

Transit Agency Perspectives on Customer Assault: Summary Report

October 13, 2023



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Acknowledgments

The research team would like to thank the transit agency representatives that participated in this research. In some cases, representatives from the police departments that support these agencies also participated in these interviews and the researchers thank them as well.

Abstract

Researchers at the U.S. Department of Transportation Volpe Center (Volpe) conducted a series of interviews with transit agency representatives to learn more about customer assault in the transit industry, including customer assault data, factors that may contribute to customer assault, and mitigations. This report summarizes those findings and discusses several broader considerations related to understanding and reducing customer assaults.

Executive Summary

The Federal Transit Administration (FTA) directed the U.S. Department of Transportation Volpe Center (Volpe) to research aspects of transit customer assault through interviewing transit agency representatives. The research goals included the following:

1. gaining a better overall understanding of customer assault in the transit environment, including what types of assaults are occurring and where they take place;
2. learning about the type of data transit agencies collect related to this issue;
3. learning about the mitigations that transit agencies use to address customer assault, particularly those they believe to be effective; and
4. learning about factors that may contribute to customer assault.

Representatives from nine transit agencies participated in hour-long semi-structured interviews; in some cases, members of transit or local police who support those same agencies also participated. Agency characteristics varied, though all agencies served major urbanized areas with over five million unlinked passenger trips (UPT) annually.

Agency interviewees described a range of assault types that occur on their systems, including harassment and threats; pushing, spitting, slapping, kicking, or punching; sexual harassment and unwanted touching; assaults with weapons; and, in rare cases, homicides. Generally, most interviewees expressed that less-severe assaults (i.e., “simple assaults,” “lesser assaults,” or “misdemeanor assaults”) were the most common.

All participating agencies reported that they collect data on customer assault events beyond those reported to the National Transit Database (NTD), often through partnership with transit or local police. Several of these agencies indicated that their customer assault data is reported to federal crime databases.

Agency interviewees discussed multiple factors they believe may contribute to customer assault, which included:

- societal issues such as homelessness, substance misuse, and mental health crises;
- fare evasion;
- escalation of minor conflicts and unprovoked assaults;
- ridership and crowds;
- differences in operator location between rail and bus;
- COVID-related conflicts during the pandemic (e.g., disputes over mask policies); and
- local laws and policies (e.g., decriminalization or lack of prosecution).

The research team also asked about bias-related incidents; most agency interviewees reported that bias-related incidents were infrequent and did not make up a large portion of overall customer assaults.

Interviewees also discussed the mitigations their agencies have used to address customer assault, including their effectiveness and the challenges associated with them. Interviewees most often discussed the following mitigations:

- Social Services and Crisis Outreach,
- Policing and Uniformed Presence,

- Surveillance Cameras, and
- Crime Prevention Through Environmental Design (CPTED).

Based on this study, the research team identified several considerations related to understanding and reducing customer assaults:

1. Support for social services partnerships and crisis outreach may help address societal factors that influence customer assault.
2. Further research may provide additional insight into factors that contribute to customer assault.
3. Transit agencies may benefit from further support in researching and evaluating customer assault mitigations.
4. The effectiveness of any mitigation depends on how it is designed and implemented, and its effectiveness may be context-specific.
5. Information sharing may help agencies understand, select, and implement mitigations.

These findings and considerations can support FTA and the transit industry in making informed decisions around transit assault prevention and improving safety for transit customers.

Introduction

If left unaddressed, criminal acts that occur in public transit vehicles, stations, and other transit facilities threaten the safety, security, and livelihoods of customers and the general public. In recent years, assaults occurring in the transit environment have become a significant problem. Transit agencies have reported an increase in safety and security events despite a decline in ridership. This increase in assaults has occurred across transit modes and victims include both transit workers and transit customers.

There has recently been significant attention focused on transit worker assaults, including related requirements in the Bipartisan Infrastructure Law. However, customer assaults remain a concern and more research is needed to understand what contributes to these assaults and what can be done to prevent them. Of note, when looking at customer assault events from 2008-2022, the injury rate per 100M unlinked passenger trips increased almost 294 percent and fatality rates increased 300 percent.

Given this research need, the Federal Transit Administration (FTA) directed the U.S. Department of Transportation Volpe Center (Volpe) to complete exploratory research in support of transit customer assault prevention.

Research Goals

FTA tasked Volpe with interviewing transit agencies to gain a deeper understanding of transit customer assault. More specifically, the research included the following objectives:

- 1) gaining a better overall understanding of customer assault in the transit environment, including what types of assaults are occurring and where they take place;
- 2) learning about the type of data transit agencies collect related to this issue;
- 3) learning about the mitigations that transit agencies use to address customer assault, particularly those they believe to be effective; and
- 4) learning about factors that may contribute to customer assault.

This report is intended to convey high-level findings from that research to the transit industry.

This research will support FTA and the transit industry in making informed decisions around transit assault prevention with the overall goal of improving safety for transit customers. Additionally, this work may help provide future directions for more targeted research efforts.

Scope

The research team invited nine transit agencies to participate in interviews regarding the items outlined in Research Goals. This technical report provides a high-level summary of these findings with a focus on cumulative themes across all nine transit agencies.¹

This report focuses on synthesizing information directly from interviews with limited interpretation from the research team. Given the limited number of agencies included in this

¹ The research team assured interviewees that this technical report would not include any information identifying the agency, including any details or examples that someone familiar with the agency may recognize.

study and the semi-structured format of interviews, this report does not attempt to quantify the number of agencies using certain mitigations or who expressed specific perspectives.²

Review of related literature was beyond the scope of this study.

Methods

Overview: In outreach to transit agencies, the research team described this study as “independent research, funded by FTA’s Office of System Safety, to support an increased understanding of customer assault trends and countermeasures in the transit environment.”

Participants: Representatives from nine transit agencies participated in interviews for this study. Agency locations and other characteristics varied, though all were agencies serving major urbanized areas with over five million unlinked passenger trips (UPT)³ annually. Most participating agencies operated both bus and rail services.⁴

Interviewee’s roles varied, as the research team requested that each agency identify an interviewee who could best speak to the issue of customer assault. Interviewees typically held senior management roles related to safety and/or security. In many cases, agencies recommended that members of their transit or local police force participate in these interviews.

Interview Structure and Content: During the 60-minute interviews, the team collected qualitative information through open-ended questions using a semi-structured interview format (i.e., researchers asked differing follow-up questions depending on interviewees’ responses). Data collection focused on the following topics:

- Customer assault trends, including the types of data that agencies collect regarding these trends (beyond NTD reporting requirements);
- Mitigations that agencies have implemented to address customer assaults and the effectiveness of specific mitigations;
- Challenges associated with addressing the issue of customer assault, such as costs or other barriers to implementing mitigations; and,
- Interviewees’ perceptions of contributing factors, including the extent to which assaults on transit are motivated by bias (including bias related to race, ethnicity, gender, or religion/religious appearance).

² The research team believes this would not be meaningful given that certain mitigations or perspectives may apply to additional agencies but did not come up during those interviews due to the semi-structured format.

³ The FTA defines Unlinked Passenger Trips (UPT) as “the number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.” <https://www.transit.dot.gov/ntd/national-transit-database-ntd-glossary#U>

⁴ Though some agencies operated additional modes, the current research only focused on bus and rail transit.

Findings

This summary provides an overview of findings from transit agency interviews and is organized into the following sections: Assault Type and Frequency, Assault Data Collection, Contributing Factors, and Mitigations.

Assault Type and Frequency

Agency interviewees described a range of assaults that occur on their systems, including harassment and threats; pushing, spitting, slapping, kicking, or punching; sexual harassment and unwanted touching; assaults with weapons; and, in rare cases, homicides.

- Agencies classified these events differently depending on state and local laws, but generally, most interviewees expressed that “simple assaults,” “lesser assaults,” or “misdemeanor assaults” were most common. These included incidents like pushing, shoving, or slapping.
- Though interviewees generally indicated that assaults with weapons (typically, knives or guns) were less common than assaults without weapons, several interviewees noted assaults involving weapons have increased in recent years.
- Some agencies indicated that they see more assaults between people who are known to one another (e.g., people experiencing homelessness who gather in the system), while others indicated that assaults typically occur between strangers.

Interviewees discussed potential differences in assaults between modes and locations (e.g., on vehicle vs. off vehicle), but these differences varied by agency and did not point to a clear, overall pattern. Interviewees from some agencies indicated a higher frequency of assaults on their rail system, sometimes noting the absence of a visible operator in rail cars as a possible explanation. Conversely, interviewees from other agencies indicated that they have higher assault rates on the bus system.

Assault Data Collection

During the interviews, transit agency representatives shared information about the types of customer assault data they collect as well as how that data is collected.

Type of Data Collected

All participating agencies indicated that they track customer assault events beyond those that meet the criteria for reporting to the NTD. Several interviewees noted that *most* of their customer assault events do not meet the criteria for NTD reporting.

The types of data fields that agencies collect varied but often included basic information about when and where the incident occurred, the type of incident, and narrative descriptions. The demographic information like age, sex, and race that agencies collect also varies and is sometimes recorded only in narrative form or only as a suspect description when the suspect’s identity is unknown.

How Data is Collected

Most, though not all, participating agencies had their own transit police or work with local police. For these agencies, it is the police reporting process that primarily drives how they collect customer assault data; NTD reporting is treated as a separate requirement. In some cases, customer assault data is handled primarily or exclusively by the police, except for assaults that

the transit agency must report to NTD. Several interviewees indicated that their transit police or other local police send their reports, including those for customer assaults, to federal crime databases.

Beyond police reporting, several agency interviewees mentioned that they also use customer reporting apps, which riders can use to inform the agency of concerns ranging from station cleanliness to crimes in progress. While customer assault is not the primary focus of these apps, they provide an additional source of data on customer assaults and may provide insight into offenses that customers may be hesitant to report to police.

Contributing Factors

Though it can be difficult to concretely determine why assaults occur, agency interviewees shared a range of factors that they believe contribute:

Societal issues

Agency interviewees frequently referenced several societal issues that impact their transit systems and that they believe may contribute to assaults: homelessness, substance misuse, and mental health crises. For example, customer assaults may be more likely to occur when customers are intoxicated, involved in conflicts related to drug use or transactions, or experiencing certain mental health symptoms like delusions. Many of the mitigations that agencies discussed aim to reduce behaviors related to these challenges, including loitering, trespassing, and substance use.

Fare evasion

Agencies often mentioned concerns related to people who do not pay fares (and often, whose primary use of the system is not for transportation purposes). They expressed that there is an overlap between this and other criminal behaviors.

Escalation of minor conflicts and unprovoked assaults

Interviewees indicated that many assaults begin as minor conflicts (e.g., verbal disagreements, personal space violations, or “looking at someone wrong”) which then escalate. Multiple agencies noted that they have seen assaults that are seemingly unprovoked. Interviewees sometimes linked these assaults to additional factors like substance misuse or mental health crises.

Biases

Overall, most agency interviewees reported that bias-related incidents were infrequent and did not make up a large portion of overall customer assaults.⁵ Several interviewees expressed that these incidents occurred frequently enough to be concerning, but that they were not specific to transit and are reflective of national issues.

⁵ Note that transit agencies may only track bias as a contributing factor if the bias is explicitly stated in some way and is the primary motivation for the assault (i.e., the incident is classified as a hate crime). There may be incidents where there is some verbal indication of bias, but the agency does not track it as such because bias is not the primary motivation. There are likely also incidents that are influenced by unspoken or unconscious biases that cannot be easily measured.

Interviewees specifically named the following types of bias-motivated incidents:

- violence against the Asian American and Pacific Islander community;
- assaults related to gender identity or sexual orientation; and
- assaults motivated by antisemitism.

Additionally, a few interviewees noted generally that bias crimes can occur based on one's race, religion, or sexual orientation, but did not identify specific types of bias that they saw as issues in their transit system.

Ridership and crowds

Agency interviewees described several ways that ridership numbers may influence customer assault. Some interviewees noted that busy areas can act as a deterrent to unwanted behavior due to the presence of witnesses; however, interviewees also noted that busier areas involve more interaction between customers that can lead to conflict.

Local laws and enforcement policies

Several interviewees, including members of transit and local police, expressed that they see assaults initiated by repeat offenders and believe this is due to a lack of prosecution. Additionally, some also cited decriminalization or reclassification of certain offenses (e.g., substance use) as a contributing factor.

Other contributing factors

Interviewees also mentioned other factors that they believe influence assault rates, including the following: differences in operator location between rail and bus; COVID-related conflicts during the pandemic (e.g., disputes over mask policies); weather (e.g., heat); and prevalence of weapons (e.g., knives and guns).

Mitigations

The research team asked interviewees to discuss the mitigations their agencies have used to address customer assault, including any information they could share about the effectiveness of the mitigations and any challenges associated with the mitigations. The research team did not ask interviewees to prepare evidence of mitigation effectiveness in advance of interviews, so much of this information was anecdotal in nature.

Additionally, interviewees expressed that agencies often implement several mitigations concurrently, and described using mitigations that target multiple undesired behaviors, not just customer assaults. The research team noted that this may make it more difficult to assess which mitigation(s) have had an effect or how effective a mitigation has been at addressing customer assault specifically.

The mitigations summarized below represent those that were raised most often and what agencies shared about their effectiveness and associated challenges.⁶

⁶ Agencies may use mitigations that did not come up during conversation due to the semi-structured format of interviews.

Social Services and Crisis Outreach

All agencies that participated in this study discussed using some form of social services collaboration or outreach to people in crisis (e.g., due to substance misuse, mental health crises, or lack of housing). These mitigations often involved partnerships with social service agencies or other local organizations. The personnel makeup and focus areas of these programs varied by agency, with some including targeted outreach related to mental health, drug misuse or homelessness. Multiple agency interviewees discussed having teams that specifically *did not* include police or that were multi-disciplinary and included personnel beyond police officers. This helps provide the teams with desired skillsets (e.g., mental health specialization), as well as freeing up limited police officer resources for other needs.

Agency interviewees often noted that they were early in the implementation stages of these programs or in the process of conducting pilot programs; therefore, there was limited evidence for their effectiveness at the time of this study. However, a few agencies measured effectiveness by tracking the total number of individuals connected to services through these programs, and interviewees' overall perceptions of these programs were positive. Multiple interviewees noted the importance of follow-up in these initiatives, as one-time contacts or simply removing individuals from the system without connecting them with services have not been effective as they do not address the underlying problem.

Funding and lack of resources were significant challenges to implementing this mitigation: with limited staff and resources available and a high number of individuals in need of assistance, it can be difficult to connect people to ongoing support. Additionally, multiple interviewees noted that some people are "service resistant" and reject assistance from voluntary programs.

Policing and Uniformed Presence

Policing and uniformed presence were among the most discussed mitigations in transit agency interviews.⁷ Generally, interviewees described how their agencies use some balance of two approaches: (1) maintaining a consistent physical presence to act as a deterrent and (2) deploying police to conduct less-predictable "sweeps" or "surges" that focus on enforcement actions (e.g., arresting or issuing citations to individuals for drug use, trespassing, fare evasion, etc.). Many agencies described a data-driven approach to targeting where to focus police staffing, increasing presence, or targeting sweeps in areas where they see higher incident rates or where ridership is highest.

Agency interviewees shared a variety of ways that they saw the potential effectiveness of this mitigation. Several interviewees shared that their agencies received positive customer feedback and experienced fewer assaults in locations with officers or other security personnel present. Other interviewees noted that their agencies saw fewer people loitering or sleeping on vehicles or in stations because of policing surges and targeted enforcement.

Staffing was the most significant challenge in implementing this mitigation, especially during the COVID-19 pandemic: some interviewees shared that they have managed this challenge through increased use of civilian staff rather than police officers (e.g., "fare ambassadors" and other

⁷ Many interviewees were transit police force and therefore may have biases regarding this mitigation.

unarmed staff). Agencies also noted that they sometimes saw unwanted behavior “pushed to other areas” when security presence and enforcement were targeted in a specific location.

Surveillance Cameras

Many agency representatives reported the use of surveillance cameras in stations, on vehicles, and in other areas (e.g., parking lots), and expressed that this can be particularly useful for maintaining awareness of what is happening on the system and responding to incidents. Some agencies monitor cameras in real-time and deploy police as needed, while others use cameras primarily for investigation and prosecution. Some agencies described installing monitors at certain locations so that customers can see that they are on video.

Agencies expressed varying perspectives on the effectiveness of cameras as a deterrent, noting that many people “don’t think twice” about the presence of cameras; however, interviewees consistently spoke positively regarding the role of cameras in investigation and prosecution.

Challenges regarding cameras included cost of implementation and secure installation, risk of tampering, and the staffing required to monitor video feeds in real time.

Crime Prevention through Environmental Design (CPTED)

CPTED was another widely used mitigation raised in these interviews. Transit agency interviewees emphasized three CPTED mitigations in particular—access control, lighting, and music—with the greatest emphasis on access control in the form of fencing, hardening fare gates, or closing off certain areas.

Interviewees shared that access control measures like fencing and hardening fare gates produced positive effects on loitering and fare evasion where they were implemented. They also shared positive impressions about the effectiveness of music and lighting on loitering and other crime.

Some of the largest challenges that interviewees shared related to CPTED were those involving locations where access control was difficult, such as bus stops, open rail systems, or facilities with many access points. Interviewees noted that people sometimes broke into fenced areas or tampered with speaker systems, or they observed unwanted behaviors move to other areas of the system where CPTED mitigations were not implemented.

Discussion

In addition to the findings shared in the previous section, the research team identified several broader considerations related to understanding and reducing customer assaults based on this study:

1. **Support for social services partnerships and crisis outreach may help address societal factors related to customer assault.** Agencies acknowledged the value of social services partnerships and being able to work with organizations that specialize in issues such as substance use, homelessness, and mental health. These mitigations are particularly promising as they have the potential to help people in crisis broadly, in addition to reducing the likelihood that a subset of those individuals will commit an assault. Federal and local governments may wish to consider how they can support transit agencies and their communities in establishing these partnerships and finding appropriate funding mechanisms to operate outreach efforts.
2. **Further research may provide additional insight into factors that contribute to customer assault.** Many mitigations focus on addressing specific factors that agencies believe contribute to customer assault, such as fare evasion and the presence of people experiencing homelessness in the transit system. However, the exact relationship between some factors and customer assault may not be fully understood. For example, some “contributing factors” may not directly *cause* or contribute to assaults; they may be correlated with other factors that have a more direct causal relationship. Further research may help clarify the relationship between such factors and transit assault and support transit agencies in prioritizing mitigations.
3. **Transit agencies may benefit from further support in researching and evaluating customer assault mitigations.** Though agencies have some existing approaches to monitoring mitigation effectiveness, they may benefit from additional guidance or establishing best practices regarding how to evaluate these customer assault mitigations (for example, in identifying which metrics to use to measure effectiveness). Additionally, some mitigations may warrant more targeted experimental research (e.g., pilot studies with comparison to a control group) to establish their effectiveness. Individual agencies may not have the resources to perform such studies; however, partnerships between transit agencies and research organizations may support thorough evaluations and experimental research that can benefit the industry as a whole.
4. **The effectiveness of any mitigation depends on how it is designed and implemented, and its effectiveness may be context specific.** It is difficult to make general claims about what mitigations are effective because each mitigation can be designed or implemented in a variety of ways.⁸ For example “crisis outreach” could take many forms, involving different personnel, different focus areas, and different capabilities or services. When discussing the effectiveness of a given mitigation, it is important to fully understand these kinds of details as they can have a significant impact on the mitigation’s effectiveness. Additionally, the context in which a mitigation is implemented

⁸ For this reason, this technical report does not attempt to provide specific, concrete information about effectiveness when discussing broad categories of mitigation.

can influence its effectiveness—a mitigation may be effective in one transit system, but less effective in another due to differing characteristics of the two systems.

5. **Information sharing may help agencies understand, select, and implement effective mitigations.** Several transit agency interviewees expressed that they look to other agencies to identify good practices for managing security on their systems, as well as practices for managing societal challenges that impact transit. Similarly, agencies often proactively share information regarding effective mitigations so that other agencies can benefit from what they have learned. When sharing this information, it is important to include sufficient detail about how mitigations were designed and implemented and the context in which they were effective. Continuing to share information can help agencies understand which mitigations are likely to be effective for their transit system based on what has been effective for agencies with similar characteristics or those experiencing similar challenges.

The research team believes that these considerations, along with the findings summarized in previous sections, can support FTA and the transit industry in making informed decisions around transit assault prevention and improving safety for transit customers.

Acronyms

CPTED	Crime Prevention through Environmental Design
NTD	National Transit Database
UPT	Unlinked Passenger Trips

Report Summary

FTA Report Title – Transit Agency Perspectives on Customer Assault: Summary Report

Background – In recent years, assaults on both operators and customers in the transit environment have become a significant problem, though most efforts to date have focused on operator assaults. More research is needed to understand customer assaults, including what contributes to these assaults and what can be done to prevent them. To address this need, FTA directed the U.S. Department of Transportation Volpe Center (Volpe) to complete exploratory research in support of transit customer assault prevention.

Objectives – The objectives of this work were to gain a better overall understanding of customer assault in the transit environment through a series of interviews with representatives from nine transit agencies. Interview topics included: (1) the type and location of assaults (2) data collection related to customer assault, (3) potential contributing factors, and (4) promising mitigations. The outputs of this work included a comprehensive report for FTA's internal use, as well as a technical report summarizing high-level findings for the transit industry.

Findings and Conclusions – This report summarizes findings related to assault type and frequency, data collection, factors that may contribute to customer assaults, and mitigations; it also discusses several considerations related to understanding and reducing customer assaults.

Transit agency representatives described a range of customer assault types that occur on their systems. They shared factors they believe contribute to these assaults, such as societal issues (e.g., homelessness, substance misuse, and mental health crises), fare evasion, escalation of minor conflicts and unprovoked assaults, ridership, and crowds, differences in operator location between rail and bus, COVID-related conflicts during the pandemic, as well as local laws and policies (e.g., decriminalization or lack of prosecution).

Agency interviewees discussed mitigations that they believe to be effective, including social services partnerships and crisis outreach, policing and uniformed presence, surveillance cameras, and crime prevention through environmental design (CPTED).

The research team concluded with the following considerations:

- Support for social services partnerships and crisis outreach may help address societal factors related to customer assault.
- Further research may provide additional insight into factors that contribute to customer assault.
- Transit agencies may benefit from further support in researching and evaluating customer assault mitigations.
- The effectiveness of any mitigation depends on how it is designed and implemented, and its effectiveness may be context specific.
- Information sharing may help agencies understand, select, and implement effective mitigations.

Benefits – This research will support FTA and the transit industry in making informed decisions around transit assault prevention with the overall goal of improving safety for transit customers.

Project Information – include the following at the end of the summary:

Dr. Gina Melnik of the U.S. DOT Volpe Center conducted this research project. For more information, contact FTA Project Manager Frank Hackett at (202) 366-7508, Frank.Hackett@dot.gov. All research reports can be found at <https://www.transit.dot.gov/about/research-innovation>.