

# Learning about Street Harassment on Transit: A Survey Instrument for Transit Agencies

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REPORT 2301

# LEARNING ABOUT STREET HARASSMENT ON TRANSIT: A SURVEY INSTRUMENT FOR TRANSIT AGENCIES

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The responsibility for the content remains exclusively with the authors.

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## I. INTRODUCTION

This study was conducted in accordance with California Senate Bill (SB) 1161.<sup>1</sup> This 2022 legislation mandated that the Mineta Transportation Institute develop and make publicly available “a survey for the purpose of promoting consistency in the collection of survey data to inform efforts to improve the safety of riders and reduce street harassment on public transit.” In other words, the research objective was to develop a reliable, easy-to-use survey instrument that transit operators can use to collect information from their passengers about the extent, location, and characteristics of street harassment on their systems. Although the legislation is focused on large California transit agencies, the study is equally relevant to smaller transit agencies and those outside the state.

The legislation defines street harassment as “words, gestures, or actions directed at a specific person in a public place...that the person experiences as intimidating, alarming, terrorizing, or threatening to their safety.” These harassing actions may target the victim on account of personal characteristics such as “sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation.”

Transit passenger surveys are a well-established tool that agencies use to improve their service. For decades, the most common survey strategy has been to approach passengers while they are using the transit system and request that they complete a short paper survey. Approaching them on the system ensures that the survey is conducted among current riders. The specific questions asked on passenger surveys vary, but agencies commonly ask questions about demographic characteristics, details of the trip the passenger is taking (e.g., origin and destination), frequency of transit usage, fare payment method, and/or the respondent’s satisfaction with the agency’s services. General questions about safety are sometimes included, though few surveys go into great depth or even fewer ask directly about harassment. Transit agencies make use of the data in many ways, including to improve their planning, marketing, and outreach processes. Another common purpose is to identify passenger concerns, so that the agency can better prioritize its service improvements to meet passenger preferences. In addition, the Federal Transit Administration mandates that the larger transit agencies conduct passenger surveys at least every five years to assess whether the agency is fulfilling the requirements of the Civil Rights Act of 1964.<sup>2</sup>

### 1.1 THE PROBLEM OF STREET HARASSMENT

Street harassment has been a persistent phenomenon on public transportation, albeit one that goes largely underreported.<sup>3</sup> The wide range of harassing behaviors can be

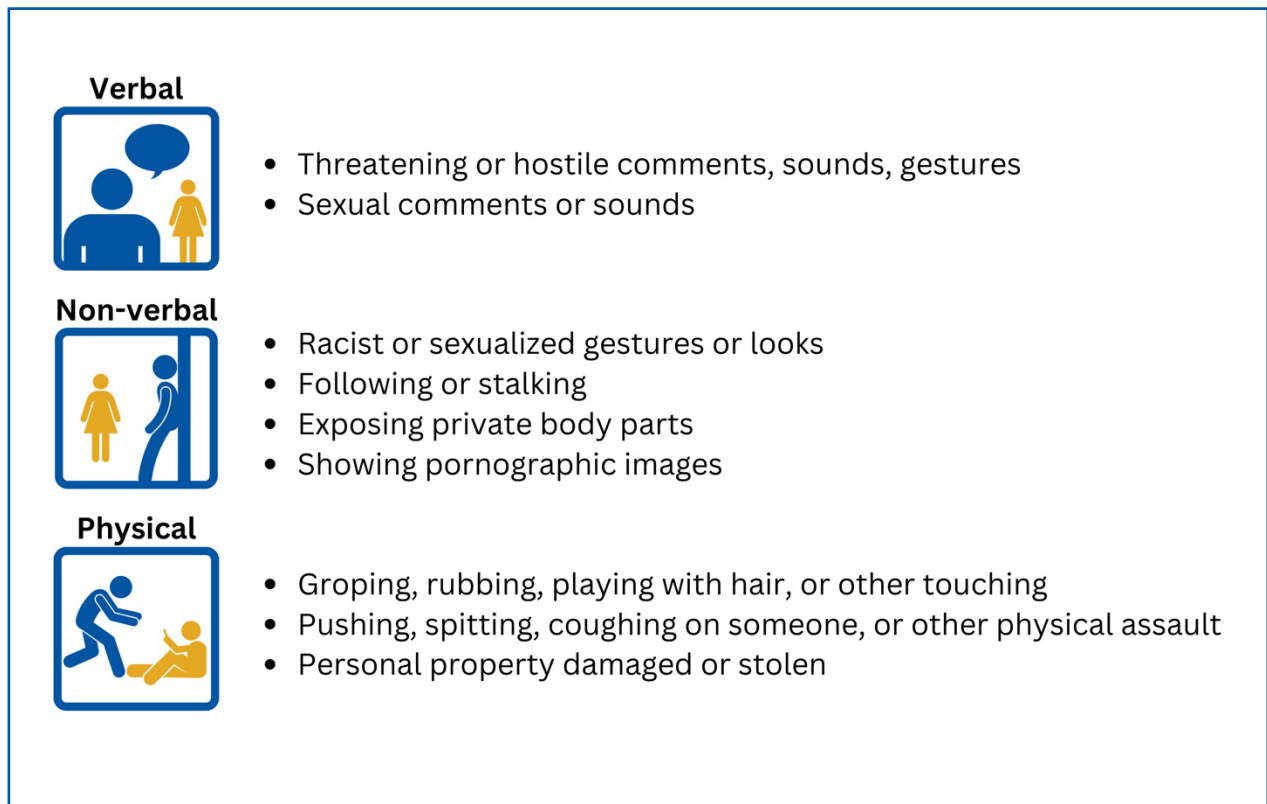
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1 “Transit Operators: Street Harassment Plans,” Senate Bill 1161, § 318 (California 2021-2022), [https://leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=202120220SB1161](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB1161).

2 U.S. Department of Transportation, Federal Transit Administration, “Title VI Requirements and Guidelines for Federal Transit Administration Recipients,” Circular FTA C 4702.1B (U.S. Department of Transportation, Federal Transit Administration, Washington, DC, 2012).

3 Hao Ding, Anastasia Loukaitou-Sideris, and Asha Weinstein Agrawal, “Sexual Harassment and Assault in Transit Environments: A Review of the English-Language Literature,” *Journal of Planning Literature* 35, no. 3 (2020): 267-280, <https://doi.org/10.1177/0885412220911129>.

conceptually categorized as verbal, non-verbal, and physical (Figure 1). For example, passengers report sexualized comments such as being called “slut,” observations about their body, and being asked to have sex.<sup>4</sup> Verbal harassment can also target other characteristics, including perceived race, ethnicity, nationality, religion, gender, or sexual identity. Non-verbal harassing behaviors include harassing looks and gestures (e.g., kissing noises, leering, making monkey arms), watching pornography or masturbating, and stalking. Finally, physical harassment includes behaviors such as touching someone’s hair, groping or rubbing against their body, spitting, shoving, stealing personal possessions, and crimes of assault and rape.



**Figure 1. Types of Street Harassment**

Source: Design by Minvhy Tran, adapted from the RedDot Foundation SafeCity initiative and Vania Ceccato, “Sexual Violence in Public Transportation,” *International Encyclopedia of Transportation* (2019).

Street harassment (sexual and non-sexual in nature) takes place in public spaces and transit environments including on transit vehicles, at transit stops or stations, and on the way to and from these stops and stations. Such harassment stands as one of the most pervasive forms of gender-based violence. The problem is not new, as illustrated by reports of sexual harassment against women riding railroads, street cars, and subways as early as the second half of the 1800s.<sup>5</sup> An 1869 *New York Times* article described women defending themselves with hatpins against “mashers,” men who groped or verbally harassed them.<sup>6</sup>

4 Alliance for Girls, *Together We Rise: The Lived Experiences of Girls of Color in Oakland, San Francisco, and San Jose* (2019), p. 30.

5 Peter C. Baldwin, “Chapter 8: Mashers, Owl Cars, and Night Hawks,” in *In the Watches of the Night: Life in the Nocturnal City, 1820-1930* (University of Chicago Press, 2012), pp. 138-154.

6 Natalie Zarrelli, “Early 1900s Women Had an Ingenious Method for Fending Off Groper” on History.com (A&E Television Networks, updated June 1, 2023), <https://www.history.com/news/how-women->

In 1900, Theodore Roosevelt, then Governor of New York, was reported as saying that “no man, however courageous he may be, likes to face a resolute woman with a hatpin in her hand.”<sup>7</sup> The phenomenon of women defending themselves in public spaces with hatpins even inspired a ballad titled “Never Go Walking Without Your Hat Pin.”<sup>8</sup>



**Figure 2. “Stuck Hatpin into a Masher”**

Source: *New York World*, May 27, 1908, reprinted in [https://racingnelliebly.com/strange\\_times/dangerous-victorian-hatpins/](https://racingnelliebly.com/strange_times/dangerous-victorian-hatpins/).

Unfortunately, street harassment in transit environments has not subsided in contemporary times. At the onset of the #MeToo movement in 2017, a *Washington Post* article noted that public transportation represents a common setting for “demeaning and threatening encounters that fit squarely within the bounds of the #MeToo conversation.”<sup>9</sup> And of course, harassment in transit environments is not unique to the U.S.

defended-themselves-against-street-groppers-100-years-ago.

7 Elizabeth Greiwe, “When Men Feared ‘A Resolute Woman with a Hatpin in her Hand,’” *Chicago Tribune* (Chicago), July 7, 2017. <https://www.chicagotribune.com/opinion/commentary/ct-women-self-defense-hat-pins-perspec-20170706.htmlstory.html>.

8 The song was reportedly written in the 1920s. In the 1950s, it was popularized by singer Elsa Lanchester (<https://www.youtube.com/watch?v=IWdecqH9Irc>).

9 Martine Powers, “Why the #MeToo Movement Is a Public Transportation Issue,” *Washington Post* (October 20, 2017), <https://www.washingtonpost.com/news/dr-gridlock/wp/2017/10/20/why-the-metoo-movement-is-a-public-transportation-issue/>.

Recent studies from different parts of the world have found that sexual harassment is an omnipresence counterpart of the transit experience in multiple global cities, though its extent varies from one city to the other.<sup>10</sup>

Street harassment motivated by any factor—whether sexual or motivated by factors such as homophobia, racism, antisemitism, or Islamophobia<sup>11</sup>—creates series barriers to transit ridership for certain groups. Street harassment creates feelings of fear and lack of safety, leading many riders to decrease their transit use and limit their mobility options. Studies find that the fear of street harassment leads some riders to avoid using transit, only use it under specific circumstances (e.g., during daytime or only if accompanied), and/or experience feelings of fear and stress while in transit environments.<sup>12</sup> These fears can be based on direct experiences, seeing others harassed, or hearing about other people’s experiences.

Although male riders suffer from harassment, the passengers most victimized by sexualized street harassment on transit are women and girls (especially people of color).<sup>13</sup> There is also evidence that transgender and gender nonbinary individuals experience disproportionate levels of sexual harassment in transit.<sup>14</sup> Further, transit agency staff, particularly drivers, are harassed as well.

Some large transit agencies such as the Bay Area Rapid Transit District (BART), Washington Metropolitan Area Transit (WMATA), and Los Angeles County Metropolitan Transportation Authority (LA Metro) have undertaken campaigns to increase awareness of street harassment, declare harassment unacceptable, and inform people of how to safely intervene and/or report events. Such anti-harassment campaigns can create a culture of care and bystander intervention, decrease fear, and increase feelings of safety among their riders. Other agency strategies to counter harassment include using apps to better inform riders of their rights and enable them to report problems in real time; design interventions, such as good lighting at station platforms; and policies such as “on-demand stops” at night.<sup>15</sup> However, before deciding on a menu of anti-harassment strategies, transit agencies need to have an accurate understanding of how and where harassment takes place on their systems.

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10 Vania Ceccato and Anastasia Loukaitou-Sideris, eds., *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (Routledge, 2020).

11 Biana Fileborn and Tully O’Neill, “From ‘Ghettoization’ to a Field of Its Own: A Comprehensive Review of Street Harassment Research,” *Trauma, Violence, & Abuse* 24, no. 1 (2023): 125-138. <https://doi.org/10.1177/15248380211021608>.

12 Hao Ding, Anastasia Loukaitou-Sideris, and Asha Weinstein Agrawal, “Sexual Harassment and Assault in Transit Environments: A Review of the English-Language Literature,” *Journal of Planning Literature* 35, no. 3 (2020): 267-280, <https://doi.org/10.1177/0885412220911129>.

13 Vania Ceccato and Anastasia Loukaitou-Sideris, eds., *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (Routledge, 2020); A. Gekoski, et al, “The Prevalence and Nature of Sexual Harassment and Assault against Women and Girls on Public Transport: An International Review,” *Journal of Criminological Research, Policy and Practice* 3 (2017): 3–16.

14 Amy Lubitow, et al, “Transmobilities: Mobility, Harassment, and Violence Experienced by Transgender and Gender Nonconforming Public Transit Riders in Portland, Oregon,” *Gender, Place & Culture* 24, no. 10 (2017): 1398-1418, <https://doi.org/10.1080/0966369X.2017.1382451>; Dashka Slater, *The 57 Bus: A True Story of Two Teenagers and the Crime That Changed Their Lives* (Farrar, Straus and Giroux, 2018).

15 Vania Ceccato and Anastasia Loukaitou-Sideris, eds., *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (Routledge, 2020).

## 1.2 THE NEED FOR TRANSIT AGENCY ACTION

This study makes a meaningful contribution to transportation practice by transit agencies with a practical tool to understand the extent of street harassment on their systems and adopt responses to it. Because of the persistent effects of street harassment on mobility, many riders are not receiving fair and equal access to the benefits of the public transit system. Riders who are victims of harassment may be restricting their mobility, only taking trips during the day or relying on more expensive modes of transportation like ride-hailing services to complete their trips safely and without fear. Many victims of street harassment rely on the public transit system for mobility and lack the financial resources to overcome their safety concerns by using other modes of transportation, thus creating an acute problem for them to reach needed destinations including jobs, school, health care, and shopping.

Gathering evidence about the extent and nature of street harassment on public transit is a priority for the state and local governments. At the state level, this commitment is evidenced by the passage of the bill that directed this study (California Senate Bill 1161),<sup>16</sup> and California Senate Bill 434 (2023),<sup>17</sup> which directs large transit agencies to survey their riders about harassment. At the local level, the Los Angeles City Council unanimously approved an anti-harassment motion and report, Council File 21-0263, that requires transit operators contracting with the city to collect street harassment data.<sup>18</sup> Along with LA Metro, BART and the San Francisco Metropolitan Transportation Agency have also begun to collect survey data about street harassment as part of larger initiatives to combat the problem.

However, even though transit agencies in California are increasingly interested in better understanding and addressing street and sexual harassment in transit environments, few have a clear picture of the extent of transit harassment on their systems. Street harassment in general, and on public transit systems in particular, is rarely reported through any official channels. Research on reporting of sexual harassment, for example, finds that the extent of the problem varies by study and region, but typically 80% or more of sexual harassment incidents go unreported.<sup>19</sup> This evidence supports the importance of transit agencies surveying passengers about harassment rather than depending on riders' formal reports of harassment to inform agency decisions.

Without credible data on the extent and nature of harassment on their systems, including findings disaggregated by gender and other personal characteristics, transit agencies have little capacity to address street harassment. The survey designed for this project

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16 "Transit Operators: Street Harassment Plans," Senate Bill 1161, § 318 (California 2021-2022).

17 "Transit Operators: Street Harassment Survey," Senate Bill 434, § 396 (California 2023-2024).

18 Jacob Herson, "Transit Rider Harassment: SB 1161 (Min) Seeks to Address an Endemic Problem Faced by Women and Vulnerable Communities" (California Transit Association, March 2022); City of Los Angeles City Council, *Street Harassment/Transit Systems/Metropolitan Transit Authority/It's Off Limits Campaign/Public Safety Advisory Committee* (Transportation Committee, Los Angeles, CA, Council File 21-0263 § (2022)); and Transit Operators: Street Harassment Plans, Senate Bill 1161, § 318 (California 2021-2022), [https://leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=202120220SB1161](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB1161).

19 Carolyn Whitzman, et al, "Incidence and Reporting: Making the Invisible Matter," in *Transit Crime and Sexual Violence in Cities*, 237-252 (Routledge, 2020).

helps to fill that gap. Ideally agencies will administer this survey regularly (every one or two years) to identify the harassment experiences of their riders and track how these change over time in response to interventions and policies.

### **1.3 OVERVIEW OF STUDY METHODS**

We designed the survey tool following a five-step process:

1. Review of the scholarly and professional literature about harassment and assault on public transit
2. Review of transit passenger surveys to explore what questions have been asked about harassment in particular and safety more generally
3. Development of a draft survey instrument, a process that included wide consultation with both transit riders and experts in street harassment, transit passenger survey design, and transit communications
4. Pilot testing the survey with transit passengers on two different systems
5. Revisions to the survey questionnaire made in response to lessons learned from the pilot

### **1.4 OVERVIEW OF REPORT CONTENTS**

The remaining content of the report is organized as follows. Chapter 2 describes in detail the multi-step process used to develop the final survey questionnaire. Chapter 3 presents the final survey language and discusses the reasons behind the specific text chosen. Chapter 4 concludes with recommendations for policymakers and advocates.

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## II. SURVEY DESIGN PROCESS

We developed a stand-alone survey questionnaire focused on issues of street harassment to gather all information required in SB-1161: the nature, timing, and circumstances in which passengers have experienced harassment on the transit system where the survey is conducted (if at all), plus a wide range of demographic characteristics.<sup>20</sup>

The survey was designed so that respondents could complete it themselves either on paper, while on the transit vehicle, or online. Key goals that guided the work were to develop a survey that would be inviting to passengers to complete, to use language that people from diverse backgrounds would all understand in the same way, and to frame questions in ways that would minimize any potential distress to passengers completing the question. Chapter 3 discusses in more detail the specific goals that guided the survey development, while this chapter focuses on the specific methods we used.

This chapter presents the details of the five-step process used to design the survey questionnaire:

1. Review of the scholarly and professional literature about harassment and assault on public transit and more generally in public spaces
2. Review of transit passenger survey questions about harassment in particular and safety more generally
3. Development of a draft survey, a process that included wide consultation with both transit riders and experts in street harassment, transit passenger survey design, and transit communications
4. Pilot testing the questionnaire by inviting passengers to take the survey
5. Revisions to the survey questionnaire made in response to lessons learned from the pilot

### 2.1. LITERATURE REVIEW

We reviewed the literature about harassment and assault on public transit and public spaces, looking at both scholarly and professional works. These materials helped us to identify key themes to cover in the questionnaire, as well as models for appropriate questionnaire language.

The starting point for the literature review was the comprehensive public transit sexual harassment literature review published in 2020 by Ding, et al.<sup>21</sup> We built upon that base by searching for English-language research published since that year and also broadened

20 "Transit Operators: Street Harassment Plans," Senate Bill 1161, § 318 (California 2021-2022), [https://leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=202120220SB1161](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB1161).

21 Hao Ding, Anastasia Loukaitou-Sideris, and Asha Weinstein Agrawal, "Sexual Harassment and Assault in Transit Environments: A Review of the English-Language Literature," *Journal of Planning Literature* 35, no. 3 (2020): 267-280, <https://doi.org/10.1177/0885412220911129>.



the search scope to explore street harassment in public spaces more broadly. (The core of the literature reviewed is specific to sexual harassment on transit.) The search process included tracing publications citing the Ding et. al article and/or articles cited by Ding et al.,<sup>22</sup> review of the most recent articles and published literature reviews on street harassment, and keyword searches of street harassment and public transit from 2018 onward using ScienceDirect and Google Scholar. From the resulting 400+ article abstracts, we read 31 articles that appeared possibly relevant. Ten of these provided additional or new information. In sum, the review revealed sociodemographic and environmental factors leading to street harassment, ongoing underreporting, and the impacts of street harassment on public transit riders.

One key finding from the literature review was the serious negative impact that harassment has on both transit passengers and the agencies that serve them. Passengers who experience harassment report increased feelings of fear and anxiety. Some respond by ceasing to take transit trips completely, and others by curtailing their use of transit systems to only certain routes and times of day that feel safe.<sup>23</sup>

A second key finding was that most people do not officially report harassment, so the extent of the problem will be seriously underestimated without surveys or other research tools that directly ask passengers about harassment experiences.<sup>24</sup>

Third, the studies underscore the importance of very careful wording to ensure that passengers surveyed understand what types of behaviors constitute street harassment. Prior surveys have found that many passengers will respond “no” when asked if they have been “harassed,” yet they will say that they have experienced behaviors such as catcalling or leering if asked specifically about those behaviors.<sup>25</sup> This finding indicates the need for surveys that include questions about specific behaviors rather than using general terms like street or sexual harassment.

Fourth, the literature confirms that people with the sociodemographic characteristics called out in SB 1161 are indeed more vulnerable to street harassment. Sex/gender, sexual orientation, race/color/national origin/ethnicity, religion, age, physical disability/medical condition/mental disability, and income/class can all make a passenger a target of harassment.<sup>26</sup>

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22 Hao Ding, Anastasia Loukaitou-Sideris, and Asha Weinstein Agrawal, “Sexual Harassment and Assault in Transit Environments: A Review of the English-Language Literature,” *Journal of Planning Literature* 35, no. 3 (2020): 267-280, <https://doi.org/10.1177/0885412220911129>.

23 Ibid; Los Angeles Metro, Understanding How Women Travel (August 30, 2019); Kounkuey Design Initiative, *Changing Lanes: A Gender Equity Transportation Study* (June 2021, Los Angeles Department of Transportation), <https://ladot.lacity.org/sites/default/files/documents/changing-lanes-report.pdf>.

24 Carolyn Whitzman, et al, “Incidence and Reporting: Making the Invisible Matter,” in *Transit Crime and Sexual Violence in Cities*, 237-252 (Routledge, 2020).

25 Hao Ding, Anastasia Loukaitou-Sideris, and Asha Weinstein Agrawal, “Sexual Harassment and Assault in Transit Environments: A Review of the English-Language Literature,” *Journal of Planning Literature* 35, no. 3 (2020): 267-280, <https://doi.org/10.1177/0885412220911129>.

26 Vania Ceccato and Anastasia Loukaitou-Sideris, eds, *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (Routledge, 2020).

People with more than one of these characteristics are often particularly vulnerable. For example, women or nonbinary passengers of color may be most at risk of experiencing harassment and assault while using public transit systems.<sup>27</sup>

Finally, the literature confirms that other topics that SB 1161 mandates be covered in the survey questions are indeed associated with the likelihood of harassment. Transit frequency is one additional factor found to be correlated with street harassment.<sup>28</sup> Time of day and traveling alone are two factors that may be associated with whether and to what extent a person fears facing harassment on a transit trip.<sup>29</sup>

Additionally, the literature reveals the importance of different built environment features (e.g., bright lighting and clear sightlines) to assuage fear of harassment and possibly discourage potential harassers.<sup>30</sup> Examining the importance of the built environment is not part of the SB1161 mandate, and we therefore do not discuss it in this literature review. Nevertheless, built environment elements could be included in future surveys seeking to identify passenger perceptions about proposed agency interventions regarding safety or harassment.

## 2.2. TRANSIT PASSENGER SURVEY REVIEW

We also reviewed transit passenger surveys to explore what types of questions they include about harassment in particular or safety more generally. The primary goal of this review was to identify possible question language for our own survey and secondarily to get a general sense of how commonly transit operators survey their passengers about harassment in particular or safety more generally.

To identify relevant passenger surveys, we searched Google using the keyword “survey” together with the following keywords and phrases: transit rider, passenger, transit, public transportation, onboard, the names of California transit operators with boardings of more than two million annually,<sup>31</sup> and the names of the 50 largest transit operators nationally.<sup>32</sup> Once we identified a specific survey, we obtained the questionnaire and results through additional web-searching or reaching out to transit operator staff. The search emphasized surveys completed from 2015 onwards, though we did find a few as old as 2012. Because the goal of the passenger survey review was to get only a general sense of if and how the surveys addressed harassment and safety, we stopped searching for additional surveys after we identified 102 surveys and confirmed that additional survey review was not adding more information relevant to the work.

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27 Amy Lubitow, et al, “Transmobilities: Mobility, Harassment, and Violence Experienced by Transgender and Gender Nonconforming Public Transit Riders in Portland, Oregon,” *Gender, Place & Culture* 24, no. 10 (2017): 1398-1418, <https://doi.org/10.1080/0966369X.2017.1382451>.

28 Anastasia Loukaitou-Sideris, et al., “Documenting #MeToo in Public Transportation: Sexual Harassment Experiences of University Students in Los Angeles,” *Journal of Planning Education and Research* (2020), <https://doi.org/10.1177/0739456X20960778>.

29 Vania Ceccato and Anastasia Loukaitou-Sideris, eds, *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (Routledge, 2020).

30 Ibid.

31 American Public Transportation Association, “California Transit Links” (2023), <https://www.apta.com/research-technical-resources/public-transportation-links/california/>.

32 U.S. Department of Transportation, Federal Transit Administration, Office of Budget and Policy, *Transit Profiles: 2020 Top 50 Reporters* (September 2021), [https://www.transit.dot.gov/sites/fta.dot.gov/files/2021-11/2020%20Top%2050%20Profiles%20Report\\_0.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/2021-11/2020%20Top%2050%20Profiles%20Report_0.pdf).

The 103 surveys reviewed came from 53 agencies, including 25 of the largest agencies nationally and 14 California agencies. The California surveys identified came from the Alameda-Contra Costa Transit District, Bay Area Rapid Transit, Caltrain, Contra-Costa Transportation Authority, County Connection, Fresno Area Express, Gold Coast Transit District, Los Angeles Metropolitan Transportation Agency, SamTrans, San Francisco Bay Ferry, San Francisco Municipal Transportation Agency, Santa Clara Valley Transportation Authority, Santa Cruz Metro, and Solano Transit Authority. See Appendix A for the complete list of surveys reviewed.

For each survey, we reviewed the written documentation we were able to find. This often included the complete questionnaire and topline results, but sometimes only a summary of findings in a report or presentation. From these materials, we compiled a data set of every question asked that related to harassment or safety. Our analysis process was designed to identify general trends, rather than specific percentages of surveys or agencies, because the sample of surveys was in no way a complete representation of the surveys that agencies have conducted over the past decade. For this reason, we do not describe our findings with specific percentages.

Only six of the surveys reviewed included questions directly asking about harassment. One survey from Minnesota's Metro Transit,<sup>33</sup> one from the San Francisco Municipal Transportation Authority (SFMTA),<sup>34</sup> and two from the Los Angeles Metropolitan Transportation District (LA Metro)<sup>35</sup> directly asked passengers if they had experienced harassment while using transit. The LA Metro and SFMTA surveys went into more depth, asking whether respondents had reported if they had experienced specific types of harassment. In addition, Seattle's King County<sup>36</sup> and Portland's TriMet<sup>37</sup> surveys did not ask directly about harassment, but included open-ended questions about safety that elicited some responses about harassment. For example, the King County survey asked "Specifically, what is it about other people's behavior that makes you feel unsafe?"

More than half of the surveys asked questions about safety more generally, with all but a few designed to elicit views on safety from crime or threatening personal behaviors. (A few surveys asked passengers if they felt the bus operators drove safely). Most safety questions asked respondents to rate how safe they felt riding transit. Many of these surveys asked about safety at different locations within the transit system, such as safety while waiting at stops or stations vs. onboard the transit vehicle. Another approach used in a few surveys was to ask respondents if they felt the agency did an adequate job of creating a safe environment (e.g., was there an adequate presence of police officers?). As noted above,

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33 MetroTransit, "Customer Experience and Satisfaction: Lessons from the 2018 Rider Survey" [presented by Eric Lind] (April 22, 2019). [https://metro council.org/Council-Meetings/Committees/Transportation-Committee/2019/April-22,-2019/Info-3-\\_-Customer-Survey.aspx](https://metro council.org/Council-Meetings/Committees/Transportation-Committee/2019/April-22,-2019/Info-3-_-Customer-Survey.aspx).

34 Green Cowan and Pearl Liu, "Rethinking Transit Safety: Understanding and Addressing Gender-Based Harassment and Enhancing Safety on San Francisco's Muni System" (Capstone report, UCLA Department of Urban Planning, June 15, 2023).

35 Laurie Lombardi, "FY 19 Fall Customer Satisfaction On-Board Survey Results" [memo to Board of Directors] (April 17, 2019). [https://boardarchives.metro.net/BoardBox/2019/190417\\_FY19\\_Fall\\_Customer\\_Satisfaction\\_OnBoard\\_Survey\\_Results.pdf](https://boardarchives.metro.net/BoardBox/2019/190417_FY19_Fall_Customer_Satisfaction_OnBoard_Survey_Results.pdf).

36 King County Metro, *2012 Rider Survey* [conducted by ORC International] (May 2013).

37 TriMet, "TriMet Attitude and Awareness Survey: Annotated Questionnaire: Ridership" [prepared by DHM Research] (April 2022). <https://trimet.org/research/pdf/attitude-awareness-2022.pdf>.

some agencies also included an open-ended question asking passengers what safety concerns they had. Finally, a few surveys also asked questions designed to determine whether safety concerns prevented respondents from using transit as frequently as they would have liked to.

### **2.3. DRAFT SURVEY QUESTIONNAIRE DEVELOPMENT**

Based on the findings of the literature review, we developed a draft survey instrument through an iterative process of gathering feedback and revising the survey instrument. The research team developed an initial draft, relying on their professional expertise on the subject, as well as insights gained from the literature review and passenger survey review. This draft was shared with a wide range of reviewers that included transit riders, professional experts in transit passenger surveys and communications, and advocates for safe transit. As we received and incorporated feedback, we revised the draft before sharing with additional reviewers.

#### **Feedback from Transit Riders**

Initial feedback on the draft survey came from colleagues, friends, and family of the research team who ride transit. They were recruited to ensure diversity of age, race and ethnicity, gender identity, frequency of transit use, and primary language.

In addition, we conducted one focus group. The initial research scope did not include focus groups, but the nonprofit organization Chinese for Affirmative Action (CAA) offered to support the effort by organizing a focus group with ten Chinese-speaking immigrants who used transit. The 90-minute focus group was held on the morning of March 16, 2023, at CAA's office in San Francisco, with participants that CAA recruited. The participants ranged in age from 30 to 70 years old (estimated by observation), and the gender split was seven women and three men. The participants reported that they had lived in the United States from 7 to more than 40 years. During the focus group, the Chinese-language survey was distributed to participants who took approximately 10 minutes to complete it. Next, the moderator guided a discussion in Chinese, and another staff member translated the discussion into English, while one of the study authors who attended the focus group took notes. At the end of the focus group, participants received a gift card from Chinese for Affirmative Action.

The focus group discussion focused on three questions, which elicited the following findings:

1. *Was any of the survey language unclear?* The participants agreed that overall the questionnaire was clear, and only a few raised any specific questions. One topic discussed was how to respond if they had not experienced any of the specific types of harassment listed. As part of this conversation, one participant observed that because she didn't speak English well, she would not necessarily know if comments directed to her were harassing. In addition, one person was confused about the question asking about sexual orientation.

2. *Was the survey missing key points related to harassment that transit riders experience?* When asked this question directly, respondents did not suggest any items to add. However, as revealed below, they had indeed experienced other types of harassment.
  
3. *What types of harassment had the participants experienced as transit riders?* The participants described a wide range of experiences. Two themes that elicited discussion from the widest number of participants were theft and harassment of children. Multiple participants discussed these types of incidents. With respect to theft, participants described other passengers stealing from backpacks or other personal bags, trying to grab a phone, and pickpocketing. With respect to children, participants described disturbing incidents that occurred when they were traveling with young children, such as a person verbally harassing them, someone grabbing a child's hand and pulling her out of a seat because "you are not qualified to sit here," and a person who may have been mentally disturbed making hand circles directly in front of the participant's young son. Only one participant described an incident of sexual crime; this participant described being in a BART car at the end of the line, with only one other person in the car, and the participant suspected the other passenger had been sexually assaulted. After the participant described this experience, several others implied they had seen something similar, but no specific details were shared. Other upsetting experiences described by at least one participant were flash mobs with a boombox and passengers with dogs (some riders are afraid of them). Finally, two themes that came up across multiple types of incidents were the fact that bystanders observed a harassment incident but made no attempt to help, and participants finding harassing incidents particularly confusing because they did not speak enough English to understand what was being said to them.

## Feedback from Experts

To receive feedback from experts, we established a project Advisory Board of professionals and advocates selected for their expertise in the topics of street harassment, transit passenger survey design, and/or transit communications. The members of the Advisory Board were:

- [Kimberly Burrus](#) - San Francisco Municipal Transportation Agency
- [Anyka Howard](#) - Betti Ono Foundation
- [Annie Lee](#) - Chinese for Affirmative Action
- [Meghna Khanna](#) - Los Angeles County Metropolitan Transportation Authority
- [De'Anna Miller](#) - Alliance for Girls
- [Michael Pimentel](#) - California Transit Association

- [Alicia Trost](#) - Bay Area Rapid Transit District
- [Aaron Weinstein](#) - TransitCX

Advisory Board members communicated with the project team at various points. Several offered suggestions about the survey content during a meeting with the research team right when the project began. All members were sent the questionnaire and invited to comment. Some sent written comments, while others discussed the questionnaire orally with the study authors. Some Board members also collected feedback from other members of their organization. The Alliance for Girls solicited input from members of Evaluation Studio and the Unity Council.

### **Preparation of Final Pilot Questionnaire**

After the survey language was completed in English, we had it translated by native speakers into both Chinese and Spanish. These three languages were selected because they are the ones most widely spoken in California.

The finalized pilot questionnaire in all three languages was laid out with formatting appropriate for printing on two sides of a standard letter-sized page. In addition, the questionnaire in all three languages was set up in an online survey format.

## **2.4. PILOT SURVEY ADMINISTRATION**

After thorough internal review of the survey draft and associated revisions, the firm Corey, Canapary & Gallanis (CC&G) ran pilot tests with transit passengers. CC&G has a long history of designing and administering transit passenger surveys for agencies such as the Metropolitan Transportation Commission, Caltrain, BART, SamTrans, and others. The pilot was designed and executed under the leadership of two of the report's authors, Jon Canapary and Carol Anne Carroll. The pilot objectives were to (a) test survey wording; and b) gauge general public reaction to the survey and assess whether there was reluctance to take it.

We conducted the pilot test on two large transit systems in the San Francisco Bay Area: Alameda-Contra Costa Transit (AC Transit) and the Bay Area Rapid Transit District (BART). Both agencies granted CC&G access to their systems so that the survey could be tested.

Working with these two transit systems allowed us to include highly varied riders and transit environments in the pilot. AC Transit is California's largest bus-only transit agency and provides bus service in Alameda and Contra Costa counties, with bus service to and from San Francisco as well. BART provides rail service throughout the Bay Area, with its 50 stations covering San Mateo, San Francisco, Alameda, Contra Costa, and Santa Clara counties. Both systems serve dense inner city core neighborhoods as well as suburbs with diverse populations.

The survey was administered in multiple formats. Respondents on both systems could choose to complete the survey on board, by completing a paper survey, or complete it any time using the QR Code or survey link to take the survey online. Surveys were offered in all formats in English, Spanish, and Chinese.

Surveying took place on weekdays from April 5, 2023, through April 14, 2023. CC&G scheduled the surveying so as to reach a diverse mix of riders on each system. On BART, CC&G covered trains on all major lines (the Red, Blue, Green, Orange, and Yellow lines) heading both into and out of San Francisco. On AC Transit, CC&G surveyed on board buses in Oakland, Alameda, Berkeley, San Leandro, El Cerrito, Castro Valley, Kensington, Richmond, Albany, Emeryville, San Pablo, Hayward, San Lorenzo, and Ashland. CC&G mostly surveyed on local lines, but did cover Transbay and Rapid routes.

The surveyors were all senior staff and managers of CC&G who are highly experienced in conducting passenger surveys. CC&G chose to have senior staff administer the survey because it allowed them to manage the distribution of surveys while simultaneously noting circumstances when passengers might not be willing to take the survey due to the sensitive subject matter. Experienced staff ensured that the pilot could capture the specifics of any difficulties with the survey process, such as noting reasons why people might be refusing the survey and the characteristics of these passengers.

Surveyors boarded specific AC Transit buses and a pre-assigned car on specific BART trains. Surveyors did not ask a person's age, but instead offered a survey to all passengers who appeared to be at least 18 years of age. Surveyors did not approach sleeping passengers or employees traveling on their own system (e.g., AC Transit or BART employees in uniform).

The surveyors recorded key details about people who did not agree to accept the survey. Surveyors tracked the numbers of those who could not complete a survey due to a language barrier (e.g., did not speak/understand any of the languages the questionnaire was offered in—English, Spanish, and Chinese) and, when possible, recorded the language the passenger spoke. Surveyors also tracked the numbers of those refusing to take the survey and asked for the reason for their refusal. While waiting to board their next bus, as well as at the end of their shift, surveyors made notes about survey administration and passenger understanding of questions. They were specifically looking for any discomfort or resistance to the survey based on the subject matter.

Surveyors returned all collected surveys to CC&G offices for processing, where senior staff processed, entered, and analyzed the data.

CC&G obtained a total of 329 responses, 140 from AC Transit passengers and 189 from BART passengers, thus exceeding the goal of 125 respondents from each system. To obtain these responses, CC&G surveyors approached 551 people. The detailed response rate is listed in the table below. CC&G obtained a response rate of 67% and a completion

rate of 95%. These are unusually good rates for an onboard survey.<sup>38</sup> Thus, it does not appear that respondents were hesitant to complete the survey due to the subject matter.

A diverse group of people completed the pilot survey, as shown in Table 2. Among those who completed the survey, 96% did so on board (via paper), while 4% completed the survey online. With respect to language, 8% of respondents completed the Spanish survey and 2% completed the Chinese survey. When interpreting these numbers, readers should note that the pilot survey was intended to test the questionnaire with a diverse group of riders, rather than to accurately reflect the views of riders on BART and AC Transit. A full survey would likely result in different demographic break-downs from those from the pilot.

**Table 1. Summary Statistics from the Pilot Survey Administration.**

	Total	AC Transit	BART
Questionnaires distributed	347	160	187
Total completed	329	140	189
Paper survey	315	133	182
Online	14	7	7
Did not return/complete	18	18 <sup>a</sup>	0 <sup>a</sup>
Did not take a questionnaire	204	72	132
Refused	141	47	94
Language barrier <sup>b</sup>	7	5	2
Under 18	30	17	13
Sleeping	21	0	21
Already participated	5	3	2
<i>Total eligible passengers on board</i> <i>(Sum of passengers who accepted a survey plus those who did not take a questionnaire)</i>	516	212	304

<sup>a</sup> Two respondents who completed the survey online received an AC Transit questionnaire but completed the survey for a recent BART trip.

<sup>b</sup> Language barrier is defined as a person speaking a language other than those offered (English, Spanish, and Chinese). The language barriers on AC Transit were (one each) Cambodian, Tagalog, French, Punjab, and unknown. The two language barriers on BART were Tagalog and (likely) Hindi.

<sup>38</sup> Having conducted multiple transit surveys in the past, CC&G staff notes that the industry standard is quite a bit lower than the survey response rate in this survey. Two primary reasons: using inexperienced staff and being undisciplined about survey length (e.g., surveys are too long). While there is no documented typical response rate percentage for transit surveys, CC&G's experience is that the industry standard is a 25% to 35% response rate on bus and 45% to 55% on rail.



**Table 2. Demographics of the Pilot Survey Respondents (n=329)**

Characteristic (and # of respondents who answered the question)		# of completed surveys	% of respondents
System use (327)	2 days a week or more	249	76%
	1 - 4 days a month	54	17%
	A few times a year or less	24	7%
Age (310)	18 - 34	143	46%
	35 - 64	133	43%
	65 and older	34	11%
Race/ethnicity (307)	Asian or Pacific Islander	90	29%
	White	90	29%
	Hispanic/Latino	69	22%
	Black or African American	47	15%
	American Indian or Alaska Native	11	4%
	Mixed or "Other"	9	3%
Primary language (302)	English	237	78%
	Other than English <sup>b</sup>	65	22%
Household income (251)	Under \$25,000	74	29%
	\$25,001 - \$50,000	45	18%
	\$50,001 - \$99,000	56	22%
	\$100,000+	76	30%
Have a disability that affects ability to use transit (294)		25	9%
Gender (302)	Male	154	51%
	Female	138	46%
	Nonbinary, transgender, or "other"	10	3%
Identify as LGBTQIA+ (237)	Yes	42	17%
Religion (258)	Christian <sup>c</sup>	82	32%
	Other <sup>d</sup>	25	10%
	None	151	59%

<sup>a</sup> Percentages calculated for all respondents who answered this specific question.

<sup>b</sup> The responses given were Spanish, Chinese, Tagalog, Portuguese, German, Hindi, Italian, Russian, Swedish, Tibetan, and Vietnamese.

<sup>c</sup> The responses given were 7th Day Adventists, Baptist, Catholic, Christian (unspecified), Evangelical, Jehovah's Witness, Lutheran, Protestant (unspecified), and Unificationist.

<sup>d</sup> The responses given were Buddhist, Jewish, Muslim, and general/ambiguous (e.g., "Spiritual" or "Human Kindness").

The surveyors made the following observations about how passengers responded to the survey invitation:

- Introducing the survey: Surveyors found it best to use a brief introduction such as "We are doing a passenger survey about safety on public transit" and offer the rider the survey questionnaire.
- Length: It took most passengers [from five to ten](#) minutes to complete the survey. Passengers who wrote long comments took longer. Some passengers completed the survey in as little as [three to five](#) minutes.<sup>39</sup>

<sup>39</sup> As a standard, a survey is considered "complete" if it has more than 50% of the questions completed. Thus some "complete" questionnaires may have some skipped questions. However, for this survey, respondents also had to answer the core questions about harassment experiences to be considered complete.

- Gender bias: It appeared to our surveyors that there was no gender bias in how people responded. That is, it did not appear that there was a lower share of one gender accepting and completing the questionnaire. However, this is a qualitative observation because the surveyors did not make a formal gender tally of people who refused the survey (and surveyors could not track this accurately simply by observation).
- Group interaction: Response rate on AC Transit may have been helped by the fact that at least some people on buses knew each other/encouraged other people they knew on board to complete the survey. One surveyor noticed that a group of several AC Transit riders completed the survey and called out their friends to complete it as they boarded the bus.

## **2.5. FINALIZING THE SURVEY INSTRUMENT**

To finalize the survey questionnaire, we reviewed the results of the pilot survey administration and solicited feedback from members of the project's Advisory Board. Through this process we identified a few small adjustments needed to the questionnaire. The revisions were primarily designed to make the survey easier to understand and answer, rather than to change the content of the questions. For example, we decided to reformat some questions to make the associated skip-logic clearer to follow and integrated "None" as an answer option for questions asking what kinds of harassment the respondent had experienced or witnessed. The only content change we made was to add one additional characteristic (obesity) to Question 10, which asks respondents if they knew why victims were targeted.

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### III. ABOUT THE RECOMMENDED SURVEY QUESTIONNAIRE

This chapter explains the reasoning behind key design choices made while developing the survey. The first section discusses the general approach taken, and the following section discusses the specific questions asked.

#### 3.1 CRITERIA THAT GUIDED THE QUESTIONNAIRE DEVELOPMENT

We designed the questionnaire to achieve the following goals. In cases where goals conflicted, we looked for solutions that allowed the survey to meet all goals reasonably well.

*Cover all topics required by SB 1161.* The legislation requires the survey to collect data on a number of specific topics. With respect to harassment, the legislation calls for gathering information on the following topics:

- (i) Whether a rider experiences street harassment.
- (ii) The frequency with which a rider experiences street harassment.
- (iii) The type of street harassment experienced by a rider.
- (iv) The actual or perceived characteristics that serve as the basis for street harassment experienced by a rider.
- (v) Where and when a rider experiences street harassment, including on what mode of transit.
- (vi) Whether a rider experiencing street harassment is alone or accompanied by others.
- (vii) Whether a rider experiencing street harassment reports the incident, and, if so, to whom and the response received.
- (viii) The impact of street harassment on a rider, including whether and how they change their use of transit.
- (ix) A rider's perceptions of safety while using transit.<sup>40</sup>

In addition, the survey must document the following characteristics about the respondent: "race, ethnicity, religion, age, disability, income, primary language, sex, gender, gender identity, gender expression, and sexual orientation."

*Accurately document experiences associated with all different types of harassing behaviors.* One problem that researchers face when studying the incidence and extent of harassment is that members of the general public often do not associate the term "street harassment" with all the behaviors important to the study.<sup>41</sup> Therefore, it is essential that surveys clearly delineate the specific behaviors of interest, rather than simply asking if passengers have experienced or witnessed "harassment."

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40 "Transit Operators: Street Harassment Plans," Senate Bill 1161, § 318 (California 2021-2022), [https://leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=202120220SB1161](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB1161).

41 Anastasia Loukaitou-Sideris and Vania Ceccato, "Sexual Harassment on Transit: A Global, Comparative Examination," *Security Journal* 35 (2022): 175-204, <https://doi.org/10.1057/s41284-020-00271-1>.

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*Maximize the likelihood that passengers will accept, complete, and submit the survey.* Survey results will only be useful if a large and diverse set of passengers respond, yet a key problem surveyors face is convincing people to respond.

One well-established principle for encouraging survey responses is to make the survey fast and cognitively simple to complete. Successful strategies for this include:

- Keep surveys short: This strategy is particularly important with any survey because people are more likely to decline surveys that they think will take more than a few minutes to complete. With transit passenger surveys, the issue is particularly critical for a second reason: survey administrators who approach passengers waiting at stops or on transit vehicles often have only a short time before the passenger will leave, and very few people will complete surveys online or mail in paper surveys.

Administering a survey similar in length to our questionnaire (two pages in length) is a key component in helping ensure the survey is completed by a large and diverse set of passengers.

Keeping survey questionnaires short is among the most difficult tasks in survey design because typically transit agencies would prefer to learn in detail about the topics covered. However, every added question, additional “fill in the blank” question, etc., increases the required response time and, thus, the likelihood that the respondents will not complete all the survey questions in the limited time they have available on board a bus or waiting for a train.

- Design the survey to *look* short and simple. Keeping as much white space as possible on the survey makes it look less intimidating than a page with dense text. Further, keeping the survey on only one sheet of paper reinforces the impression that the survey is brief; passengers are more likely to complete a single-sheet survey than a multi-page survey.
- Use simple language and wording that people of all ages and backgrounds can understand easily. It is important to avoid legalistic language, professional jargon, or slang that not all passengers would likely understand or interpret in the same way.

The nature of the questions asked also influences response rates. Passengers can be discouraged from completing the survey if they think the subject matter does not apply to them or do not believe the survey results will be used for a valid purpose. Also, and particularly relevant to this project, response rates are usually lower for surveys that require respondents to reflect on topics that raise upsetting or embarrassing feelings.

*Design a survey that is easy to administer and process.* Respondents answer most questions with just a check mark, an approach that facilitates quick and accurate data entry for survey administrators.

### 3.2 SURVEY INSTRUMENT DESIGN

The following section presents the language of each question or other element of the survey and explains key reasons for the choices made. Yellow highlighting denotes wording to be customized by the agency conducting the survey.

[Agency] is seeking to better understand if riders feel safe using their service. The following questions are sensitive, but will help [agency] improve safety. Your response is important even if you choose to skip some questions. The survey is for adults (18 years or older). All responses will be kept confidential.

This introductory text is designed to let respondents understand the general topic, their right to skip questions, and how their responses may benefit transit riders.

We used the term “safety” rather than “harassment” because our previous research found that many people don’t understand the meaning of the latter term as it is used by safety professionals.<sup>42</sup> Further, people are more likely to complete a survey if they believe they have personal experience on the topic. Using the term “safety” instead of “harassment” therefore reduces the likelihood that potential respondents will decline to complete the survey because they believe that they haven’t had relevant experiences.

The acknowledgment that the questions “are sensitive” gives respondents warning that the questions are more personal than what they would typically expect on a passenger survey. In addition, the phrase reassures respondents who have been victimized that the agency recognizes the real harm that can be caused by harassment.

The statement that the responses “will help [agency] improve safety” is intended to show passengers that the survey serves a good purpose, so that if they complete the survey, their effort will help the agency to improve service.

The survey is intended for adults who are 18 years or older, as many transit operators do not survey younger riders for reasons of insurance and liability complications. However, harassment is a serious problem for children and teenagers, so it would be preferable to include at least teenagers where this is possible for the agency administering the survey.<sup>43</sup>

1. How often do you typically use [agency]?
- 2 or more days a week       1 - 4 days a month       A few times a year or less

This question allows agencies to separate responses from frequent and infrequent riders. The literature shows there is often a link between frequency of transit use and

<sup>42</sup> Asha Weinstein Agrawal, et al, *Crime and Harassment on Public Transportation: A Survey of SJSU Students Set in International Context* (Mineta Transportation Institute, 2020), <https://transweb.sjsu.edu/research/1810-Crime-Harassment-Public-Transit-SJSU>.

<sup>43</sup> Alasdair Cain, “Teenage Mobility in the United States: Issues and Opportunities for Promoting Public Transit,” *Transportation Research Record* 1971, no. 1 (2006): 140-148.

harassment victimization.<sup>44</sup> People who must take transit have fewer options to avoid harassment on necessary trips. Also, people who take transit frequently spend more time in transit environments at risk of harassment.

Only three answer options are given to keep the survey short and make the question very easy for respondents to complete.

The three answer options are chosen to provide respondents with concrete ridership frequencies so that there is no ambiguity about their habits. For example, the survey gives the response option of “a few times a year or less” rather than using a term like “rarely” that would inevitably mean different frequencies to different respondents. Further, most riders can very easily answer this question, since they will know if they are regular or infrequent riders.

The following questions ask about your experiences using [agency] over the past year or so. Think about all parts of a transit trip, both onboard and while waiting at stations or stops.

We chose the phrase “using [agency]” to encourage respondents to reflect only on their experiences riding the agency that administers the survey, rather than reporting on experiences they may have had using other transit services.

We ask about the timeframe “a year or so” for several reasons:

- The “or so” makes the survey easier to answer by letting passengers know that they need not worry about whether events occurred in an exact time period.
- Choosing only one year allows an agency to assess the “current” situation.
- Choosing one year allows an agency to compare trends over time if administering the same survey regularly.
- While some passengers may experience harassment regularly, for other riders this may be an occasional occurrence. The one-year time frame captures more of the occasional events, yet does so without burdening people to remember events over a longer period for which their memories may be hazy.

The survey also includes language to prompt riders to think about time at stops/stations as well as on board transit vehicles. Some scholars stress the importance of “the whole journey approach” that looks at the full transit trip in order to understand and tackle harassment.<sup>45</sup>

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44 Anastasia Loukaitou-Sideris, et al., “Documenting #MeToo in Public Transportation: Sexual Harassment Experiences of University Students in Los Angeles,” *Journal of Planning Education and Research* (2020), <https://doi.org/10.1177/0739456X20960778>

45 Martha J. Smith, “Addressing the Security Needs of Women Passengers on Public Transport,” *Security Journal* 21 (2008): 117-133, <https://doi.org/10.1057/palgrave.sj.8350071>; Mangai Natarajan, et al, “Sexual Victimization of College Students in Public Transport Environments: A Whole Journey Approach,” *Crime Prevention and Community Safety* 19 (2017): 168-182, <https://doi.org/10.1057/s41300-017-0025-4>.

Depending on the services an agency offers, it could customize the description of waiting locations. For example, a bus-only agency might say “bus stops,” while a multi-modal agency might keep “stations or stops.”

2. How often do you feel safe using [agency]?

                                                                                         
**Always** ←————→ **Never**

This question provides an overall sense of how safe the respondent feels when riding transit. While factors beyond those addressed on this survey will play into feelings of safety, agencies can look for correlations between reports of harassment and feeling of safety.

This question uses a standard response scale. This may allow agencies to compare findings from Question 2 with findings from similar questions about safety from other passenger surveys on their system.

3. Have you experienced any of the following yourself or seen them happen to others while using [agency] in the past year?

	Happened to me	Saw it happen to others
Hostile comments, sounds, or gestures	<input type="checkbox"/>	<input type="checkbox"/>
Sexual comments, sounds, looks, or gestures (asking you to have sex, calling you “babe,” whistling, kissing noises, leering, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Following or stalking	<input type="checkbox"/>	<input type="checkbox"/>
Unwanted groping, kissing, or other inappropriate touching	<input type="checkbox"/>	<input type="checkbox"/>
Pushing, spitting, coughing on you, or other physical assault	<input type="checkbox"/>	<input type="checkbox"/>
Personal property damaged or stolen	<input type="checkbox"/>	<input type="checkbox"/>
Showing pornographic or offensive pictures or words	<input type="checkbox"/>	<input type="checkbox"/>
Exposing private body parts	<input type="checkbox"/>	<input type="checkbox"/>
Sexual assault or rape	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>

**Skip** to Question 11 If **have not** experienced or seen any of the behaviors listed above.

The term “harassment” connotes a variety of behaviors, some of which have sexual undertones, while others do not. The literature separates three prominent types of harassment: verbal, physical (touch), and non-verbal/non-physical.<sup>46</sup> The responses to this question include all three major types of harassment, and include both sexual harassment behaviors as well as other aggressive (but non-sexual) victimizing behaviors. This list is not comprehensive, but aims to cover the most likely harassment behaviors in transit environments, based on the literature and the feedback we received when developing the pilot survey questionnaire. The “other” category allows respondents to document behaviors not listed in the responses for this question.

46 Vania Ceccato and Anastasia Loukaitou-Sideris, eds, *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (Routledge, 2020).

Including the detailed list of possible behaviors is essential to the survey design because some common harassing behaviors (especially verbal harassment) have become so normalized that individuals do not always identify them as harassment.<sup>47</sup> The literature shows that many people when asked if they have been “harassed” will say no, yet they will report that they have experienced some of the listed behaviors.

To improve understanding, these questions are written to describe behaviors in simple words, avoiding legalistic language or slang that not all passengers would likely interpret in the same way.

The question asks about both experiencing and witnessing harassment for two reasons. First, including the question about witnessing harassment gathers additional information, since some respondents may have seen harassment even if they don’t believe they have experienced it. Second, respondents who feel embarrassed to admit that they have been harassed, may be more likely to report the experiences if they do not have to state that they were the victim.

4. How often did you experience or see any of these behaviors when using [agency] in the past year?

**Frequently** ←————→ **Never**

This question gathers a general sense of how frequently respondents think that harassment occurs, which gives transit agencies critical insight into understanding the scale of the problem and whether they need to develop programs to combat a frequent or a sporadic problem.

Response options are kept general for two reasons. First, the simplicity will encourage more respondents to answer the questions. Respondents will likely not remember the specific number of events over a whole year, making it difficult to answer the question if more precision is requested, and respondents are more likely to skip questions they cannot answer easily. Furthermore, it is unlikely that agencies need a more refined set of response options to effectively support planning and policy.

5. Where did these incidents happen? *(Check all that apply)*

At stops/stations       On board       Other \_\_\_\_\_

Responses to this question allow transit agencies to understand where different types of harassment are taking place on their system. To keep the survey short, the only specific locations mentioned are the two most commonly experienced across all transit agencies, the waiting environment (stops, stations) and on-board the vehicle. The response “Other” allows respondents to indicate if they had been harassed in other settings that might be a problem for a particular agency, such as in parking lots.

<sup>47</sup> Ibid.



Harassment also happens when passengers are traveling to reach the transit stop or station, and such experiences can be a barrier to using transit just as much as harassment within the transit system itself. However, in the interest of keeping the survey short, we have not included this as a response option, especially because public streets are not under the jurisdiction of transit agencies administering the survey.

6. When did these incidents happen? *(Check all that apply)*

- Daytime       After dark

The literature supported including this SB1161 required question, as fear of harassment is related to time of day.<sup>48</sup> Responses to this question allow transit agencies to understand whether different types of harassment happen during daytime vs. after dark and design appropriate anti-harassment strategies accordingly (for example, better lighting if incidents are more common at night).

7. When these incidents happened, were you alone or with traveling companions? *(Check all that apply)*

- Alone     With traveling companions

SB 1161 required this question. Knowing whether someone traveled alone when harassed may guide agency training or intervention campaigns.

8. When these incidents happened, did you report any of them? *(Check all that apply)*

- Did not report any  
 To [agency] (in person, online, by phone, via social media, etc.)  
 To police/law enforcement  
 Other (specify): \_\_\_\_\_

8a. Did you receive an appropriate response?

- Yes  
 No  
 Sometimes

This question gives agencies insight into the extent to which harassment goes unreported on their system. Research shows that the great majority of these incidents go unreported.<sup>49</sup> Agencies can compare the number of formal harassment reports they have received to the proportion of survey respondents who experienced harassment but did not report it. Results of this comparison can be used to demonstrate if the problem is more pervasive than official reporting statistics suggest. Agencies could better understand to what extent reporting aligns with riders' experiences and focus efforts to increase rates of reporting accordingly.

48 Vania Ceccato and Anastasia Loukaitou-Sideris, eds, *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (Routledge, 2020).

49 Ibid.

9. When these incidents happened, do you think the victim was targeted because of ....? (Check all that apply)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Race or ethnicity | <input type="checkbox"/> Gender/gender expression | <input type="checkbox"/> Obesity              |
| <input type="checkbox"/> Religion          | <input type="checkbox"/> Sexual orientation       | <input type="checkbox"/> None – it was random |
| <input type="checkbox"/> Language spoken   | <input type="checkbox"/> Age                      | <input type="checkbox"/> Don't know           |
| <input type="checkbox"/> Income            | <input type="checkbox"/> Disability               | <input type="checkbox"/> Other (specify)_____ |

This question is included because transit agencies can develop more effective anti-harassment programs if they know which groups of riders are particularly targeted. For example, if agencies learn that respondents of a particular race commonly believe they are harassed on account of their race, the agency can design appropriate passenger reporting options or staff training initiatives, which may be different from initiatives needed to address harassment related to gender or sexual orientation.

The question allows respondents to select multiple characteristics, because research evidence shows that victims may become targets on account of intersecting characteristics. For example, a study in England found that veiled Muslim women were particularly vulnerable to street harassment.<sup>50</sup> Respondents may feel they do not know why a victim is targeted—or may guess incorrectly—but their impressions still represent important evidence about the nature of the problem.

10. Do you currently take any safety precautions when using [agency] to avoid being harassed? (Check all that apply)

- Don't ride at night
- Avoid certain routes, stops, or stations
- Don't ride alone
- Other (specify):\_\_\_\_\_
- No - don't take any safety precautions when using [agency]

This question seeks to identify the possible impacts of feeling unsafe while using the transit system. The public transit literature identifies coping strategies like the ones listed as answer options to be common responses to fear of crime. Coping strategies can be temporal (avoiding the use of transit during certain hours) or spatial (avoiding particular transit locations).<sup>51</sup> Other risk management strategies include riding always with someone else, carrying some form of weapon, and dressing a certain way.<sup>52</sup>

The answer options were chosen to capture specifically those precautions that affect ridership. The “other” option provides respondents with the option to add other precautions.

**ABOUT YOU** *These questions are included to be sure we survey a mix of riders.*

50 Hannah Mason-Bish and Irene Zempi, “Misogyny, Racism, and Islamophobia: Street Harassment at the Intersections,” *Feminist Criminology* 14, no. 5 (2019): 540-559.

51 Juliane Stark and Michael Meschik, “Women’s Everyday Mobility: Frightening Situations and Their Impacts on Travel Behaviour,” *Transportation Research Part F: Traffic Psychology and Behaviour* 54 (2018): 311-323; Anastasia Loukaitou-Sideris, “Fear and Safety in Transit Environments from the Women’s Perspective,” *Security Journal* 27, no. 2 (2014): 242-256.

52 Andrew Newton, et al., “Chapter 26: Precautions and Responses,” in Vania Ceccato and Anastasia Loukaitou-Sideris, eds, *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (Routledge, 2020).

The explanation is included to increase the percent of respondents who complete the demographic questions. Demographic questions are among the most frequently skipped questions in most surveys. For example, a question on income is often not answered by 10% to 20% or more of respondents who otherwise complete the survey.<sup>53</sup> Respondents may view these questions as not directly related to the subject matter and thus decline to answer them, as some people perceive the questions as too personal. Explaining the reasons for collecting this personal data increases the likelihood that respondents will answer the questions.

11. Age  18 - 34  
 35 – 64  
 65 and older

Ranges are chosen to match with those used in American Community Survey data.

12. Home ZIP code \_\_\_\_\_

Home ZIP code is used as a stand-in metric to identify the passenger's home community.

13. What is your primary language?  
 English  Other (specify) \_\_\_\_\_

This question was included as required by SB1161. We did not list possible languages other than English for two reasons: to keep the questionnaire short and make it usable by a wide range of transit agencies without the need for modification. Agencies that know they have a large proportion of riders speaking specific languages could include those as answer options.

14. Race or ethnic identification (*Check all that apply*)  
 American Indian or Alaska Native  
 Asian or Pacific Islander  
 Black or African American  
 Hispanic/Latino  
 White  
 Other (specify): \_\_\_\_\_

This information allows agencies to compare the harassment survey results with their overall transit populations, to see if certain groups of people are disproportionately harassed.

<sup>53</sup> One study of which types of survey questions were most often skipped in onboard transit passenger surveys found that 12% of respondents skipped the income question on paper surveys and 18% skipped the question on interviewer-assisted surveys. Asha Weinstein Agrawal, et al, *Comparing Data Quality and Cost from Three Modes of On-Board Transit Passenger Surveys* (Mineta Transportation Institute, 2015), <https://transweb.sjsu.edu/research/Comparing-Data-Quality-and-Cost-Three-Modes-Board-Transit-Passenger-Surveys>.

The answer options were chosen to be a small set (to keep the survey short) and also to match those used in publicly reported U.S. Census and American Community Survey data. This approach allows agencies to easily compare the survey respondents to the larger community population.

Although the Census asks about Hispanic ethnicity separately from race, we include both race and ethnicity in a single question because respondents are often confused by the Census approach of asking race and ethnicity separately and thus more likely to answer if the two topics are combined into a single question.<sup>54</sup> Further, our approach still allows agencies to compare respondent race and ethnicity data with community-wide statistics from U.S. Census Bureau data.

Agencies with large numbers of riders from a specific population group could consider modifying the answer options to better capture the experience of that group. For example, an agency that serves a high proportion of Pacific Islanders might separate that group from Asian. However, agencies should think carefully about expanding the answer options for two reasons: First, every extra answer option adds to survey length. Second, if very few respondents from a particular race/ethnicity group select a particular answer, then the survey findings from this group would not be statistically significant, and it would be unwise to assume that those few respondents reflect the experiences of their race/ethnicity group.

15. Do you have any disabilities that affect your experience using [agency]?  
 Yes     No

The literature supports SB1161's requirement to inquire about disability because the risk of harassment faced by disabled riders could be significantly higher than the risk to able-bodied people.<sup>55</sup>

The question specifies disabilities that affect transit use to gather data that will be directly useful to understanding the passenger experience. This approach reduces the likelihood that respondents will report a disability that is not relevant to helping agencies improve safety and the passenger experience (for example, diabetes or depression).

The survey does not ask respondents to specify their disability for two reasons. First, many people are uncomfortable with such a question. Second, every question that requires respondents to write out an answer adds considerably to the time and cognitive effort to complete the questionnaire.

54 Elizabeth Compton, et al, *2010 Census Race and Hispanic Origin Alternative Questionnaire Experiment: Final Report* (U.S. Census Bureau, 2013), <https://www.census.gov/programs-surveys/decennial-census/decade/2010/program-management/cpex/2010-cpex-211.html>; D'Vera Cohen, Anna Brown, and Mark Hugo Lopez, *Black and Hispanic Americans See Their Origins as Central to Who They Are, Less So for White Adults* (Pew Research Center, May 10, 2010), [https://www.pewresearch.org/social-trends/wp-content/uploads/sites/3/2021/05/ST\\_2021.05.14\\_Census-Identity\\_FINAL.pdf](https://www.pewresearch.org/social-trends/wp-content/uploads/sites/3/2021/05/ST_2021.05.14_Census-Identity_FINAL.pdf).

55 Antonio Iudici, et al, "The 'Invisible' Needs of Women with Disabilities in Transportation Systems," *Crime Prevention and Community Safety* 19 (2017): 264-275, <https://doi.org/10.1057/s41300-017-0031-6>.

**16. Gender (Check all that apply)**

- Female
- Male
- Nonbinary
- Transgender
- Other (specify): \_\_\_\_\_

Female, male, and nonbinary are the legal genders recognized by the State of California, so these are the minimum response options required when asking about gender. “Transgender” is a gender identity that research indicates might correlate with higher rates of experiencing street harassment,<sup>56</sup> so it has been included under the gender question. Finally, providing an open-ended category allows for people who identify with other genders not listed to be included, thus lowering the risk that a respondent does not answer at all.

The question asks respondents to “check all that apply” because the answers are not mutually exclusive. For example, a transgender man identifies as both a man and transgender, so it is not appropriate to ask him to select a single gender category.<sup>57</sup>

**17. Do you identify as LGBTQIA+ (lesbian, gay, etc.)?**

- Yes     No

The letters in this acronym stand for the following: L-Lesbian, G-Gay, B-Bisexual, Q-Queer or Questioning, I-Intersex, A-Asexual or Aromantic, and + is added to embrace an expansive community with a wide variety of other identities. While not all members of the general public will be aware of the meaning for each letter, people who identify with one of these groups are likely to understand and answer appropriately. However, the survey writes out the terms “lesbian” and “gay” as examples, in case respondents are not familiar with the acronym.

Although “T” for “transgender” is generally included in an acronym meant to include sexual and gender minorities, the “T” is excluded here because it is included in the previous question about gender.

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56 Amy Lubitow, et al, “Transmobilities: Mobility, Harassment, and Violence Experienced by Transgender and Gender Nonconforming Public Transit Riders in Portland, Oregon,” *Gender, Place & Culture* 24, no. 10 (2017): 1398-1418, <https://doi.org/10.1080/0966369X.2017.1382451>.

57 National Center for Transgender Equality, “Frequently Asked Questions about Transgender People” (July 9, 2016), <https://transequality.org/issues/resources/frequently-asked-questions-about-transgender-people>.

**18. Annual household income**

- Under \$25,000
- \$25,000-\$49,999
- \$50,000 -\$99,999
- \$100,000+

The income ranges were chosen to match those used in the U.S. Census Bureau's publicly reported American Community Survey data. Agencies can thus easily compare the income of the survey respondents to the population of the larger community.

**19. What would you say is your religion?**

- \_\_\_\_\_
- None

This is an unusual and sensitive question to include on a transit passenger survey, but required by SB 1161. Also, perceived religion has been shown to correlate with harassment in some studies.<sup>58</sup>

With this question, agencies can identify whether people who identify with a particular religion may be more likely to experience higher levels or specific types of harassment.

In the interest of keeping the survey short and because people identify with many different religions, the question asks respondents to write in their religion, rather than providing a set of options.

Comments or experiences related to safety/harassment on [agency]:

You may also share comments online at [url]

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

This open-ended question offers respondents the opportunity to share information that may be important to them, whether the details of a harassment incident or recommendations for improving transit safety.

Agencies can, if they wish, create an online option for respondents to submit comments.

<sup>58</sup> Hannah Mason-Bish and Irene Zempi, "Misogyny, Racism, and Islamophobia: Street Harassment at the Intersections," *Feminist Criminology* 14, no. 5 (2019): 540-559; Hao Ding, Anastasia Loukaitou-Sideris, and Asha Weinstein Agrawal, "Sexual Harassment and Assault in Transit Environments: A Review of the English-Language Literature," *Journal of Planning Literature* 35, no. 3 (2020): 267-280, <https://doi.org/10.1177/0885412220911129>.

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## IV. RECOMMENDATIONS

Street harassment creates serious problems for both transit riders and transit agencies. For many riders, harassment makes transit travel uncomfortable, while for others harassment creates a climate of fear and even danger. Although people of all types can be victimized, harassment is particularly likely to affect certain groups, including passengers who are female, transgender/gender nonconforming, nonwhite, low-income, religious minorities, and/or disabled. Beyond the impact on individual riders, harassment also affects transit agencies when they lose riders whose experiences lead them to reduce transit travel or even stop using the system altogether. Thus, responding to harassment and providing a safe and harassment-free transit environment is critical, especially in an era of climate change and declining transit ridership in California.

We conclude, the report with recommendations on how transit agencies can achieve the maximum benefit from the data they collect and achieve a safe transit environment. These recommendations fall into three themes: administering the survey regularly, treating the survey as one piece in a larger effort, and sharing the findings widely.

The first recommendation is to administer the survey regularly. The survey will be most effective if agencies conceive of it not as a “one and done” effort but rather as one component of a larger research effort, albeit a key component. Ideally large agencies will administer the survey every one to two years to a broad cross-section of transit riders to help the agency identify and respond to changing patterns and trends. Smaller agencies with more limited resources could administer the survey every three to five years, if greater frequency is not possible.

The second recommendation is to pair the survey with other research efforts that fill in gaps in knowledge. These efforts could include the following:

- *Focus groups, interviews, and participatory workshops*: One value of these qualitative and interactive methods is to generate nuanced findings about the specific nature of the harassment problem and strategies riders use to cope. Los Angeles Metro employed such methods in its landmark study *Understanding How Women Travel* to understand how and why women travel in Los Angeles.<sup>59</sup> These methods can be used to understand the experiences of particularly vulnerable subgroups who might not complete the survey in large numbers, whether by choice or because they were excluded. One group likely to fall into this category is young people, especially girls, who are particularly frequent and vulnerable victims of harassment. In some cases, transit agencies may be unable to survey youth due to legal restrictions or insurance rules prohibiting research with minors unless parents grant prior approval. A second example of a group who would not respond to the survey are immigrants who don't speak languages for which the survey has been translated.

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<sup>59</sup> Los Angeles County Metropolitan Transportation Authority, *Understanding How Women Travel* (August 2019).

- *Partnerships with advocacy organizations, schools, or social service agencies:* Transit agencies may have limited ability to connect with certain groups of people in a meaningful way, whether due to legal restrictions or lack of experience working with members of those groups. In such cases, agencies can partner with the organizations that already have strong established relationships in the communities of interest. For example, an agency wishing to better understand the experience of disabled riders might connect with supportive service agencies. Also, BART developed its *Not One More Girl* campaign to address gender-based harassment and violence against girls and gender-expansive youth by working in collaboration with several community-based organizations—Alliance for Girls, Betii Ono Foundation, Black Girls Brilliance, and The Unity Council.<sup>60</sup>
- *Surveys of transit operations staff:* The survey instrument developed for this report is geared towards transit passengers, but transit operations staff are susceptible to harassment themselves, as well as witnesses of passenger experiences. Administering the survey to operations staff would both broaden the agency’s understanding of both the rider environment and also the conditions and risks faced by staff.



**Figure 3. BART’s “Not One More Girl Initiative”**

Source: BART.

60 BART, “Addressing Gender Based Violence” (no date), <https://www.bart.gov/guide/safety/gbv>.



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A final recommendation is to share the findings widely, including with the following groups:

- *Transit agency executives and board members*: If the survey findings show widespread harassment and safety concerns, this evidence may persuade transit agency leaders to dedicate resources to combating the problem, even in today's environment of extreme budget shortfalls.
- *Community members and advocacy organizations*: Sharing with these groups offers their members an opportunity to reflect on the documented problem and suggest possible agency responses. In addition, sharing the results demonstrates to these groups that the agency is proactively working to improve safety for all riders.
- *Local government partners*: Local governments are critical partners because they own and manage the streets or other public spaces riders use to access transit systems. Multiple studies indicate the importance of a "whole journey approach" to transit, as transit agencies do not control or police the streets surrounding transit environments where passengers may be harassed.
- *Other transit agencies and researchers*: Findings from these surveys can be valuable sources of data beyond the individual agency community surveyed. Since harassment is pervasive, sharing survey results (as well as interventions and strategies) with other transit agencies will help the industry as a whole to develop a more complete picture of the problem and effective responses. Although some survey findings may be agency- and local context-specific, many findings will likely be common across agencies.

In conclusion, the State of California adopted SB 1611 in recognition that transit agencies lack the data about street harassment on their systems needed to inform effective response strategies. The survey instrument created through this study responds to that need with a short, straight-forward survey that transit agencies of all types can use to document the nature and extent of street harassment on their systems. The resulting data will provide agencies with a greater understanding of rider pain points so agencies can develop effective intervention strategies to reduce harassment and support victims.

SB1161 is an important first step to ensure that transit passengers in California can reach their destinations safely, as it encourages the ten largest California transit operators to take steps to enhance rider safety. The authors of this report hope that all transit operators in California will also address the problem of harassment by implementing the survey and, equipped with their survey findings, take the necessary steps to fight harassment.

## APPENDIX A: TRANSIT PASSENGER SURVEYS REVIEWED

This appendix presents the transit passenger surveys reviewed. Surveys from the 50 largest transit operators are highlighted in blue and surveys from smaller agencies are highlighted in yellow.

Transit agency	State	Data year
<b>Largest 50 agencies</b>		
Alameda-Contra Costa Transit District	CA	2012
Alameda-Contra Costa Transit District	CA	2018
Bay Area Rapid Transit	CA	2016
Bay Area Rapid Transit	CA	2020
Bay Area Rapid Transit	CA	2018
Charlotte Area Transit System	NC	2014
Charlotte Area Transit System	NC	2016
Denver Regional Transportation District	CO	2017
Denver Regional Transportation District	CO	2019
Greater Cleveland Regional Transit Authority	OH	2016
Greater Cleveland Regional Transit Authority	OH	2015
Greater Cleveland Regional Transit Authority	OH	2014
King County Metro	WA	2012
King County Metro	WA	2016
King County Metro	WA	2014
King County Metro	WA	2012
King County Metro	WA	2020
King County Metro	WA	2021
King County Metro	WA	2019
King County Metro	WA	2018
King County Metro	WA	2017
King County Metro	WA	2016
King County Metro	WA	2015
King County Metro	WA	2013
Long Island Railroad	NY	2014
Los Angeles County Metropolitan Transportation Authority	CA	2018
Los Angeles County Metropolitan Transportation Authority	CA	2015
Los Angeles County Metropolitan Transportation Authority	CA	2014
Los Angeles County Metropolitan Transportation Authority	CA	2013
Los Angeles County Metropolitan Transportation Authority	CA	2012
Maryland Transit Administration	MD	2014
Massachusetts Bay Transportation Authority	MA	2017
Miami-Dade Transit	FL	2014

Montgomery County Department of Transportation	MD	2014
New Jersey Transit	NJ	2021
New Jersey Transit	NJ	2020
New York Metropolitan Transportation Authority	NY	2020
Niagara Frontier Transportation Authority	NY	2021
Port Authority of Allegheny County	PA	2014
Regional Transportation Commission of Southern Nevada	NV	2014
San Francisco Municipal Transportation Agency	CA	2023
San Francisco Municipal Transportation Agency	CA	2021
San Francisco Municipal Transportation Agency	CA	2017
San Francisco Municipal Transportation Agency	CA	2016
San Francisco Municipal Transportation Agency	CA	2015
San Francisco Municipal Transportation Agency	CA	2014
San Francisco Municipal Transportation Agency	CA	2013
San Francisco Municipal Transportation Agency	CA	2012
Santa Clara Valley Transportation Authority	CA	2017
Santa Clara Valley Transportation Authority	CA	2013
SoundTransit	WA	2018
Southeastern Pennsylvania Transportation Authority	PA	2018
Southeastern Pennsylvania Transportation Authority	PA	2015
TriMet	OR	2022
TriMet	OR	2014
TriMet	OR	2015
TriMet	OR	2016
TriMet	OR	2017
Utah Transit Authority	UT	2019
Washington Metropolitan Area Transit Authority	Washington, D.C.	2012
<b>Smaller agencies</b>		
Atlanta Regional Commission	GA	2019
Atlanta Regional Commission	GA	2019
Caltrain	CA	2016
Caltrain	CA	2016
Caltrain	CA	2019
Caltrain	CA	2019
Centra Contra Costa Transit Authority	CA	2017
Centra Contra Costa Transit Authority	CA	2015
County Connection	CA	2019
County Connection	CA	2018
Fresno Area Express	CA	2022
Gold Coast Transit District	CA	2021
Golden Empire Transit District	CA	2019
GoRaleigh Access	NC	2019
Greater Buffalo-Niagara Transportation Council	NY	2017

Greater Richmond Transit Company	VA	2019
Intercity Transit	WA	2015
Metra	IL	2015
Metra	IL	2014
Metro Transit	MN	2014
Metro Transit	MN	2018
Metropolitan Transit System	CA	2022
Nassau Inter-County Express	NY	2013
Northwest Arkansas Regional Planning Commission	AR	2018
Philadelphia Regional	PA	2012
Regional Transportation Authority	IL	2016
Regional Transportation Authority	IL	2014
Rhode Island Department of Transportation	RI	2019
SamTrans	CA	2022
SamTrans	CA	2019
SamTrans	CA	2017
SamTrans	CA	2021
San Diego Association of Governments	CA	2015
San Francisco Bay Ferry	CA	2022
Santa Cruz Metropolitan Transit District	CA	2012
Solano Transit Authority	CA	2018
StarTran	NE	2021
University of Washington	WA	2016
Valley Metro Regional Public Transportation Authority	AZ	2015
Valley Metro Regional Public Transportation Authority	AZ	2013
Washington D.C. Metrobus	Washington, D.C.	2014

## APPENDIX B: QUESTIONNAIRE IN ENGLISH, SPANISH, AND CHINESE

This appendix presents the questionnaire in three languages: English, Spanish, and Chinese. Translations into other languages are available on the MTI website.

PLACEHOLDER FOR AGENCY LOGO

PLACEHOLDER  
FOR QR CODE

### Transit Safety Survey

[Agency] is seeking to better understand if riders feel safe using their service. The following questions are sensitive, but will help [agency] improve safety. Your response is important even if you choose to skip some questions. The survey is for adults (18 years or older). All responses will be kept confidential.

1. How often do you typically use [agency]?  
 2 or more days a week     1 - 4 days a month     A few times a year or less

***The following questions ask about your experiences using [agency] over the past year or so. Think about all parts of a transit trip, both onboard and while waiting at stations or stops.***

2. How often do you feel safe using [agency]?

                                                                                         
**Always** ←————→ **Never**

3. Have you experienced any of the following yourself or seen them happen to others while using [agency] in the past year?

	Happened to me	Saw it happen to others
Hostile comments, sounds, or gestures	<input type="checkbox"/>	<input type="checkbox"/>
Sexual comments, sounds, looks, or gestures (asking you to have sex, calling you "babe," whistling, kissing noises, leering, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Following or stalking	<input type="checkbox"/>	<input type="checkbox"/>
Unwanted groping, kissing, or other inappropriate touching	<input type="checkbox"/>	<input type="checkbox"/>
Pushing, spitting, coughing on you, or other physical assault	<input type="checkbox"/>	<input type="checkbox"/>
Personal property damaged or stolen	<input type="checkbox"/>	<input type="checkbox"/>
Showing pornographic or offensive pictures or words	<input type="checkbox"/>	<input type="checkbox"/>
Exposing private body parts	<input type="checkbox"/>	<input type="checkbox"/>
Sexual assault or rape	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>

**Skip** to Question 11 if **have not** experienced or seen any of the behaviors listed above.

4. How often did you experience or see any of these behaviors when using [agency] in the past year?

                                                                                         
**Frequently** ←————→ **Never**

5. Where did these incidents happen? (Check all that apply)

At stops/stations     On board     Other \_\_\_\_\_

6. When did these incidents happen? (Check all that apply)

Daytime     After dark

7. When these incidents happened, were you alone or with traveling companions? (Check all that apply)

Alone     With traveling companions

8. When these incidents happened, did you report any of them? *(Check all that apply)*

- Did not report any  
 To [agency] (in person, online, by phone, via social media, etc.)  
 To police/law enforcement  
 Other (specify): \_\_\_\_\_

8a. Did you receive an appropriate response?

- Yes  
 No  
 Sometimes

9. When these incidents happened, do you think the victim was targeted because of ....? *(Check all that apply)*

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Race or ethnicity | <input type="checkbox"/> Gender/gender expression | <input type="checkbox"/> Obesity               |
| <input type="checkbox"/> Religion          | <input type="checkbox"/> Sexual orientation       | <input type="checkbox"/> None – it was random  |
| <input type="checkbox"/> Language spoken   | <input type="checkbox"/> Age                      | <input type="checkbox"/> Don't know            |
| <input type="checkbox"/> Income            | <input type="checkbox"/> Disability               | <input type="checkbox"/> Other (specify) _____ |

10. Do you currently take any safety precautions when using [agency] to avoid being harassed? *(Check all that apply)*

- Don't ride at night  
 Avoid certain routes, stops, or stations  
 Don't ride alone  
 Other (specify): \_\_\_\_\_  
 No - don't take any safety precautions when using [agency]

#### ABOUT YOU

*These questions are included to be sure we survey a mix of riders.*

11. Age  18 - 34  
 35 – 64  
 65 and older

12. Home ZIP code \_\_\_\_\_

13. What is your primary language?  
 English  Other (specify) \_\_\_\_\_

14. Race or ethnic identification *(Check all that apply)*

- American Indian or Alaska Native  
 Asian or Pacific Islander  
 Black or African American  
 Hispanic/Latino  
 White  
 Other (specify): \_\_\_\_\_

15. Do you have any disabilities that affect your experience using [agency]?

- Yes  No

16. Gender *(Check all that apply)*

- Female  
 Male  
 Nonbinary  
 Transgender  
 Other (specify): \_\_\_\_\_

17. Do you identify as LGBTQIA+ (lesbian, gay, etc.)?

- Yes  No

18. Annual household income

- Under \$25,000  
 \$25,000-\$49,999  
 \$50,000 - \$99,999  
 \$100,000+

19. What would you say is your religion?

- \_\_\_\_\_  
 None

Comments or experiences related to safety/harassment on [agency]:

*You may also share comments online at [\[url\]](#)*

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**Thank you for completing the survey!**

Manteniendo lugar para el logotipo de la agencia

Manteniendo  
lugar para  
código de QR

## Cuestionario de Seguridad de Tránsito

[Agencia] buscan a entender si pasajeros se sienten seguros usando sus servicios. Las siguientes preguntas son de temas delicadas, pero ayudaran [agencia] mejorar seguridad. Tus respuestas son importantes, aunque decidas dejar unas sin respuesta. El cuestionario es para adultos (18 años o más). Todas las respuestas serán confidenciales.

1. ¿Con que frecuencia usas [agencia]?

- Dos o más días a la semana     Uno a cuatro días por mes     Algunos días al año o menos

*Las siguientes preguntas son sobre tu experiencia usando [agencia] durante más o menos el año pasado. Piensa sobre todas partes del viaje, incluyendo a bordo y esperando en la estación o en una parada de tránsito.*

2. ¿Qué tan seguido te sientes segura/o usando [agencia]?

- Siempre ←————→  Nunca

3. Durante el año pasado, ¿algunas de estas cosas te han pasado o has visto pasar a alguien más usando [agencia]?

	Me ha pasado	Ha visto pasar a alguien más
Comentarios, ruidos o gestos hostiles	<input type="checkbox"/>	<input type="checkbox"/>
Comentarios, ruidos, miradas o gestos sexuales (preguntándote a tener sexo, llamándote “bebe” o “mamacita”, chiflando, ruidos de besos, miradas lascivas, etcétera)	<input type="checkbox"/>	<input type="checkbox"/>
Siguiendo o espiando	<input type="checkbox"/>	<input type="checkbox"/>
Manoseadas o besos no deseados, u otras tocadas inapropiadas	<input type="checkbox"/>	<input type="checkbox"/>
Empujando, escupiendo, tosiendo directamente en ti u otros tipos de asalto físico	<input type="checkbox"/>	<input type="checkbox"/>
Robando o dañando propiedades personales	<input type="checkbox"/>	<input type="checkbox"/>
Mostrar materiales como fotos o palabras ofensivas o pornográficas	<input type="checkbox"/>	<input type="checkbox"/>
Revelando partes privadas del cuerpo	<input type="checkbox"/>	<input type="checkbox"/>
Asalto sexual o violación	<input type="checkbox"/>	<input type="checkbox"/>
Otro (especificar) _____	<input type="checkbox"/>	<input type="checkbox"/>
Ninguno	<input type="checkbox"/>	<input type="checkbox"/>

Si estas cosas notadas arriba no te han pasado, o no lo has visto pasar a alguien más, **pasa a pregunta 11.**

4. Durante el año pasado, ¿con que frecuencia te han pasado, o has visto pasar a alguien más, algunas de estos comportamientos usando [agencia]?

- Frecuentemente ←————→  Nunca

5. ¿Dónde pasaron estas cosas? (marque todo lo que corresponda)

- Una parada de tránsito     A bordo del viaje     Otro \_\_\_\_\_

6. ¿A qué hora pasaron estos incidentes? (marque todo lo que corresponda)

- En el día     Cuando estaba oscurecido

7. Cuando pasaron estas cosas, ¿estabas sola/o o estabas viajando con compañía? (marque todo lo que corresponda)  
 Solo/a     Viajando con compañía

8. Cuando pasaron estas cosas, ¿reportaste alguno de ellos? (marque todo lo que corresponda)

- No reporté ninguno  
 Reporté a [agencia] (en persona, por línea, por teléfono, por redes sociales, etcétera)  
 Reporté a la autoridad (policía)  
 Otro (especificar): \_\_\_\_\_

8a. ¿Recibiste respuesta apropiada?

- Sí     No     Algunas Veces

9. Cuando estos incidentes pasaron, ¿por qué crees que la persona fue victimizada? (marque todo lo que corresponda)

- Etnicidad o raza     Género/expresión de género     Obesidad  
 Religión     Orientación sexual     Ninguno – fue aleatorio  
 Idioma que hablaban     Edad     No se  
 Ingreso     Deseabilidad     Otro (especificar): \_\_\_\_\_

10. ¿Tomas precauciones de seguridad usando [agencia] para evitar acosamiento? (marque todo lo que corresponda)

- No viajo de noche  
 Evito ciertas rutas, paradas o estaciones  
 No viajo sola/o  
 Otro (especificar): \_\_\_\_\_  
 No tomo precauciones de seguridad usando [agencia]

**Sobre Tu**    *Estas preguntas están incluidas para asegurar que el cuestionario representa una mezcla de viajeros.*

11. Edad     18 a 34     Sí     No  
 35 a 64  
 65 o más de edad

16. Género (marque todo lo que corresponda)

- Mujer  
 Hombre  
 No binario  
 Transgénero  
 Otro (especificar): \_\_\_\_\_

12. Código postal de hogar \_\_\_\_\_

13. ¿Cuál es tu idioma primario?

- Inglés     Otro (especificar) \_\_\_\_\_

17. ¿Identificas de LGBTQ+ (Lesbiana, Gay, etcétera)?

- Sí     No

14. Raza o identificación étnica (marque todo lo que corresponda)

- Indio/a Americano/a o Nativo/a de Alaska  
 Nativo Hawaiano/a o de otras islas del Pacífico  
 Negro/a/Africano/a Americano/a  
 Hispano/a/Latino/a  
 Blanco/a/Caucásico/a  
 Otra raza (especificar): \_\_\_\_\_

18. Ingreso anual de hogar

- Bajo \$25,000  
 \$25,000 a \$49,999  
 \$50,000 a \$99,999  
 \$100,000+

15. ¿Tienes deseabilidades que afectan tu experiencia usando [agencia]?

- Ninguna religión

Comentarios o experiencias de seguridad/acoso usando [agencia]: \_\_\_\_\_

También puedes compartir tus comentarios por línea en [\[URL\]](#)

**¡Gracias por completar el cuestionario!**



PLACEHOLDER FOR AGENCY LOGO

PLACEHOLDER FOR  
QR CODE**公共交通安全調查**

[Agency] 正在尋求更好地了解乘客在乘坐公共交通時是否感受到安全。以下問題比較敏感，但可以幫助 [Agency] 提高安全度。即使您選擇跳過部分問題，您的回答依舊非常重要。本次民調面向成年人（十八周歲及以上）。所有回答均將保密。

1. 您通常乘坐 [Agency] 的頻率是？  
 每週兩日或更多     每月一日至四日     每年乘坐少數幾次，或更少

**以下問題關於您在過去一年左右乘坐 [Agency] 的體驗。請回顧您使用公共交通時的全部過程，包括乘車與在車站等車。**

2. 通常您乘坐 [Agency] 時感覺安全嗎？  
 總是                 從不

3. 在過去一年，您使用 [Agency] 時是否經歷以下情景或看到他人經歷以下情景？

	本人經歷	目睹他人經歷
遭遇惡意的評論、聲音或手勢	<input type="checkbox"/>	<input type="checkbox"/>
遭遇色情的評論、聲音、表情或手勢 (例如要求您做愛、稱呼您 “babe” 或 “寶貝”)	<input type="checkbox"/>	<input type="checkbox"/>
吹口哨、發出接吻聲音、輕佻的打量等)	<input type="checkbox"/>	<input type="checkbox"/>
被跟蹤或尾隨	<input type="checkbox"/>	<input type="checkbox"/>
被猥褻亂摸、強吻，或其他不恰當觸碰	<input type="checkbox"/>	<input type="checkbox"/>
被推撞、被吐口水或咳嗽，或其他身體攻擊	<input type="checkbox"/>	<input type="checkbox"/>
個人財產損壞或被盜	<input type="checkbox"/>	<input type="checkbox"/>
有人向您展示色情圖片或冒犯性圖片、令人反感的圖片或文字	<input type="checkbox"/>	<input type="checkbox"/>
有人暴露私密身體部位	<input type="checkbox"/>	<input type="checkbox"/>
性侵犯或強姦	<input type="checkbox"/>	<input type="checkbox"/>
其他 (請寫明) _____	<input type="checkbox"/>	<input type="checkbox"/>
未經歷	<input type="checkbox"/>	<input type="checkbox"/>

**若您未經歷或未看到上述任何情景，請跳至問題 11。**

4. 在過去一年，您在乘坐 [Agency] 時經歷或看到上述行為的頻率有多少？  
 頻繁                 從不

5. 這些行為發生在何處？(可多選)  
 在車站、停靠站     在車輛裡面     別處 (請寫明): \_\_\_\_\_

6. 這些行為發生在何時？(可多選)  
 白天     天黑以後

7. 這些行為發生時，您是獨自一人還是與他人同行？(可多選)  
 獨自一人     與同伴同行

8. 當上述事件發生時，您是否報告？(可多選)
- 無
- 向 [Agency] 報告(親自報告，或通過網路、電話、社交媒體等報告)
- 向警察、執法機構報告
- 其他(請寫明)：\_\_\_\_\_
- 8a. 您是否收到了合理的回復？
- 有
- 無
- 有時
9. 當上述事件發生時，您認為由於下列哪些因素導致受害人被針對？(可多選)
- 種族或民族
- 受害人的性別/性別表達
- 肥胖
- 宗教信仰
- 受害人的性取向
- 無原因，隨機發生
- 語言
- 年齡
- 不知道
- 經濟收入
- 身心障礙(身體或心理障礙)
- 其他(請寫明)\_\_\_\_\_
10. 當您乘坐 [Agency] 時，是否會採取以下安全預防措施？(可多選)
- 避免夜間乘坐
- 避免某些特定的運行線路、停靠站、車站
- 避免獨自一人乘坐
- 其他(請寫明)：\_\_\_\_\_
- 無，未在乘坐 [Agency] 時採取任何安全預防措施

**關於您**

為了確保本次民調能夠廣泛傾聽社會的聲音，請回答下列問題。

11. 您的年齡  18 - 34 歲
- 35 - 64 歲
- 65 歲及以上
12. 住址郵政編碼 \_\_\_\_\_
13. 您的主要語言是什麼？
- 英文  其他(請寫明) \_\_\_\_\_
14. 種族或民族 (可多選)
- 美洲原住民或阿拉斯加原住民
- 亞洲裔或太平洋島居民
- 黑人或非洲裔美國人
- 西班牙裔/拉丁裔
- 白種人
- 其他(請寫明)：\_\_\_\_\_
15. 您是否有任何身心障礙(包括身體或心理障礙)，可能會影響您乘坐 [Agency] 的體驗？
- 有  無
16. 您的性別(可多選)
- 女
- 男
- 非二元性別
- 跨性別
- 其他(請寫明)：\_\_\_\_\_
17. 您認為自己是性少數群體(LGBTQIA+)嗎(女同性戀者、男同性戀者、或其他)？
- 是  否
18. 家庭全年收入
- \$25,000 以下
- \$25,000-\$49,999
- \$50,000 - \$99,999
- \$100,000 以上
19. 您的宗教信仰是什麼？
- \_\_\_\_\_
- 無

您對於乘坐 [Agency] 的安全或騷擾問題的評論或經歷：

您也可以在線評論 [url]

感謝您完成調查！

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## APPENDIX C: RECOMMENDED SURVEY ADMINISTRATION PROCESS

The following protocols are recommended when administering the survey. All of these factors will directly impact response rate and data quality. However, agencies should tailor survey administration as needed to the specific transit system and rider audience.

- Rely on a paper, self-complete survey as the primary response method. In general, this survey mode works very well for passenger transit services. An online survey is also recommended as a secondary option, but not the only option because online-only passenger surveys have much lower response rates than paper self-complete surveys. One study comparing response rates for paper vs. online transit passenger surveys found that only 9% of passengers receiving the online survey invitation completed it, compared to 91% of passengers completing a paper survey.<sup>61</sup>
- An onboard approach is recommended, as it ensures that those being offered the survey are, in fact, transit riders, and avoids having to screen for transit use.
- Survey length should be short to ensure a high response rate among a cross section of riders.
- Select appropriate languages for translation (depending on the agency's ridership and languages common in the service area).
- The survey should be administered to passengers on a carefully selected sample of routes and runs to ensure that the results are representative of the agency ridership. In addition, it may be appropriate to over-sample routes or times of day where there is reason to suspect that harassment is particularly common. The latter approach can help the agency generate a better understanding of the type of harassment occurring.
- Passengers should be approached in a welcoming yet professional and unbiased manner, taking into consideration language, culture, and transit system specifics.
- Staff should be fully trained in onboard passenger surveying and monitored. Ideally, staff will all have previous experience with administering onboard passenger surveys.

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61 Asha Weinstein Agrawal, et al, *Comparing Data Quality and Cost from Three Modes of On-Board Transit Passenger Surveys* (Mineta Transportation Institute, 2015), <https://transweb.sjsu.edu/research/Comparing-Data-Quality-and-Cost-Three-Modes-Board-Transit-Passenger-Surveys>.

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