TRANSPORTATION AND MOBILITY: SAFETY, ACCESSIBILITY, AND COST

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Part 1: Summary

Multicultural Communities for Mobility (MCM) aims to work with and empower fiscally underserved communities of color by advocating for safe and equitable access to alternative methods of transportation for all. For these communities, alternative methods of transportation provide an opportunity to improve their quality of life by addressing mobility issues and facilitating their access to employment, schooling, and healthcare. However, alternative methods of transportation, such as walkable sidewalks, bikeable pathways, and access to efficient mass transit, are hindered by three factors: **safety**, **accessibility**, and **cost**. These three factors intersect one another and should be addressed within a given community's context, while also considering the macro-level factors that maintain and reinforce such disparities. For example, the mobility issues and needs in University Park, near USC, are different from those in Willowbrook in South Los Angeles.

To effectively address the mobility challenges in financially disadvantaged communities, safety, accessibility, and cost should be understood in broad terms. Safety implies more than walkable sidewalks, bikeable pathways, and informed pedestrians or bicyclists. For instance, a high school teacher in Willowbrook stated some of her students avoid skateboarding to school because they fear their skateboard will be stolen on their way to school. In this case, improvements to infrastructure alone will not address the safety concerns affecting mobility issues in Willowbrook. To advocate for and develop effective policies that empower underserved communities of color through alternative methods of transportation, their challenges and needs must first be identified in terms of safety, accessibility, and cost.

Part 2: Context and Importance of the Problem

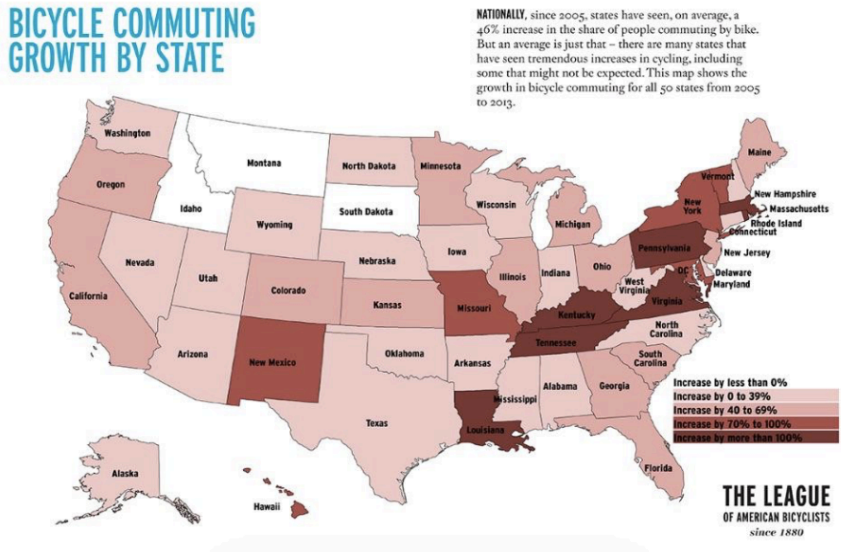
As mentioned in the summary, advocating for safe and equitable access to alternative methods of transportation is critical to narrowing the transportation access gap. According to the National Transportation Safety Board, in 2013 it was revealed that riding on a train was safer than driving in a car. In 2012-13, 6 passengers died while riding a train compared to 11,977 deaths reported riding in a transportation vehicle on the highway. In 2014, 4,884 pedestrians were killed in crashes with motor vehicles (National Highway Traffic Safety Administration, Traffic Safety Facts). There were 65,000 reported pedestrian injuries in 2014; nearly one injury every 8 minutes and one death every 2 hours. Pedestrian injuries have been on a downward trend for almost two decades, but increased in 2012 and have held around 4,800 annually. More pedestrian fatalities occurred in urban areas (78%) than rural (22%); More occurred in the dark

(72%) than in daylight (24%), dawn (2%), and dusk (2%). 47 is the average age of pedestrians killed in 2014, and 37 is the average age of those injured in 2014; Almost one-fifth (19%) of children 14 and younger killed in traffic crashes were pedestrians. More than two-thirds (3,411 of 4,884 or 70%) of the pedestrians killed in traffic crashes were males; The total male pedestrian fatality rate per 100,000 population was 2.17, which is more than double the rate for females (0.91 per 100,000 population). Transportation professionals don't have an accurate sense of how many miles people walk each year, or how many minutes or hours people spend walking or crossing the street (and thus how long they are exposed to motor vehicle traffic). The social interaction possible when the number of people walking increases is a major factor for improving quality of life. Comfortable and accessible pedestrian environment offer alternatives to personal vehicles, which limit opportunities for social contact with others. By providing appropriate pedestrian facilities and amenities, community enable the interaction between neighbors and other citizens that can strengthen relationships and contribute to a healthy sense of identity and place. Costs vary greatly from city to city and state to state, here are the following infrastructure descriptions and pricing: bicycle lane (avg. cost $133,170), concrete bicycle path (avg. cost $179,340), street lighting (avg. cost $4,880), asphalt sidewalk (avg. cost, $33 per foot), and pedestrian crossing sign ($360). These examples are meant to showcase financial underwriting.

Pedalcyclist fatalities occur in urban settings (71%) at higher rates than in rural settings (29%). When it comes to location, fatalities occur more frequently in non-intersection locales (56%) as compared to bicycle lanes (5%). Safety precautions that should be considered: Right to Right, flow of traffic, hand signals, avoid wearing headphones, and to wear a helmet. Nationally, since 2005, many states have seen an increase in the share of people community by bike. California has increased between 40% to 69%. There are, in large numbers, advocacy groups and nonprofit organizations representing bicyclists and on national, state, and local levels to advocate for safer transportation. Some of these groups: American Association of State Highway and Transportation Officials, National Association of City Transportation Officials, The League of American Bicyclists, People for Bikes, and Alliance for Biking and Walking, to name a few. Some projects and newer innovations are being run by: The Green Lane Project to build more appropriate bike lanes and innovating the protected bike lane, and The Big Jump Project helping 10 cities radically reimagine their bicycling infrastructure. This is a video about the protected bike lanes by People for Bikes: https://vimeo.com/93261795. From video: "What we're trying to do is order the streets so that they're easier for everybody to use, so that they're predictable, so that they're comfortable, so that they're safe." A study in NY showed that protective bike lanes reduced traffic crashes for all users by 34%. "They open up the streets to people who might not otherwise feel that they belong there." A policy in place is National Corridor Plan, a 50,000 mile network between states. This is a map that shows where U.S. Bicycle Routes will be developed and how they will connect between states: https://www.adventurecycling.org/routes-and-maps/us-bicycle-route-system/national-corridor-plan/. The impact of a lowered carbon footprint is of great benefit to the environment and for generations to come.

The following slides are from the National Overview presentation:

Bicycles



Bicycles

- Mortality
  - Setting
    - Urban 71%
    - Rural 29%
  - Location
    - Non-Intersection 56%
    - Bicycle Lanes 5%
- Safety
  - Ride to the Right
  - Flow of Traffic
  - Hand Signals
  - No Headphones
  - Wear a Helmet

Total Fatalities and Pedalcyclist Fatalities in Traffic Crashes, 2005–2014

Year	Total Fatalities	Pedalcyclist Fatalities	Percentage of Total Fatalities
2005	43,510	786	1.8%
2006	42,708	772	1.8%
2007	41,259	701	1.7%
2008	37,423	718	1.9%
2009	33,883	628	1.9%
2010	32,999	623	1.9%
2011	32,479	682	2.1%
2012	33,782	734	2.2%
2013	32,894	749	2.3%
2014	32,675	726	2.2%

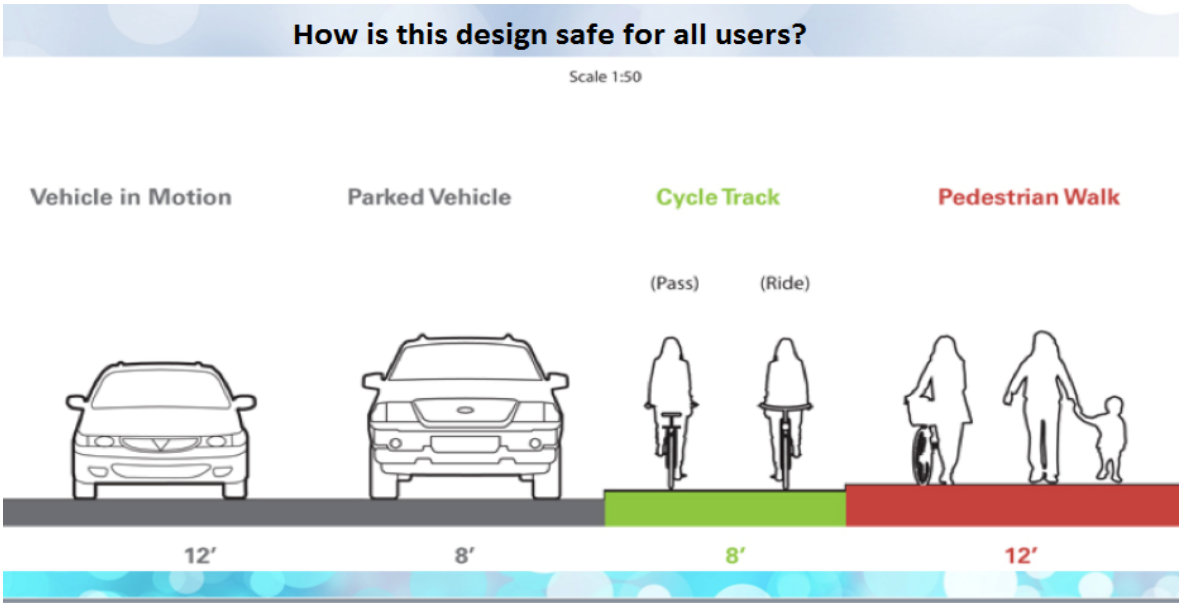
Source: Fatality Analysis Reporting System (FARS) 2005–2013 Final File, 2014 Annual Report File (ARF).

In terms of data and information relevant to the state of California, the group presenting zeroed in on the following: number of users doubled since 2000, "first-and-last-mile" connections, signage needing to connect interregional users with other transit services. The group also mentioned: "Bicycle and pedestrian facilities are integral components of the statewide transportation system." A notable mention, like protected lanes, are complete streets. It is noted that complete streets "provide safer mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility." It

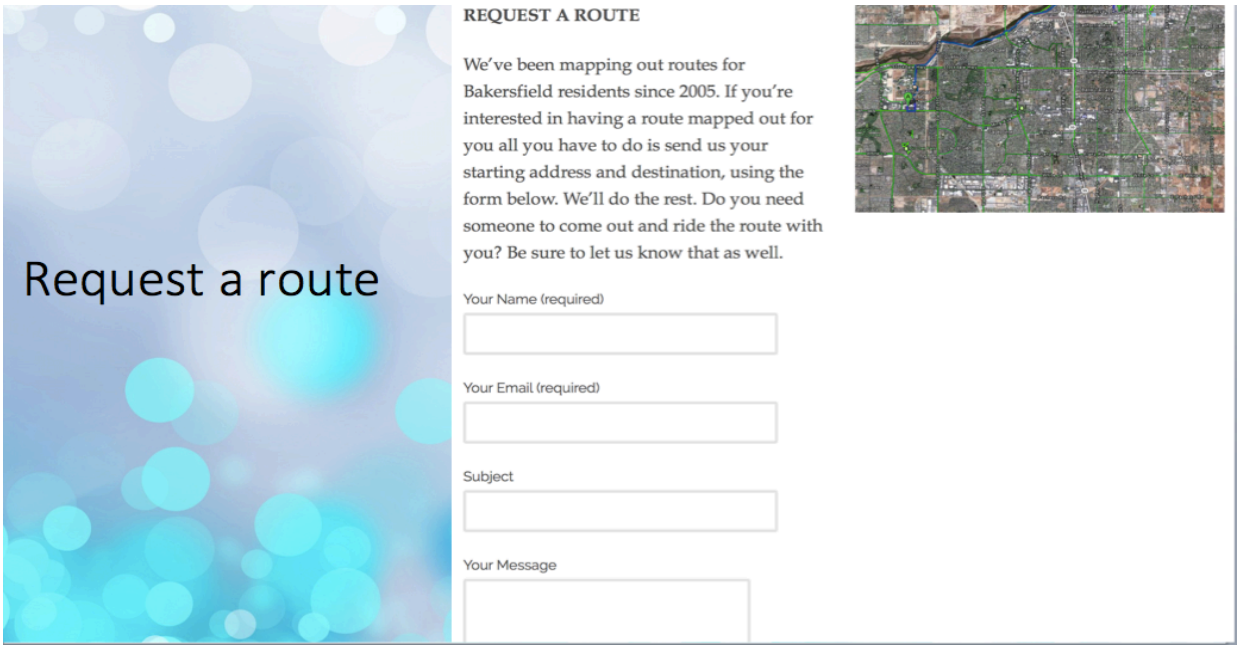
is also an embrace and "collaboration with our partners." The group highlighted Bike Bakersfield, an advocacy coalition providing family friendly bike rides, bicycle safety education, and bike repair. Another unique amenity offered to the residents of Bakersfield is the ability to request a bicycle route on their website - see slide below.

California Bicycle Coalition (CalBike) is another advocacy group offering information on how to ride safely. They are deemed an advocacy resource for bikeway design best practices and funding sources. CalBike strategic plans in motion include: bikeways to everywhere, bicycling for everyone, and protecting your rights. Their mission: to enable more people to bicycle for healthier, safer, and more prosperous communities for all. The Active Transportation Strategic Plan was adopted by the Metro Board of Directors May 2016. The goal is to identify strategies to increase walking, bicycling, and transit use in California. They provide educational workshops encouraging transit use. The plan will focus on improving first and last mile access to transit and will propose a regional network of active transportation facilities, including shared use paths and on-street bikeways. The plan will also develop a funding strategy to see the strategic plan through. Collaborations between Metro, local and regional agencies, as well as other key stakeholders to ensure implementation. The benefits of active transportation: reduces transportation costs and supports local economy, active transportation can reduce greenhouse gas emissions and traffic congestions, improves public health by providing more opportunities for physical activity, reduces stress by reducing time stuck in traffic. A study done on children and walking from school found that approximately 33% of children get their daily exercise from walking to school.

The following are slides from the State overview presentation:




How is this design safe for all users?


Request a route
REQUEST A ROUTE
We've been mapping out routes for Bakersfield residents since 2005. If you're interested in having a route mapped out for you all you have to do is send us your starting address and destination, using the form below. We'll do the rest. Do you need someone to come out and ride the route with you? Be sure to let us know that as well.
Your Name (required)
Your Email (required)
Subject
Your Message

Part 3: Policy Implications

Distinguish between those who choose alternative methods of transportation and those who need to:

It is important to identify the varying reasons why individuals make use of alternative forms of transportation in the first place, since transportation policies affect many people in different ways. Some commuters may already have access to a car, and may simply choose to use public transit because of its convenience or their vicinity to and from work, for example, living near the Metro Gold Line and working in Downtown. On the other hand, for some, alternative forms of transportation are the only option. The concerns of those who choose public transit are likely distinct from those who are dependent on it. For instance, someone who chooses public transit for their daily commute may be concerned with the design of standing areas, since getting a seat is oftentimes a challenge; for those who are dependent on public transit for their commute, they may be concerned with connection fees and overall cost. Therefore, various objectives and their impact should be thoroughly considered. Knowing who makes use of alternative methods of transportation and why will help in the development of effective transportation policies.

Short term vs. long term goals:

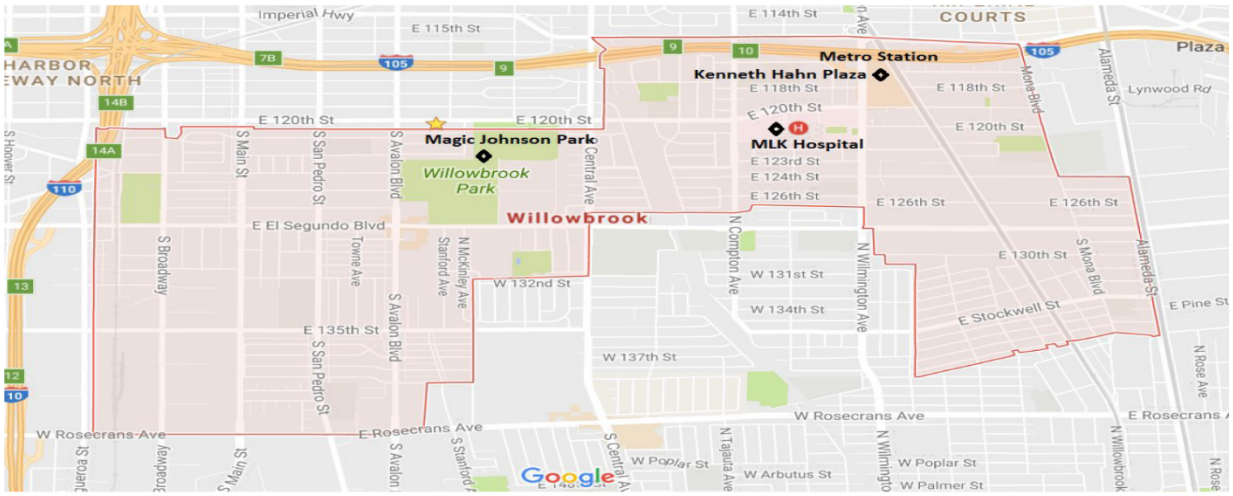
Identifying and distinguishing between short term and long term goals may help develop policies that address the all-around mobility needs of communities. They are also important factors to consider in terms of safety, accessibility, and cost. An example of a short-term goal is providing cyclists with bike lights; while a long-term goal would be the installation or improvement of street lighting to increase visibility for bicyclists and drivers. Ultimately, the short-term solutions should be consistent with long-term initiatives, while keeping in mind the context in which these are implemented. Additionally, the feasibility of long-term goals should be considered as well as their effects on the local community and its residents. A glaring example would be the adverse effects and undesired changes associated with the Metro Gold Line for the long-time residents of Highland Park, such as gentrification.

Part 4: Policy Recommendations

- ***Compassionate Preventative Approach to be aware and cautious of all those using the road:*** It's important to consider compassion when it comes to roadways. Oftentimes, people engage in behaviors that put others in danger and lack compassion. Road rage, for example, defined as aggressive or angry behavior by a driver toward others on the road. Some of aggressive or angry behaviors include: frustration, physical threats, verbal insults, and rude gestures. This kind of behavior is not uncommon among those on the road, and teaching compassion on the road is a sure way to help alleviate these tendencies. We often don't know why people cut us off on the road -- they could be on their way to the hospital, they could have made a mistake, and whatever the reason may be we simply don't know what we don't know. For this reason, if we can apply the compassionate lens, we might be kinder to those on the road and the heightened awareness can lead people to be more cautious and compassionate on the road.
- ***Partnering with schools to educate young people****:* Reaching out to schools and establishing partnerships with them to promote awareness and safety for all (i.e., drivers, bicyclists, pedestrians, etc.) will introduce youth to important road sharing, bicycling, and driving practices. Not only would they be introduced to such practices, but they'll also learn why they are important. Providing this information and resources to school age children would be a preventative measure and is beneficial because of its potential to foster informed and conscientious adults over the years. It is also one strategy to connect with future bicyclists and drivers who are unaware of safety guidelines or laws.
- ***Drivers Education programs - how effective are they at teaching about engaging with bicyclists and pedestrians****:* If we teach young people who are taking drivers education for the first time, we can create a pipeline of young people with a newly developed mindset around engaging with bicyclists. Perhaps supplemental training for young people will promote a change in behavior and perceptions for cyclists and the need to share the road appropriately, effectively, and kindly.
- ***Complete Street Highways****:* The idea is to have highways that share the road with cyclists, public transportation, cars, etc. While complete streets are proven to be effective, there might be ways to make them more effective by having more direct routes that mirror the idea behind highway travel. This idea would have to be engineered in a way that ensures safety for all vehicles and modes of transportation.

Part 5: Willowbrook and University Park Case Studies

Willowbrook



Willowbrook Demographics

Total Population, All Races	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Other Race or Two or more races	Hispanic
35,983	8,245	12,387	273	119	49	13,858	22,979

Metro Station

Image: MTA

Common Themes

Image: MTA

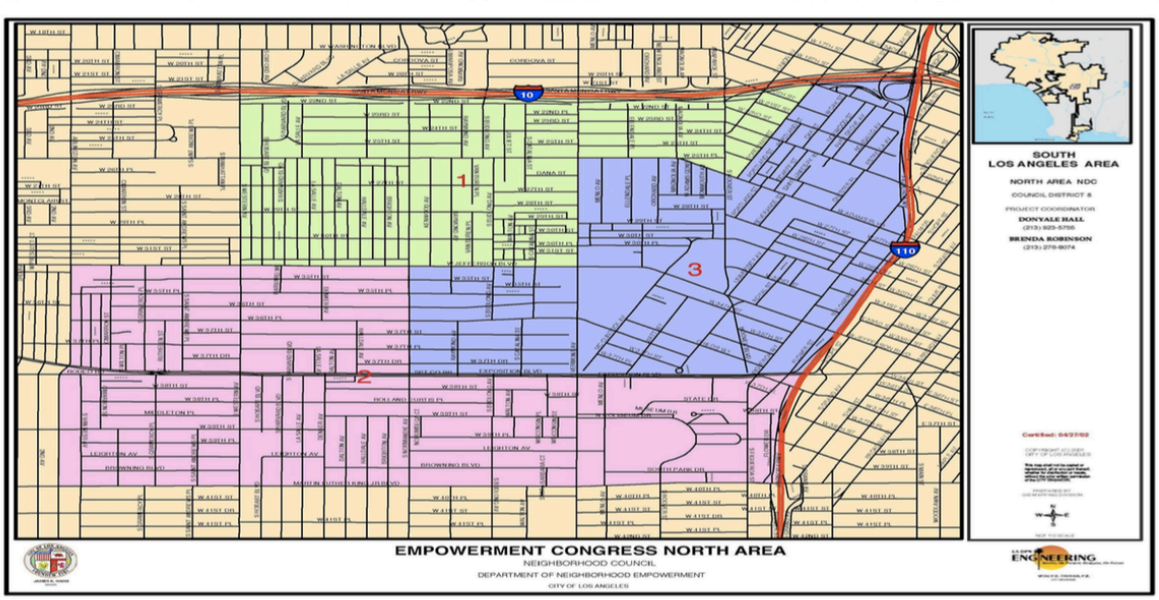
University Park:

Demographics of University Park

Neighborhood	Total Population, All Races	White	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & Other Pacific Islander	Hispanic or Latino
University Park	23,493	7,023 / 29.89%	1,470 / 6.26%	84 / 0.36%	5,805/ 24.71%	17 / 0.07%	8,472 / 36.06%

City Projects (Current & Planned) University Park

- The New Committee Plan process began 2007 with a survey of the land use of the Plan Area.
- The conceptual plan was presented at community wide public workshops in 2009.
- The draft community plan is from 2010.
- Current status: the Draft Environmental Impact Report for the community plan was published in November 2016.



Area 3

The City's Bicycle Plan

Part of the Transportation Element, was created to enhance bicycle transportation at a city wide scale and includes three goals

- 1) to increase the number and types of bicyclists who bicycle in the City.
- 2) to make every street a safe place to ride a bicycle.
- 3) to make the City of Los Angeles a bicycle - friendly community.