

# MOBILITY FOR WHO?

*rebuilding bridges to  
transportation justice*  
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micah epstein  
emily howe  
Rahul Amruthapuri

Bonnie Fan  
Ben Eisner  
Jessie Grosen

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# Introduction

"Mobility Justice demands that we fully excavate, recognize, and reconcile the historical and current injustices experienced by communities — with impacted communities given space and resources to envision and implement planning models and political advocacy on streets and mobility that actively work to address historical and current injustices experienced by communities... We must shift focus from the modes of transit people use to the bodies and identities of the people using those modes by centering the experiences of marginalized individuals and the most vulnerable communities."

- *Untokening 1.0 Principles of Mobility Justice*<sup>1</sup>

Transit accessibility is an equity issue. In Pittsburgh, we have seen the effects of development that prioritizes the interests of elite decision-makers over making cities livable for its existing residents. At a broader level, we see the state of Pennsylvania prioritizing legislation for development of private mobility business opportunities and autonomous vehicle infrastructure over improving core infrastructure and transportation access needs. At the federal level, the Department of Transportation continues to pour money into speculative smart city private-public partnerships. We see the needs represented in Pittsburgh as a part of a fight for transportation access for all that is replaying itself over and over across the country.

**"Our city has bridges that are falling down. We have families that don't have transportation to work or the grocery store. It blew my mind to watch the Mayor's office pursue the Mon Oakland Connector and the development interests of the universities and foundations and call it "transportation improvements", instead of listening to neighborhoods and trusting us to know what we need."**

**Teaira Collins**

Leader of the 93-Hazelwood Campaign, fighting for access for herself, her children, and her neighbors



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<sup>1</sup> <http://www.untokening.org/updates/2017/11/11/untokening-10-principles-of-mobility-justice>

As Mayor Ed Gainey steps into office, we hope that his administration's vision for economic mobility, racial and gender equity, and Pittsburgh's air quality and climate issues prioritize Pittsburgh residents over tech giant interests. Affordable, accessible, quality public transit is central to achieving these aims because it makes cities more inclusive by increasing mobility and opportunity, particularly for people with low incomes and people of color<sup>2</sup>. Although many people believe transit is exclusively within the purview of the Port Authority, and is governed solely by our county and state legislators, the power of local governments to bring big improvements for transit riders should not be underestimated. Local transit initiatives have the power to map Pittsburgh's future cityscape, and along with it, to improve housing equity and create economic growth for all residents. Further, we believe the city's ability to collaborate with the community is essential to fair and just transportation planning and decision-making processes.

One key goal of this report is to provide additional context and support for the recently released "[Pittsburgh 100 Days Transit Platform: Affording All Residents the Freedom to Move](#)." In this platform, dozens of organizations and residents came together to advocate that the city prioritize accessible, equitable mobility over corporate profit and private transportation modes. It also asserts that safe, affordable, accessible, quality transportation is not a privilege, but a right of all residents. To ensure these rights to transit in Pittsburgh, the 100 Days Transit platform focuses on four mobility goals:

1. Prioritization of accessible, equitable mobility over corporate profit and private modes of transportation
2. Legislation and zoning that supports transit use and affordable housing
3. Comfortable, accessible, and safe public transit connections
4. Bus lanes and transit signal priority to ensure fast, effective public transit

Embedded in all these goals and their related policy proposals are equity-focused understandings of transit accessibility. This report explains what an equity-focused approach to transit accessibility should consider and concretize these ideas by discussing specific cases, policies, and practices in Pittsburgh.

This report also aims to strategize next steps. We believe that to create quality transit in Pittsburgh that is accessible to everyone, we need to:

1. engage an equity-focused approach to mobility and transit accessibility and

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<sup>2</sup> TransitCenter. Inclusive Transit: Advancing Equity Through Improved Access & Opportunity. 2018. <https://transitcenter.org/publication/inclusive-transit-advancing-equity-improved-access-opportunity/>



2. create government processes for transit decisions that center the needs of people and neighborhoods with the greatest mobility needs.

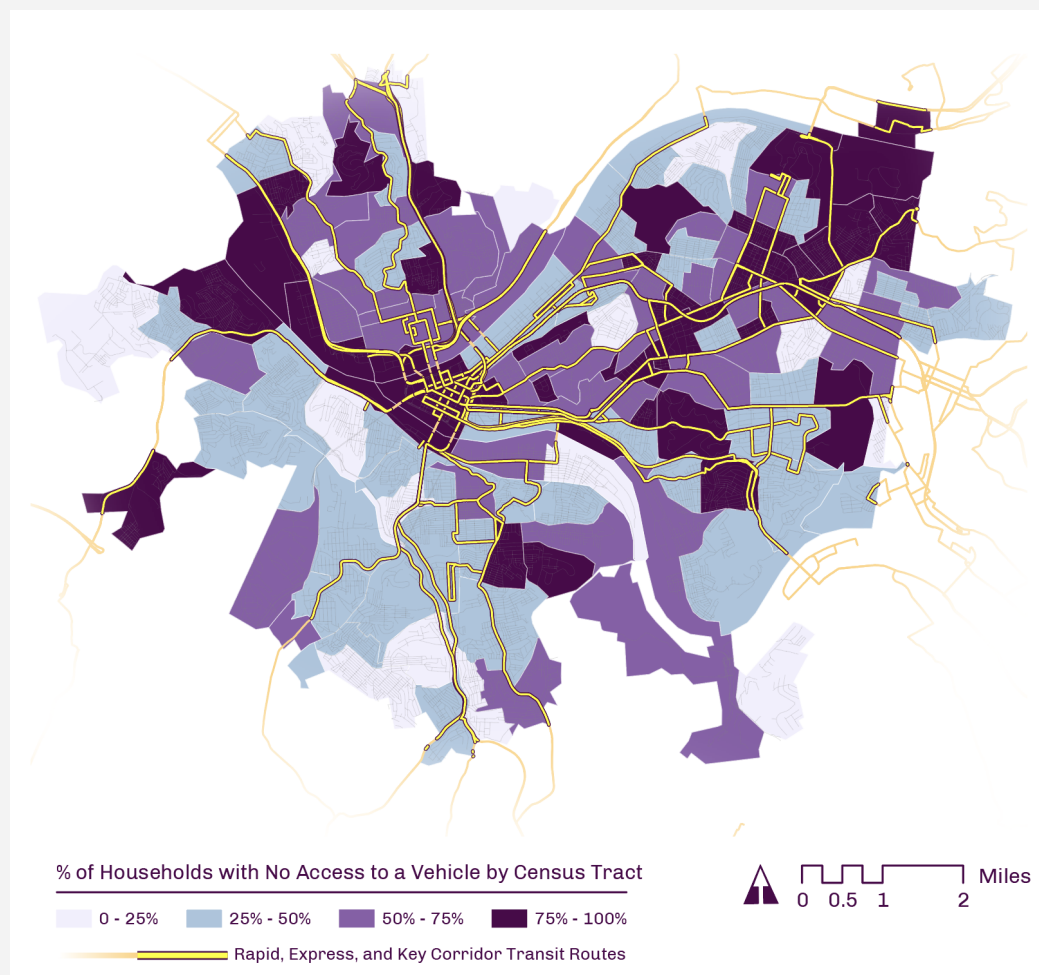
An equity-focused framing of transit accessibility must take physical, historical, political, economic, and social factors into account. [The Port Authority of Allegheny County's \(PAAC\) equity index](#) and associated maps are helpful in identifying what people and neighborhoods are likely to have the greatest mobility needs. However, the equity index and maps do not provide information about residents' lived experiences and the type of obstacles that they and their communities face in trying to access transit. This first-hand knowledge and expertise are critical to creating a transit system that is more equitable.

This report examines these aspects of transit accessibility to understand the barriers of the current system and to envision and collectively work towards a more accessible and equitable transit system. To do so, this report includes the following analyses:

- **Mobility need and existing transportation access in the city**
- **Sidewalk infrastructure needs in the city**
- **City priorities around mobility, affordability, and access**
- **Private mobility companies and their impact in the City**

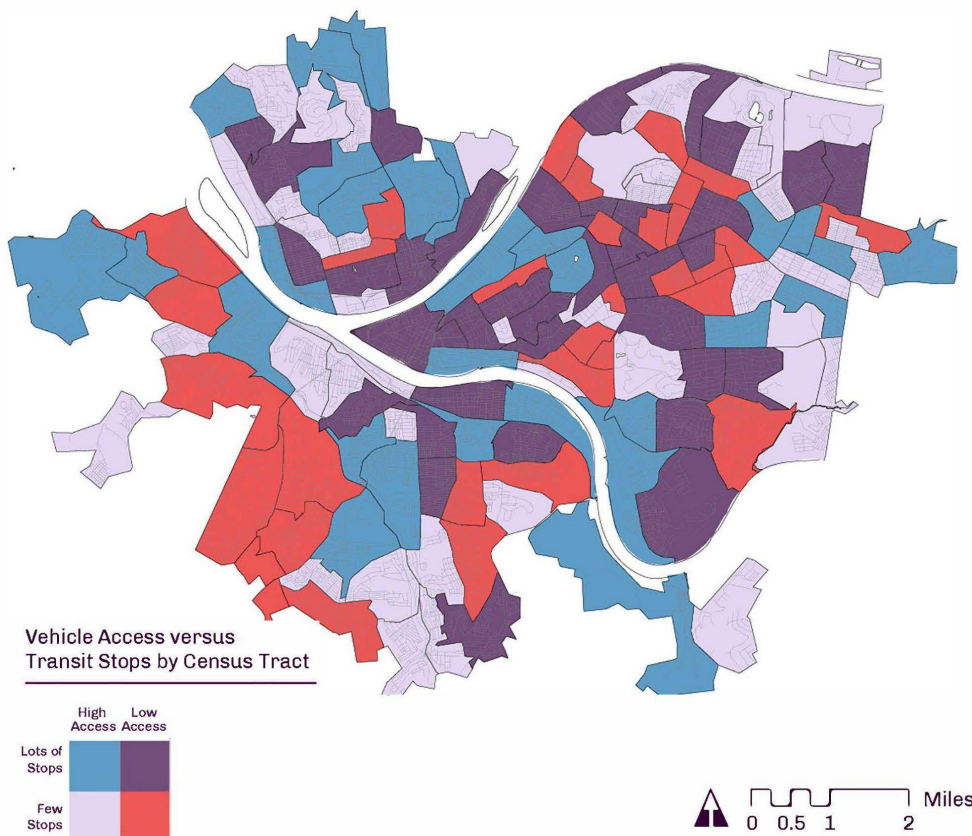
# 1 Pittsburgh's Mobility Needs

Pittsburgh, like most cities, is characterized by significant differences between its neighborhoods. The map to the left shows the percentage of residents that have no access to a vehicle in Pittsburgh census tracts. Overlaid are rapid, express and key corridor transit routes. While certain commercial centers, like Downtown and Oakland, are well-served by transit with low vehicle ownership, there are many neighborhoods that have little to no high frequency transit access along with low private vehicle access. This is an issue because cars become a preferred route to travel while also imposing extra costs on households to buy and maintain vehicles.



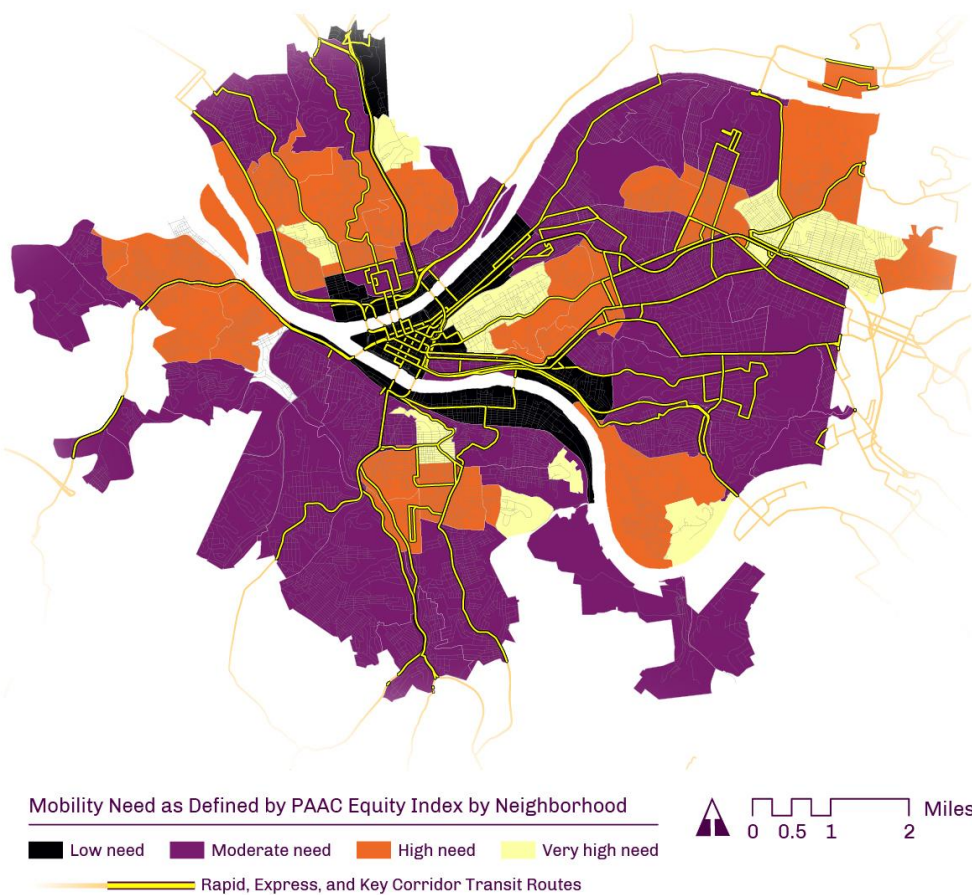
**Figure 1** Map of % of households with no access to vehicles by Census Tract, white 0-20%, light blue 25-50%, light purple 50-75%, dark purple 75-100%, overlaid with high frequency transit routes

**Source: 2019 American Community Survey, U.S. Census Bureau**



**Figure 2:** Map of vehicle access vs. transit stops, Less Stops, High Access (white), Less Stops, Low Access (red), Lots of Stops, High Access (blue), Lots of Stops, Low Access (purple)

**Source:** 2019 American Community Survey, U.S. Census Bureau



**Figure 3:** Map of PAAC Equity Index, white very high need, orange high need, purple moderate need, black low need. overlaid with high frequency transit routes

**Source:** 2019 American Community Survey, U.S. Census Bureau

But what is mobility need? Mobility need, from an equity perspective, can be defined by a wide variety of social, economic, and geographic factors. In this report, we build on the existing work of the Port Authority of Allegheny County Planning Department (PAAC), who have created an Equity Index of Mobility Need that considers the following factors in quantifying mobility need<sup>3</sup>.

<ul style="list-style-type: none"> <li>• Low income households</li> <li>• Cost burdened renters</li> <li>• Low wage jobs</li> <li>• Households with persons with disabilities</li> <li>• ACCESS paratransit trips</li> <li>• Racial and ethnic minorities</li> <li>• Persons of limited English proficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Households with no vehicle available</li> <li>• Households with older adults (over age 65)</li> <li>• Households with persons under age 18</li> <li>• Female householder (no husband present)</li> </ul>
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**Excerpt from a [letter sent 7/9/21 to Karina Ricks](#), former Director of the City Department of Mobility & Infrastructure, from Paul O'Hanlon, then Co-Chair of the City-County Task Force on Disabilities (CCTFD), raising concerns about the MovePGH “mobility as a service” project.**

“[...] From our perspective [of how the MovePGH program began] –

- A problem was identified: last-mile transit gaps
- An inaccessible, ableist system is developed – solving the problem for the most able, but ignoring those for whom the last-mile burden gap is actually the most severe
- A “pilot” is presented to us – where we don’t know the alternatives that were available; had no role in designing the planned responses to “scooters as sidewalk obstacles” problem; and have no way of judging the claims that access barriers will be handled within 60 minutes (Spin, the company providing the eScooters, claims to be in dozens of cities – but didn’t present anything about the response standards in other cities, or how Spin performs in clearing A.D.A. obstacles in those cities.)
- We’re left with no proposed solutions for people with individual circumstances for whom eScooters are not a safe, accessible and appropriate transportation solution;
- But once again we are asked to accept a system designed to be inaccessible and then (as usually happens) have the burden shift to us to find ways to retrofit or modify that system AND find the funds to make that possible.

In its role as an advisory board, the Task Force recommends that the city postponed moving forward with the eScooter pilot. [...]”

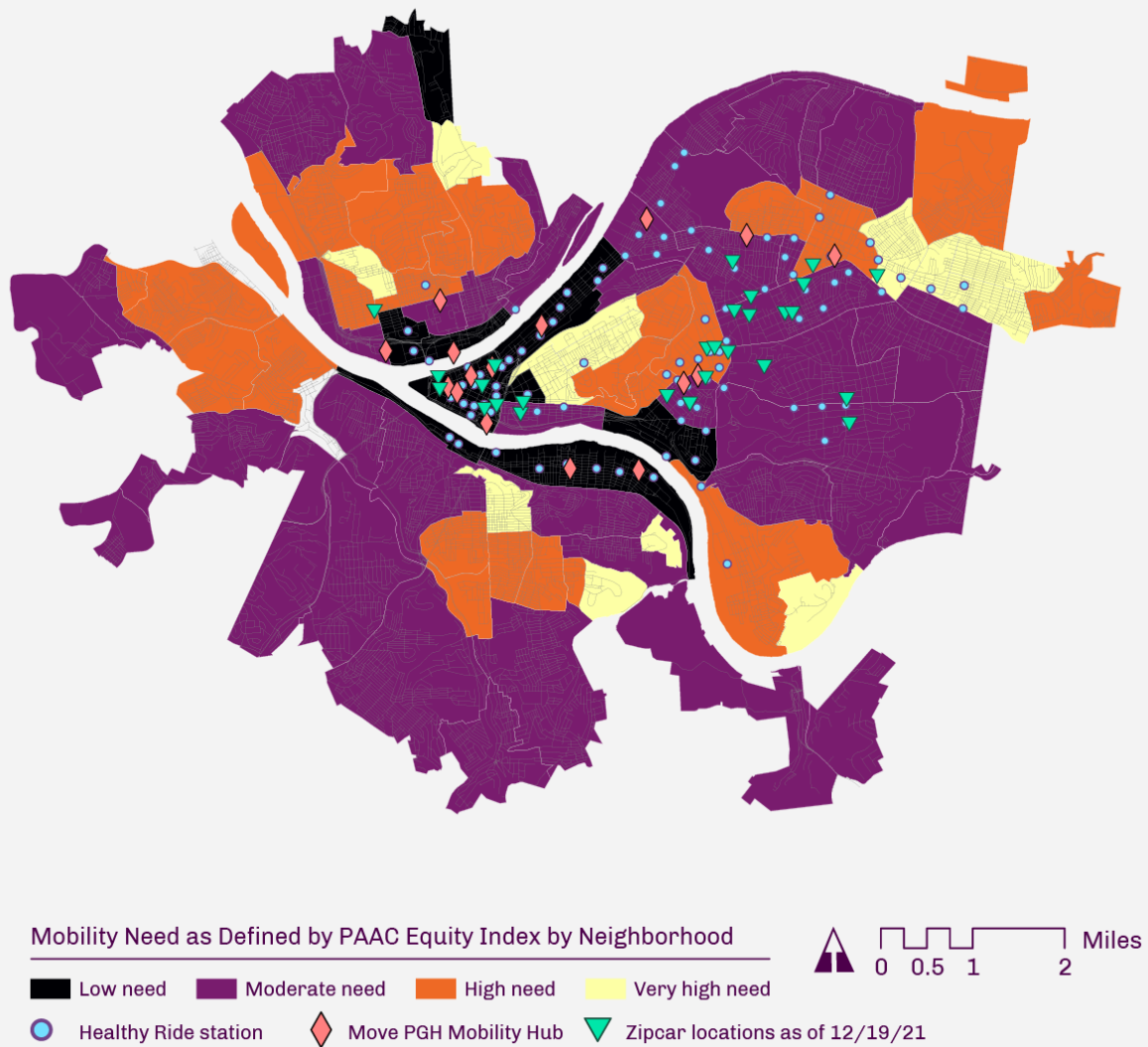


**The Task Force on Disabilities never received a response from former Director Ricks. The project went forward without any changes.**

<sup>3</sup> Port Authority of Allegheny County Planning Department. Equity Index of Mobility Need. 2019. <https://www.portauthority.org/siteassets/inside-the-pa/transparency/data-and-statistics/paac-2019-equity-index.pdf>



## 2 Mapping Mobility Investment in Pittsburgh



**Figure 4:** A map of Pittsburgh showing Move PGH Mobility Hubs (Spin scooter locations), Healthy Ride stations and Zipcar locations, juxtaposed by the PAAC Equity Index. Very high need is indicated by light yellow, high need indicated by orange, moderate need by purple, and low need by black. A high concentration of Move PGH options are concentrated in low need areas, ignoring areas such as the Hill District and Hazelwood.

Above (**Figure 4**) is a map of Move PGH Mobility Hubs, Healthy Ride stations, and Zipcar locations. These actors are all examples of mobility-as-a-service (MaaS) providers, who are also some of the key service-providing members of the Pittsburgh Mobility Collective

(PMC). PMC's supporting actors have the express intent to "accelerate Pittsburgh's status as a global innovation city" and "channel tech-based disruptions in urban transport."<sup>4</sup> The city has claimed PMC's initiative, Move PGH, as a provision of "universal basic mobility."<sup>5</sup> Given that most of Move PGH's mobility options have clear barriers to access for people with different access needs, income levels, and locations, the claim of "universal basic mobility" seems dubious. For one, in viewing the placement of these mobility options—with a couple key exceptions like the placement of Healthy Ride stations—it is clear that equity has not been a guiding principle in the placement of infrastructure for PMC, despite it being one of its six stated goals.<sup>6</sup> As a result, MaaS providers are concentrated in areas with low and moderate mobility needs, where many residents already have transit options, including the financial means to have a car.

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<sup>4</sup> Move PGH & Pittsburgh Mobility Collective. Meet the PMC. 2021. <https://move-pgh.com/meet-the-pmc>

<sup>5</sup> Pittsburgh Launches MovePGH, an Innovative Equitable Mobility Partnership, to Transform Transportation Access through Mobility Hubs. (2021, July 14). New Urban Mobility Alliance (NUMO).

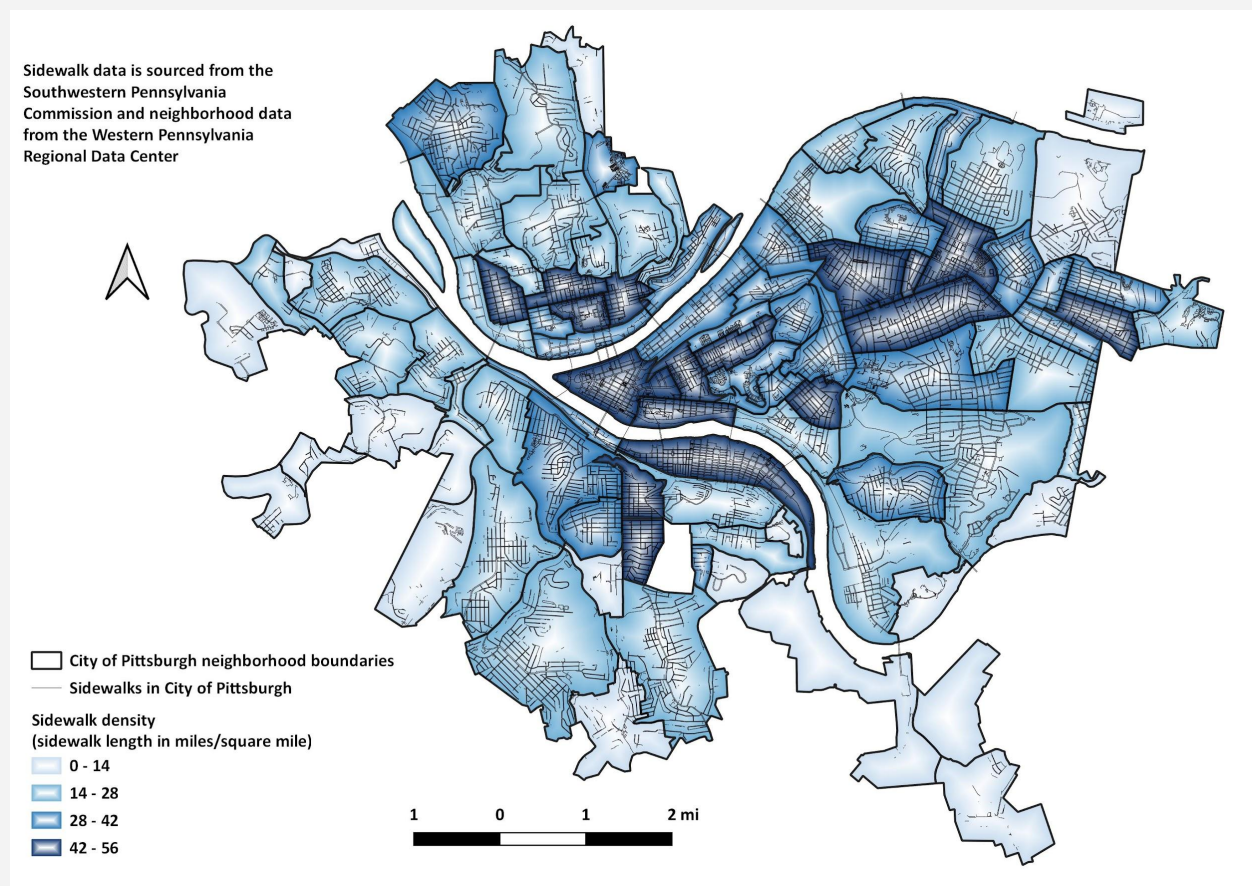
[www.numo.global/news/pittsburgh-launches-movepgh-innovative-equitable-mobility-partnership-transform-transportation](http://www.numo.global/news/pittsburgh-launches-movepgh-innovative-equitable-mobility-partnership-transform-transportation)

<sup>6</sup> Ibid

# 3 Sidewalk Infrastructure Needs

## 3.1 What does sidewalk access currently look like?

Sidewalks in the City of Pittsburgh add-up to a total length of over 1300 miles<sup>7</sup> and are necessary infrastructure for both pedestrian and bus transit. For bus riders, sidewalks are the means by which they can travel to and from bus stops. Functional sidewalks are particularly vital for wheelchair-users and other riders who have limited mobility. The distribution of sidewalk length per square mile, a measure of sidewalk coverage<sup>8</sup>, across neighborhoods is shown in Figure 5.



**Figure 5:** Map of miles of sidewalk per square mile area of neighborhoods superimposed by sidewalks in the City of Pittsburgh

<sup>7</sup> SPC. (2021). *Sidewalks*. Southwestern Pennsylvania Commission. Retrieved December 13, 2021 from <https://spcgis-spc.hub.arcgis.com/datasets/sidewalks-1/explore?location=40.432967%2C-79.676328%2C8.84>

<sup>8</sup> ODOT. (2014). *Accessibility: Modal Availability*. Oregon Department of Transportation. Retrieved January 25, 2022 from <https://www.oregon.gov/ODOT/Planning/Documents/Mosaic-Specific-Indicator-Sidewalk-Coverage.pdf>



## 3.2 How is sidewalk maintenance and repair?

311 call data obtained from the Western Pennsylvania Regional Data Center<sup>9</sup> helps to understand the departments within the City of Pittsburgh responsible for collecting and resolving the requests for sidewalk maintenance and repair (Table 1).

**Table 1.** Type of 311 request and department responsible for resolving the request

Type of request	Department responsible
Blocked or closed sidewalks	DOMI - Permits
Broken sidewalk	Permits, Licenses and Inspections
Sidewalk has ice or litter	DOMI - Permits
Sidewalk obstruction	DOMI - Permits
Lack of snow/ice removal	DOMI - Permits, 311
Overgrowth/obstruction	DOMI - Permits
Sidewalk/Curb/ADA Ramp Maintenance	DOMI - Streets, DOMI - Permits
Sidewalk/Curb/HC Ramp Maintenance	DOMI - Permits
Tree fallen across sidewalk	DPW - Street Maintenance

311 calls related to sidewalks give an indication of the status of sidewalks in the City of Pittsburgh. However, neighborhoods with a higher socioeconomic status tend to place more 311 calls, so the number of calls might not represent the true nature of sidewalks in any given neighborhood. For example, in Boston high-income neighborhoods that had a better quality of sidewalks when compared to other neighborhoods reported the most complaints regarding sidewalks using 311<sup>10,11</sup>. Taking this caveat into consideration, Figure 6 shows the 311 calls per sidewalk mile per year. As the figure highlights, some

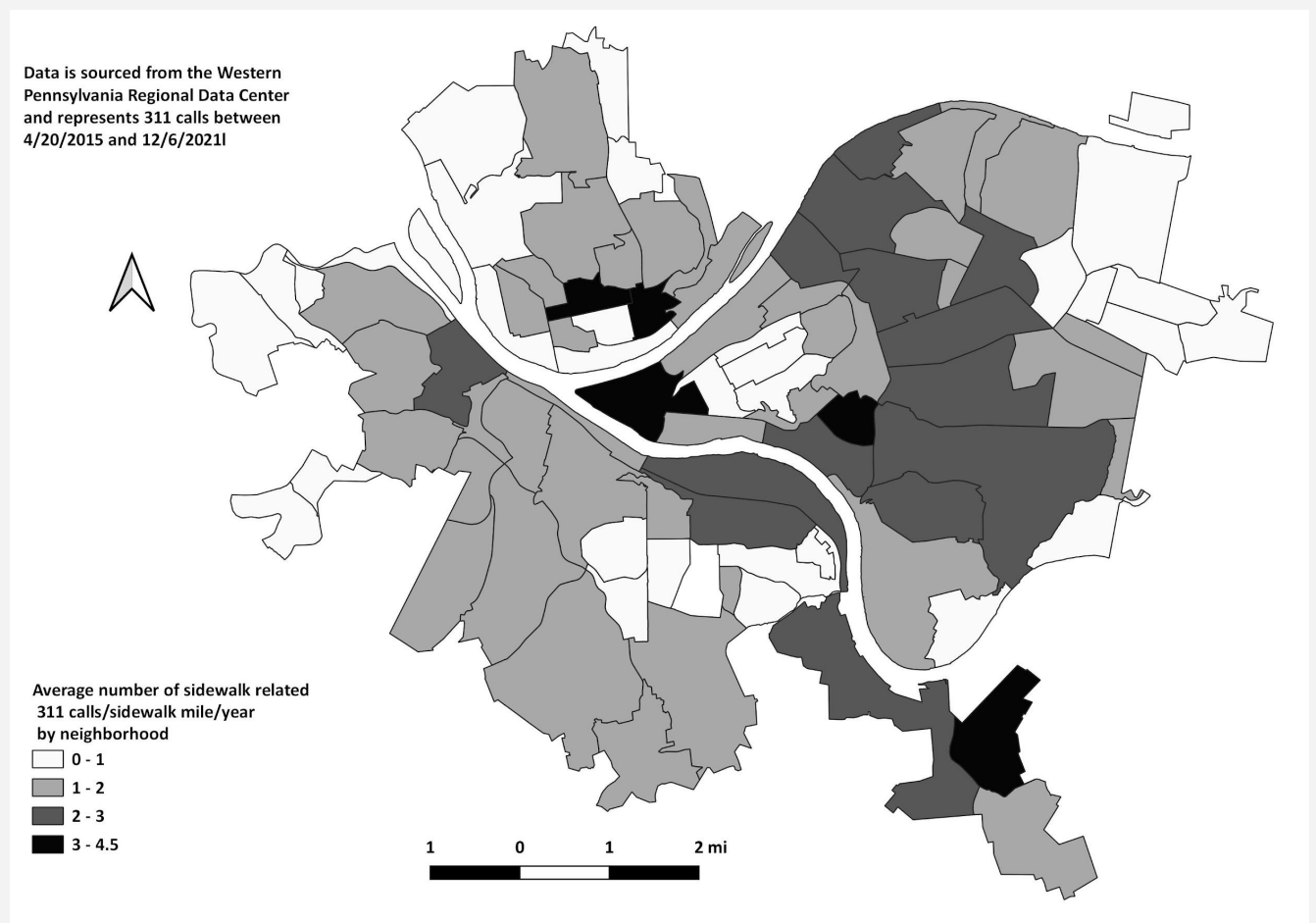
<sup>9</sup> WPRDC. (2015). *311 Data*. Western Pennsylvania Regional Data Center. Retrieved December 6, 2021 from <https://data.wprdc.org/dataset/311-data>

<sup>10</sup> Irons, M. E. (2018, March 4). Sidewalks tell of two Bostons. *Boston Globe*. Retrieved December 13, 2021 from [https://epaper.bostonglobe.com/infinity/article\\_popover\\_share.aspx?guid=61ccb2b6-ca4f-4933-bda7-551678a923a0](https://epaper.bostonglobe.com/infinity/article_popover_share.aspx?guid=61ccb2b6-ca4f-4933-bda7-551678a923a0)

<sup>11</sup> Dugan, J. (2021, April 16). ASK AN EXPERT: What do big data and broken sidewalks have to do with equity? *Design Quarterly*, Issue 12 (Equity and Inclusion), 22-26. Retrieved December 13, 2021 from <https://www.stantec.com/en/ideas/topic/design-quarterly/stantec-design-quarterly-issue-12-equity-inclusion>

neighborhoods such as Downtown and Central Oakland have a larger number of calls when compared to the others. However, this might not translate into the quality of the sidewalks.

As a result, there is a need to study the quality of sidewalks so that appropriate funding can be allocated for improving their quality, especially in neighborhoods experiencing historical and current social inequities linked to race and income. In 2020<sup>12</sup> and 2021,<sup>13</sup> a sidewalk inventory and assessment was one of the project proposals that the Capital Program Facilitation Committee reviewed as a part of the Capital Budget development. Unfortunately, this proposal did not make it to the final list of projects funded under ramps and public sidewalks.



**Figure 6:** Map of 311 calls related to sidewalks per sidewalk mile per year by neighborhood

<sup>12</sup> Pittsburgh City Council. (2019). Appendix B: CPFC Recommendations. In City of Pittsburgh 2020 Capital Budget & Six Year Plan (pp. 173-185). City of Pittsburgh. Retrieved December 18, 2021  
[https://apps.pittsburghpa.gov/redtail/images/8054\\_2020\\_Capital\\_Budget\\_as\\_approved\\_by\\_Council\(2\).pdf](https://apps.pittsburghpa.gov/redtail/images/8054_2020_Capital_Budget_as_approved_by_Council(2).pdf)

<sup>13</sup> Pittsburgh City Council. (2020). Appendix B: CPFC Recommendations. In 2021 Capital Budget & Six Year Plan (pp. 173-185). City of Pittsburgh. Retrieved December 18, 2021  
[https://apps.pittsburghpa.gov/redtail/images/12734\\_Capital\\_budget\\_as\\_approved\\_12-21-20.pdf](https://apps.pittsburghpa.gov/redtail/images/12734_Capital_budget_as_approved_12-21-20.pdf)

To further contextualize the information presented in Figure 6, the type of request helps illustrate how sidewalks impact access. A little over sixty percent of the 311 calls were related to requests that could impair the access for individuals with limited mobility related to disabilities. Table 2 lists the percentage distribution of type of request by neighborhood.

**Table 2:** Frequency distribution of types of 311 sidewalk related requests  
(4/20/2015 - 12/6/2021)

Type of request	Frequency	Percent
Broken Sidewalk	4322	29.78
Blocked or Closed Sidewalks	2547	17.55
Sidewalk/Curb/HC Ramp Maintenance	2164	14.91
Sidewalk Obstruction	1870	12.88
Tree Fallen Across Sidewalk	1455	10.03
Sidewalk, Lack of Snow/Ice Removal	1100	7.58
Sidewalk has Ice or Litter	657	4.53
Sidewalk/Curb/ADA Ramp Maintenance	339	2.34
Sidewalk, Damaged/DO NOT USE	46	0.32
Sidewalk (City Property)	8	0.06
Sidewalk, Overgrowth/Obstruction	4	0.03
Sidewalk Closure Violation	1	0.01
<b>Total</b>	<b>14513</b>	<b>100.00</b>

The status of the 311 requests is another indicator of sidewalk access. Table 3 shows the status of requests made to 311 between 2015 and 2020. Broken sidewalks were the most common type of request made, and one-fifth of those requests remain open.

**Table 3:** Type of 311 calls related to sidewalk and current status (new, open, closed)  
(4/20/2015 - 12/31/2020)

Type of request	Status		
	New	Closed	Open
Sidewalk, Overgrowth/Obstruction	75.0	0.0	25.0
Broken Sidewalk	4.8	74.4	20.7
Sidewalk has Ice or Litter	15.2	70.3	14.5
Sidewalk, Damaged/DO NOT USE	0.0	87.0	13.0
Sidewalk/Curb/HC Ramp Maintenance	10.7	80.0	9.4
Blocked or Closed Sidewalks	6.4	86.8	6.8
Sidewalk/Curb/ADA Ramp Maintenance	1.0	92.7	6.3
Sidewalk Obstruction	6.0	89.0	4.9
Tree Fallen Across Sidewalk	0.8	98.5	0.7
Sidewalk, Lack of Snow/Ice Removal	0.5	99.3	0.2
Sidewalk Closure Violation	100.0	0.0	0.0
<b>Total</b>	<b>5.7</b>	<b>84.3</b>	<b>10.0</b>

Considering that sidewalks are the personal responsibility of the homeowner, the 311 call data shows a weak positive correlation between the percentage of open sidewalk related requests at the Census Tract level and the percentage of population below the poverty level. An analysis conducted in Minneapolis showed that most citations for not clearing the sidewalks of snow were given to property owners in poorer neighborhoods<sup>14</sup>.

<sup>14</sup> Collins, J., & Lager, W. (2014, November 6). Map: Here's who didn't shovel in Minneapolis and got fined. Minnesota Public Radio. Retrieved December 20, 2021 from <https://www.mprnews.org/story/2014/11/06/minneapolis-map-snow-shoveling-fines>

### 3.3 How do 311 calls reflect resident requests vs. what the city is doing?

As highlighted so far, sidewalks can act as a barrier to mobility if not maintained. The 311 data indicates the need for a city-wide program that focuses on improving the sidewalk infrastructure. DOMI's capital expenditure data, however, does not align with these needs. While a number of capital projects on sidewalk infrastructure improvements have been identified, many of these projects have remained incomplete and underfunded for many years. Between 2017 and 2022<sup>15</sup>, the proportion of capital budget allocated to ramp and public sidewalks ranged between 0.21 percent and 1.45 percent. As a proportion of the engineering and construction functional area budget, the allocation ranged between 0.47 percent and 2.76 percent indicating the need for additional resource allocation.

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<sup>15</sup> City of Pittsburgh. (n.d.). Capital Budgets. City of Pittsburgh. Retrieved January 20, 2022 from <https://pittsburghpa.gov/council/capital-budgets>

## 4 Displacement and Access

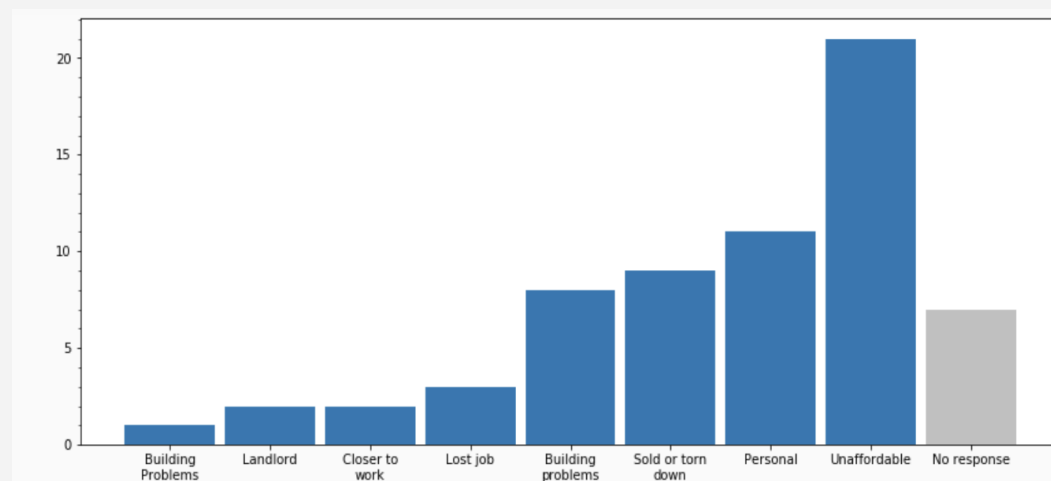
The City of Pittsburgh's smart city development agenda has continued to displace residents either forcibly as in the case with Penn Plaza in East Liberty, or more gradually over time, with a trend of development that has forced residents unable to afford rising rents to live in areas with poorer transit access, particularly in areas outside of Pittsburgh and away from high frequency transit lines.. With Port Authority's wheel and hub service planning, forcing transfers at major economic centers such as Downtown or Oakland, as well as the increased cost of transfers for cash riders, this means that those that have been forced to search for more affordable regions outside of the city. As a result, riders often face hour-long or more commutes on transit, adding the cost of time on top of high fares.

**"The reality is that the city is losing black and low-income residents everyday. These people are being displaced out into parts of the county that have worse transit access. Some of the strongest pro-public transit, pro-neighborhood policies that the city can create are around affordable housing."**

**Crystal Jennings**  
Housing Justice Advocate  
Working at City of Bridges  
Land Trust



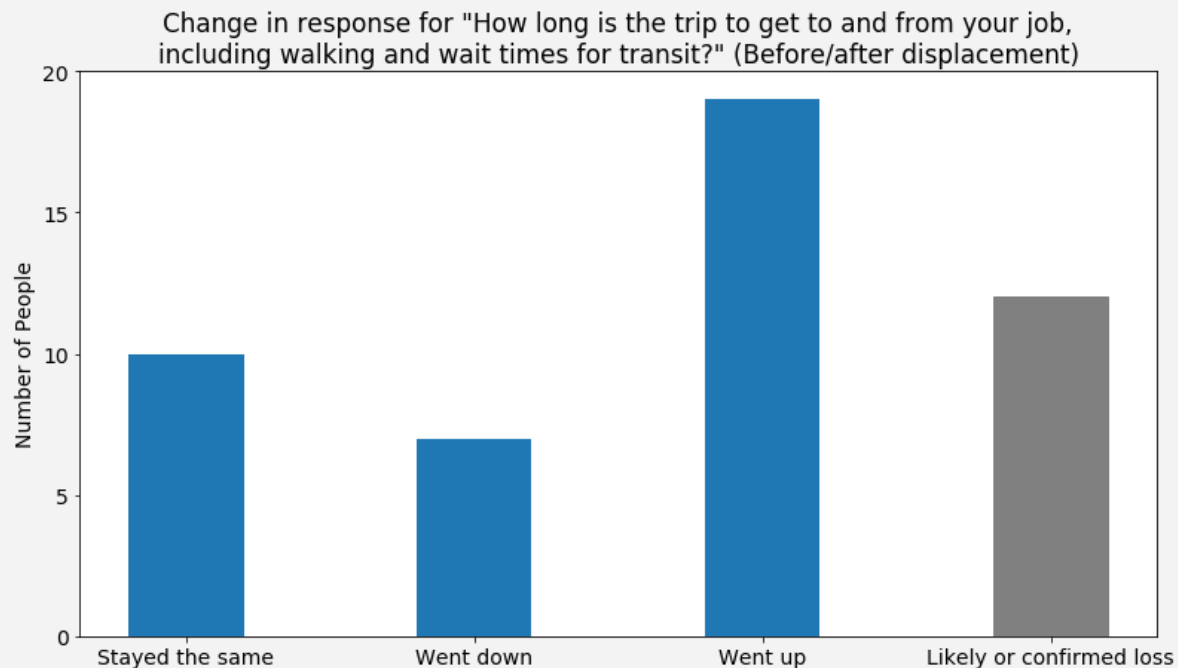
PPT helped survey residents who were displaced from the city center between the years of 2017 and 2018.<sup>16</sup> When survey participants were asked why they moved outside of the city, the overwhelming response was due to affordability. (Figure 7)



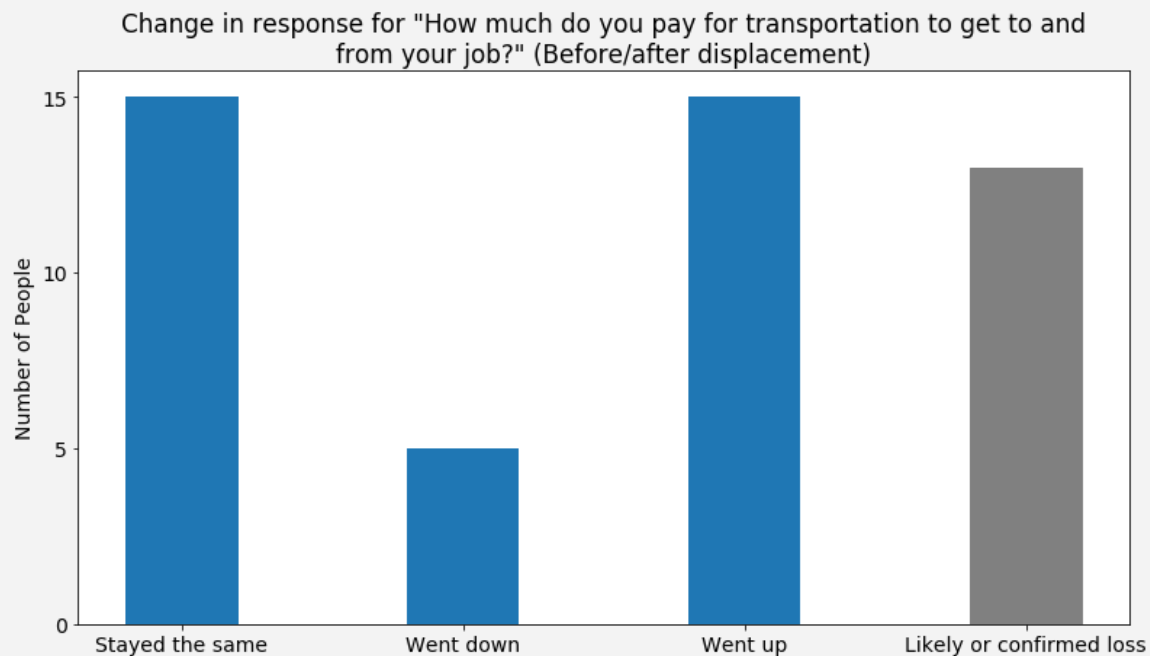
**Figure 7:** A bar chart showing different reasons survey participants ended up living outside of the city. The highest count is due to affordability

<sup>16</sup>2020. "Displacement: An Analysis of Survey Data" Pittsburghers for Public Transit, Tech4Society. <https://www.pittsburghforpublictransit.org/displacement-access-survey-results-analysis/>

The overall impacts were that commute times were much longer for essential needs, such as commuting to work (**Figure 8**), health appointments, or grocery trips. This also led to an increase in commute costs (**Figure 9**).



**Figure 8:** A bar chart showing responses for a question asking survey participants how long their commute time was for work after displacement. The most frequent response is "Went up," followed by "Stayed the same."

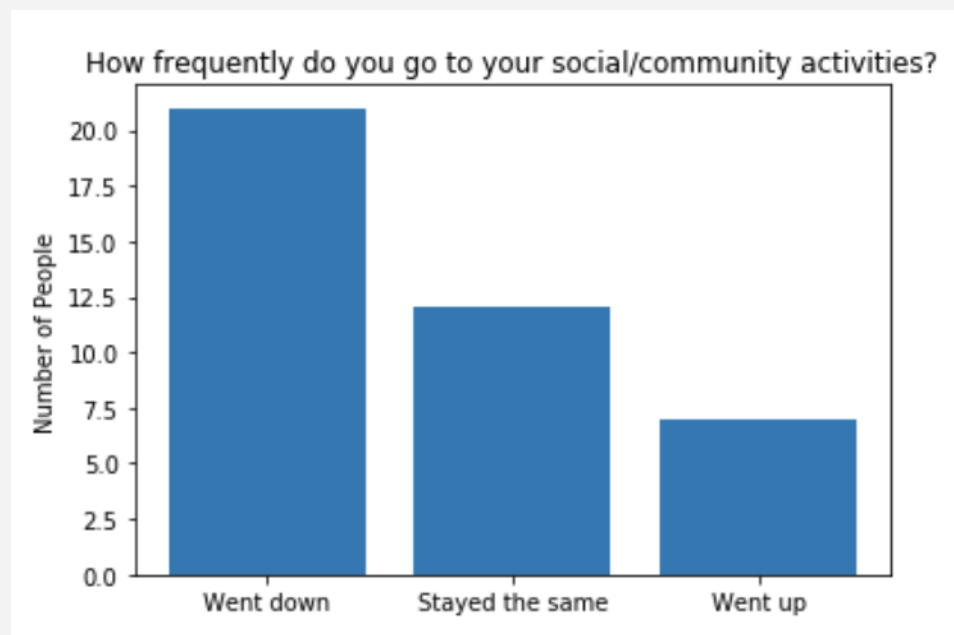


**Figure 9:** A bar chart showing responses to a question asking about costs of commute to work after displacement. The answers "Went up" and "Stayed the Same" are the most frequent.



However, an equally compelling result was that social trips, such as visiting friends or going to places to worship, were reduced in frequency (**Figure 10**).

This meant that not only did displaced residents face higher costs of access to economic opportunities and essential trips like health and groceries, they were also forced to forgo social trips, increasingly isolated from friends and community.



**Figure 10:** A bar chart for the question of how frequently survey takers go to social/community activities after displacement. The most frequent response is "Went Down," followed by "Stayed the same."

With the city's active role in setting the agenda for affordable housing and development, there is a clear need to reverse this trend of displacement. With tools such as affordable housing requirements, equitable Transit Oriented Development, and other important housing justice needs, we make clear that housing justice is an integral part of transit justice in Pittsburgh.

## 5 How did we get here?

Transit has faced a long legacy of racism that has accompanied the country's own history of racism in housing and development, with redlining and white flight creating vastly different transit services between urban cores and wealthy suburbs.<sup>17</sup> Pittsburgh's own legacy has faced a series of cuts in service following the region's decline following the mass exodus of the steel industry. In the rush to rebuild, city decision makers have focused on branding Pittsburgh as a high tech smart city, to the continued displacement of its existing residents, particularly residents of color and low-income residents.

Furthermore, as the region has grown and redeveloped, lost Port Authority transit routes have not been reinstated. Instead, the city has focused on providing novel mobility solutions as a part of this smart city branding. The administration's strategy during this time is captured by Mayor Peduto's approach to rolling out the red carpet to make Pittsburgh a "laboratory for technology":<sup>18</sup>

"You can either put up red tape or roll out the red carpet. If you want to be a 21st-century laboratory for technology, you put out the carpet."



This red carpet approach to allowing technology experimentation in the laboratory of its residents was not without its consequences. Uber covered up instances of its autonomous vehicles running up onto sidewalks, and there have been numerous reports of sidewalk robots and electric scooters endangering the public and impeding access to public space. Pittsburgh residents have been consistent in their demand for accountability and regulation of the ways that these new technologies are deployed in our city.

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<sup>17</sup>2020. "The Legacy of Racism in Transit - How We Got Here and What to Do About It." Transit Center.

<https://transitcenter.org/new-video-the-legacy-of-racism-in-transit-how-we-got-here-and-what-to-do-about-it/>

<sup>18</sup> Cecilia Kang. (2016, September 10). No Driver? Bring It On. How Pittsburgh Became Uber's Testing Ground—The New York Times. *New York Times*.

<https://www.nytimes.com/2016/09/11/technology/no-driver-bring-it-on-how-pittsburgh-became-ubers-testing-ground.htm>

## 5.1 Past campaigns on private mobility tech vs. mobility justice

- **February 2017:** rally outside Uber's office in the Strip District protests its involvement in Trump-era immigration bans, its [anti-worker stance](#), and its [resistance to accountability](#)
- **July 2019** release of [Wait, Who's Driving This Thing: Bring the Public to the Autonomous Vehicle Table](#) and are successful in bringing about Pittsburgh City Council's [first public discussion on Autonomous Vehicles](#)
- **November 2019** [Our Money. Our Solutions campaign](#) for investment in community mobility needs over the Mon Oakland Connector
- **October 2019** Emily Ackerman takes to twitter to detail how she and her wheelchair were stuck in a crosswalk because a sidewalk robot was stuck sitting in the curb cut. She later detailed her encounter in a Bloomberg article, [My Fight With a Sidewalk Robot](#) and it is recounted in state legislation debate over a [controversial decision to pass legislation sponsored by Amazon and FedEx](#) legalizing sidewalk robots up to 500 pounds operate on sidewalks and classing them as pedestrians
- **April 2020** release of [A People's Audit of the Mon Oakland Connector: Why Shuttles \(With or Without Drivers\) in the Mon-Oakland Corridor Are Not a Mass Transportation Solution](#)
- **July 2021** [letter from the City County Task Force on Disabilities](#) asks the City to postpone launch of scooter pilot due to the exclusion of the disability community in the plan
- **December 2021** launch of the [Pittsburgh 100 Days Transit Platform](#)

## 6 What is the city prioritizing?

Pittsburgh's Department of Mobility and Infrastructure has been central in courting "Mobility as a Service."<sup>19</sup> Mobility as a Service represents an approach to transportation that packages private forms of transportation with other forms of transportation. Unfortunately, this approach has been led by private partners with a fixation on product, not people, giving private tech companies more and more access to public space.

### 6.1 Proactive courting of private mobility companies

#### Uber and Other Autonomous Driving Companies:

Pittsburgh's prioritization of private mobility technology companies has borne resemblance to the Amazon HQ2 bid, with giving unprecedented access to experiment on residents with Uber's testing of autonomous vehicles on public streets as well as their development of large swathes of Hazelwood. Other autonomous car companies in Pittsburgh include Argo AI, Locomotion, and Aurora.

Uber sold its autonomous driving sector to Aurora in December 2020.<sup>20</sup> Aurora also opened its new, 10,000+ square foot headquarters in the Strip District in 2020 and was the first company to receive authorization from the Pennsylvania Department of Transportation to test its autonomous cars in the state.<sup>21</sup> Most recently, bi-partisan state legislation was unveiled on January 5, 2022 at a news conference at Mill 19 at Hazelwood Green would allow companies to test self-driving vehicles on Pennsylvania roads without a driver available to take over in an emergency. This bill is backed by State Transportation Secretary Yassmin Gramian, state Senator Wayne Langerholc (R), who is chairman of the Senate Transportation Committee, Carnegie Mellon University president Farnam Jahanian, and U.S. Senator Jay Costa (D). The prioritization of private interests over public mobility needs in this legislation are clear in Allegheny County Executive's Rich Fitzgerald's statement about the legislation: "We want (the technology developers) to build here...If we don't have this legislation passed, companies will be looking at going to other states."<sup>22</sup>

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<sup>19</sup> <https://transloc.com/the-movement-podcast/on-the-hunt-for-mobility-as-a-service/>

<sup>20</sup> <https://www.post-gazette.com/business/tech-news/2021/01/03/Aurora-Innovation-Chris-Urmson-Gerardo-Interiano-Uber-ATG-acquisition-self-driving-cars/stories/202101030038>

<sup>21</sup> <https://aurora.tech/blog/wont-you-be-my-neighbor-a-new-home-in-pittsburghs>

<sup>22</sup> <https://www.post-gazette.com/news/transportation/2022/01/05/pennsylvania-self-driving-cars-autonomous-vehicles-bill-wayne-langerholc-yassmin-gramian-uber-carnegie-mellon-aurora/stories/202201050130>

## KiwiBot:

In 2020, in Bloomfield, the City took an initiative to invite a robot delivery company, KiwiBot, following a dangerous precedent set at the state level with legislation pushed by Amazon and FedEx, which classified sidewalk robots as pedestrians, allowing robots of up to 500 pounds to travel along pedestrian walkways.

## Mon-Oakland Connector:

Finally, with the Mon-Oakland Connector, the City in tandem with the Urban Redevelopment Authority in 2015 made a secret bid for federal smart city money to create a demonstration autonomous vehicle shuttle<sup>23</sup> that bore strong resemblance to other private mobility projects that resulted in hyper-gentrification and displacement.<sup>24</sup> This project affected residents in the Four Mile Run, Hazelwood and Greenfield, with no mention of Community Benefits Agreements. This shuttle primarily benefited the universities, had a low daily ridership capacity of 180 riders a day, and siphoned \$24M in public funding (in addition to a projected \$17M private investment).<sup>25</sup> The project was only projected to cover resident fares for five years, while serving only 11% of projected ridership to the Almono development site.<sup>26</sup> Their projected ridership would have been met by a shuttle consolidation between university and hospital institutions to no additional capital cost.<sup>27</sup>

Most importantly, this project received capital funding while important sidewalk infrastructure repairs lay unfunded and neglected, such as on Irvine/Second Avenue sidewalk repairs to meet ADA compliance.<sup>28</sup>

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<sup>23</sup> Pittsburgh Residents' Concerns. (2016, June 1). Letter to Anthony Foxx, U.S. Dept. Of Transportation | Save Panther Hollow.

<https://www.savepantherhollow.com/2016/06/01/letter-to-anthony-foxx-u-s-dept-of-transportation>

<sup>24</sup> Greenfield, J. (2016, November 10). For Latino activists, transportation justice means factoring in immigration and gentrification. Chicago Reader.

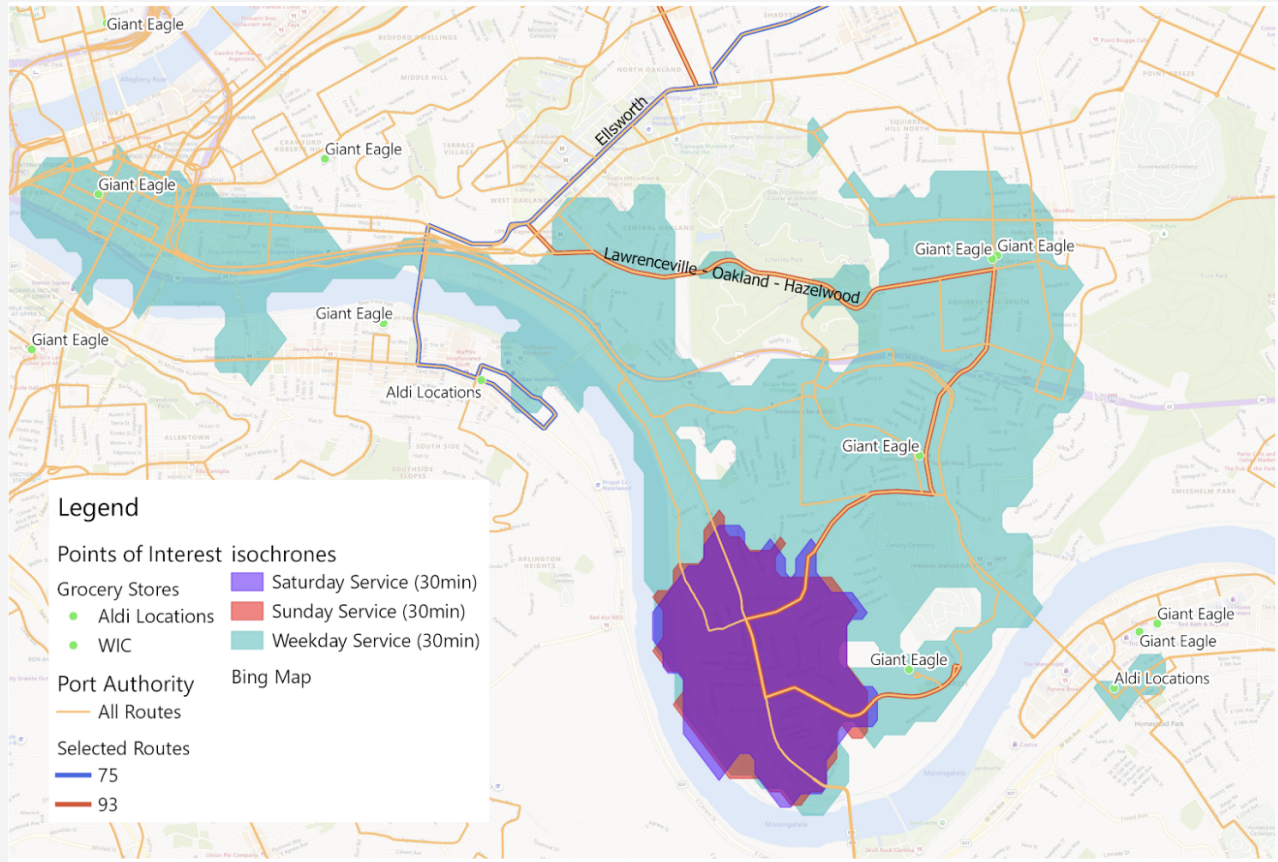
<http://chicagoreader.com/columns-opinion/for-latino-activists-transportation-justice-means-factoring-in-immigration-and-gentrification/>

<sup>25</sup> Fan, B., Kontos, S., Neti, S., & Ankin, D. (2020). A People's Audit of the Mon-Oakland Connector: Why Shuttles (With or Without Drivers) in the Mon-Oakland Corridor Are Not a Mass Transportation Solution. Tech4Society, Pittsburghers for Public Transit, 20.

<sup>26</sup> Ibid

<sup>27</sup> Ibid

<sup>28</sup> Sign the Petition: Our Money. Our Solutions. (n.d.). Retrieved February 16, 2022, from <https://actionnetwork.org/petitions/our-money-our-solutions>



**Figure 11:** A map comparing weekday service access to weekday service with route 93 and 75, where none of the nearby grocery stores are accessible. (Source: A People's Audit of the Mon-Oakland Connector)

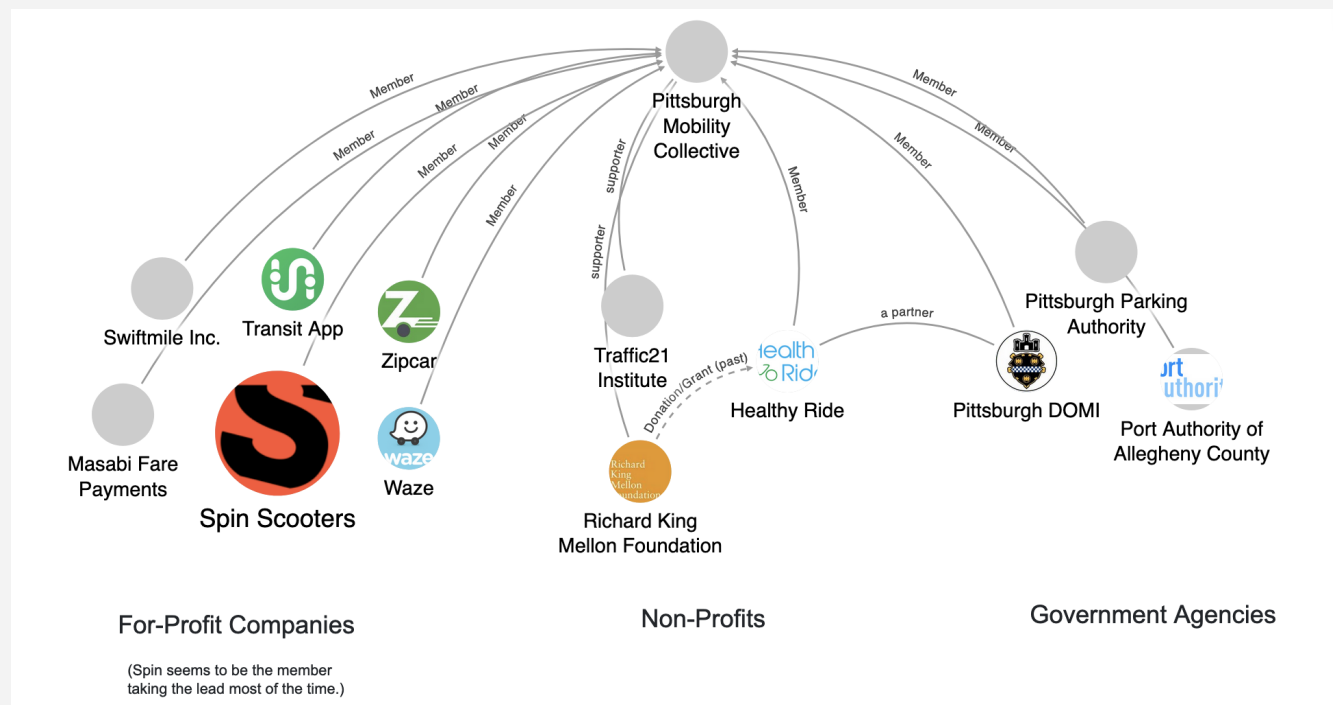
In addition, important public transit options could have provided better, cheaper, and more accessible transportation access to the area. For example, weekend service on the 93 had been requested for several years. The 93 provided access to grocery stores when the neighborhood had none (**Figure 11**). This was eventually granted in winter of 2020 after important organizing from Hazelwood and Run residents.<sup>29</sup> Residents continued to fight for needed stormwater mitigation infrastructure to be performed independent of the Mon-Oakland Connector.

After over 5 years of resident opposition, this project has potentially turning in favor of resident calls for transit access and infrastructure repair. As of February 16, 2022, Mayor Gainey has announced the end of the shuttle and corridor, with remaining funding on the Mon-Oakland Connector going to infrastructure upgrades<sup>30</sup>.

<sup>29</sup> How We Won Weekend Service: Ms. Teaira Collins. (2020, December 1). Pittsburghers for Public Transit. <https://www.pittsburghforpublictransit.org/how-to-win-weekend-service-ms-teaira-collins>

<sup>30</sup> Deto, R. (2022, February 16). *Pittsburgh Mayor Ed Gainey scraps shuttle portion of Mon-Oakland Connector project*. TribLIVE.Com.

## 6.2 Who is the Pittsburgh Mobility Collective?



**Figure 12:** A power map of the Pittsburgh Mobility Collective, displaying its members. On the left are a collection of For-Profit Companies, lead by Spin Scooters. In the center are Non-Profits such as the Richard King Mellon Foundation. On the right are government partners including Pittsburgh DOMI and Port Authority.

The Pittsburgh Mobility Collective (depicted in the power map in **Figure 12**) has been instrumental in the deployment of various private mobility services to the city, primarily in the Spin Scooter deployment of 2021. The collective emerged as an initiative of the Department of Mobility in 2019. Spin

Scooters won a bid with the City of Pittsburgh in May of 2019, with the Pittsburgh Mobility Collective created in July of 2019. This pilot "collective" is composed of several for-profit companies including Spin, Transit app, Zipcar, Ford Mobility, Waze, Swiftmile and NUMO, partnering with nonprofits and government agencies to set transportation policy in Pittsburgh.

Not only is it clear that the Pittsburgh Mobility Collective is composed of private companies helping set policy that would affect their own operations in Pittsburgh, but also that this collective is completely absent of any community representatives. This follows a history of City initiatives that exclusively focuses on elite stakeholders, with little to no input from community members unless forced legally to include public engagement.

<https://triblive.com/local/pittsburgh-mayor-ed-gaineey-scraps-shuttle-portion-of-mon-oakland-connector-project/>



# 7 Evaluating the Spin Scooter Deployment

## 7.1 Not a comprehensive solution for all

There is no denying that Spin scooters have become ubiquitous in Pittsburgh - MovePGH reports over 350,000 individual trips since rollout in July 2021.<sup>31</sup> Despite this popularity, a large section of the population is categorically excluded from using these scooters:

- Disability: Spin scooters exclude wheelchair users, people with balance impairments, vision impairments, etc.
- Bodyweight: In the Spin [Terms of Service](#), no rider may “exceed the weight limit of the Spin Scooter (220 pounds unless otherwise indicated)”, excluding a large portion of the Pittsburgh population.
- Groups or cargo: There is no place on a Spin scooter to store cargo, making it infeasible for grocery runs. Additionally scooters are not feasible for family trips, or other group travel needs, necessitating a search for individually scattered vehicles.

To be clear, not every mode of transportation must be accessible to everyone. What is a problem, however, is when the city commits human and monetary resources to transit projects that claim to provide “universal basic mobility” while excluding a large swath of the population without devoting commensurate resources to programs that benefit the excluded segment.

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<sup>31</sup> Move PGH. (n.d.). Move PGH. Retrieved February 16, 2022, from <https://move-pgh.com>

## 7.2 Scooter Safety

The safety of riders in an unprotected Spin scooter should be a top priority, but in our opinion Spin's attention to safety has been inadequate.

First and foremost, improper use of the scooters is rampant.

- Helmets: While the Terms of Service require the wearing of helmets during operation of the scooters, **almost no riders wear helmets while operating Spin's scooters**. To our knowledge, Spin has made no effort to police these violations. While [Spin does offer free helmets](#) (but requires users to pay \$10 for shipping), there have been no distribution events in Pittsburgh, nor any advertisement in the app that would suggest this program exists.
- Multiple riders: Reports of multiple people using a single scooter are widespread.
- Scooter parking: Scooters are often strewn about sidewalks, in the street, or on vegetation, causing safety issues for pedestrians and motorists.

These incidents of improper use, combined with lack of automotive driver awareness of scooter operation, have led to a troubling wave of crashes and injuries:

- CMU's University Health Services reported **3 incidents per day on or near campus requiring significant medical treatment** during the summer and fall, including emergency room visits and, in some cases, requiring reconstructive surgery.<sup>32</sup>
- Wider scooter injury data will be difficult to fully ascertain - a similar issue as with bike injuries. In the city's 311 reporting data, there is also no separate category that addresses issues with SPIN scooter calls.

Other cities have reported significant rises in injuries after the introduction of scooters.<sup>33</sup>

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<sup>32</sup>Carnegie Mellon University, University Health Services meeting

<sup>33</sup> <https://doi.org/10.1016/j.ajem.2019.05.003>  
<https://doi.org/10.1007/s10140-020-01783-4>  
<https://doi.org/10.1016/j.joms.2019.07.014>  
<http://jamanetwork.com/article.aspx?doi=10.1001/jamanetworkopen.2020.14500>  
<http://jamanetwork.com/article.aspx?doi=10.1001/jamanetworkopen.2018.7381>  
<https://doi.org/10.1016/j.amjsurg.2021.06.006>  
<http://jamanetwork.com/article.aspx?doi=10.1001/jamanetworkopen.2020.1925>  
<https://doi.org/10.1080/15389588.2021.1913280>  
<https://doi.org/10.1177%2F03611981211032216>

## 7.3 High User Cost

The current pricing structure in Pittsburgh is:

- **\$1 to unlock the scooter, and \$0.39/min afterwards, plus tax and fees.**
- Time-limited passes:
  - \$10.99 - 1hr
  - \$15.99 - 2hr
  - \$25.99 - 24hr
- \$1 off FUTURE rides when you end your trip at a Spin Hub (concentrated in Downtown)
- Scooters are capped at 15mph on major roads, and 10mph in some areas.

Given that it takes roughly ~1 minute to unlock and then park the scooter, and the average speed on the trip is 8mph (taking into account stopping+starting, traffic), here are the costs of typical distances:

- 0.5 mile trip: **\$3.16** = \$1 unlock, \$1.95 for a 5min ride, \$0.21 tax
- 1.0 mile trip: = **\$4.82** = \$1 unlock, \$3.51 for a 9min ride, \$0.31 tax
- 1.5mile trip = **\$6.49** = \$1 unlock, \$5.07 for a 13min ride, \$0.42 tax

As a mode of point-to-point transportation, they are **wildly expensive for all but the shortest routes**. Compare with alternative modes of transportation:

- Port Authority bus fare: \$2.50
- Healthy Ride (multiple options):
  - Free to unlock, \$0.07/min afterwards
  - Free for 15min w/ a ConnectCard
  - \$12/month, unlimited 30min rides
  - \$20/month, unlimited 60min rides
  - **1 mile trip: \$0.63** = 9min ride
- Scoobi: \$2 to unlock the moped, \$0.36/min afterwards
  - Max speed: 30mph
  - **1 mile trip = \$3.68** = \$2 to unlock, \$1.44 for 4min trip, \$0.24 tax

**This pricing excludes a majority of Pittsburghers from regular use as part of a commute, as compared to other modes of transportation.** Current riders are likely leisure riders with high-incomes, and without pricing changes it will likely stay that way.

**Table 3:** Summarizing the cost comparisons of a 1 mile trip

	Cost of 1 Mile Trip
Spin Scooter	\$4.82
Healthy Ride	\$0.63
Transit Trip	\$2.50 (flat for far longer than one mile)
Scoobi	\$3.68

## 7.4 Programs for low-income residents

Spin currently offers two programs that attempt to reduce costs for lower-income riders:

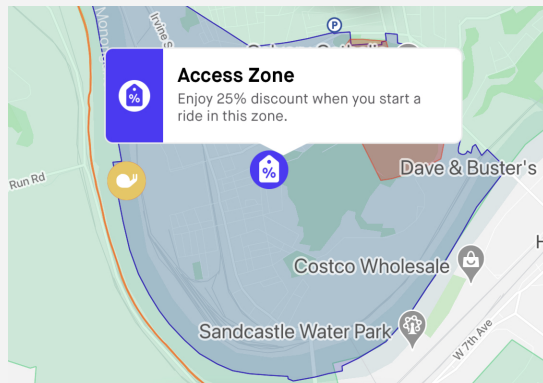
### Discounted fares for low income riders via Spin Access

The [Spin Access](#) program offers discounts for low-income riders, who can apply to receive discounts on every ride by submitting a [form on their website](#)

- There has been no advertisement of the Spin Access program
- Details of the program are buried deep in the FAQs in the app (instead of in the sidebar).
- **The actual discount is not published.** After contacting support, we were able to ascertain that the discounted rate for low-income riders is \$0.50 to unlock, and \$0.10/min afterwards. For the distances mentioned above:
  - 0.5 mile trip: **\$1.07** = \$0.50 unlock, \$0.50 for a 5min ride, \$0.07 tax
  - 1.0 mile trip: = **\$1.50** = \$0.50 unlock, \$0.90 for a 9min ride, \$0.10 tax
  - 1.5mile trip = **\$1.93** = \$0.50 unlock, \$1.30 for a 13min ride, \$0.13 tax

These prices certainly increase affordability, but may not be low enough to be a reasonable addition to a daily commute route.

## “Access Zones” with slightly reduced fares



An example of an “Access Zone” in Hazelwood, displayed in the Spin iOS app

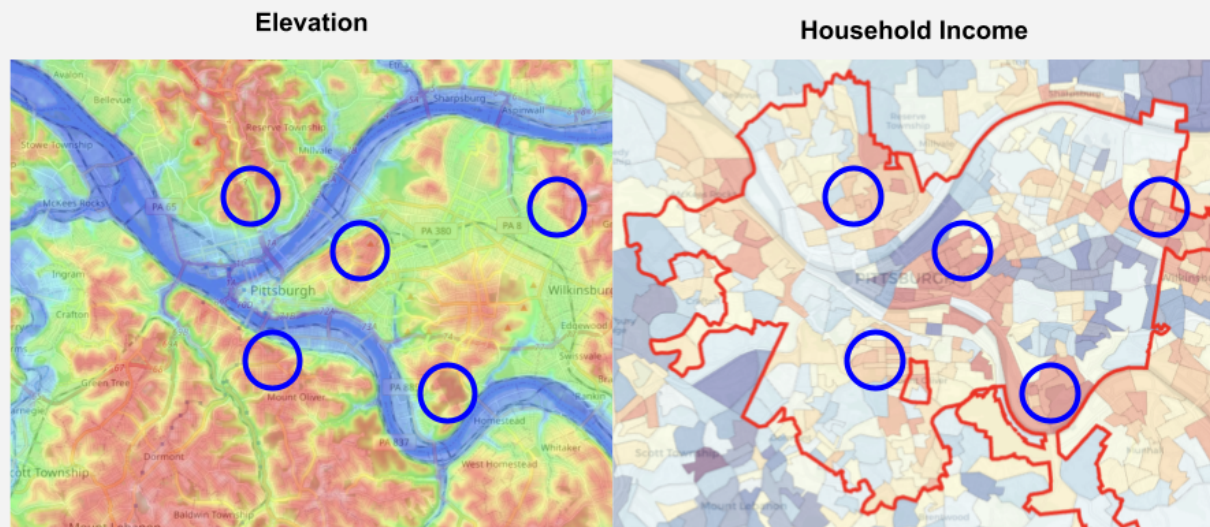
Spin has created six geo-fenced areas where rides originating in these areas are offered at a 25% discount:

- Larimer/Homewood
- Hill District
- Marshall-Shadeland
- Sheraden/Crafton-Heights
- Bon Air/Beltzhoover/Allentown/Knoxville
- Hazelwood

There are two glaring issues with this discount model:

- 1. Access Zone fares are still unaffordable:** As discussed previously, typical trip cost for using scooters is between \$4 and \$7. Even with a 25% discount, this is not competitive with a Port Authority bus or HealthyRide, and is not feasible for frequent use by low-income riders.
- 2. No discount for ending rides in these areas:** For residents of these areas who need to leave the geo-fenced area during a trip, there is no corresponding discount for ending a trip in these areas. This limits the effective discount even further.

## 7.5 Geographic Concerns with Micromobility



**Figure 13:** A mapped comparison between elevation and income levels across Pittsburgh. Neighborhoods circled in blue have both a high elevation change, and lower income. Certain micromobility options might not be viable to use in these areas, given the elevation change and street grades.

Left: Elevation map of Pittsburgh (red means higher elevation)

Right: Income by neighborhood (red means lower income)

Sources: <https://www.city-data.com/income/income-Pittsburgh-Pennsylvania.html>

<https://en-us.topographic-map.com/maps/nik/Pittsburgh>

Our city is defined by its geography, and the city's transit programs should reflect the needs and geographic realities of Pittsburgh.

These geographic realities have a real impact on the **feasibility** and **utility** of micromobility solutions. Consider:

- Electric scooters with <300W motors will have trouble getting up hills in many areas of Pittsburgh
- Power-assisted micromobility options (scooters + bicycles) will experience much shorter battery life when used in hilly areas.
- Manually-operated micromobility options (bicycles) are difficult to pedal uphill (especially when the vehicles are heavy).

**The bottom line is: certain forms of micromobility might not work for populations that live in areas of Pittsburgh with large elevation changes.**

This is particularly critical for communities that are both:

1. Located in areas of Pittsburgh that have high elevation changes
2. Lower-income

Lower-income households are substantially less-likely to own a car,<sup>34</sup> and rely on various forms of public transit. Depending on implementation, lower-income households living in neighborhoods with high elevation change may be partially or fully excluded from the benefits that micromobility solutions offer to other communities.

For instance, the following neighborhoods in Pittsburgh have substantial elevation change (>200ft) with surrounding areas, and have median household income <\$20,000/year:

- Hill District
- Hazelwood
- Beltzhoover
- Perry South/Pineview
- Homewood North/South

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[https://www.bts.gov/archive/publications/highlights\\_of\\_the\\_2001\\_national\\_household\\_travel\\_survey/section\\_01](https://www.bts.gov/archive/publications/highlights_of_the_2001_national_household_travel_survey/section_01)



# Conclusion: How We Can Organize for Transportation Justice in Pittsburgh?



In reviewing the city of Pittsburgh's prior transit and mobility priorities, it is clear that much more can be done to improve transit's accessibility and to ensure that transit is prioritized as a public good. For too long, our city government has been disproportionately focused on single-occupancy vehicles and trendy transportation technology like autonomous vehicles and e-scooters that do not and cannot meet the needs of all Pittsburghers for safe, affordable, and effective transit.

Given Mayor-elect Ed Gainey' campaign goal "to ensure everyone, especially children, seniors, and people with disabilities, can move through our city safely," we have an opportunity to change the course of Pittsburgh's transit trajectory. We must prioritize transportation that moves the most number of people and maximize our public investment in our public transit system. Public transit must provide freedom of movement to those with the least amount of access. In working to make this vision a reality, Pittsburghers for Public Transit recently released the [100 Days Transit Platform](#), created with input of dozens of residents and community organizations. It is also supported by mayor-elect Gainey and other local politicians including City Council members Anthony Coghill, Deb Gross, Erika Strassburger, and Bobby Wilson. The platforms' demands are focused around four broader goals:

1. Prioritization of accessible, equitable mobility over corporate profit and private modes of transportation
2. Legislation and zoning that supports transit use and affordable housing
3. Comfortable, accessible, and safe public transit connections
4. Bus lanes and transit signal priority to ensure fast, effective public transit

Aligned with these four goals are 18 specific policy proposals that can be implemented in the first 100 days of Mayor Gainey's tenure. Success will not only be measured by policy outcomes, but also by the quality of the relationships and the participatory processes the administration and City departments engage in to solicit, listen to, and respond to residents' needs. Clear and transparent communication and collaboration between our community, the Mayor's office, and governmental agencies is a necessary foundation for equitable systems and decision making.



If this equitable and democratic vision of public transit appeals to you, please join us! There are many ways to [get involved](#) in Pittsburghers for Public Transit's meetings and events. Signing up for the newsletter, sending an email to introduce yourself, or joining a monthly meeting are a few great ways to start. Creating an accessible and equitable city and transit system is only possible when we all come together and organize.