**Make New
Experiences
Possible**

User research report

Insights and considerations for the Fare Coordination and Integration Study

For Metropolitan Transportation Commission and Steer
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Outline

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Executive summary

Fare Coordination and Integration Study (FCIS) was designed to evaluate how fares impact ridership, affect the customer experience of taking transit and contribute to the key problems facing the region. This report presents the findings of customer experience research performed by the team between January 2021 and March 2021, including 14 interviews and 1342 online SenseMaker responses.

The customer experience research resulted in several key findings:

When customers determine the value of transit, the price of a transit trip is not the only measure of cost. When price is evaluated by the customer, it is always compared against something else.

Customers take into account their entire experience on transit (and its alternatives) when determining transit's value proposition. Customers commonly compare the price of the trip with the cost of waiting time, trip duration, and their well-being during the trip. They compare the cost of transit with other alternatives and what experiences those alternatives can afford. There are situations where the cost and experience of transit are better than the cost and experience of alternatives, but that is not always the case.

Executive summary

Travel decisions are customer and context dependent.
There are many factors that influence how a customer chooses to travel. While the requirement for transit to take customers where they need to go is a very important factor for choosing transit, it is not the only factor customers consider. Other factors influencing customers' decisions depend on the person, their situation and their assessment of the value transit provides.

The payment experience extends beyond the fare box.
Customers experience fares in two parts of their transit journey: when planning a trip and paying for it. When planning a trip, customers have a number of tools to help them determine trip fares, but the activity is not always straightforward when the trip involves multiple transit agencies. Paying involves Clipper for many customers we spoke to. Autoloading Clipper is a convenience for some but this convenience is not accessible to low-income customers. Customers are also negatively impacted by the delays of loading Clipper online.

Customers have a different view than the FCIS Staff Working Group on fair fares.
Customers gravitate to an equality approach to fares while the Staff Working Group strives for an equity approach to pricing fares.

Executive summary

Recommendations

Below are recommendations for next steps in furthering design and development of fare policy options that take into account customer experience insights gathered through this research:

- Recruit and engage customers in co-design workshops to explore proposed fare product options (e.g. regional passes, fare caps)
- Recruit and engage customers in prototype testing sessions to evaluate proposed fare structures (e.g. honeycomb zones, flat fares, distance-based fares)

These design methods will explore considerations (challenge statements) for how we might:

- Improve communicating the outcomes of the policy in a way that is accessible to customers and future customers who are planning their trips?
- Improve the payment experience for lower income customers who cannot take advantage of the conveniences (of autoload or loading a large balance)?
- Enable customers to help each other with accessing transit from the perspective of fares?

Introduction

Project background

The Fare Integration Task Force reviewed and approved the problem statement* for the Fare Coordination and Integration Study (FCIS) in June 2020.

It contained the hypothesis that fare policy is one among several factors that have constrained the growth of transit ridership in the Bay Area in recent years.

The project set out to evaluate how fares impact ridership, contribute to the key problems facing the region, and detract from customer experience across four issues: **customer value, payment experience, equity** and **future transit**.

This report contains insights into the first three of these four issues derived through the methods of qualitative user research.

Future transit was not explored in the scope of this work and will be addressed in the next stage of the project through co-design and prototype activities with customers.

*** Note:** The problem statement is included in the meeting agenda of the Aug 2020 Fare Integration Task Force Meeting.

Methodology

Methodology: research goals

What did we seek to learn through research?

The purpose of this **qualitative** user research is to **identify the motivations, goals and needs of transit customers** navigating the complex urban transit and mobility landscape of the Bay Area.

We seek to gain an understanding of transit customers' **experience of fare barriers*** and the broader context of the value of the service.

The insights derived from these research activities will inform the Fare Coordination and Integration Study (FCIS) team throughout other analysis tasks as it works towards creating, testing, and recommending fare policy options.

* *Note*: A separate report was prepared to summarize **key fare barriers** and other barriers to transit identified by customers (Feb 2, 2021) for the February Task Force meeting. The interim findings informed this research report.

Methodology: qualitative vs. quantitative

What does qualitative research tell you?

The user research in this report is primarily qualitative. It tries to **explain why** customers have the motivations, goals and needs they claim and how this may affect their perceptions of transit and its fares. Qualitative data **does not and cannot explain the prevalence** of a particular need, goal, or motivation (ie. the statistical significance of quantitative research findings). The following table illustrates the interplay between qualitative and quantitative data.

Patterns from qualitative data	Patterns from quantitative data
Why is it happening? What does it mean?	What is happening?
Stories	Numbers
Credibility and transferability	Reliability and generalizability
Cultural analysis - how what people do is connected to social meanings	Behavioural analysis - what people do and what drives this
Interpretive	Predictive

Adapted from: Lucy Kimbell, *Service Innovation Handbook,* BIS Publishers, 2015

How did we align our research and the problem statement?

Following the FCIS Problem Statement framework, OXD organized its inquiry around the three issues of **customer value, payment experience** and **equity**. Emerging from the narrative workshop with Bay Area transit customers, the team added the research focus of “**systems**” to provide further detail and context.

Customer value	Payment experience	Equity	Systems
Perception on the price of their trip: ● Definition of value ● Comparison of transit and other modes ● Decision-making ● Transit experience	Satisfaction with current fare product offering: ● Current usage of fare products ● Experience of different payment mediums ● Legibility of fare payments	Transit customers’ view on equity: ● Impact on vulnerable populations ● Fairness ● Affordability	Understanding the transit system as a whole: ● System offering ● Legibility of the system and its fares

Methodology: adapting to COVID-19

Pivot to digital research

The initial work plan was created prior to the COVID-19 pandemic and proposed several in-person research methods to help better understand transit customer needs. The COVID-19 pandemic significantly impacted the Bay Area transit customer experience as well as people's way of working.

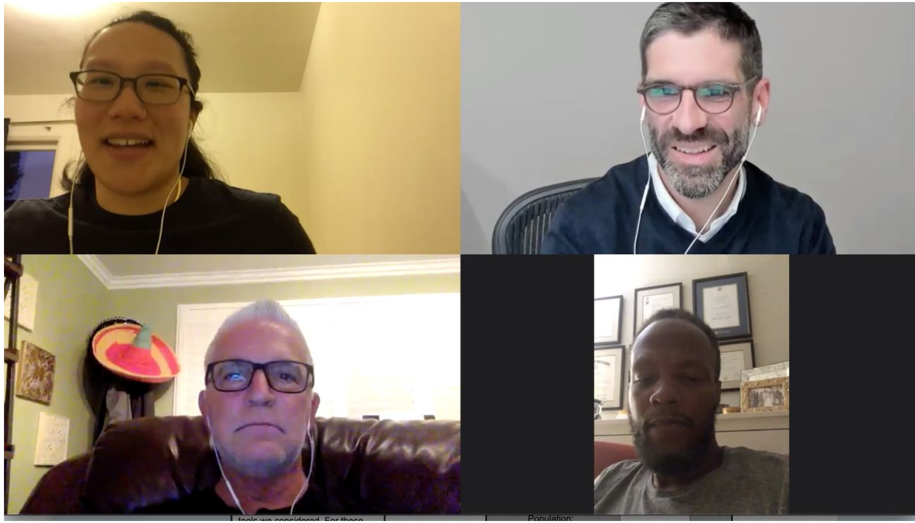
In the face of safety concerns and challenges in reaching the Bay Area's ridership during this time, OXD moved to gathering customer insights online, connecting with transit customers digitally through three activities:

- Narrative workshop
- One-on-one interviews
- SenseMaker®

Image source: Getty Images

Method: narrative workshop

Narrative workshops rely upon customers **sharing stories and anecdotes** about the problem or subject area. Stories and anecdotes can then be grouped together and **signified (indexed) using labels or categories** that emerge from the workshop.



Details

- Date: Oct 6, 2020
- Attendees: 10
- Length: 120 minutes
- Format: online (Zoom)
- Attendees were compensated for their participation

Methodology

Method: one-on-one interviews

Critical to user research, interviewing transit customers consists of meeting and speaking with them. Through interviews, customers are empowered to provide **their point of view** in depth, using **their language and terms**.

Details

- Dates: Jan 6 to Jan 15, 2021
- Interviewees: 14
- Length: 60 minutes
- Format: online (Zoom)
- Attendees were compensated for their participation

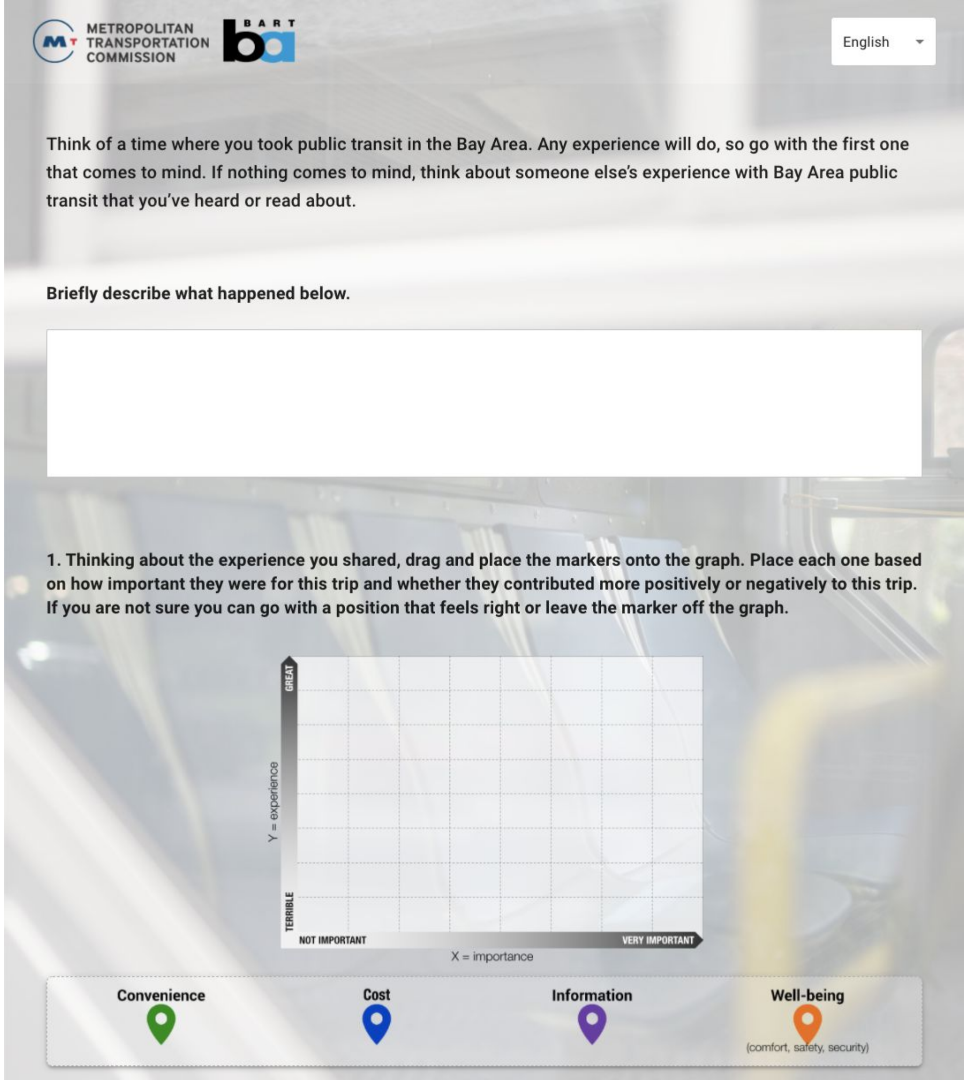
Methodology

Method: SenseMaker

SenseMaker is a crowdsourcing method for human experiences. Leveraging qualitative methods, SenseMaker engages participants to **share their personal experiences, observations, and particular situations** to help illuminate the "why".

Details

- Dates: Jan 14 to Mar 2, 2021
- Respondents: 1,342
- Format: online (SenseMaker form)
- Respondents could enter for a draw for one of four gift cards


METROPOLITAN TRANSPORTATION COMMISSION
BART
English
GREAT
Y = experience
TERRIBLE
NOT IMPORTANT
VERY IMPORTANT
X = importance
Convenience
Cost
Information
Well-being
(comfort, safety, security)

Think of a time where you took public transit in the Bay Area. Any experience will do, so go with the first one that comes to mind. If nothing comes to mind, think about someone else's experience with Bay Area public transit that you've heard or read about.

Briefly describe what happened below.

1. Thinking about the experience you shared, drag and place the markers onto the graph. Place each one based on how important they were for this trip and whether they contributed more positively or negatively to this trip. If you are not sure you can go with a position that feels right or leave the marker off the graph.

Methodology: recruitment criteria

How did we create our participant sample?

The goal for recruitment is to recruit a sample of transit customers that best represents the diversity in the Bay Area as much as possible, seeking customers from across the **nine counties**, with differences distributed across **income, age, gender, race and ethnicity** and **ability**.

OXD reviewed the following resources to inform the details of recruitment:

- Bay Area Census
- MTC Vital Signs
- US Census Bureau
- Pew Research Center
- Governing: The Future of States and Localities
- Centers for Disease Control and Prevention (CDC)
- Federal Deposit Insurance Corporation (FDIC)

For the purpose of user research, we consider customers with less than $50,000 household income as low income.

Please see Appendix: demographics for further breakdown of participant demographics.

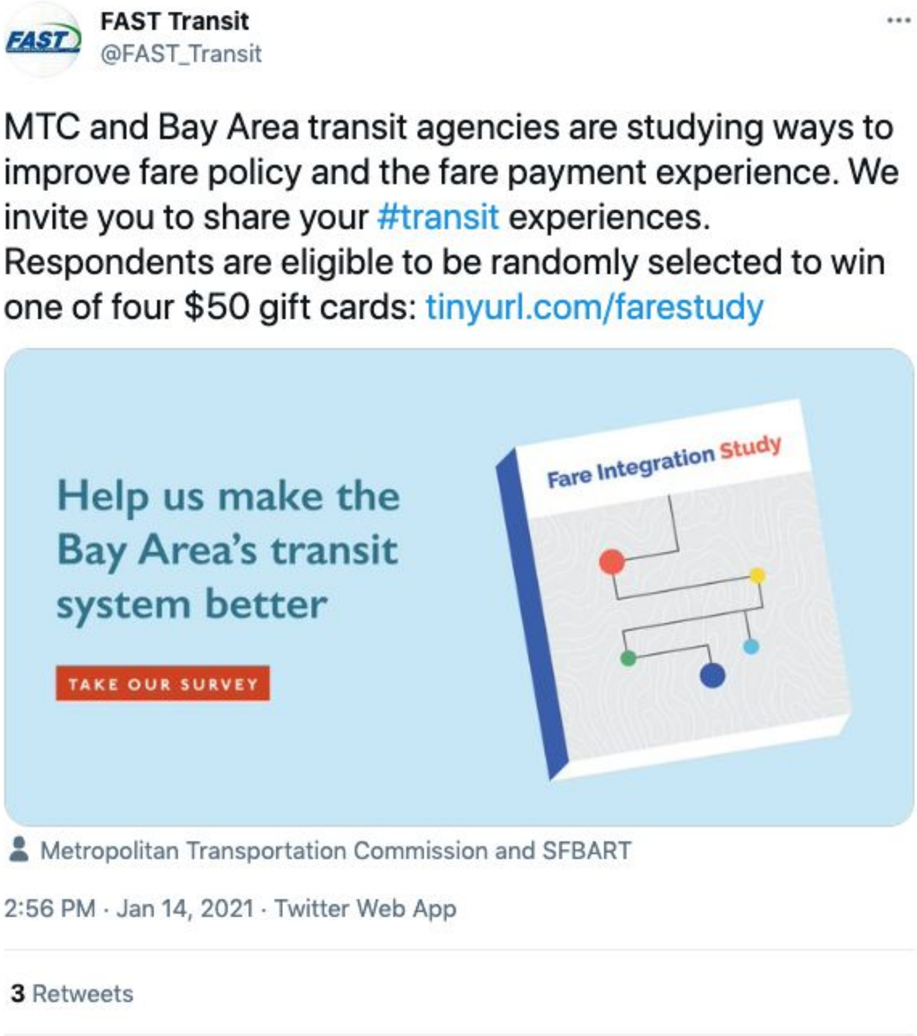
Methodology: participant recruitment

How were transit customers recruited?

The Metropolitan Transportation Commission (MTC) collected the contact information of transit customers who were interested in participating in user research activities initially through an online survey (receiving over 500 responses) that was distributed through MTC's and operators' social media channels (Twitter).

This list was then used to select narrative workshop and 1:1 interview participants.

For SenseMaker, MTC used their social media channels and partnered with transit operators and members of the Policy Advisory Council Subcommittee to further their distribution of the SenseMaker collector, resulting in 1342 responses.



FAST Transit
@FAST_Transit

MTC and Bay Area transit agencies are studying ways to improve fare policy and the fare payment experience. We invite you to share your #transit experiences. Respondents are eligible to be randomly selected to win one of four $50 gift cards: tinyurl.com/farestudy

Metropolitan Transportation Commission and SFBART

2:56 PM · Jan 14, 2021 · Twitter Web App

3 Retweets

Key concepts

Key concepts: theory foundations

How did we analyze the findings?

OXD used several existing theories and frameworks to help with our analysis of the customer experience of public transit in the Bay Area. Given that public transit is a service, we required a **solid theory of how services and their customers co-create value.**

We used Grönroos's value-in-use creation model outlined in his writing about service logic. In that model he outlines 3 spheres of value production: **provider value facilitation, value-in-use**, and the **customer's independent value creation**.

Provider value is all of the resources and processes required for service provision that afford potential value (from the bus, to the operator, to the Clipper card, to service planning, to vehicle maintenance). Value-in-use focuses on **what customer need from transit** during the "moment of truth" of customer experience: waiting, paying, riding, transferring, and arriving. To further refine value-in-use, we used Walker's **7 Demands of Useful Transit** customer experience framework.

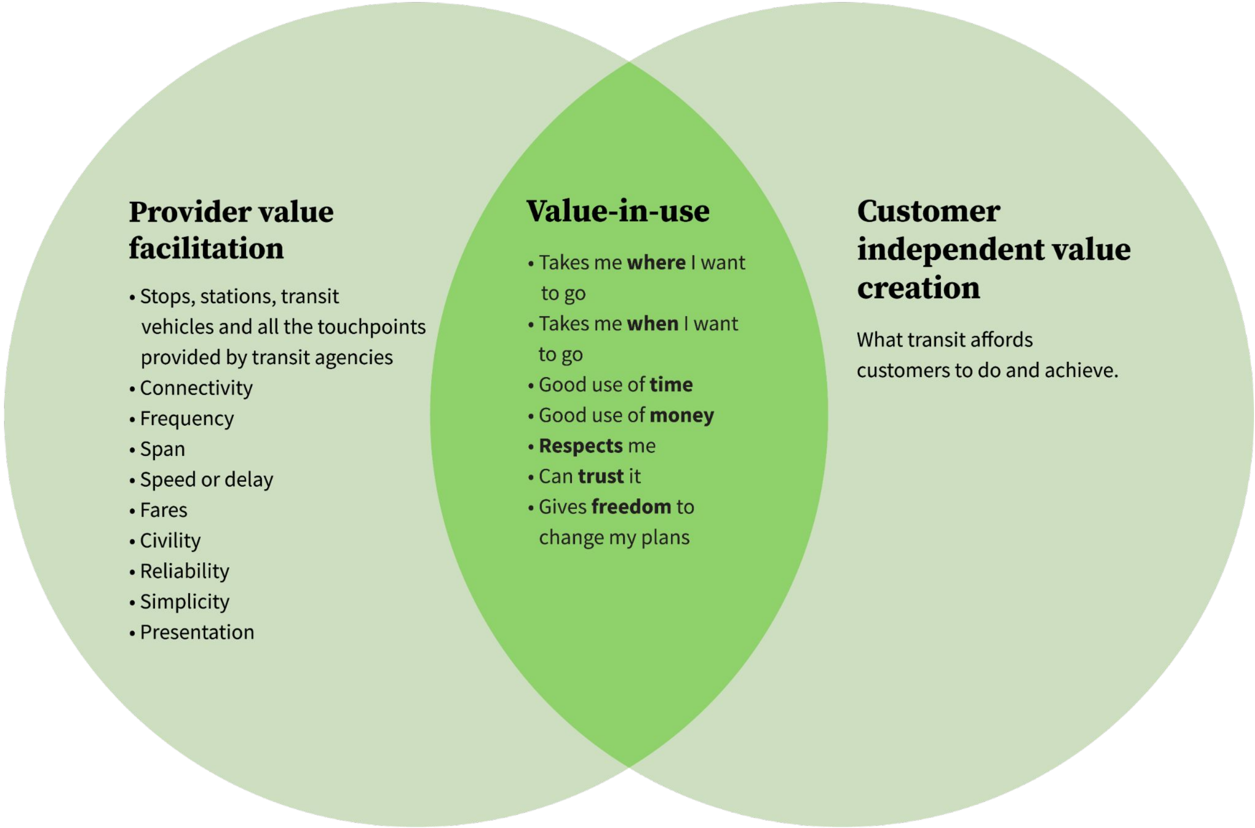
Finally, we sought to understand customer independent value creation by listening to customers talk about the **larger purpose of taking transit** and the plethora of possibilities it affords: commuting to work, travelling to see friends and family, going to school, attending a cultural event, or simply exploring their city.

Key references:

Grönroos C. Value co-creation in service logic: A critical analysis. Marketing Theory. 2011;11(3):279-301. doi:10.1177/1470593111408177

Walker, J. (2012). *Human transit: How clearer thinking about public transit can enrich our communities and our lives*. Washington, DC: Island Press.

Key concepts: customer value



Provider value facilitation

- Stops, stations, transit vehicles and all the touchpoints provided by transit agencies
- Connectivity
- Frequency
- Span
- Speed or delay
- Fares
- Civility
- Reliability
- Simplicity
- Presentation

Value-in-use

- Takes me **where** I want to go
- Takes me **when** I want to go
- Good use of **time**
- Good use of **money**
- **Respects** me
- Can **trust** it
- Gives **freedom** to change my plans

Customer independent value creation

What transit affords customers to do and achieve.

User research findings

Answering key research questions

The User Research Plan (Nov 16, 2020) contained a set of key questions that informed our interview guide and conversations we had with Bay Area transit customers.

We organized the key questions around the four major themes: customer value, payment experience, equity and systems:

1. How do customers understand and perceive the price of their trips?
2. How satisfied are customers with current fare product offering?
3. How affordable and equitable are fares and for whom?
4. How do customers understand the overall system of transit in the Bay Area, across all operators and varying fare policies?

In the following sections, we organize our research findings around these areas of inquiry.

User research findings

How to interpret qualitative research

When reading qualitative research findings it is important to remember that each story told by transit customers is valid **in the context of that individual**. As qualitative research deals with smaller audience sizes, it can be perceived as having gaps in representation. **Less frequently told stories are not less valid stories.**

Qualitative research does not seek to predict the prevalence of stories across the entire population of eight million people in the Bay Area. Instead, it seeks to explain the reason and social meaning behind what is being said, no matter the frequency or total number of similar experiences.

These “outliers” or “exceptions” are important, because they can represent the ranges of human experience. Inclusive design principles demonstrate the value of this approach. It is through the diversity and range of human physical abilities that we can design for more people, not less.

An example: in thinking about how to design for a person with one arm, the person with their arm in a cast or the person holding a child and groceries (temporal or contextual disabilities) will also benefit from our design. The construct of the statistical average person does not yield these design insights and opportunities. [see Kat Holmes, *Mismatch: How Inclusion Shapes Design,* 2018, MIT Press]

These types of insights rarely fall along simple demographic lines, but are instead understood through context and immersion in the meaning of the unique, individual experiences of everyday life.

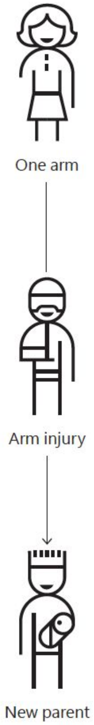


Image source: Microsoft Inclusive Design Toolkit

1.0 Customer value

1.1 What customers value in a transit service

In transit, customers create value during their interactions with transit touchpoints and usage of the services (**value-in-use**). Transit also affords the ability for customers to create value outside of its use (**independent value creation**). We dive into more specifics as we explore customers' decision-making process based on these aspects of value.

Value-in-use	Independent value creation
Customers' input reflected Walker's 7 Demands of Useful Transit. However, **not all demands are equal**. **Legibility** and **learnability** are sub-dimensions of the demand 'gives freedom to change my plans'. Among the demands, freedom to change was less explicitly described during interviews. Customers did share stories of legibility and learnability negatively impacting the experience and subsequent perceptions of transit.	For some, transit is a means to **be a part of bigger causes** such as reducing traffic congestion and reducing their carbon footprint. Transit can also provide customers with a **sense of autonomy**, allowing them to travel without relying on others. Knowing how to get around on transit also provides a **sense of belonging** as a Bay Area resident.

Customer value: experience

1.2 Positive and negative aspects of transit

In our research, we found that positive and negative aspects of transit are **two sides of the same coin**. A common formula for customer satisfaction helps explain this observation whereby:

Satisfaction = Perception - Expectation

We provide specific stories where the following aspects can simultaneously be positive or negative **depending on how the transit experience was perceived** by the customers:

- The price of a trip
- Timing and transfers
- Other customers on transit
- Behaviour of transit staff

With both customers and transit staff, we see that acts of kindness from others can go a long way in creating positive experiences.

Customer value: experience

1.2 Positive and negative aspects of transit

The price of a trip

Transit customers saw the price of trips favourably when compared to the cost and availability of parking. Some customers also appreciated the flexibility of passes (e.g. Go Pass). Customers also perceive discounts (in some cases due to an act of serendipity) very positively.

However, when the price of the trip doesn't match customers' expectations of the service (usually regarding the length of the trip and the number of services used), not only is the experience negative, but customers also start questioning their usage of transit.

> "I found a college-student's free bus pass on the floor once when I was broke and living in the suburbs at my parents house with no money to drive my car… Then I started taking the bus to Oakland/San Francisco all the time and realized the city is awesome and the suburbs suck! Now I refuse to live anywhere less than 5-minute bike ride from BART."
>
> — *transit customer from Alameda county*
>
> "I used to take BART from Oakland to the city to get to work but I didn't work in downtown so I would have to transfer to Muni. It cost me about $9 total one way which was **super cost prohibitive** it also took me about an 1 hour and a half to get there which meant I had to get up super early in the morning."
>
> — *transit customer from Alameda county*

Customer value: experience

1.2 Positive and negative aspects of transit

Timing and transfers

Customers told the common and negative story of missing transfers between services. Along with missing transfers comes the additional wait time. The extended trip length has, in some cases, caused customers to **miss significant life events** like a job opportunity or interview. This example aligns with research by Carrel, Halvorsen and Walker on unreliability in public transit.

In contrast, when transit works as expected and comes on time, this leads to a positive experience overall.

> “Took my bike to the train station in Redwood City, locked it up. Caught the train to downtown San Mateo. Walked to my hairdresser appointment. Took the train back. Good schedule for a Saturday. **Trains were on time**.”
>
> — *transit customer from San Mateo county*
>
> “Got off BART to make connection with AC Transit. [A] woman **could not figure out how to get a transfer** and waited until bus came. The **bus was late** and she then found out it cost more and the **transfer wasn't free**. She decided to walk home instead and it was late out.”
>
> — *transit customer from Alameda county*

1.2 Positive and negative aspects of transit

Behaviour of other customers on transit
When customers are orderly, helpful, and respectful of one another, this can become the highlight of their trip.

Unfortunately this is not always the case as customers recount the conditions on transit and behaviours of the other passengers (bad odors, loud, aggressive).

Customers felt uncomfortable and unsafe.

> “During the rush hour, public transport is crowded, but passengers are **orderly**, **offering seats to each other**, and it is very warm.”
>
> — *transit customer from San Mateo county*
>
> “I saw a girl who suffered from sexual harassment and finally **brought the bad guys to justice with everyone's efforts**.”
>
> — *transit customer [county not disclosed]*
>
> “One of the females in the group **took my cellphone**… I confronted her demanding my phone back… they continued taunting me… eventually they threw the phone back at me and **[spat] at me.**”
>
> — *transit customer from San Mateo county*

Customer value: experience

1.2 Positive and negative aspects of transit

Behaviour of transit staff
Similar to the behaviour of other customers, transit staff who are friendly and demonstrate that they care about the customers drive positive experiences. In some cases, it can even help improve the customer's life outside of transit.

Högström, Davoudi, Löfgren and Johnson's study of user experiences and value creation in public transit stated that drivers' misbehaviours lead to dissatisfied customers. In addition, it was the highest self-stated importance requirement.

> "I had moderate lower extremities limitations. The driver was very understanding and quickly lowered the bus to **make it comfortable for me** to step up. The driver **waited patiently** for me to find and scan my Clipper card, and he did not drive the bus until I was safe in a seat… I usually feel vulnerable, hesitant, and unsafe stepping out but this experience **helped me physically & emotionally.**"
>
> — *transit customer from Alameda county*
>
> "Going to see the Golden Gate Bridge as a tourist. The driver **didn't have patience to explain** how to pay and he **kicked me out** with my friends before our stop, just because we were confused about what was the stop."
>
> — *transit customer from Contra Costa county*

1.3 Important factors in travel decisions

Does transit take customers where they need to go? This is generally the **first factor** when deciding whether to take transit or not. However, this is not the only factor in decision-making.

Subsequent factors influencing customers' decisions are **dependent on the person, their situation,** and **their assessment of the value** transit provides.

1.3 Important factors in travel decisions

The pandemic's influence on decision-making
The pandemic has had a big influence on customers' decision-making. Almost half (47.5%) of the SenseMaker respondents indicated that they took transit 4+ times per week before the pandemic. During the pandemic, it was the reverse. Over half (52.9%) have not taken transit during the pandemic.

This quote puts into context the considerations between the customer's personal well-being versus their desire to take a non-essential trip (using transit).

> “Early on in the pandemic when there were no fares on AC Transit, some of those problematic lines got over full and sadly people that were either coughing or, you know, just mentally distressed would get on and that's what kind of caused me to say, well, I love San Pablo Avenue and the shopping that's there, but **I don't love it enough to risk getting in that odd position**. So if I can't get there on a line that I'm comfortable to use, **I just don't go**, I just absolutely don't go.”
>
> *— transit customer from Alameda county*

1.3 Important factors in travel decisions

Little to no independent value created
Transit allows customers to accomplish other tasks by taking customers to their destination. When transit gets in the way of customers being able to do what they planned on the other side of the ride, this causes customers to consider their options. In some cases, this means not taking the trip at all.

> “Something like going to San Francisco required two different things. And so it would take a long time. And we wouldn't have a lot of time there. There were probably times that my kid would want to do something in San Francisco, and it would just be like, okay, well let's see it takes so long to get there that **we probably wouldn't go unless it was like we had a long time to be there.**”
>
> — *transit customer from Alameda county*

1.4 Choosing between different transit modes

Deciding between transit options depends on a number of factors. These factors are **not the same for everyone**. Lower income customers may place more importance on the price, though not without considering other factors. Other customers may value convenience and safety. There is always a **balance between factors depending on the customer's context**.

Some of the reasons we heard from customers include:

- Personal well-being of the customer
- Whether the customer is in a hurry
- Price of the trip
- Proximity of transit at the origin or destination
- Frequency of the service
- Number of transfers involved

> "It will always be tied to convenience and safety and being able to take me where I want to go, rather than cost."
>
> — *transit customer from Alameda county*

> "**Could I save money without costing me too much time or convenience** by finding a different AC Transit route that was on the whole route? Or, you know, maybe I could walk a little bit further to get a different agency to avoid having to buy the two passes [but] it would certainly be an inconvenience."
>
> — *transit customer from Alameda county*

Customer value: comparison and decision-making

1.5 Choosing between transit and other options

Between comparing transit and other transportation modes, many of the considerations between different transit options are still valid in addition to:

- Amount of time waiting for transit
- Distance to be travelled
- Service disruptions
- Convenience of other options
- Support (advocate) for transit
- Doing environmental good

“ [Bikes and scooters] don’t seem worthwhile. I can just take the bus… I’d never had difficulty or felt put off by walking that last distance… If I wanted to take a bike somewhere, it’s not really going to be that far from you to walk. If it’s really that far then I can probably just get on the bus.”

— *transit customer from San Francisco county*

“ On the weekend, if I was going anywhere further than walking distance I would almost always take BART.”

— *transit customer from Alameda county*

Customer value: comparison and decision-making

1.6 Choosing between transit and driving

Driving

Some customers find driving convenient, **cost-effective in group trips**, and well catered to their needs (for example, having the space to transport goods without needing to carry it for the trip).

Transit

On the other hand, transit is better for those who do not want to deal with the **stress, logistics and cost of driving and parking** in the city. Transit can be a means to contribute to better environmental outcomes. Customers with disabilities also take transit as they may be unable to drive. Some customers felt that **they didn't have other options besides transit**. These customers often indicated they did not own a vehicle. Even when they did, transit was seen as the **only realistic or feasible option**.

> "I live on the border of San Mateo County and San Francisco. It's very easy to get onto the freeway and my work is just about two minutes from the freeway."
>
> — *transit customer from San Francisco county*

> "I prefer taking public transit for environmental reasons, and I like to avoid the San Francisco traffic jams and parking fees."
>
> — *transit customer from San Mateo county*

> "If I'm running on time and figure taking BART and Uber might be less expensive than the toll and gas… then I would take transit."
>
> — *transit customer from Alameda county*

1.7 When transit is more attractive than driving

Repurposing “lost” commute time

Customers who have the option to drive perceive the commute time spent driving as "lost". When driving, their attention necessarily needs to be on the road. This can also be stressful given traffic conditions.

In contrast, when on transit, customers can make their commute time more productive. They can turn their attention to other activities. What customers consider productive varies depending on the individual.

Nonetheless, some transit customers indicated this as a reason to take transit. In their minds, it is part of transit’s value proposition (value-in-use).

> “ It's better for the environment than driving! And it allows me to do stuff during my commute other than sitting and staring at the road.”
>
> — *transit customer from San Francisco county*

1.8 When transit is less attractive than driving

Waiting for transit and being in control

A fundamental concept of any service is the importance of the customer's experience of time spent with the service. In SenseMaker, we asked how customers' trip experience could be improved. Overall, customers' leading response was 'less time waiting for transit' (19.4%).

Just as being able to repurpose lost time on transit makes transit favorable, having to wait as a result of missing a connection, missing a just-departed bus or train, experiencing track maintenance delays, and having low service availability detracts from transit's value proposition. These causes of waiting are also something that the customer does not have control over.

> "Live in Vallejo and work in San Leandro… walk to the bus stop, take the bus to Del Norte BART, BART to San Leandro and **watch the bus I want to get on leave as train pulls in**… **30-minute wait** for next bus. So a walk and three separate transit agencies for a 2 hour and 15 minute commute. Or could drive the 35 miles for about a 45 minute commute."
>
> — *transit customer from San Francisco county*

> "It was incredibly difficult. We had to take an Uber just to get to BART because public transport could not get us to the station. Then waited 40 minutes in the station itself… it makes me so sad that transit riders are made to feel like third class citizens, like our time is not valuable…"
>
> — *transit customer from Alameda county*

1.8 When transit is less attractive than driving

Personal well-being comes first
There are certain circumstances where less waiting time was not the leading improvement to experience. One example is when customers placed great importance in the quality of their trip. The leading improvements reported were better safety, comfort and security on transit.

When personal well-being, physically or mentally, is at the forefront, customers may see transit as a less attractive option. Whether it's after a long day at work or pains caused by physical impairments, these can trigger customers to look for alternatives.

> "We're going to be moving soon and we probably will get a car… I will probably still take transit some of the time but for the late nights, I will probably aim more for a car just for safety, comfort and because again, just like super, super late."
>
> — *transit customer from San Francisco county*

> "I do have a few issues in terms of [my] leg and back. So if I'm not feeling well physically, that may affect what I do in terms of either getting on public transit or just choosing a car [or rideshare]… just to cut time… For [my] sake, having that physical relief and not having [to] overwork myself with these long trips, that is something else that I think about when planning…"
>
> — *transit customer from San Francisco county*

Customer value: comparison and decision-making

1.9 How customers perceive the cost of fares

When expressing perceptions on the cost of fares, customers always did so **in comparison to something else**. Comparisons were made with a broad range of goods and services across the spectrum of everyday life including:

- The perceived value and utility of the service
- Cost of living in the Bay Area
- Cost of transit alternatives in the Bay Area
- Cost and experience of other transit systems

Whether customers perceive fares positively or negatively is the difference between their perceptions and expectations. In this case, **what fares are being compared to forms the basis of customers' expectations.**

1.9 How customers perceive the cost of fares

Compared with perceived value and utility
When the price of the trip doesn't match expectations have about the 7 Demands of Useful Transit, it results in negative perceptions on the cost of fares.

Comparisons are also made between and across transit agencies in the Bay Area, as illustrated by the first quote. This quote also highlights the potential frustration resulting from disparate pricing structures experienced in one trip.

> "Then I leave the train at Coliseum station and board the Oakland International Airport connector train. This **9-minute ride costs me more than the 30-minute ride** from Balboa Park [BART] to Coliseum station. Why do I get hit with such high fees, nearly $12 in one direction..."
>
> — *transit customer from San Francisco county*

> "… the SMART train. I mean, that's a joke. **It's super expensive**. Their pricing structure is very confusing… I've ridden it twice since they put it in there. It's **not a viable commute source** for me because it really **doesn't go anywhere**… supposedly goes to the ferry terminal but I have not checked out whether that actually works or not, the timing."
>
> — *transit customer from Marin county*

1.9 How customers perceive the cost of fares

Compared with cost of living in the Bay Area
While the cost of transit may be rising, wages for customers may not. This puts extra burden on the customer, especially those of lower income and more price sensitive. In SenseMaker, having more affordable options was a key way to improve the experience for low income customers (13.9%).

The first quote suggests that there may be expectations that the price of transit should be in line with customers’ wages.

> “ From San Francisco to Oakland… I would say more like $5, which is probably what it was a few years ago or so. **It keeps going up**, you know, **it’s just outrageous**. I mean, **our salaries aren’t going up**…”
>
> — *transit customer from San Francisco county*

> “ I think overall, it’s just rough, but the payment of $7.40... because $4.00 for me is already kind of rough, plus $14... that's like a whole, like a **good portion of general maintenance, groceries**, you know…”
>
> — *transit customer from San Mateo county*

1.9 How customers perceive the cost of fares

Compared with cost and experience of other transit systems

Customers draw upon experiences from using transit systems in other cities and countries to inform their assessment of Bay Area’s transit system. Often the comparison goes beyond fares and into the service quality and frequency. This is expected as these aspects are interrelated when customers determine the value of transit.

“ Took the VTA tram to the 49ers game from a parking lot not too far. There were so many stops for stations… and had to stop for lights. It would have been the same time to walk there… San Diego trams don’t stop for lights and they have a 5 dollar option for an all day pass for all public transportation.

— *transit customer from Santa Clara county*

“ I live in San Bruno and love to go to San Francisco, Berkeley, Fremont and San Francisco Airport, but it's so expensive… I wish there was unlimited rides for a day pass, 3 days, 5 days or 1 week similar to Singapore. They even give you a refund on the last day flying from their airport.”

— *transit customer from San Mateo county*

2.0 Payment experience

2.1 Payment is bigger than the fare box

Customers experience fares in two parts of their transit journey: when planning a trip and paying for a trip.

When planning, customers have a number of tools to help them determine fares for a trip, but the activity is not straightforward when the trip involves multiple transit agencies.

Payment often involves Clipper for many customers we spoke to. Autoloading Clipper is a convenience for some but this convenience is not accessible to low-income customers. Customers are also negatively impacted by the delays of loading Clipper online.

2.2 How customers determine required trip fare

Determining the required trip fare is often **part of the task of trip planning**. Customers offered a number of online and offline tools, including:

- Bay Area transit agency websites
- 511
- Google or Google Maps
- Apps on their smartphones
  - Transit
  - NextBus
- Charts and signage at transit stops
- Drivers

Some customers have expressed the need to **be prepared**, doing their research before taking the trip. For long-time / frequent customers, they may know their trip fares **from memory**.

> “If it's a transit agency that I'm not familiar with, I will first look to see if there's a website… And sometimes I'll type it directly into Google… so that way I can prepare beforehand to have everything ready so that I can just plop [the fare] in the machine or whatever I need to do.”
>
> — *transit customer from Alameda county*
>
> “Because I've lived here so long I kind of know how much I have to pay like if I go to see friends… it's probably up to almost $12 round trip now, which you know, that's probably why I don't go there as often.”
>
> — *transit customer from San Francisco county*

Payment experience: legibility

2.2 How customers determine required trip fare

Though customers have resources, determining fares is not always straightforward.

For multi-agency trips, this can mean looking at separate transit agency websites to come up with fares. Customers who try to rely on memory to determine fares can find it challenging. Clipper can be a black box in this exercise. Some pricing structures can make it difficult to remember fares. Customers also noted issues in paying when there’s inconsistency in transfer rules between different agencies.

As previously mentioned on the least favorite aspects of transit, a difficult moment for customers when figuring out fares can occur when the drivers are perceived as unwilling to assist.

> “ Unfortunately, because I didn’t really notice what I was paying once I got my senior Clipper… so I’m kind of foggy on how much it even costs. ”
>
> — *transit customer from Alameda county*

> “ The greater difficulty with pricing and paying is how each system treats transferring. In San Francisco, you have unlimited transfers for an hour and a half after you buy your ticket. So you don’t really have to keep going up giving more money. But with San Mateo, transit and bus system, you have to pay each time you change buses.”
>
> — *transit customer from San Francisco county*

2.3 Fare products customers use

When talking about fare products, customers first mentioned the medium of Clipper or Senior Clipper.

Diving into fare products specifically, customers mentioned a mix of:

- loaded cash value
- passes (e.g. Muni Lifeline Pass)
- discounts (e.g. BART High-value Discount)
- employee passes

What customers put on their Clipper card and how they manage it varies depending on the customer and their situation.

> “I used to commute to work on Caltrain and SamTrans… The transfer between the train and bus involved a long 3-block walk with traffic lights. The train and bus were not coordinated so I had to run, although the SamTrans driver kindly waited. To pay, I used my Clipper Card. I bought a two zone pass even though my train journey was only in one zone **because I wanted the bus transfer.**”
>
> — *transit customer from San Mateo county*

Payment experience: current usage

2.3 Fare products customers use

Deciding between cash value or passes
Customers generally **do rough math** to see if the price of the pass is worth it based on how much they will take transit within that period. If transit is used enough, getting a pass can also be perceived as a convenience in addition to cost savings. On the other hand, passes may not be encompassing enough to handle trips that transfer between many transit agency services, causing customers to go with cash value instead.

As we saw in the quote on the previous slide, transfers also have a part in the decision of what pass to buy.

> “When I know that I’m going to be regularly on the bus, I typically will get the adult monthly pass, just to make it easier.”
>
> — *transit customer from Alameda county*

> “I did the math at some point and doing the passes for any of the transit I was using was not effective. Both because of switching between different types of transit and other stuff. It just was not the best use of the money.”
>
> — *transit customer from San Francisco county*

Payment experience: current usage

2.3 Fare products customers use

Managing the value on Clipper
Some customers use cash to load their Clipper rather than a credit or debit card. Spending cash is immediate and some customers see this as a way to manage their spending not only on transit, but in other areas of life.

Customers mentioned Walgreens as a primary touchpoint for loading their Clipper because it was convenient and easy. There was a sense of loss when they mentioned these Walgreens locations closing.

The delay in value when loading online is a source of anxiety for some customers. In some cases, it can cause customers to not take transit entirely.

> “I prefer using cash to pay… I can feel it because tangibly I know how much I'm using each time…”
>
> — *transit customer from San Mateo county*

> “I would go to the Walgreens that was 5 minutes away from the office… that was very convenient. But they closed that store and I mean, I knew those people… for the whole 20 years I've been working.”
>
> — *transit customer from Marin county*

> “I paid $20 online to refill my Clipper card and then they emailed me back that it will be refilled in approximately 1 to 7 business days. I then didn't bother even using [BART] and took my car instead.”
>
> — *transit customer from San Francisco county*

2.4 Barriers to obtaining a Clipper Card

Barriers to obtaining a Clipper Card were not mentioned from SenseMaker stories. All customers in interviews also used Clipper. One customer did recall a challenge with obtaining a Clipper Card.

This story relates to the customer's usage of Clipper on BART. Though this customer did not provide more details on this story, it is important to note the sentiment that **not everyone can afford the upfront cost of the Clipper Card**.

> “I really hate the Clipper Card system. I find that at times it caused me great difficulty. One, because I've actually not had enough money to purchase a new card and I didn't realize I didn't have money on the old card. And then thanks to that, you can't board and you're not allowed to pay a cash fair, which I find kind of annoying and sort of class distinctive. Not everybody has an extra three dollars at any given time.”
>
> — *transit customer from San Francisco county*

Payment experience: different payment mediums

2.5 Payment media’s impact on experience

Most customers in our body of research used Clipper to pay for transit, though how they manage the value on Clipper may vary as previously covered. Clipper can be both a **positive and negative** influence on the overall transit experience.

Customers spoke favourably of Clipper for its convenience and not having to deal with multiple tickets. On the other hand, tapping, and the different rules for different transit agencies is a source of frustration.

One SamTrans customer mentioned they used SamTrans Mobile to pay so that they can get a day pass since this was not available through Clipper.

> “I used their Mobile App that saves more time usually, even if Clipper is faster because clipper does not provide a day pass for SamTrans. If you tag once, then wait 90 minutes and tag again, then wait 90 minutes, the next tag you get charged over the day pass limit.”
>
> — *transit customer from San Mateo county*

> “When I took Muni for the first time, I tagged on with my card like I would for AC Transit. I had no idea that you were supposed to tag again when coming off, like on BART. I didn’t see any signage indicating to do so. Getting off at the station, I walked up the stairs and cops scan my pass saying I didn’t pay… I was given a ticket for fare evasion that I couldn’t afford.”
>
> — *transit customer from Alameda county*

3.0 Equity

3.1 Views on equity and equality

In SenseMaker, we asked transit customers to indicate what the fare for their trip should be among three variables selected to investigate concepts of equality and equity in fare policy:

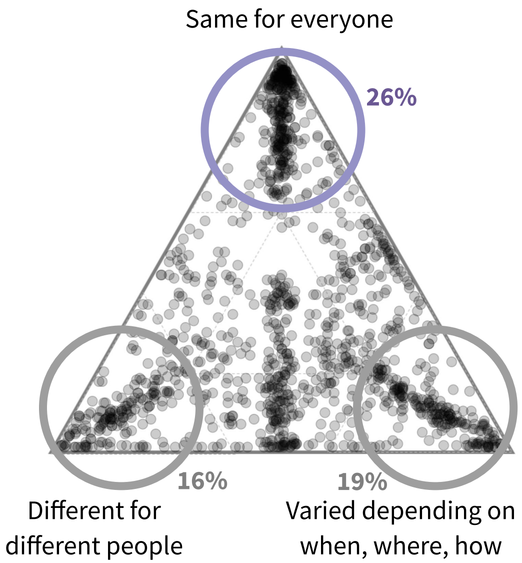
- The same for everyone
- Different for different people
- Varied depending on when, where and how

From the customer's point of view, there is a stronger indication that fares should be the same for everyone, representing an **equality approach**. This is different from the **equity approach** that the FCIS Staff Working Group is striving for where fares are determined based on a blend of who the person is and the variables of the trip.

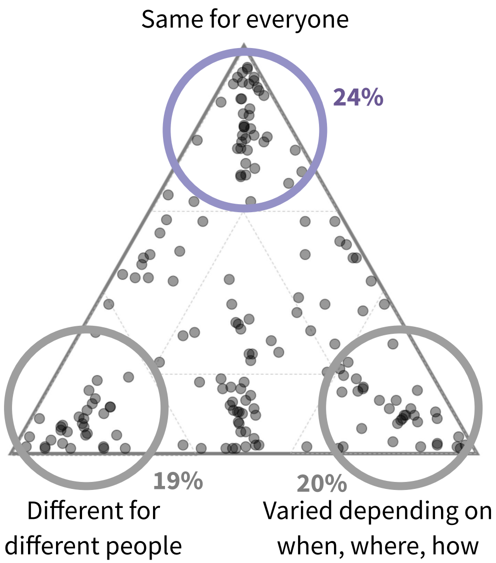
Equity

3.1 Views on equity and equality

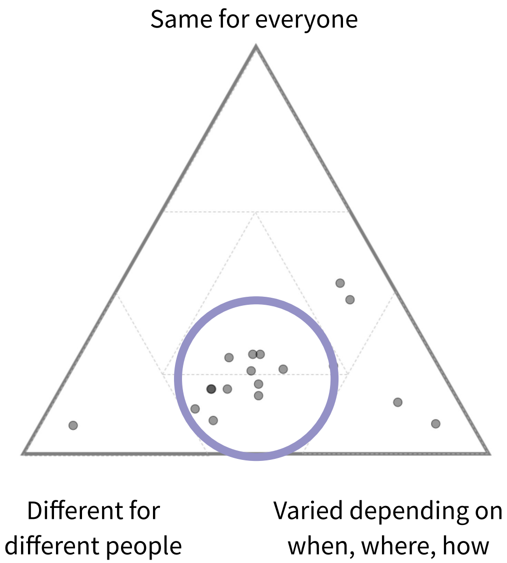
All transit customers (n=1291)



Low-income customers (n=181)



FCIS Staff Working Group (n=18)



3.2 Assessing fairness using scenarios

In interviews with transit customers, we presented six transit scenarios involving different transit services and the associated fares for the trips. Through these scenarios, we noted how customers perceived the fares for the trip, their perception on whether the fares were fair and why they felt that way.

We following reviews the scenarios one by one and details the feedback customers provided.

3.2 Scenario 1: bus fare discrepancies

You are a frequent transit user who rides the bus in two different areas:

- local bus services near your home in the East Bay
- near work in downtown San Francisco.

Using Clipper:

- the cost of a local bus ride is $2.00 on Contra Costa County Connection.
- the price of a Muni bus trip in San Francisco is $2.50.

Goal

Assess customers’ reactions to the difference in fares for bus services running in two different regions.

Equity: fairness

3.2 Scenario 1: bus fare discrepancies

Customers' initial reactions to this scenario did not touch on fairness. Rather, they provided their **own assumptions or rationale** on price difference between the County Connection and Muni bus trip. This ranged from the cost of living in the two service areas, the financial model for each service and assumed difference in service availability. Customers were also curious whether the difference in price was a result of a transfer included in the Muni bus fare.

Some customers **accepted or were resigned** to the prices presented in the scenario. Lower income customers commented on the fare amounts, but not in comparison between the services.

> “ $2.50 at this point is pretty much typical because I've gotten used to it, **even though it's not necessarily cheap**. It's not something that is unheard of.”
>
> — *transit customer from Alameda county*

> “ If you're getting at should they all cost the same for the same type of service, then yes, they should. **But that's not the reality.** San Francisco is its own beast and gets away with a lot of stuff… I think I just take it for granted that anything in San Francisco is going to be more expensive.”
>
> — *transit customer from Marin county*

3.2 Scenario 2: ergonomics and time of day

You travel to Civic Center in downtown SF for work from Oakland, taking AC Transit to BART during the early morning rush and therefore rarely get a seat on BART.

You end up working a long day at work and leave later than usual when there are not many people riding transit.

You pay $7.40 for both trips to and from work.

Goal
Assess how customers perceive the relationship between the fares they pay and the ergonomics of the service that result in travelling at certain times in the day.

3.2 Scenario 2: ergonomics and time of day

Though customers have contemplated why they pay the fares for what they get in terms of safety and comfort, they generally felt that ergonomics on the train due to the time of day should not have an impact on the price. One customer stated that this would **make budgeting difficult** if fares were dependent on ergonomic conditions. Customers offered to **adjust their own travel behaviours** to avoid crush or peak loads. In addition, this policy can be seen as **inequitable** because it implies that better experiences are only for those who can afford it.

If ergonomics were taken into consideration, customers see it as a **discount for their troubles** rather than be charged a premium, as fairness is often subject to framing effects (Kahneman).

> “I don't think that there should have an impact on the fares. If you’re concerned about that, you should find more comfortable means or try to schedule your travel times when it’s not an essential time…”
>
> — *transit customer from San Francisco county*
>
> “I don’t think that there should be a premium on a less crowded train. I’m pretty good with a relatively flat fee. It feels more equitable.”
>
> — *transit customer from San Francisco county*
>
> “Maybe if there’s a sort of dynamic partial refund or something that would say we’re slightly sorry that your train was really busy and it was uncomfortable…”
>
> — *transit customer from Alameda county*

3.2 Scenario 3: zone crossing

Travelling from Palo Alto to Millbrae by Caltrain is roughly 20 miles and involves 9 stops during the week.

Travelling to nearby Redwood City is less than 10 miles and involves 2 stops.

Both one-way trips costs $6.00 at the Caltrain ticket machine because both trips pass through two zones.

Goal

Assess customers’ reactions to the price paid for two trips of varying distances.

3.2 Scenario 3: zone crossing

Customers expressed that zones are **unfair** when two trips travelling in the same number of zones but different distances cost the same, **especially the fare for the shorter trip**. This can affect people who keep a tight budget. Some customers would try to look into alternatives for that shorter trip instead.

Customers also commented on the zone system in general, saying that zones feel arbitrarily placed. In terms of determining fares, zones can be **both easy and hard**. If you know which zone you're in, it's "cut and dry". However, the challenge comes in working out the zones associated with the trip origin and destination.

> “That doesn't seem very equitable to me. I've had it happen where I've simply wanted to go two stops down and it costs the same if I were to go all the way to San Francisco. That definitely doesn't seem fair to me.”
>
> — *transit customer from San Francisco county*

> “I think it is actually nicer to have a more precise thing especially if you are like financially, it feels better to be like, okay, I got the exact amount that I need. I'm not paying a bunch, just to like go a couple stops up.”
>
> — *transit customer from San Francisco county*

3.2 Scenario 4: time, money, mode

You are making a trip to see a friend in Marin:

- The trip on Golden Gate Ferry costs $13 and takes 35 minutes from SF Ferry Building to Larkspur.
- You can take a Golden Gate Transit bus with one transfer and arrive in about 40 minutes. The trip costs $10.75.

Goal

Assess customers’ reactions to the difference in fares for a trip with different transit options.

3.2 Scenario 4: time, money, mode

When presented two different transit options to get from one point to another, customers layered their own value assessment to explain the difference in fares for the two options and which option they would choose to take. Customers did not comment on the fairness or difference in pricing between the different modes.

Customers chose their preferred trip option based on the money they had available, how enjoyable the trip would be, proximity to the destination and the duration and regularity of the trip.

> “It just depends on how much money I would have that would make the difference. If I had money to pay the more, I would take more so get there faster than having to wait longer.”
>
> — *transit customer from Solano county*
>
> “I [would] probably take the ferry because it’s more enjoyable. But if I was doing [it] on a regular basis, I would be looking at the bus. You know, it gets me to the same place for less money.”
>
> — *transit customer from Marin county*
>
> “Well worth the money to spend. I’ve taken the ferry many times, very enjoyable… very positive atmosphere… and you can bring your bike.”
>
> — *transit customer from San Francisco county*

3.2 Scenario 5: unintegrated fare products

You live in Union City and you travel to and from Hayward 5 days a week for work by taking a bus run by Union City Transit and transferring to an AC Transit bus.

You buy a 31-day pass for both the Union City Transit (approximately $84) and AC Transit ($55).

There is no shared pass between Union City Transit and AC Transit.

Goal

Assess customers’ reactions to the requirement of buying two separate passes for two different transit services.

3.2 Scenario 5: unintegrated fare products

Customers would first do the math to see if the two separate bus passes were worth buying. With passes in general, there is a fear of "leaving money on the table". Overall the price point for the two passes was considered expensive. Some customers compared it to the cost of driving.

There is also an **expectation that an integrated pass would be cheaper** than buying the two passes separately. An integrated pass would also be convenient as the customer would not have to purchase the two passes separately.

> "That seems very expensive… $139 a month, I mean that was close to roughly what I was paying for gas when I had a low mileage car."
>
> — *transit customer from San Francisco county*

> "I pretty much did that with the Vallejo bus and the BART and I kept them separate. It is hard to do that."
>
> — *transit customer from Solano county*

> "If I knew I was going to have to ride both of these transit agencies equally, then I would potentially consider a month pass and that save[s] me some money."
>
> — *transit customer from Alameda county*

Equity: assessing fairness

3.2 Scenario 6: discount eligibility

You are student at San Francisco State who is commuting to school next semester.

The Gator Pass is a Clipper product that costs the student $180 per semester in student fees.

It includes 50% discounted transit fares for BART service to/from Daly City station and unlimited rides on SFMTA (Muni) bus.

Caltrain, AC Transit and other Bay Area operators are not included in the Gator Pass, and students at other schools can’t use it.

Goal
Assess customers’ reactions to the inclusion and exclusion of certain students and transit services.

Equity: assessing fairness

3.2 Scenario 6: discount eligibility

Customers generally supported the idea of a discounted pass for students, unless the student cannot make use of it.

Customers' reactions were varied when addressing the exclusions of the Gator Pass. Some expressed understanding about exclusions while others felt this type of product should be more widely available, covering more services. Customers also wondered if the university fees are higher as a result of having this pass. Customers didn't resent those who were eligible, but would have liked the excluded universities and colleges to offer it as well (fairness).

Some customers see it as the responsibility of the institutions to ensure their students have access to a discount pass.

“ I did not utilize the transit services that [are in] the Gator Pass… didn't get a choice... so I was paying for a service I never used which kind of sucked as a student who didn't live in San Francisco… felt punishing…”

— *transit customer from San Francisco county*

“ It would be a good idea to expand it to the other agencies, although if they had to raise the price to include other agencies… then I don't like that.”

— *transit customer from Alameda county*

“ Such a pass should be available to all those within the school systems… maybe a bit idealistic, but it would be far more equitable.”

— *transit customer from San Francisco county*

3.3 How customers define fairness

What’s a fair fare?

We asked customers what fair transit fares would look like if there were no restrictions. Customers offered a variety of answers ranging from free to specific dollar amounts.

Customers’ perspective	Rationale
Transit fares should be **free**.	Transit is meant to benefit the public and provides great environmental benefits. It should be subsidized through taxing the wealthy and technology companies. Transit fares currently feel like a regressive tax that increases unfairness as fares continue to rise.
Transit fares should be **cheaper**.	Cheaper fares create greater incentive to take transit. Transit is overpriced for the current quality of service. In other cities, there are cheaper fares for the same, if not better, transit service. Even 25 or 50 cents ticket differences can be a lot for low income customers.
Transit should be [**dollar amount**].	A dollar amount was given but in relation to the distance of the trip or the quality of the service.

3.3 How customers define fairness

What is fair fare policy?
Customers also offered their view on fare policies, how fares can be structured, and the considerations that need to be in place.

Customers’ perspective	Rationale
Price by **distance**	Transparent in terms of associating cost with how far you travel.
Price by **zone**	If zones are based on a set distance and price per zone were the same no matter the mode, it can make it easier for trip planning.
Taking care of the elderly, people with disabilities, and people with low income	Discounts for transit take into consideration other factors, like the means-based Clipper START program. Those who are able (physically and financially) have a responsibility to “pick up the tab” for those who are less fortunate.

3.4 What feels unfair about transit fares?

In addition to the insights provided through customers’ feedback on the scenarios, customers also mentioned fare evasion.

There is a perception that certain customers are able to get away with not paying fares while those who do pay may get caught in a fare evasion situation. This often comes as a surprise to the customer because it is a result of an honest mistake and unintentional. Tapping errors and not knowing specific tapping rules can contribute to this.

> “Too many times have I witnessed inspectors not even asking for proof of fare from certain individuals while selecting others for violations.”
>
> — *transit customer from San Francisco county*

> “As I was going through the turnstiles I watch a number of people go over or under the gates. The gate agent just watched and did nothing.”
>
> — *transit customer from Alameda county*

Equity: vulnerable populations

3.5 Impact of upfront cash requirements

As mentioned, initial cost for the Clipper card can be a barrier to transit.

Autoloading is another form of an upfront cost. While convenient, it abstracts the cost of the trip away from the customer. As a result, customers may be less aware of the cost for individual trips.

This is not an issue for higher income customers; however, customers who need to keep a close eye on budget do not autoload. Their use of money may need to be more flexible and not tied up in the Clipper Card. This extends outside of autoloading and to the amount customers put on Clipper in general. Some customers will only load the amount that is required for their immediate trip.

> “I don’t like it when cards automatically deduct or charge money and I don’t know why… once I got my son I was like, I don’t have to deal with remembering… I ended up just doing automatic [reload].”
>
> — *transit customer from Alameda county*

> “It’s really easy. It doesn’t have a financial impact… because you don’t really see cash changing hands, and especially since the card autoloads.”
>
> — *transit customer from San Francisco county*

> “When I first started my job, I wasn’t always assured of my income… I don’t want 50 bucks on there every time. I need that for food.”
>
> — *transit customer from San Francisco county*

Equity: affordability

3.6 What customers do to afford transit

The degree to which customers have to adjust and make tradeoffs differs between self-directed trips versus essential trips for work or school.

Customers may do more planning ahead of their trip to look for the most affordable options if spending was limited. For self-directed trips, the customer may not be taking the trip at all if the cost of transit was too prohibitive.

For essential trips, customers may need to borrow money or even jump the fare gates to get to where they need, even if it didn't necessarily agree with their moral compass.

> “There were a few times where I might have popped the gate because I needed to get somewhere and I didn't have the money to do it. That's something I wouldn't do now but then my circumstances have changed. There have been many days where I needed to be in class… I didn't [have] any money for lunch, I didn't have any money for transportation. But I still needed to be present for class.”
>
> — *transit customer from San Francisco county*

> “There were times when I was short [money] and so it was hard… I did have to borrow money here and there to make sure I had enough to get to work and back. But compared to a lot of people, they just jumped over. I'm not doing that”
>
> — *transit customer from Solano county*

4.0 Systems

4.1 Partial knowledge of complex system

The Bay Area transit system is highly complex system comprised of more than 20 different operator systems with varying degrees of integration. Customers do not hold full knowledge of the entire transit system at the macro-level or at the operator-specific level. They only know information pertinent to their travels.

In trying to explain the system or plan a trip, customers come across the disjointed nature of the system. The complexity of interactions customers experience at various transit touchpoints contribute to challenges in learning and using transit.

4.2 Knowledge of the current system

We asked customers to explain the current transit system and what options were available to someone who is new resident to the Bay Area.

Their descriptions were localized to the services they frequently used. Customers may also describe services they used less frequently with less certainty.

For payment, customers spoke about the Clipper and some customers mentioned its discounts.

Rather than explaining the system, some customers simply deferred the question. One customer felt it was too hard to explain to a newcomer who did not have existing knowledge of the Bay Area geography. Another mentioned not to move to the Bay Area at all due to affordability issues.

“I think I'd be able to explain it pretty easily. As long as it's within my area. That's one thing I actually found out when I did these different jobs [is] that actually [I] don't know a lot about other transit when it's not BART, or like regionally related.”

— *transit customer from Alameda county*

“As I'm explaining, I realized how convoluted and how disjointed it is, you know, if you want to get from one community to another. It's just wrong.”

— *transit customer from Alameda county*

4.3 Knowledge of transit trip distance

When describing their trips or asked how far they traveled, customers would commonly describe the **elapsed time** rather than the mileage covered. Some customers did not know the mileage of their trips while others offered approximations, sometimes with the help of other resources such as maps.

> “I believe it’s… Um, I actually had the distance on my maps. It’s over 20 miles, but I’m not exactly sure how much.”
>
> — *transit customer from Alameda county*
>
> “They take about an hour. I don't know, like mileage. Right, it would, you know, basically an hour, door to door would be my estimate, assuming that like I hit each transfer pretty smoothly.”
>
> — *transit customer from San Francisco county*

4.4 Knowledge of transit trip costs

Customers were able to generally refer to the fare structures that govern the fares they paid. For the various transit services, customers mentioned that their fares were distance dependent, based on zones, or a flat fee.

For the specific fares paid on transit trips, customers were less certain of the amount. In part, this is because customers have not been using transit since the pandemic.

Secondly, autoloading on Clipper provides a layer of abstraction to the actual fare being paid for each trip. Customers with employer discounts and passes may also be less aware of fares due to the subsidies.

> “I think I can kind of estimate how much it would cost to get places, but I think that's the other thing about having the Clippers [is] that I wouldn't necessarily remember, because it's sort of just getting charged [from] the card.”
>
> — *transit customer from Alameda county*

> “Because you don't really see cash changing hands, and especially since the card auto loads whenever you get too low on funds. Right, so it makes it seamless to me. So I don't really have to like know the difference in fare pricing.”
>
> — *transit customer from San Francisco county*

Systems: legibility

4.5 Challenges to learnability

Customers in interviews and SenseMaker brought up challenges with learning how to find their way through the transit system. Challenges ranged from the design of **schedules** to **signage** to the specifics of **nomenclature**.

Depending on the customer, these challenges can either be a minor frustration or a significant barrier to taking transit.

“Such a learning curve to learn the subway systems in San Francisco. Just at one station so many alphabets which aren’t even correctly marked on displays or on the trains. Adding to this, two entrances to two different levels with two different trains at the same station!! How does anyone expect someone new to the system take public transit with this mess?”

— *transit customer from San Mateo county*

“I do find the inbound/outbound terminology to be extremely confusing. That’s partly because I live at one end… I [am] always double checking it even though I take it all the time.”

— *transit customer from San Francisco county*

4.6 Coverage of transit network and services

Our research did not directly investigate the adequacy of the transit network's geographical coverage. The stories that customers shared suggest that there is room for improvement. Some customers also referred to the time of day as coverage; not just where, but when, pointing to late night coverage in particular being a challenge for shift workers.

Customers described trips where they would take a vehicle because transit could not take them there. Customers also compared coverage between counties or between urban and suburban areas. Longer trips can be possible to do by connecting with multiple services. However, customers may **find the logistics of the trip impractical and consider it a non-option** even when the services exist.

> "When [I] used to live in San Francisco… very accessible to the bus or the BART station… But if you don't have a car in Richmond… you have to have a car to like move around."
>
> — *transit customer from Contra Costa county*

> "One of my coworkers moved here from Denver. She works here in San Mateo… but lives over in Sonoma county… It's not even possible for you to get here by public transportation because she'd have to take a bus to the ferry, then take the ferry down and then take the bus or the train down. It would be like four hours commuting… It's usually not very advantageous to not have a car and that you usually have to have a car."
>
> — *transit customer from San Francisco county*

Discussion/considerations

Discussion/considerations

Returning to the problem statement

One of the goals of user research was to **validate the initial problem statement** set out for the Fare Coordination and Integration Study. The quotes and insights we collected **support the observations noted in the problem statement** with regards to factors that influence customer decisions to use transit. Legibility and convenience of the fare payment system does impact customer perception of the trip.

Customers experience fare policy through the touchpoints with transit, whether that’s planning their trip, paying for it, or their riding experience. They may not know or understand the funding and governance models that incentivize ridership in the Bay Area as a whole.

But with every individual trip comes the opportunity to improve the experience. And through improving the experience one customer at a time, we move towards our larger goal of increasing ridership.

How might we **leverage the positive transit experiences** to help further grow ridership?

Discussion/considerations

Fares in relation to Customer Value

Fares alone can be used to quantify the cost of transit when compared with other forms of transportation. But more often than not, value is derived from looking at fares **in addition to** and **in comparison with** how transit satisfies the other demands of transit and what transit affords customers in the rest of their lives (independent value creation).

Policy can have a definite impact on improving the experience of **transfers,** especially for disparate and disjointed rules when transferring between different sets of services. The different ways in which transfers are handled makes the system **hard to learn** and **can result in negative experiences** like when paying customers end up with fare evasion tickets.

The experience of transferring goes beyond rules and policy and into the **physical design of the connections and schedules**. The hustle to transfer and missing transfers diminishes the value of transit. Missing transfers results in additional waiting time and **reducing waiting time** was deemed the **biggest improvement** to improving customers' transit experience.

How might we **improve the experience of transferring and waiting** with the goal of improving customer's perception of transit's value?

Fares in relation to Payment Experience

When researching the cost of a multi-agency trip, customers may need to look up the separate websites for the different agencies to determine the total fare.

As we move forward in fare integration, we must also consider how we might **improve communicating the outcomes of the policy** in a way that is **accessible to customers and future customers** who are planning their trips.

Clipper was the primary payment medium mentioned in user research, though the approach to managing value on the Clipper card varied by customer. Clipper can make paying convenient by removing the need to manage multiple tickets from different agencies. Similarly, autoloading Clipper also provides the convenience of not needing to worry about the balance. This does result in customers being **less aware of the cost for individual trips**. The abstraction of trip costs is in conflict with lower income customers who require that awareness to manage budgets for transit and in general. At some point, seamless experience becomes opaque, a black box.

How might we help **improve the payment experience for low-income customers** who cannot take advantage of the conveniences?

Discussion/considerations

Fares in relation to Equity

Transit fares can be prohibitive for some low-income customers, many of whom depend on transit for essential trips. If they cannot afford the fares, they may skip meals, borrow money or even opt to not pay. However paying customers who observe fare evasion are not always empathetic towards fare evaders. Paying customers feel that it is unfair that the same services can be accessed by fare evaders. This suggests that customers may consider equality as a definition for fairness, which does not reflect the equity approach the FCIS Staff Working Group strives to achieve. However, there are also different perspectives as some customers expressed the need for transit agencies, big tech companies, and even customers in more fortunate positions to help vulnerable populations with access to transit.

How might we design fares and fare products to enable the most vulnerable customers to **access transit with dignity**?

How might we enable customers to **help each other** with accessing transit from the perspective of fares?

Discussion/considerations

Exploring opportunities

Some considerations (challenge statements) we presented will be explored in the next stage of user research through co-design and prototyping. Other considerations extend beyond the immediate timeline of the Fare Coordination and Integration Study and may require future partnerships with all transit agencies.

During the Fare Coordination and Integration Study, how might we…

- Improve communicating the outcomes of the policy in a way that is accessible to customers and future customers who are planning their trips? (prototyping)
- Improve the payment experience for lower income customers who cannot take advantage of the conveniences? (co-design)
- Enable customers to help each other with accessing transit from the perspective of fares? (co-design)

In future exploration, how might we…

- Leverage the positive transit experiences to help further grow ridership?
- Improve the experience of transferring and waiting with the goal of improving customer's perception of transit's value?
- Design fares and fare products to enable the most vulnerable customers to access transit with dignity?

Appendix: demographics

Demographics overview

This appendix shows the demographics for participants in the narrative workshop, one-on-one interviews, and SenseMaker. Some breakdown of some demographics were slightly different between methods and these differences are reflected in the graphs shown. SenseMaker demographics (**n=1342**) is split out due to the difference is scale of participation with interviews (**n=14**) and the narrative workshop (**n=10**).

The following demographics are covered in this appendix:

- County
- Race
- Age
- Income
- Gender
- Transit usage frequency (before and during the pandemic)

Lens on low-income customers

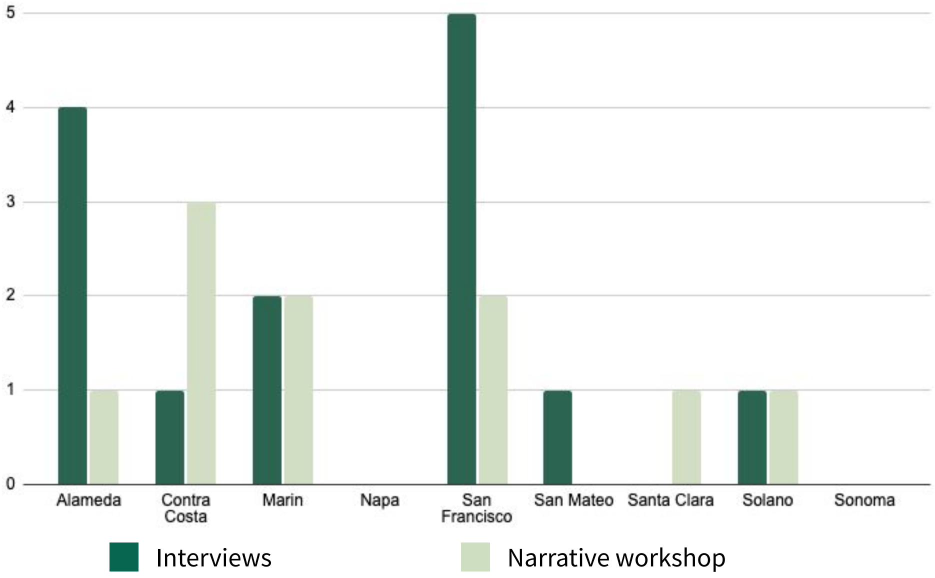
During the research activities, we kept track of demographic information for all participants. We were able to hone in on specific demographics during the analysis process because of the demographic information. One of the key areas we honed in on were low-income customers. We integrated the findings and quotes from low-income customers throughout this report.

It is important to remember how to interpret qualitative research and findings. While there may be skews in the demographics of the participants, it does not affect the validity of the individual stories we heard and the meaning behind those stories.

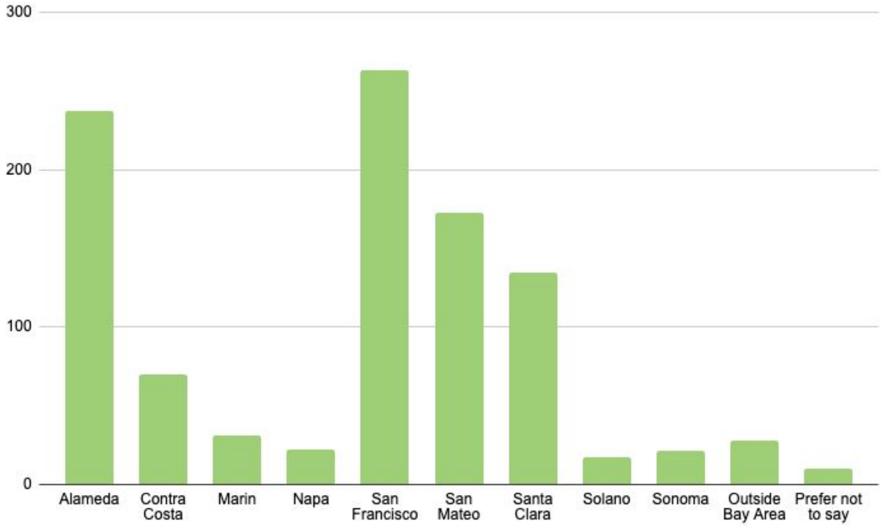
Appendix: demographics

Counties

One-on-one interviews and narrative workshop



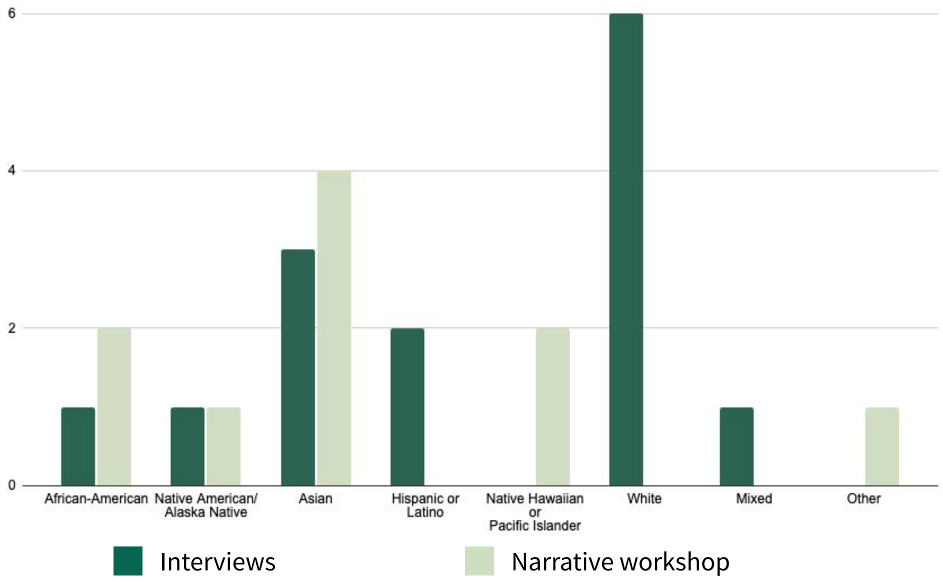
SenseMaker



Appendix: demographics

Race and ethnicity

One-on-one interviews and narrative workshop



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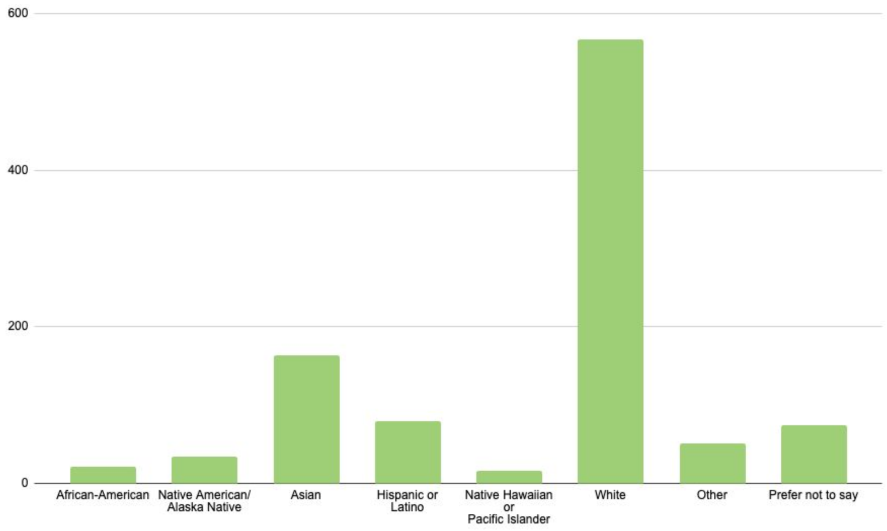
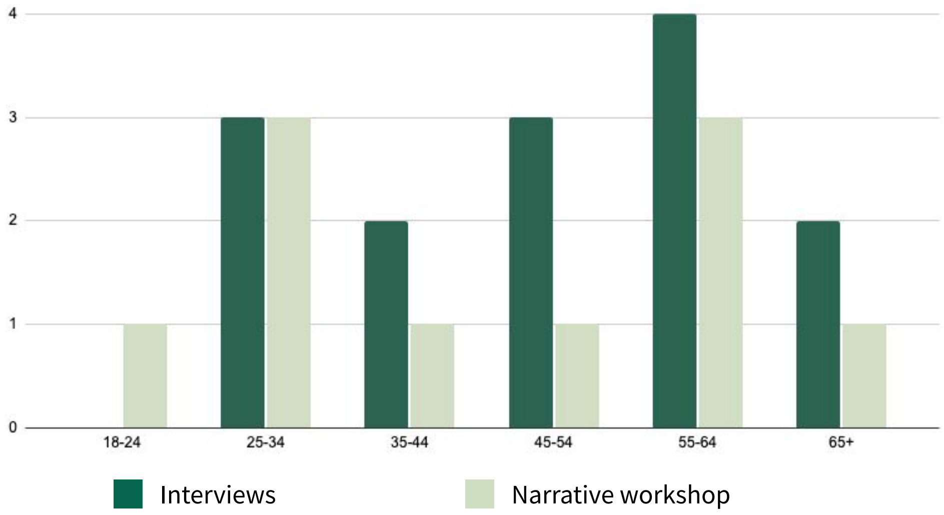


Appendix: demographics

Age

One-on-one interviews and narrative workshop



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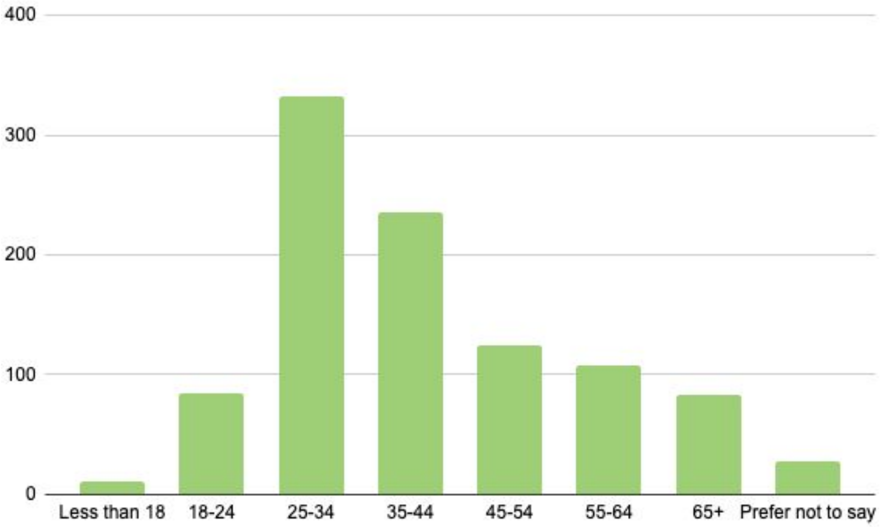
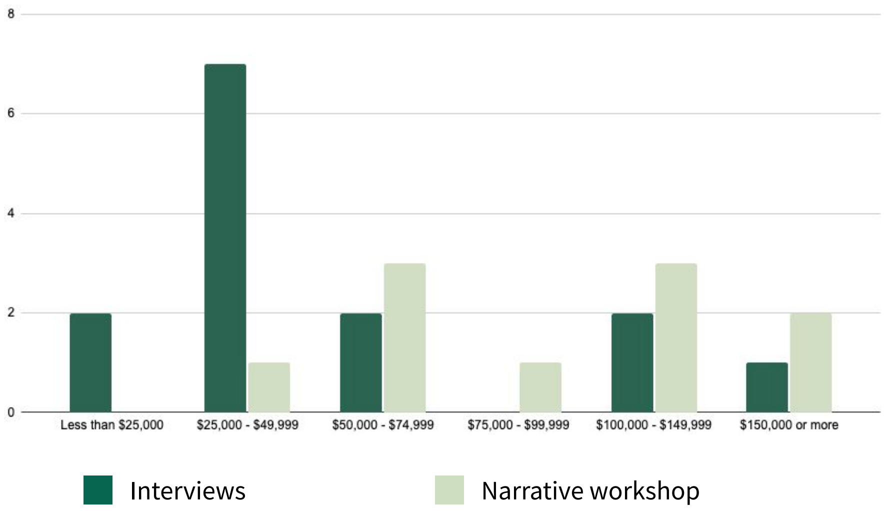


Appendix: demographics

Income

One-on-one interviews and narrative workshop



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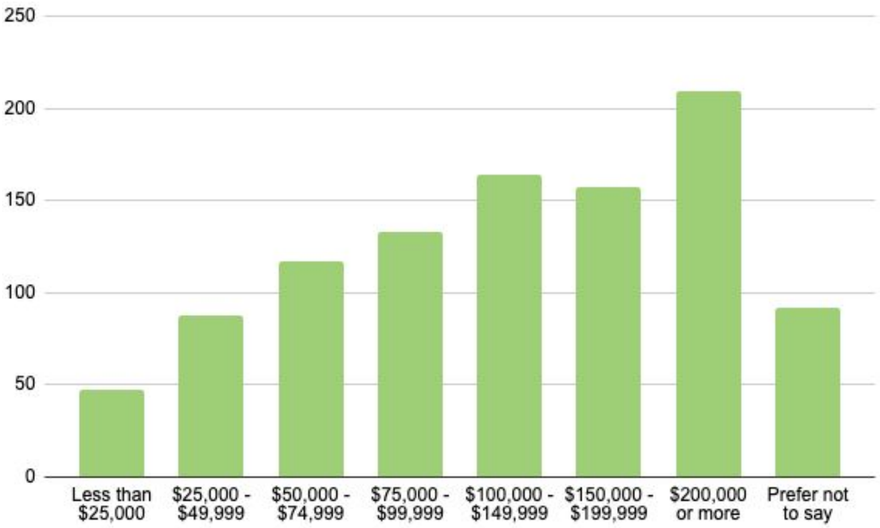
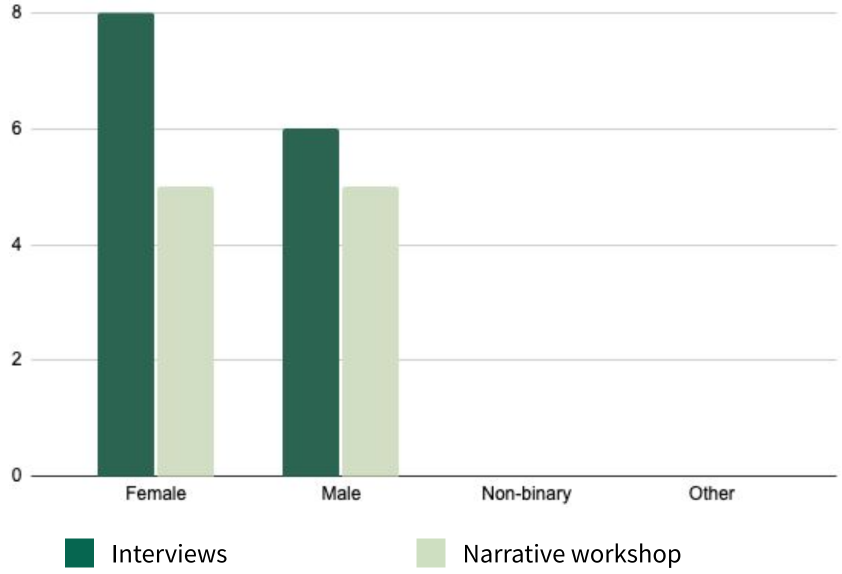


Appendix: demographics

Gender

One-on-one interviews and narrative workshop



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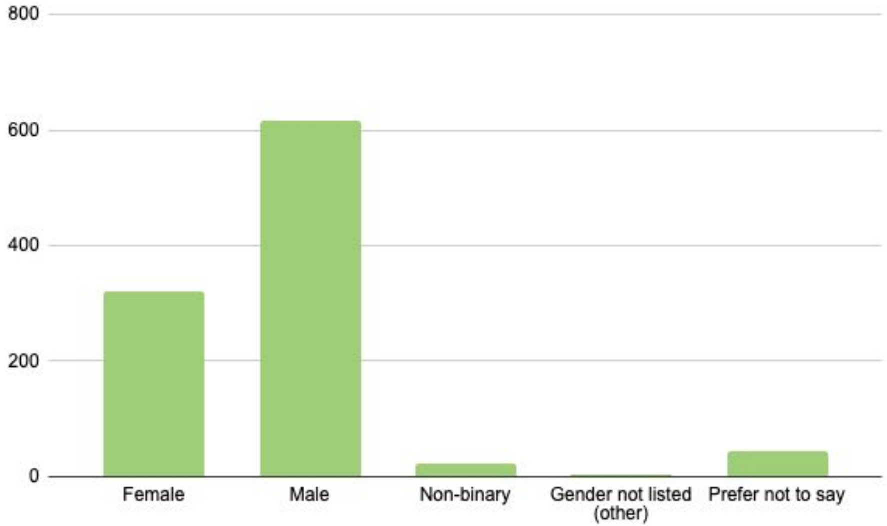
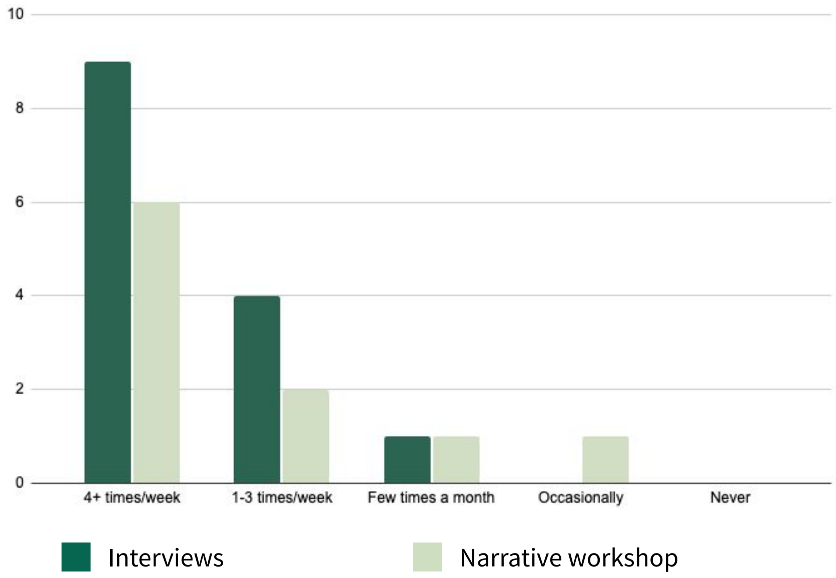


Appendix: demographics

Transit usage frequency (pre-pandemic)

One-on-one interviews and narrative workshop



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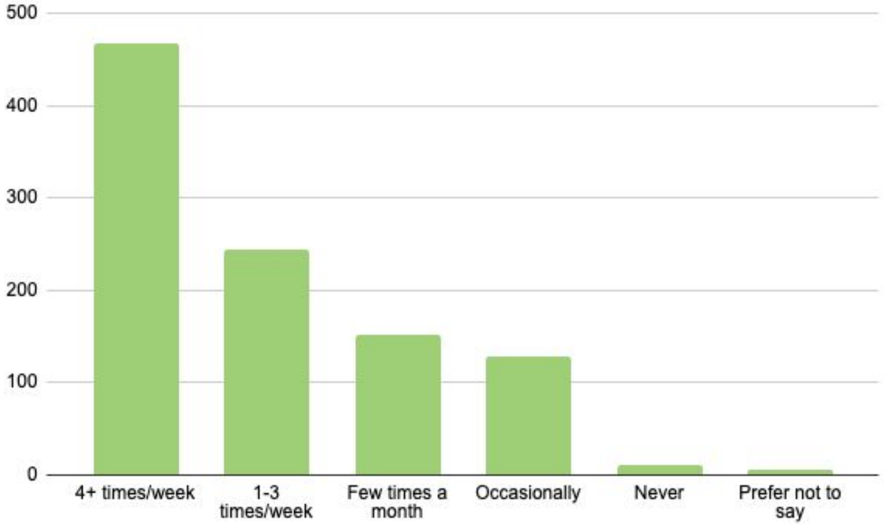


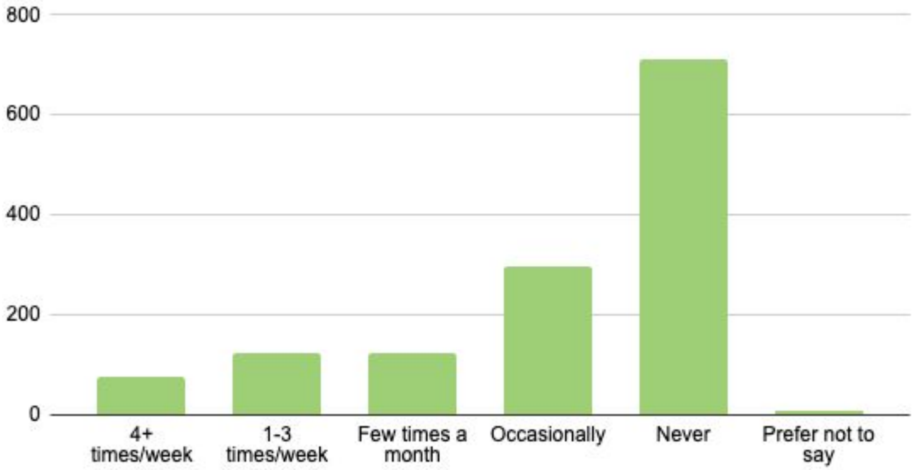
Appendix: demographics

Transit usage frequency (during pandemic)

One-on-one interviews and narrative workshop

The recruitment survey did not collect information about transit usage frequency during the pandemic. However, based on the stories customers shared, we know that transit use has decreased during this time.

SenseMaker



Appendix: demographics

Future demographic focus

For future user research activities in the Fare Coordination and Integration Study, we will be engaging customers in the co-design of fare products and in evaluating prototypes of fare structures. For these activities, there will be a focus on engaging low-income customers as well as a more diverse representation of races and ethnicities. The project team will be working with recruitment firms to ensure these recruitment goals are met.

Make New
Experiences
Possible

Thank you

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