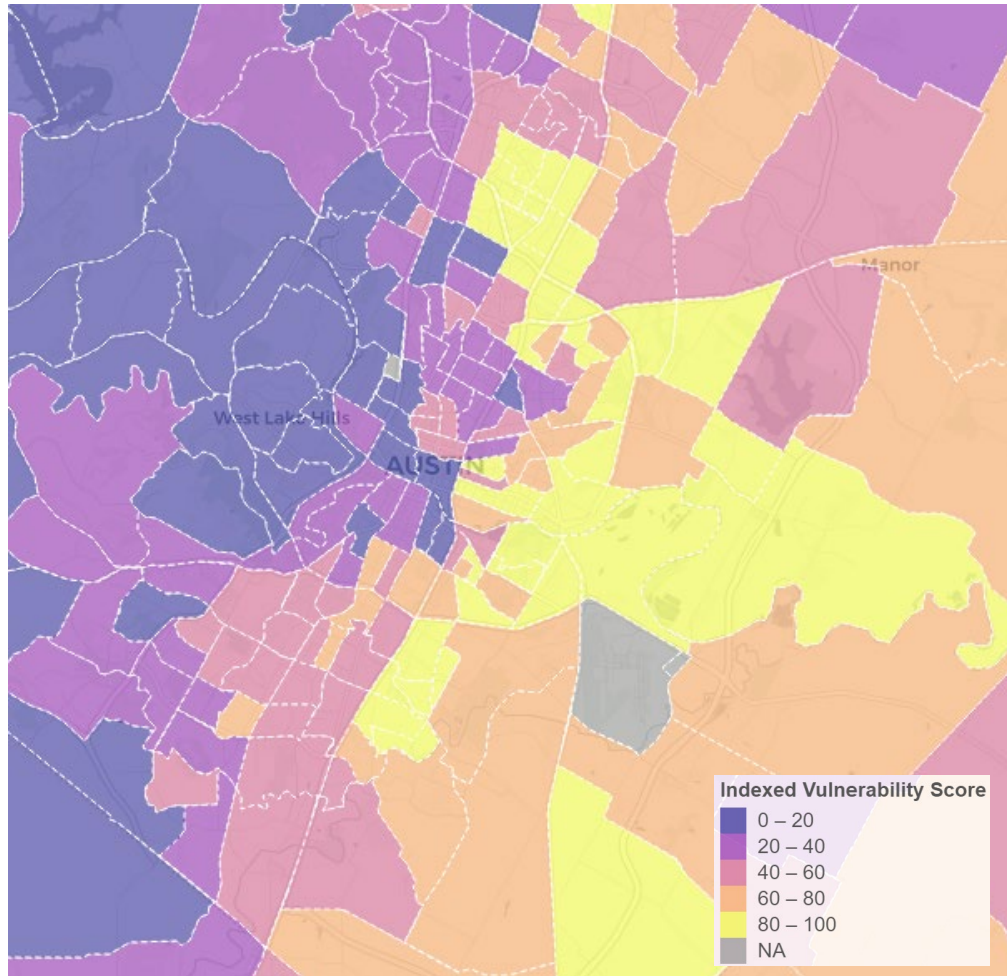


# Equity Analysis Zones Report



Austin Transportation Department  
Systems Development Division  
November 2021

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# 1.0 Project Background, Preliminary Research, and Collaboration

## 1.1 Policy Direction and Need for Equity Analysis Zones

Adopted by City Council unanimously in 2019, the [Austin Strategic Mobility Plan](#) (ASMP) is the City of Austin’s comprehensive multimodal long-range transportation plan. In addition to covering traditional policy regarding construction and maintenance of mobility infrastructure, the ASMP also considers such related topics as managing demand, protecting our health and environment, and supporting our community through equitable, affordable, and accessible transportation options. The ASMP’s Equity subchapter serves as both an acknowledgement of previous action and inaction that has contributed to inequitable outcomes across our city and as policy guidance directing staff towards more equitable future mobility outcomes. Alongside this guidance is a table of action items that the City and its partners can take to meet our goals.

In reviewing the ASMP’s more than 200 adopted action items, Systems Development staff determined that an important early action item to tackle was the creation of a framework to analyze equity in future decisions. Action Item 200 - Equity Analysis Zones calls for staff to:

*“Identify a **framework to designate geographic zones that will be used in analyzing the equity of programming, project implementation, and engagement efforts** related to transportation. The criteria should consider race, income, car-ownership, educational attainment, housing tenure, transit availability, language spoken at home, age, disability status, and other factors **to help focus efforts on historically underrepresented and underserved communities.**”<sup>1</sup>*

With the recent passage of both Proposition A and Proposition B in November 2020, the City is already beginning to ramp up design and implementation of active transportation and safety projects and is a key partner in turning Project Connect into a reality. Included within both Prop A and Prop B’s Contract with the Voters is a commitment by Council to ensure equitable delivery of these historic transportation votes.<sup>2, 3</sup> Additionally, other timely opportunities to implement a new framework for equity—such as the current process to update the Sidewalk, Urban Trails, and Bicycle Plans and the upcoming Mobility Annual Planning (MAP) process—mean that the time is ripe for creating the first version of Equity Analysis Zones (EAZs) for use across divisions, projects, programs, and Mobility Outcome departments.

## 1.2 Best Practice Research

Staff conducted best practice research of similar geographic equity frameworks from ten other jurisdictions and governmental entities across the U.S. in order to better understand both the

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<sup>1</sup> ASMP, 2019, p. 287

<sup>2</sup> Proposition A, 2020: <https://www.austintexas.gov/edims/document.cfm?id=346090>

<sup>3</sup> Proposition B, 2020: <http://www.austintexas.gov/edims/document.cfm?id=346328>

factors used in creating zones as well as various potential applications of zones. A full matrix of the tools reviewed can be found in the [Best Practice Matrix](#) prepared by staff.<sup>4</sup>

### 1.2.1 Preliminary Findings - Zone Factors, Weighting, and Attributes

Through research, staff found that data was most commonly sourced from the U.S. Census Bureau, primarily at the census tract level, which allows for reasonably good spatial granularity without substantial margins of error that can be present at smaller geographic levels. Most tools created zones using a combined score of several factors, often scoring census tracts covering the full city or region using five tiers of need or vulnerability from lowest to highest, though some tools utilized a more binary system where census tracts were either determined to be “in” or “out” based on threshold values.

The most consistent sociodemographic factors used among all tools were race and income-related factors. Some tools only used those two factors, while tools that included additional factors beyond race and income frequently still weighted race and income more heavily in the final combined score.

The relatively high importance placed on both race and income as equity zone factors is aligned with ASMP policy that states that “the City recognizes that race is the primary determinant of social equity and, therefore, racial equity is the starting point for the journey towards social equity.”<sup>5</sup> Further, staff are directed through Affordability Policy 1 to “Proactively assess displacement impacts of transportation projects” because displacement “disproportionately [affects] lower income residents.”<sup>6</sup>

Other factors that were included in various tools were: language, disability status, age, single parents, rent-burden, educational attainment, housing tenure, poverty status, travel time to work, type of housing, access to parks, access to food, access to prenatal care, health insurance coverage, childhood obesity, mortality/life expectancy, receiving SSI/cash assistance, zero vehicle households, workers commuting by transit, and access to broadband. The choice of these additional factors depended on the intended application of the tool and the governmental entities mission; for example, Denver’s Neighborhood Equity Index was primarily developed for use by their public health staff and therefore includes more factors related to health than other tools meant for more general or transportation-specific purposes.

Several tools also included additional layers alongside their equity zones for extra context and analysis. Some of these layers include: high injury networks, crash data, existing affordable housing, affordable housing pipeline, displacement risk typology (similar to the City’s Uprooted Study), historic redlining maps, disproportionate pollution burden, environmental features such

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<sup>4</sup> Equity Zones Best Practice Matrix:  
<https://docs.google.com/spreadsheets/d/1D6hBIrtN5XJBxv6gp7vHMmSXPtI-LNdvaZbLFEIO8Q/edit?usp=sharing>

<sup>5</sup> ASMP, 2019, p. 210.

<sup>6</sup> ASMP, 2019, p. 222.

as water quality protection lands and soil quality, and roadway capacity and congestion levels. These additional layers were not scored as part of the creation of equity zones.

### 1.2.2 Preliminary Findings - Zone Applications

Different governmental entities utilized their tools for various evaluation and decision-making purposes. These generally fall into a few categories of use:

- Evaluation
  - Tool helps analyze how equitable past projects or programs have been.
  - Tool is used to answer questions either in general or about specific projects/programs.
  - Insight gained can inform future decisions to address past inequities.
- Project prioritization
  - Equity “score” is one part of a larger scoring matrix determining project implementation priority/ranking.
  - EAZs scoring “high” or “very high” could receive additional points as compared to EAZs that score lower when determining overall project priority.
- Funding allocation
  - Equity areas receive X% of funding and other areas receive (100 - X)%
  - Can be either a target for spending in an EAZ using specific funding “bucket” or across multiple funding sources.
- Public engagement
  - If a project is in an EAZ, there are more robust requirements for community outreach.
  - This could be requirements for the City, private sector, or both.
- Programming
  - Targeting efforts and benefits of a specific program with limited resources to EAZs.

EAZs could potentially be applied in any or all of these ways within the City of Austin.

### 1.3 Collaboration with other City departments

Systems Development staff recognized early on that a tool like EAZs could be useful to many intra- and inter-departmental teams and had many applications for all of the City’s Strategic Outcomes. Staff scanned similar, previously created City equity tools to understand their structures and applications and began coordination with other ongoing processes like the Project Connect Equity Tool being created to direct the allocation of future voter-approved anti-displacement mitigation funding.

Austin Transportation staff from both Systems Development and Data and Technology Services began coordinating with planning staff and equity team leads from the Watershed Protection Department (WPD) in September 2020; WPD staff had expressed interest in creating a similar tool to analyze areas of Austin that were more vulnerable to negative environmental impacts

such as flooding and erosion. Brainstorming with WPD staff allowed for knowledge-sharing on precedents and approaches between the departments.

Although ongoing coordination meetings were paused due to diverging timelines and application needs, both groups agreed that the ideal vision for an equity analysis tool such as EAZs would be to have a city-wide authoritative base layer that had buy-in from all levels of the organization and could then be tailored with additional data to the needs of individual departments and divisions based on their organizational mission.

Austin Transportation also consulted with staff from the Equity Office on the approach to both tool development and community co-creation early in the preliminary stages of the EAZ process. Recommendations and takeaways included:

- Ensuring that community members who are directly impacted by City decisions that had resulted in present inequities would be able to co-create EAZs alongside staff in an accountable and transparent process, and
- The need to incorporate not only dry quantitative data from the census, which has only a limited ability to capture the full lived experience of community members, but also value more qualitative data like storytelling and history in the creation of the tool, and
- The importance of using EAZs as only one of many tools to understand where we are as a city today and to prioritize addressing racially disparate outcomes, and
- There is value in creating EAZs as a proof of concept and testing their application with mobility processes, sharing them afterwards with other departments to spur alignment between tools and datasets in the future.

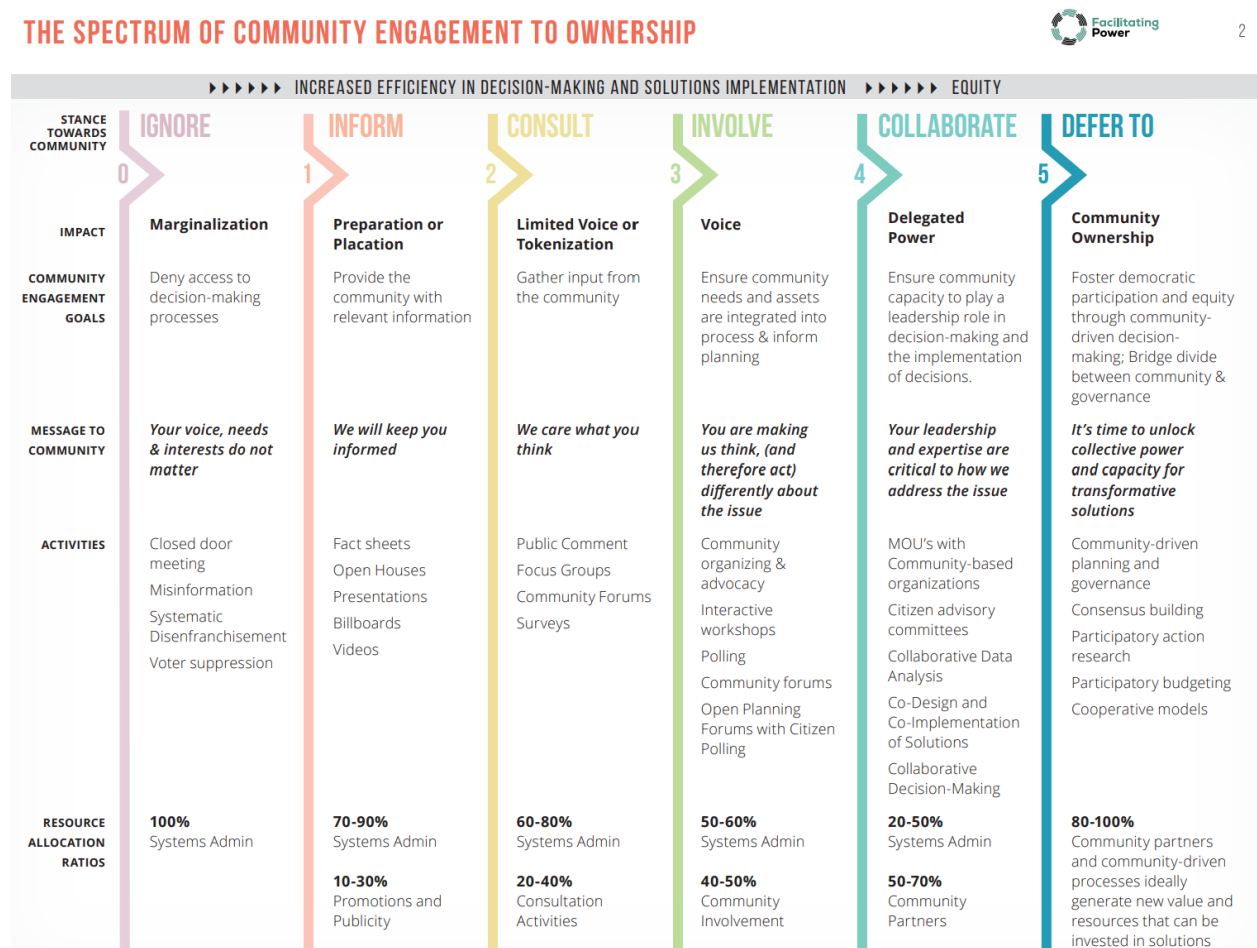
This coordination with the Equity Office was formative in shaping our community engagement methods, communications and messaging, and potential applications of EAZs throughout the process.

Systems Development staff recognized that several upcoming mobility processes (such as 2020 Bond Program implementation planning efforts and the ATX Walk Bike Roll process to update the Sidewalks, Urban Trails, and Bikeways Plans) had been called on by Council to better address historic inequities and therefore could benefit from the immediate creation of EAZs. Rather than attempting to undertake a centralized and comprehensive city-wide multi-departmental coordination process to create a single equity analysis tool, staff decided to forge ahead with creating EAZs as an Austin Transportation stand-alone tool in 2021.

## 2.0 Setting the Stage for Community Engagement

As a community-based project, it was critical that Equity Analysis Zones were created collaboratively. To ensure this community collaboration, Austin Transportation staff created an Advisory Team. An Advisory Team is considered a collaborative form of engagement by Facilitating Power’s Spectrum of Community Engagement to Ownership. Staff felt that “Collaborate: Delegated Power” was the appropriate level for this project (Figure 1). Although it is still one step below “Defer To: Community Ownership,” the highest level on the spectrum, Systems Development staff could not guarantee that all of the Advisory Team’s decisions, such as those related to funding, would be adopted by Department leadership. The “Collaborate” level, as the next level down, was the best level for this process.

Figure 1. Facilitating Power’s Spectrum of Community Engagement to Ownership



### 2.1 Creation of the Community Advisory Team

This team was designed to consist of up to 15 community members who staff hoped would represent a variety of experience, knowledge, and backgrounds. Although Advisory Team members would be working with data, or alongside staff who worked with data, staff did not believe that a background in data was necessary to serve on the Advisory Team. Data analysis

could be provided by staff and a consultant, while lived experience, neighborhood knowledge, and local community development desires were needed to provide the foundation of Equity Analysis Zones. This was also expected to help create community support for the project.

To join the Advisory Team community members needed to fill out a Google form. The form consisted of 8 required questions and 5 optional demographic questions that staff could use to attain a diverse Advisory Team. Staff estimated that it would take someone 10 minutes or less to complete the application, which was available in both [English](#) and [Spanish](#). The form was open from 10:00 AM on Saturday, April 17, 2021 through 9:00 AM on Monday, May 17, 2021.

The primary questions included in the application were:

- List your first and last name.
- Which is your preferred method of contact (phone or email)?
- List your phone number or email address.
- Which is your preferred day of the week to meet (Monday-Sunday, select all that apply)?
- What time of day is your preferred time to meet (Morning, Mid-day, or Evening, select all that apply)?
- Do you need to be paid to be on the Advisory Team?
- What interests you about Equity Analysis Zones, and what perspectives do you think you'd bring to the Advisory Team?

The demographic questions included in the application were:

- What's a major intersection near where you live (for example, Lamar & 183, 12th & Airport, Pleasant Valley & Oltorf, etc.)?
- What races and/or ethnicities do you identify with?
- If you'd like, please use the following space to share anything else you would like us to know about your cultural identity.
- Which of the following best represents your gender identity?
- How old are you?

## 2.2 Focused Recruitment

To ensure that a diverse set of community members joined the team, staff used focused recruitment methods.

Staff presented at the April 17, 2021 City of Austin Equity Action Team meeting, and information about the opportunity was included in two subsequent Equity Action Team newsletters on April 20 and May 10 (Figure 2), as well as an Equity Office Facebook post. Staff also began sharing the opportunity with community contacts, including discussions with organizers from Go Austin Vamos Austin and a community member who also serves on the Southeast Neighborhood Combined Contact Team.



Staff sent emails to local organizations that support historically underserved communities. These organizations were identified through the City's Chief Resiliency Officer, who had recently led outreach for the Project Connect "Catalysts" group as well as hosted several events focused on reaching historically underserved and underrepresented communities. Staff emails included content that could be used for a Facebook post, as well as a link to a [public Google folder](#) that explained the Equity Analysis Zones project in greater detail. Overall, staff reached out to 28 different organizations.

In addition to outreach conducted by staff, Open Austin, who was a consultant on this project, helped provide outreach services. They disseminated information about the opportunity through their email and Slack channels, as well as discussing it at their biweekly meetings.

*Figure 2: Example Equity Office Newsletter Article*

**Equity Analysis Zones**

Transportation joined to discuss their idea for "Equity Analysis Zones," basically a mapping exercise to identify areas of the City most impacted by inequity and systemic racism.

Currently, they're seeking out community members willing to help scope and design this work. You can see the details below, [as well as the full slides at this link](#).

If you are interested in participating, [you can apply at this link](#)

**Our Ask: Help Us Define these Zones**

- If you're interested in digging into this with us more, please consider being on an advisory team for us on this project
- We don't have a full process worked out, but we anticipate:
  - A small-medium time commitment:
    - 2-3 meetings total, each expected to be 1.5-2 hours in length plus homework
  - Work expected to take place from late-May through June
  - A \$200 stipend
  - An advisory committee up to 15 people
  - Advisory committee members would help create Equity Analysis Zones alongside staff, considering:
    - Available data sources and accuracy
    - Other cities methods and uses
    - Appropriate applications of Equity Analysis Zones in Austin

## 2.3 Roles and Responsibilities of the Community Advisory Team

Advisory Team members were asked to bring their own knowledge of their neighborhoods and communities to help co-create the Equity Analysis Zones alongside City staff. As Community Advisory Team members they would focus on two main tasks.

The first task asked Advisory Team members to identify and prioritize criteria and data needed to create the Equity Analysis Zones, such as household income levels or internet access. The second task was to recommend how these Equity Analysis Zones should be used, based on the best practice research conducted by the team, as well as any additional thoughts or ideas created by the Advisory Team.

## 2.4 Compensation and Timeline

Staff anticipated community members spending about 10 hours of time over the course of June and July 2021 on this project. This time would include several virtual meetings, as well as some work outside of the meetings. Each member of the Advisory Team was offered a \$200 stipend for their time. Advisory Team members were offered the opportunity to decline the stipend (to allow community members whose participation could constitute a conflict of interest if they accepted the money or to allow the money to be put back into the project to allow the project team to pay up to 15 people). 10 of the Advisory Team members accepted the stipend, and two declined the stipend.

## 2.5 Members of the Community Advisory Team

Fourteen residents of Austin applied for the Community Advisory Team. A fifteenth resident emailed after the application closed. Although all fifteen were placed on the Community Advisory Team, this fifteenth resident, as well as two people who applied initially did not join the team. This left twelve community members to serve as the Community Advisory Team. Below are some statements provided by the applicants that helped select the final team.

“I think I would be a great fit for this team because I grew up in a multi-ethnic household, I am a first-generation college graduate, I live (and volunteer regularly) in East Austin, and I care about this city and the environment.”

“As a young African American male living in Austin Texas I believe I have a deep connection to the different effects equity has on people. Coming from a low income household and attempting to increase my living wage while in Austin Texas is challenging to say the least. I believe my perspective could help generate unasked questions and needs to help benefit the overall program and its goals.”

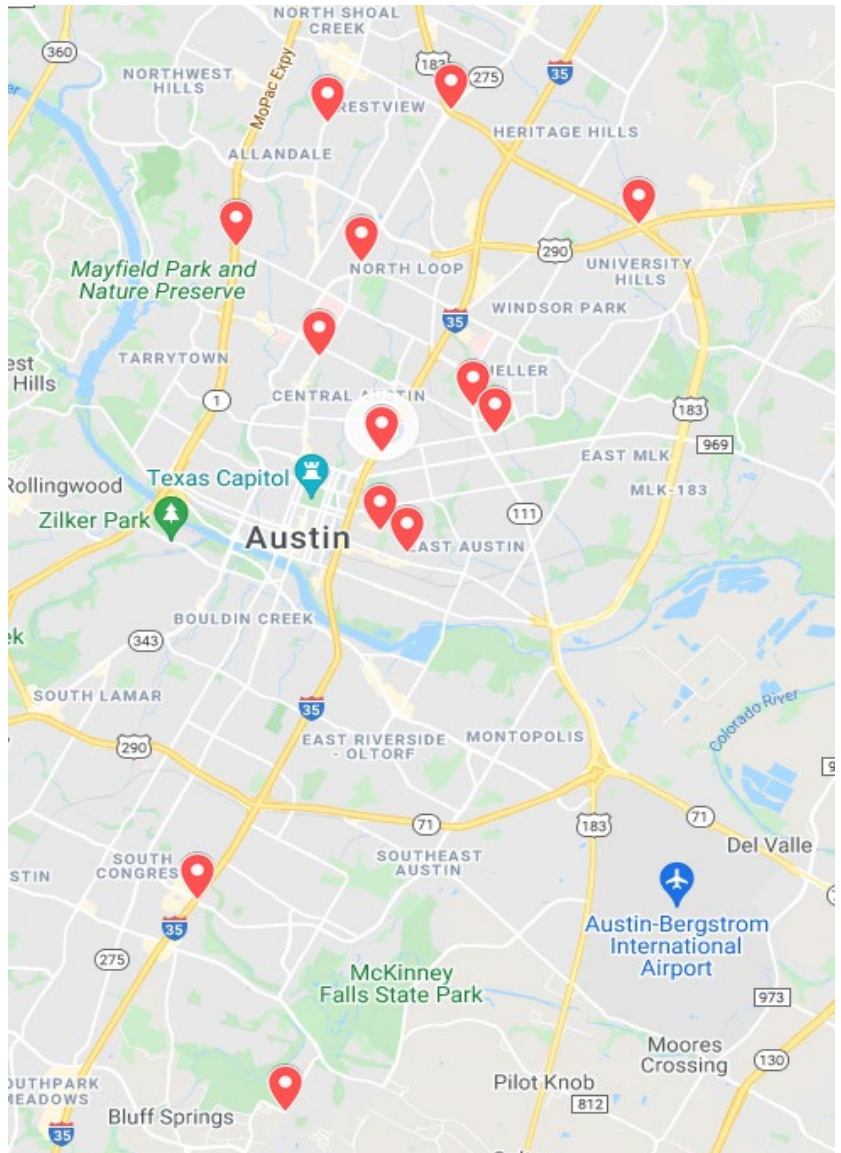
“I have worked and lived in every part of the Austin area from Buda to Georgetown and Hornsby Bend to Anderson Mill. I have often taken the bus services for work and as part of the trainings offered in the Access Austin job readiness program for adults with Autism that I ran, we practiced accessing all of the public transportation offered by Cap Metro. I currently work with lower-income and immigrant families throughout the Austin area and often help them to access transportation. All of these

experiences lead me to know about a variety of needs that could be beneficial to the advisory team.”

“Serving on the Advisory Team would be a great opportunity to help guide the equity policies and priorities of Austin Transportation. I believe my experience as a nearly ten-year resident of Austin will provide substantial value to Austin Transportation and the public... The sum of my professional and public engagement experience will go a substantial ways toward meeting Austin Transportation’s and public’s goal of equity in transit funding and prioritization and community engagement.”

“I am an ally to BIPOC knowledgeable and connected to elder BIPOC in my historic freedman’s town Gregory Town. I established a non profit that did cultural preservation work here and I’m an active participant on the Blackshear Prospect Hill Neighborhood Association list serve.”

Figure 3: Map of major intersections near Advisory Team members



Ultimately the Community Advisory Team was composed of people from a diversity of backgrounds, cultural identities, genders, ages, and home locations (Figure 3).

## 2.6 Working with Open Austin

Staff worked with Open Austin to provide data processing and analysis support to build and modify the tool that the Community Advisory Team would use to build Equity Analysis Zones. This tool was based on a tool developed in Portland, OR that allows users to slide the weights of certain variables. The tool then indexes these variables into one map to see how each variable affects the vulnerability of an area. Staff hired Open Austin who provided programming

assistance and Community Advisory Team administrative services. Open Austin worked with staff from May through July and ended up recreating the Portland tool for the six-county Austin Metropolitan Area.

After an initial kickoff meeting, staff and Open Austin met weekly to ensure that the project goals and needs were being met. Meetings were held over Microsoft Teams. Open Austin completed their work shortly after the final Community Advisory Team meeting the final week of July, and Open Austin supplied Austin Transportation with a shapefile for the Equity Analysis Zones map produced by the Community Advisory Team.

## 3.0 What We Did

### 3.1 General overview of all the meetings

Advisory Team meetings commenced in June and the Advisory Team met a total of four times. Staff had expected each meeting to last 1.5-2 hours. Most meetings were closer to 90 minutes in length, although the final meeting took slightly over two hours. Meetings were held on Monday evenings from 5-7 pm. Mondays had been chosen as the meeting day based on an internet poll of Advisory Team members. The meetings were held on:

1. Monday, June 21
2. Monday, June 28
3. Monday, July 19
4. Monday, July 26

A break was held after the second meeting to allow for the July 4 holiday, which was observed on Monday, July 5th and to allow an extra week for staff and Open Austin to work on collecting and processing data based on instruction and feedback from the Advisory Team.

Each meeting was held virtually over Zoom to ensure a safe, comfortable, and convenient format for discussion during the COVID19 pandemic. This made sharing the presentation with those who were unable to attend and reviewing comments easier since all meetings were also recorded. The first and second meetings largely focused on introducing the project and team, while the third and fourth meetings focused on setting up the mapping tool and applying it to visualize our most vulnerable communities. All meetings were recorded after the Advisory Team unanimously consented to having the meetings recorded.

The first meeting set expectations for the group during the EAZ process. These were agreed upon by all in attendance. These expectations were repeated at each meeting to help people create a considerate open space. They were:

- Rename yourself on Zoom with your name and pronouns
- Stay muted when not speaking, if you forget we'll help out
- Turn your camera on if you're able to/comfortable

- Be present by closing out other tabs and apps, get a beverage or snack before the meeting, etc.
- Feel free to move around, stretch, use the bathroom - listen to your body
- Respect - respect each other and respect this space
- Make Space/Take Space - this is about allowing for equal contribution based on group size. We want to allow space to hear from everyone
- Try to use inclusive language - avoid acronyms. If you don't understand a word or topic, feel free to drop a question in the chat. Our chat support will also try to explain acronyms/topics in the chat if they are used.
- Use the chat!
  - When you resonate or support something that was said, feel free to add a +++ or other words of support in the chat.
  - When you would like to speak, feel free to add a \* or write the word "stack" in the chat and we will add you to the queue.

The rest of the meeting focused on introductions to Advisory Team members and the project.

The second meeting introduced the Vulnerability Tool described in the following section. After a group introduction to the tool, two breakout groups were led by staff to familiarize people with the tool and begin getting feedback on it.

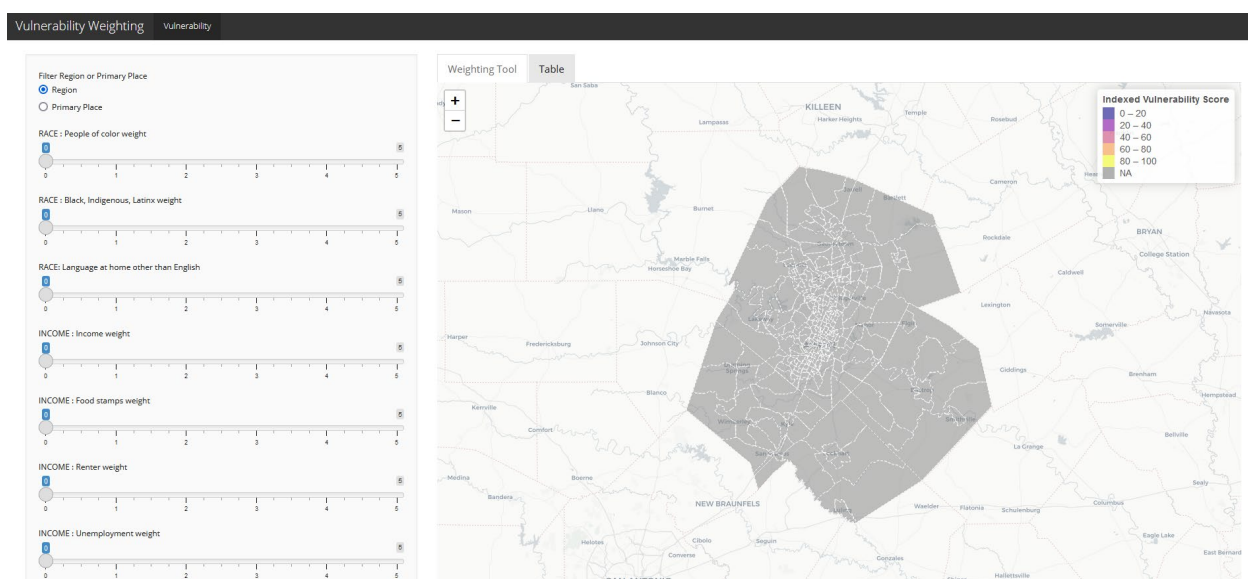
The third meeting was also focused on the tool, but expanded the discussion to include variables that the Advisory Team was interested in. A dot exercise led by Open Austin narrowed down possible variables to include in the tool, and breakout group exercises considered the new map based on these variables.

The final meeting consisted of two parts. During the first part, Advisory Team members presented their final EAZ maps; these maps had been developed as homework after the third meeting. After they presented their thoughts and other members responded to the maps, a final version of Equity Analysis Zones was built and agreed upon by all the members. In the second part of the meeting the group considered different ways Equity Analysis Zones could be applied and put into practice by Austin Transportation.

### 3.2 The EAZ Mapping Tool

Much of the Advisory Team's work revolved around the EAZ mapping tool. The tool is a publicly-accessible internet application that breaks down the Austin metropolitan area by census tracts. It lists certain census variables, chosen initially by the original developer, but rebuilt under the instruction of the Advisory Team. Each variable in the tool is weighted on a scale from 0-5. A variable that was rated as 0 was not mapped by the tool. The weights were exponential. For example, a variable set to 2 was weighted twice as much as a variable weighted at 1, and a variable set at 5 was weighted five times as much as a variable set at 1. A user may change the weights of each variable, and each weighted variable is indexed together to determine the vulnerability "score" for each census tract.

The mapping tool relied on data from the 2019 American Community Survey 5-year estimates. Staff, Open Austin, and the Advisory Team were interested in incorporating data from other sources (the Advisory Team suggested over 30 non-census variables in addition to the census variables it considered). However, due to different constraints (e.g., imprecise definition of what “access to schools” means, inability to find the data, limitations of how the tool was built), the tool ended up relying only on US Census data.



### 3.2.1 The Original Mapping Tool

The mapping tool was based on a tool created in Portland, OR<sup>7</sup>. The categories in the initial tool were:

- Percent of people of color (percent of people both “not white” and “not Hispanic or Latino”)
- Percent of people that are Black, Indigenous, Latinx
- Median Household Income (inverted so lower median household incomes had a higher score)
- Percent of people over 25 years old without a bachelor’s degree
- Percent of people who rent (housing tenure)
- Percent of Seniors (people aged 65 and older)
- Percent of people receiving Food stamps/SNAP
- Percent of people who have no computer device in their home

<sup>7</sup> Portland Bureau of Transportation Equity Matrix:

<https://pdx.maps.arcgis.com/apps/MapSeries/index.html?appid=2e2252af23ed4be3a666f780cbaddfc5>

### 3.2.2 The Rebuilt Mapping Tool

During the Equity Analysis Zones process the Advisory Team identified three variables that they found particularly significant and felt should be weighted appropriately: Black/Indigenous/Latinx, People of Color and Income. In the later meetings, Advisory Team members continued to shape the tool to connect the communities that they believe captured the intent of the tool. Even so, they noted that no tool could fully capture all the populations that they believe need support in Austin. The final product was the sum of an iterative process that included map development, discussion, disagreement, and listening to the many perspectives of Advisory Team members. Open Austin rebuilt the tool for use in the Austin area, and eventually customized the variables included in the tool based on the Advisory Team recommendations. The variables chosen by the Advisory Team to be in the final version of the tool were:

- Percent of people of color (percent of people both “not white” and “not Hispanic or Latino”)
- Percent of people who are Black, Indigenous, Latinx
- Median Household Income (inverted so lower median household incomes had a higher score)
- Percent of people receiving Food stamps/SNAP
- Percent of people without broadband internet
- Percent of people over 25 years old without a bachelor’s degree
- Percent of people who rent (housing tenure)
- Percent of people who have Disability
- Percent of Seniors (people aged 65 and older)

### 3.2 Pros and Cons of Digital Meetings

All meetings were conducted online via Zoom over the course of six weeks. Staff decided to hold the process virtually to ensure safety and comfort during the COVID-19 pandemic. Zoom was chosen as the preferred platform by the Advisory Team members. Systems Development utilized the City of Austin Communication and Public Information Office’s Zoom license.

Digital meetings did have some advantages over traditional in-person meetings. It allowed people the increased comfort of taking the meeting from anywhere provided they had a device and internet connection, and it allowed more flexibility for sitting through a long meeting, such as taking the meeting from a familiar and comfortable chair or easily getting a drink of water. There was no need to take further time or cost to travel to and from meetings, and it assisted with, although did not fully obviate, the need for childcare since parents could take some time to tend to some of their children’s needs. Multiple staff were also available to answer questions as they came up without interrupting the meeting. Advisory Team members were encouraged to ask questions and discuss things in the chat. While some staff facilitated discussion, others were able to answer questions and integrate chat topics into the facilitated discussion. Critically, it also allowed for easy recording of the meeting to be taken and reviewed and watched by people outside of the meeting. This allowed Advisory Team members who had to miss a meeting to

catch up, and it allowed staff to carefully review recommendations that were made and compare these video observations with what they witnessed and took notes on during the process.

The online meeting format did create some barriers to feeling connected to other teammates. Compared to in-person meetings, there were not many natural opportunities for people to share information about themselves or to comment on things unrelated to the materials discussed outside of introductions. In addition, there were no opportunities for people to chat briefly between breaks or touch back on something that was previously discussed in the meeting at pauses in the presentation. Lastly there was little opportunity to pick up on non-verbal cues such as body language. This did create some reluctance in the team to know when they should participate.

However, conveying the main purpose and information about the equity mapping tool were not lost in this virtual setting, as all materials were online. During an in-person meeting the same digital tools would have been used (a PowerPoint presentation and the online mapping tool) so much of the process's structure would have remained the same if it had been conducted in-person.

Although it is uncertain whether hosting digital meetings improved attendance, in a post-process survey that was distributed to Advisory Team members the two responses that were submitted noted that an "in-person" or "hybrid" style process would be preferable to a fully virtual process.

## 4.0 What We Heard

This section will go into each meeting in greater detail, including meeting agendas, times, discussion, and takeaways.

### 4.1 EAZ Meeting #1 - June 21, 2021

Agenda:

1. Ground Rules (*10 minutes*)
2. Introductions & Background (*30 minutes*)
3. Logistics (*10 minutes*)  
*10 Minute Break*
4. What are Equity Analysis Zones (*10 minutes*)
5. How will EAZs Work and Affect Decisions (*20 minutes*)
6. Wrap Up (*10 minutes*)

Twelve Advisory Team members, one representative from Open Austin, and six staff members attended the first meeting. This meeting was designed to introduce the Advisory Team to their peers and the framework of the project. In the personal introductions, Advisory Team members found common ground sharing the qualities of their communities that they value, including: treasured active transit facilities, inclusivity, community organizing and support, and a sense of



diversity from food options to racial makeup. These introductions served as a team building exercise, but also allowed Advisory Team members to hear perspectives from communities outside their own. This exercise was also connected to the end of the meeting task of identifying data that mapped the conditions and peoples in their communities.

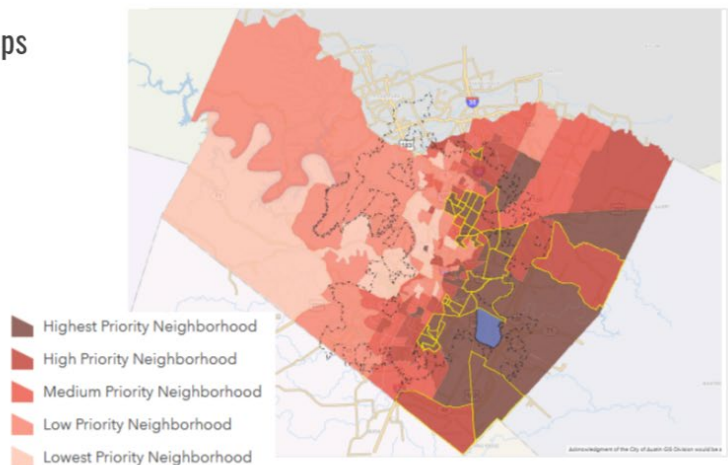
Logistics such as the timeline for the project and upcoming meeting schedule were shared. In addition, the Advisory Team was reminded that there would be short homework between meetings. Open Austin was introduced as a partner for this process and that this non-profit would be providing payment to the Advisory Team for their participation.

The second half of the meeting informed the Advisory Team of the EAZ framework, what EAZs are, how they will work and may affect decision-making. Throughout this half of the meeting examples of the EAZs were showcased with questions and comments encouraged. In these examples where precedent models were mapped onto the City of Austin, the project staff received many comments that would drive discussion in later meetings. Advisory Team members noted the instances where census tracts and resources were delineated by existing infrastructure systems, notably the divide that I-35 generated between different communities/census tracts. Members provided further critique to these precedent models as they felt that these maps did not fully capture all the populations they wish to make visible with this tool.

Figure 5: Models Applied from Portland, OR and Oakland, CA to Austin Census Tracts

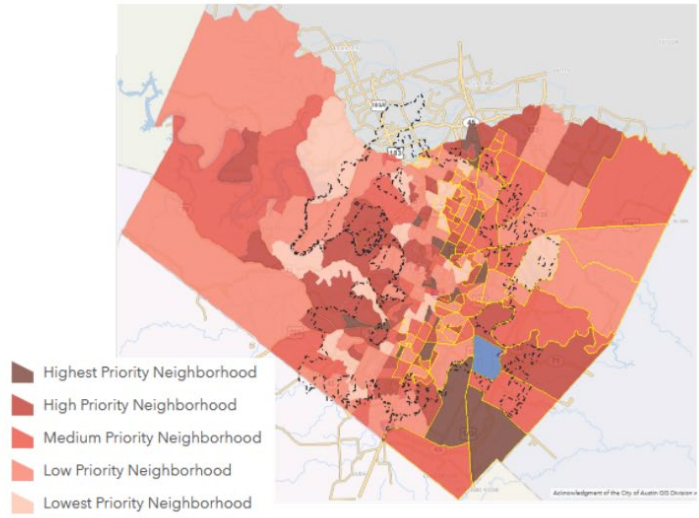
## What goes into EAZs?

- Different data produce different maps
- Portland's model in Travis County
  - Race 50%
  - Income 50%



# What goes into EAZs

- Different data produce VERY different maps
- Oakland's model in Travis County
  - Race
  - Income
  - Seniors
  - Low Educational attainment
  - Disability
  - Single-parent households
  - Severely rent-burdened



Lastly, City staff explained that EAZs could influence future decisions within the Transportation Department if used as a new quantitative data tool. Staff also explained that this process could set a precedent for future planning processes and the tool could be utilized and integrated into other departments across the City of Austin.

At the end of this meeting, the Advisory Team was tasked with considering the kind of data that they would like to see mapped in this process (e.g., income, food pantry locations, etc.). The team was prompted with the question of what data points represent their neighborhood and were provided a list of cities who have built their own Equity Analysis Zone Tools for reference.

## 4.2 EAZ Meeting #2 - June 18, 2021

### Agenda:

1. Meeting & Zoom Reminders (5 minutes)
2. Review of Meeting #1 (5 minutes)
3. Our Mapping Tool (15 minutes)
4. Breakout Groups: Mapping (30 minutes)
  - a. 10 Minute Break
5. Report Out & Group Map Discussion (10 minutes)
6. Wrap Up (10 minutes)

The second EAZ meeting had nine Advisory Team members and one Open Austin representative in attendance, as well as five staff. The meeting introduced the Vulnerability Mapping Tool, shared the data suggestions from the post-meeting task given to the Advisory Team, and provided Advisory Team members an opportunity to discuss and operate the vulnerability tool and see their own iterations of an EAZ Map.

A link to the mapping tool was shared with the Advisory Team so they could begin to see how the tool functions. The tool shows a list of variables with the ability to change weights from zero to five. As weights are adjusted per variable, a map reflects where these variables exist spatially by census tract in Austin. The “vulnerability” of each area can change as different variables interplay with each other. In this exercise, eight variables associated with a lack of resources were included in the mapping tool:

- People who are Not White, non-Hispanic
- People who are Black, Native/Indigenous/Native Hawaiian, and Latinx
- Adults (25+) without a bachelor’s degree
- Median Household Income
- Renters
- People aged 65 or older
- People on Food Stamps/SNAP
- People with no device that accesses the internet at home

Although not included in the mapping exercise for the second meeting, the Advisory Team provided the following suggestions to be included in future mapping sessions:

- Vehicles per working occupants
- Broadband usage
- Building age
- Housing tenure (rent v. own)
- Percent of income as rent
- English proficiency
- Number of rental units
- Number of vacant units
- Language spoken at home
- Disability status
- Vehicles available

The next part of the meeting separated the Advisory Team into breakout rooms to test the vulnerability mapping tool.

The first breakout room started by using a tiered approach to prioritize and discuss the significance of different categories as a group. The most significant categories, tier 1, identified Black, Indigenous, Latinx, People of Color, and Income. Tier 2 categories were Computer Access, Renter, Education. The categories that fell outside of this were then intentionally left out for their first mapping iteration. As the group discussed the tier 1 categories, a conversation emerged distinguishing People of Color and Black, Indigenous, Latinx categories. The group resolved that People of Color included more ethnicities and racial groups than Black, Indigenous, Latinx. But given the historical context of Austin, the group rated Black, Indigenous, Latinx and Income as the highest score within this tier with People of Color with a slightly lesser score. As group 1 continued to test different iterations, the group identified communities that should be the priority of this vulnerability tool and measured their iterations to these communities to confirm success. A closing remark for the first breakout group was to include data that reflected the disability community.

The second breakout room had a more focused discussion on the topics related to the given data categories. Lack of affordability and housing options was a central topic. The second breakout room discussed how recent development and growth has displaced and pushed

longstanding residents out of their communities and into suburban towns and cities. The second breakout room concluded that lack of affordability and housing options created the highest priority through their different iterations of the data categories in the vulnerability tool. As a group, they discussed in greater detail the application of EAZs, how EAZ could focus on building infrastructure for people who are already here, not just those arriving now, and how the tool should direct infrastructure to places that are not accessible to communities identified under the highest vulnerability score.

As the two groups reconvened and shared their results, the Advisory Team emphasized that the tool needs to be designed for the certain communities but also the folks that make up those communities. The team also established that the initial variables worked well, but additional data categories are needed. These categories should bring visibility to those with additional transit and mobility needs, and this inclusion would strengthen the tool.

### 4.3 EAZ Meeting #3 - July 19, 2021

Agenda:

1. Review of Meeting #2 (*5 minutes*)
2. Building the New Mapping Tool (*25 minutes*)  
*15 Minute Break*
3. Share the New Maps Based On Rank Factors (*5 minutes*)
4. Breakout Groups: Consider New Variables (*30 minutes*)
5. Report Out & Group Map Discussion (*20 minutes*)
6. Wrap Up (*5 minutes*)

The third meeting had eight Advisory Team members and two Open Austin representatives in attendance, in addition to four staff. Similar to the previous meeting, there was a report out of what staff heard from the Advisory Team to remind everyone of what had already taken place and to ensure staff had heard the Advisory Team correctly. This meeting was the last opportunity for variables to be modified and from this point forward the map relied on how this final set of variables are weighted.

The first exercise of this meeting involved narrowing down the variables to be included in the tool. The original eight variables included in the original tool, as well as the eleven variables suggested by the Advisory Team, were under consideration. To reduce clutter and increase the ease of using the tool it was determined that the Advisory Team would vote on their preferred variables to keep in the mapping tool. This allowed the Advisory Team to provide a final recommendation on which variables and at which weights.

Open Austin led a virtual dot exercise where the Advisory Team voted on which variables they wanted to keep in the mapping tool. After discussing all the variables and what they meant, each member of the team was allowed four votes that could be used entirely on one variable or spread across four variables. It was also possible for Advisory Team members to not use all of their votes.

While the Advisory Team was taking a break, Open Austin rebuilt the map with the top nine variables the Advisory Team voted for. The Advisory Team selected two variables regarding race, five variables regarding income, one disability, and one age-based trait. This included:

- People of color
- Black, Indigenous, Latinx
- Income
- Food stamps
- Rent over 35% of monthly income
- Without broadband
- Less than one vehicles than working occupant
- Disability
- Elderly

Following the break, the Advisory Team was once again paired with City staff to form breakout groups where they tested the new mapping tool and its eight final variables. The purpose of this exercise was to once again get familiar with how the different variables and weights affected each other on the map.

After the groups reported back on their main findings, each community member was assigned to use the tool to create their own map. The map should reflect the weights they found of value and reflect what they felt to be true for where vulnerable communities are located within Austin.

#### 4.4 EAZ Meeting #4 - July 26, 2021

Agenda:

1. Review of Meeting #3 (*5 minutes*)
2. Presenting Your Maps (*45 minutes*)  
*10 Minute Break*
3. Zone Applications (*30 minutes*)
4. Final EAZ Map Reveal (*10 minutes*)
5. Wrap Up (*10 minutes*)

The final EAZ meeting with the Advisory Team generated a final EAZ map and a set of inputs for the different data categories and provided recommendations for the possible applications of the tool. To achieve the final map, Advisory Team members were asked to share their individual inputs and maps, followed by the project team calculating the mode (most common) of these results to generate a tentative map and set of inputs for the Advisory Team to share their comments and adjust if appropriate.

The meeting began with a quick recap of information heard in the previous meeting. This was followed by each Community Advisory Team member presented the final variables and weights they selected for their maps. The variables and weights were put into the mapping tool for the

entire team to see as the map author explained why they chose those specific weighted variables. The Advisory Team also reflected on the strengths and weaknesses of their maps.

Like the conclusions from the second Advisory Team meeting, the data categories connected to race, income, and disability status were weighted with the most significance among the variables. As members shared their individual results, individual communities were highlighted as proof or 'control' to see if the intent of their maps were matching their desired impacts. These controls were heavily used by Advisory Team members to connect their results to the results of their peers.

Everyone was provided a short break after the exercise. This allowed City staff time to take the mode weight, or the most commonly used weight, from all utilized variables and plug them into the final map. In the case of tied variables/weights, averages were used and rounded up at 0.5 when necessary. After all the individual results were processed, the project reflected a tentative map based on the mode for the different data categories. The team agreed with the results as all 'control' communities achieved desirable vulnerability scores.

Once everyone returned from the break, the Advisory Team was briefed on the many different ways EAZs could be applied to work at the Austin Transportation Department. Team members considered each option, and staff asked Team members several polling questions to understand which applications were most interesting to the community. The team was also informed of immediate next steps which include the development of this report and reaching out to other groups to begin working on EAZ implementation. A list of potential upcoming uses were shared with the Advisory Team so that they could understand when and where this map could be implemented. The Mobility Annual Plan (MAP), the ATX Walk Bike Roll planning process, and the Austin Transportation signals evaluation were a few options mentioned for near-term application of the tool.

This final meeting and EAZ mapping process ended with a survey so that City staff could evaluate the process and receive feedback on how efforts like this could be improved in the future. The Advisory Team was also informed on compensation details and given a platform to ask any lingering questions about the process.

## 4.5 EAZ Applications

In staff's preliminary findings, five applications were generalized from similar equity-based tools used in different cities and communities (Section 1.2.2 above). Staff curated these five applications and shared them with the Advisory Team as precedent and inspiration for other potential applications. These applications were presented as followed:

- Evaluation (e.g., how equitable have past projects or programs been?)
  - This would allow us to assess what we've done, and how our current or future work has or has not been equitable
- Project prioritization (e.g., equity "score" is one part of larger scoring matrix)

- Some infrastructure matrices currently include measures like MFI as a part of overall score
- Funding allocation (e.g., equity areas receive X% funding and other areas receive Y%)
  - This would be in line with Austin Strategic Mobility Plan's (ASMP) Equity Indicator to "increase the mobility funding allocated to areas that are historically underserved"
- Public engagement (e.g., if a project is in an equity area, more requirements for community outreach either from the City, private sector, or both)
  - This would standardize some practices already in place through the ASMP and other planning efforts
- Programming (e.g., targeting efforts with limited resources, such as Smart Trips or the Neighborhood Partnering Program, to equity zones)

After the presentation, the Advisory Team was asked a series of poll questions including:

- Which do you think is the most important to improving equity?
- Which of these do you think is least important?
- Which of these options are good ways to use EAZs?
- Which of these options are things we shouldn't use EAZs for?
- Rank the applications from favorite to least favorite.
- What are other applications for EAZs?

The Advisory Team believed that the EAZs should be used for as many applications as possible. While the Advisory Team was encouraged to envision other potential uses and discussed potential uses over the span of the four meetings, the team ultimately focused on the identified applications shared with them. As a whole, the Advisory Team felt all applications presented fine methods for using EAZs. However, Funding Allocation and Project Prioritization were the most popular choices selected by the Advisory Team in their final meeting. These two options met what many on the Advisory Team viewed as the most direct and impactful applications for the EAZ tool. Evaluation and Engagement also received votes as prioritized options.

Staff recognizes that while these application ideas are a great place to start utilizing the EAZ tool, each application idea does have its challenges associated with it and staff will continue to discuss in order to process those hurdles. For example, using the EAZ to evaluate projects or programs is a way to understand how past programs and policies have been inequitable; however it is not as clear how to create an equitable path forward.

Incorporating EAZs into project prioritization is desired, but deciding how to weight the EAZs in the overall prioritization matrix is complicated and is likely to vary by department or program, which could lead to inconsistency and confusion within communities. Allocating funding more equitably is complex and likely to be constrained by different things. Some dollars are earmarked with specific, legal requirements. Requiring certain dollars to be spent in certain ways may also result in certain projects that aren't prioritized by the community itself. Simply saying a certain percentage of funding goes to equity areas is not enough; attention to the types

of projects that should be funded and the impacts of those projects needs to be considered. Allocating budgets in new ways requires buy-in from many parts of, and throughout, an organization, which is likely to take longer to implement.

Localized, equitable public engagement should be the foundation of all good City-led programs and projects. However, thorough public engagement has not historically led to comprehensive programming and projects for all communities. Few public engagement activities have resulted in community-led or power-deferred projects. Additionally, even good engagement does not always result in a good and equitable project or program, unfortunately.

Finally, although programming is important for providing resources to equity areas in order to connect the dots and fill gaps from historic disinvestment. However, programming should not be the only resource to communities who need more meaningful investment. Therefore, learning how to balance programming with other more systemic needs is important.

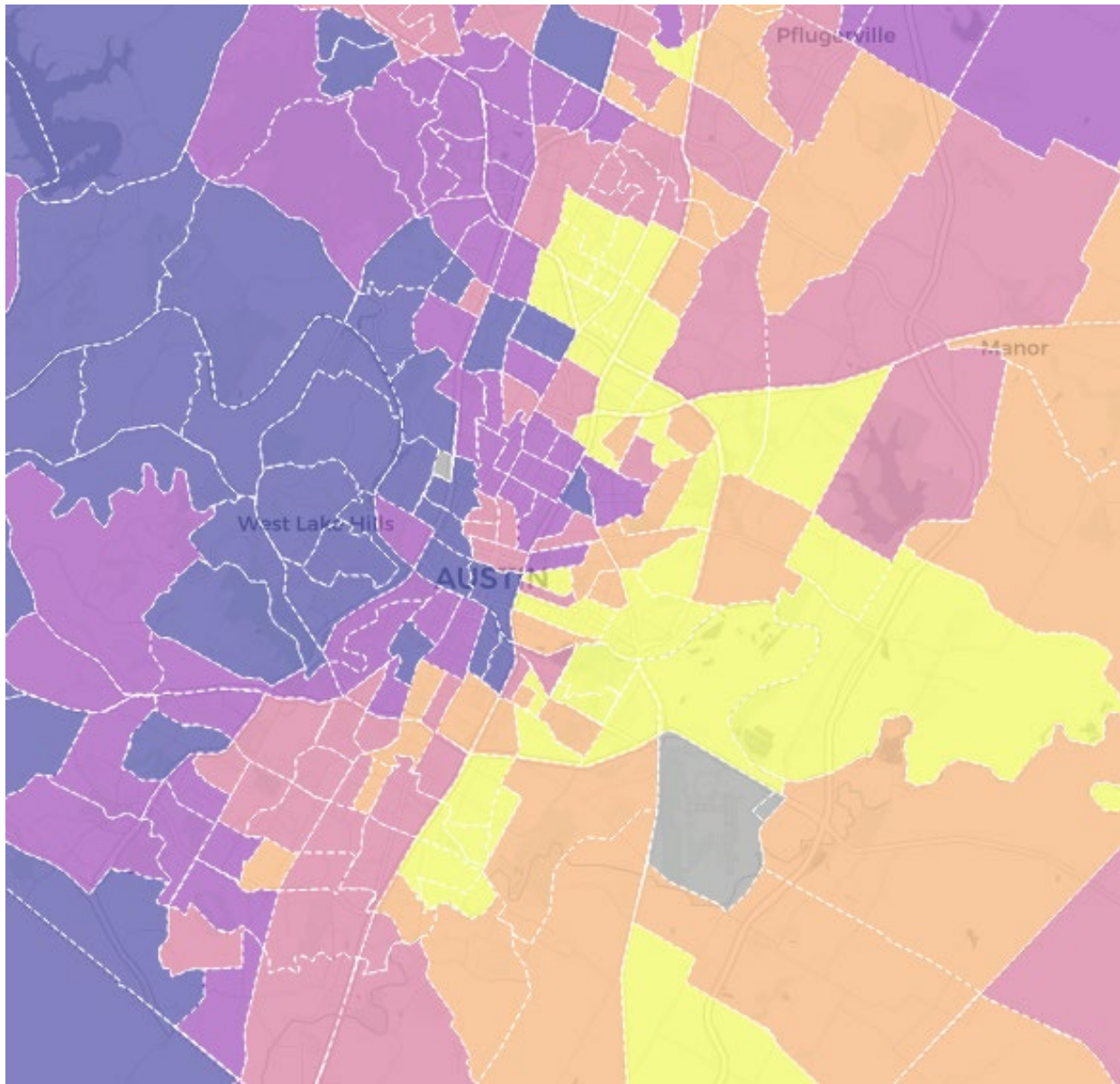
## 4.6 Final EAZ Maps

The final map of this initial Equity Analysis Zones process is the product of an iterative practice. The Advisory Team produced multiple versions of an EAZ Map using the Vulnerability Mapping Tool. Over the course of the process the Advisory Team continued to produce iterations of these maps as individuals and as smaller groups. Advisory Team members spoke intensively about their intent for the map and the results that they were trying to produce. This process led to critical discussions around the data resources provided and who was being identified by the provided data. The final iteration of the EAZ Map was produced by taking the most common weight for every data category (mode) from individual maps and allowing the Advisory Team to make changes and confirm the results.

Ultimately, the Advisory chose the variables and their weights because they felt that the resulting Equity Analysis Zones map accurately reflected areas that should be prioritized by Austin Transportation and the City of Austin. This belief was based on their lived experience, knowledge of the community, and group discussions about the available data. All of the data used in this process was thoroughly vetted and is sound data. Each variable that was included was included deliberately and reflects the areas of Austin which need the most resources.

The final Equity Analysis Zones were decided upon as a group. After people submitted the variables and weights they wanted included in the map, staff took the most common weight for each variable, and used that as the weight for a variable; this included using 0 and not having a certain variable in the map. After staff did this the Advisory Team reviewed the map and agreed to adopt it as their final map (Figure 6).





The final map results were as followed:

- Percent People of color - **5**
- Percent people who identify as Black, Indigenous, Latinx - **5**
- Median Household Income - **4**
- Percent of people on Food Stamps/SNAP - **2**
- Percent of people whose rent is above 35% of monthly income - **2**
- Percent of people without broadband internet - **2**
- Percent of households with less than one vehicle per working occupant - **1**
- Percent of people with a disability - **4**
- Percent of people aged 65 and over - **1**

To provide further analysis of the Advisory Team's votes, staff considered what the Equity Analysis Zones map could look like if instead of using the mode of the weights for each variable, either the median or mean was used to build the Equity Analysis Zones. The differences among these three statistics were minimal.

It was repeatedly emphasized to the Advisory Team that the EAZ map they were creating was going to be a first version that would be iterated upon in future processes. These future processes would be able to build upon discussions and data that the Advisory Team was interested in. It is also possible that future iterations of the tool expand the types of data included in the tool so that non-census data can be considered. However, as of now, the mapping tool is not able to process non-census data.

## 5.0 Next Steps

### 5.1 Adopting and Incorporating into Current Work

Several next steps have been identified by staff now that a final Equity Analysis Zones map has been created by the Advisory Team. Systems Development staff presented the results of the EAZ process to Austin Transportation executives in mid-August 2021. Executive approval of the use of Equity Analysis Zones will help introduce the tool for different uses with groups across Austin Transportation.

Several groups in the City of Austin's Mobility Outcome have expressed interest in using Equity Analysis Zones. These groups span several departments and initiatives, and staff plan to disseminate the final EAZ map as soon as executive approval is achieved. Examples of programs or processes that have expressed interest in incorporating Equity Analysis Zones into their work include the update to the Austin's Sidewalks, Urban Trails, and Bikeways Plans, known as ATX Walk Bike Roll. In October 2021, Systems Development staff presented on EAZs during the 2022 Mobility Annual Planning process.

In addition to working with groups that already know about and are interested in the EAZ tool, Systems Development staff plan to present and disseminate information about EAZs to other groups in Austin Transportation. This will allow their adoption to expand within the Department. This includes a presentation to the Department's internal equity group about this tool and the entire EAZ process, as well as a presentation to the city-wide Equity Action Team to close the loop on the project after the original April 2021 presentation.

### 5.2 Updates

Although Equity Analysis Zones are current as of August 2021, the map is not evergreen. The tool will need to be updated with new data as years pass. Since new data may affect the map, a new version of EAZs will require a whole new process to determine which variables and at which weights should be included in the next iteration. Systems Development staff estimates that the next iteration of Equity Analysis Zones could be produced at some point in the next 3-4 years.

### 5.3 External Next Steps

In addition to the next steps Austin Transportation will be undertaking to adopt and implement Equity Analysis Zones internal to Austin Transportation, Open Austin has stated that they plan to continue working on the mapping tool to make it more user-friendly. Based on feedback from the Advisory Team, features such as map coloration and transparency, saving or printing different versions of the map, and different base maps are improvements Open Austin plans to consider.