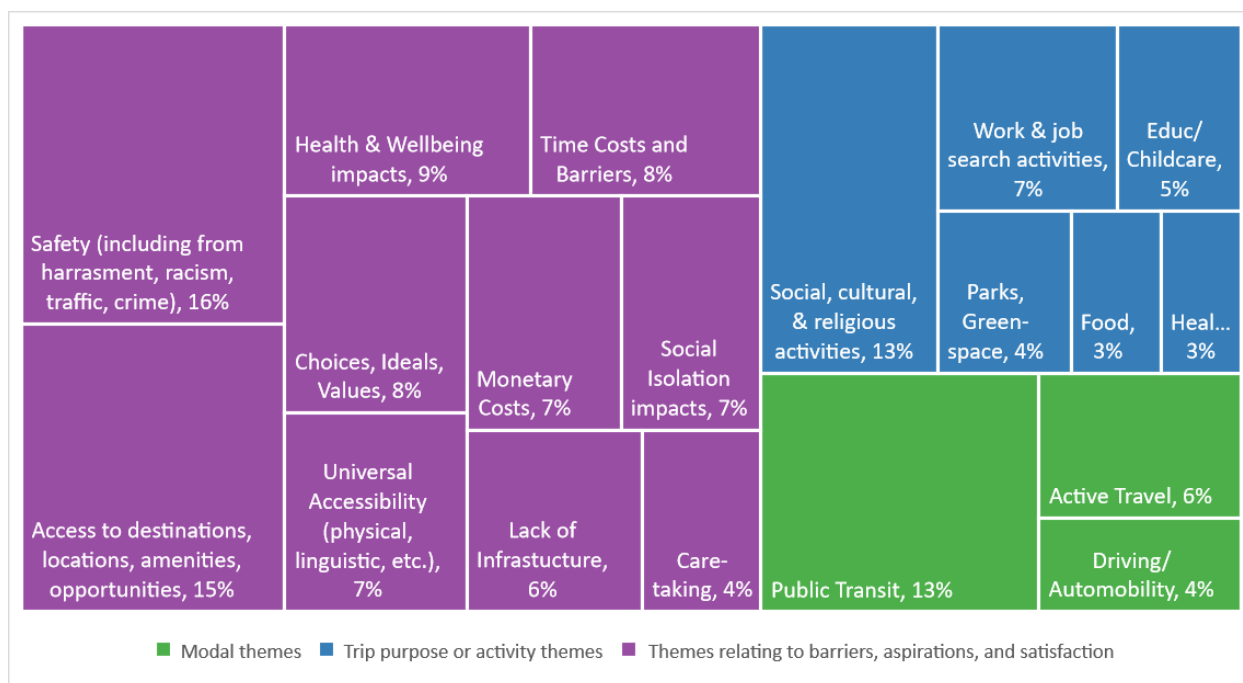

Figure 11: Synthesis of topics raised across workshop breakouts

Accurately representing several of these themes through a survey will require asking additional questions to gather relevant context. The length of these additions will vary depending on how the partnership defines those themes:
- On suppressed travel, the survey should focus on suppressed activity participation, rather than suppressed travel, as people think in terms of missed activities more than missed trips.
- Question on suppressed travel/activity participation could refer to both immediate suppression (i.e. doctors' visits missed last month), as well as residents not bothering to attempt travel because they have been without transport for so long that they no longer consider it "something that they do." The

latter will require more careful question design and greater background on respondent's mobility and sense of isolation.

- Aspirations for mobility and residential location will vary substantially. Questions will need to be tested to avoid leading on respondents. At the same time, the partnership will need to set a practicable scope for the range of aspirations considered. This practicable scope should relate to the infrastructure partners are capable of delivering (i.e. building more bike lanes versus mass buying of private automated vehicles).
- Answers on excess travel will depend on geographic context, as respondents may conceptualize 'excess' differently depending on where they live and how others in their community travel.
- Questions on satisfaction should refer to the last trip, or something proximate to the respondents' recent experience. Asking respondents' questions about perceived satisfaction with modes they rarely use can yield muddled and invalid data.

In other cases, it will be important to be as broad as possible when framing the survey. We cannot make assumptions that only certain types of people are impacted by certain barriers, for example, nor that certain types of possible investments are only of interest to specific populations. As one participant noted, although buses providing auditory announcements of upcoming stops may have been implemented primarily to assist those with hearing impairments, it benefited everyone.

The timing and languages of the survey may impact study results. Levels of suppressed travel may vary by season. Respondents' perceptions of barriers, constraints, and travel satisfaction will also likely be influenced by recent weather. To capture the impact of language barriers on travel the partnership will need to deploy the survey in languages not currently served by transportation systems. The National Survey working group will need to take these issues into consideration when developing and deploying the survey.

Finally, partners are looking for the survey to help fill gaps in their own understanding of these issues. The National Survey team should thus be empowered to look beyond the topics raised at this workshop. A robust community co-creation process for survey instrument development and testing is essential to meeting this need.

Acknowledgements

Suggested Citation

Mobilizing Justice. 2021. Partnership Needs for a National Survey on Transportation Equity.