



## B7: Cleanliness on transit

### September 29, 2023

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### Executive summary

Nationwide, riders are reluctant to return to transit since the onset of the COVID-19 pandemic, due in part to concerns about cleanliness and the user experience. Rule breaking and unsanitary behavior became more common during periods of low ridership. Now, as riders are returning to the transit system, smoking, drug use, and other unwanted behaviors remain concerns.

The Chicago Transit Authority (CTA), Metra, and Pace all responded to the recent cleanliness challenges. The current approaches to combating these issues have included expanding cleanliness initiatives, partnerships with social service agencies, and ticketing unwanted behaviors. While there has been progress, despite these efforts, rider satisfaction with cleanliness has recently fallen on both CTA and Pace.

Improving the cleanliness of the transit system could play a role in restoring public confidence as riders continue to adapt to post-COVID travel patterns. Policy recommendations include:

- Investing in efforts to promote cleaner transit stations and vehicles
- Identifying and addressing gaps in public restroom access along transit corridors
- Strengthening the involvement of social services agencies and research organizations
- Strengthening two-way rider communication to improve cleanliness incident reporting and detection (aligns with complementary recommendation in the companion PART memo on safety and security topics, available on the PART [webpage](#))<sup>1</sup>

## The problem: Smoking, drug use, littering, and other nuisance behaviors are making transit a less attractive option for riders.

Public transit in northeastern Illinois runs 24 hours a day, 365 days a year. While most riders respect system policies, system operators frequently deal with unsanitary behaviors like smoking, drug use, littering, and public urination. Rule breaking and quality of life violations expose riders to potential hazards like secondhand smoke, used needles, and human waste. Other related unwanted behaviors also impact the rider experience, including soliciting, panhandling, harassment, and playing loud music.

Due to the COVID-19 pandemic, ridership dropped and unwanted behaviors became more common. Poor conditions and cleanliness incidents are also receiving increased media reporting. Rule breaking behaviors are also linked with larger safety and security concerns. This could worsen lapsed or infrequent riders' perceptions of transit. And while system operators have responded (as discussed below), significant challenges remain.

### Regional context

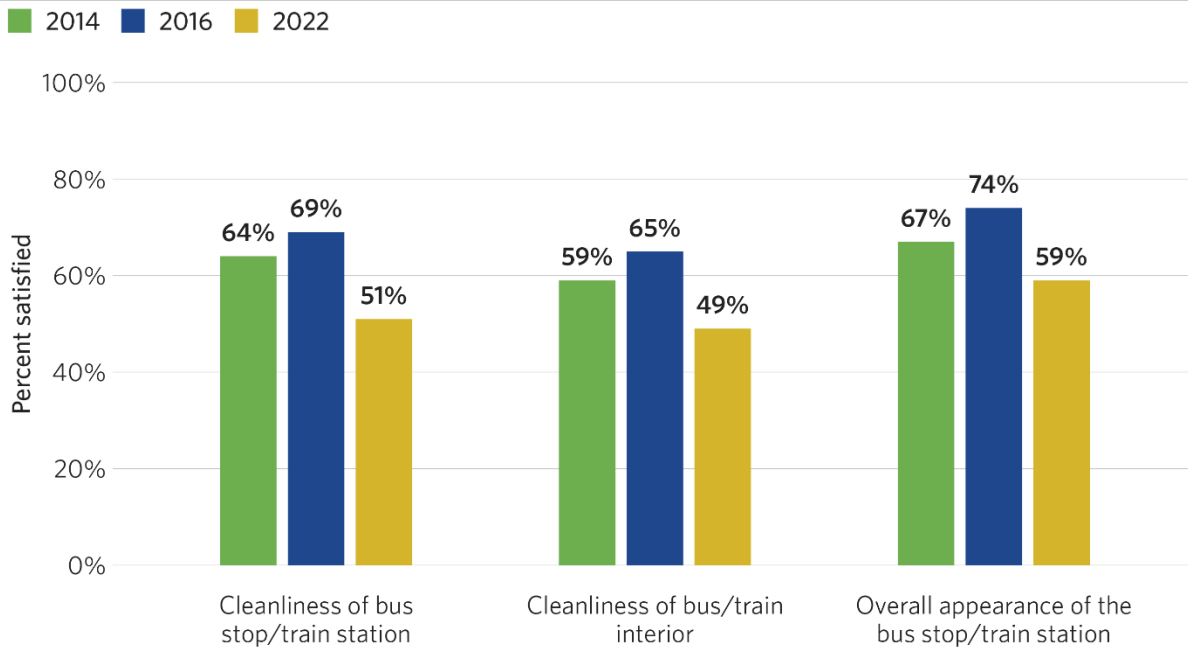
Station and vehicle cleanliness was a concern before the start of the COVID-19 pandemic. Each of the three service boards took different approaches before and during the pandemic.

### Chicago Transit Authority

Dissatisfaction with cleanliness on transit in the region is most pronounced on CTA. According to CTA's 2022 Customer Satisfaction Survey, concerns about cleanliness noticeably decreased between 2016 and 2022.<sup>2</sup> Rider satisfaction with the cleanliness of bus stops, train stations, and transit vehicles decreased by 16 to 18 percentage points between 2016 and 2022 (**Figure 1**). The survey found that both "personal safety and security" and "cleanliness of bus/train interior" were key drivers of overall satisfaction. Riders rated these as both the most important drivers and the drivers they were the least satisfied with in 2022.

**Figure 1. Customer satisfaction with cleanliness on CTA has fallen since 2016**

**Satisfaction with cleanliness on CTA over time**



Source: CTA 2022 customer satisfaction survey.

In the years before the pandemic, the process for cleaning CTA vehicles included cleaning vehicles at the end of each run, inspecting them at the end of the day once they are in the terminals or rail yards, fumigating and treating with pesticides monthly, and a bimonthly detailed cleaning of interiors.

CTA began extensive cleanliness initiatives as a response to new cleanliness issues related to the COVID-19 pandemic. In May 2021, it launched a multi-faceted “When You’re Ready, We’re Ready” marketing campaign to welcome back riders to public transit. This campaign highlighted the multiple ways that CTA seeks to provide riders with a safe and clean travel experience. According to the tagline of this campaign, CTA’s “#1 goal is to provide a healthy and comfortable community.” The three actions associated with the campaign were:

- Cleaning of buses, trains, and stations.
- Providing efficient air circulation.
- Offering rider tools (such as ridership dashboards).

CTA also expanded its ongoing maintenance through the launch of the “Refresh & Renew” program in 2021. The program is funded through the agency’s annual operating budget. Related investments have included:

- Spring 2021: \$3.5 million in repairs and improvements of 127 stations, including deep clean power washing and painting for all stations.<sup>3</sup>

- Spring 2022: \$2.1 million in improvement across 28 stations, including platform amenities (e.g., benches and trash bins), concrete repairs, and updated signage.<sup>4</sup>
- October 2022: Additional \$1.4 million in painting and lighting for 92 stations.<sup>5</sup>
- Spring 2023: \$6.5 million in improvements for 29 stations and the goal of power washing every station at least once a month from spring to fall.<sup>6</sup>
- “Goodbye, Grime” campaign, which added 50 janitorial staff to the 2023 annual operating budget.<sup>7</sup>

In August 2022, CTA released *Meeting the Moment: Transforming CTA’S Post-Pandemic Future*, an action plan for the system. Three of the five pillars in this plan are relevant to cleanliness issues:

- Enhance safety and security for our riders.
- Improve the customer experience at our facilities.
- Upgrade our digital tools to improve rider communication.

Budgets for the functions that include cleaning have increased in the proposed 2023 annual operating budget.<sup>8</sup> The agency highlighted progress one year after the launch of the *Meeting the Moment* action plan in August 2023, reiterating its investments in “Refresh & Renew” and “Goodbye Grime.”<sup>9</sup>

## Metra

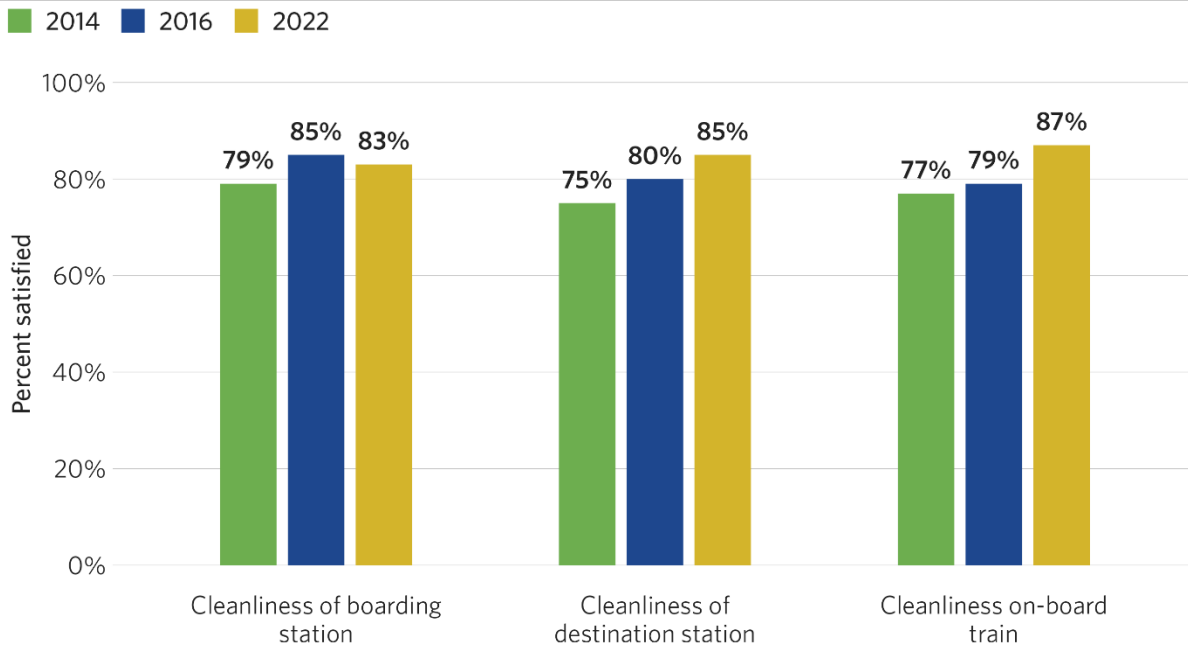
Overall, cleanliness issues on Metra are less prevalent and media reporting is less amplified. The issues of rule breaking and the presence of unhoused riders on the Metra are less pronounced. However, experience varies slightly by train line.

Prior to the pandemic, Metra cleaned stations “multiple times a week.”<sup>10</sup> The agency relied on a 2013 fare increase to fund the hiring of 31 additional cleaning staff for sweeping and maintaining the coaches used on Metra’s daily train runs.<sup>11</sup>

The results of the Metra 2022 Customer Satisfaction Survey were more positive on system cleanliness than those of CTA (**Figure 2**).<sup>12</sup> Rider satisfaction with cleanliness on-board the train increased from 77 percent in 2014 to 87 percent in 2022. Satisfaction with station cleanliness also increased.

**Figure 2. Rider satisfaction with cleanliness on Metra has generally increased**

**Satisfaction with cleanliness on Metra over time**



Source: Metra 2022 customer satisfaction survey.

Metra’s rider satisfaction survey also offers insight into cleanliness by train line. Satisfaction with cleanliness on-board the train ranged from 80 percent to 94 percent, with the Union Pacific Northwest (UP-NW) line experiencing the lowest rate of satisfaction and Milwaukee District North (MD-N) experiencing the highest rate of satisfaction. Satisfaction with cleanliness of boarding station and destination station was lowest on the Metra Electric (ME) line, with a satisfaction rate of only 59 percent and 71 percent, respectively. Targeted attempts to address differing rider satisfaction across train lines could align with these survey findings.

Metra launched its “Commute with Confidence” campaign in September 2020.<sup>13</sup> It included a list of reasons riders can commute with peace of mind on Metra, including:

- Cleaning of more than 1,000 railcars in early 2020.
- Creating a new regimen to clean, sanitize, and disinfect daily.
- Cleaning of stations multiple times a week.
- Equipping railcars with hospital-grade MERV-13 filters, in addition to the HVAC system that replaces the air on cars 15 times an hour.

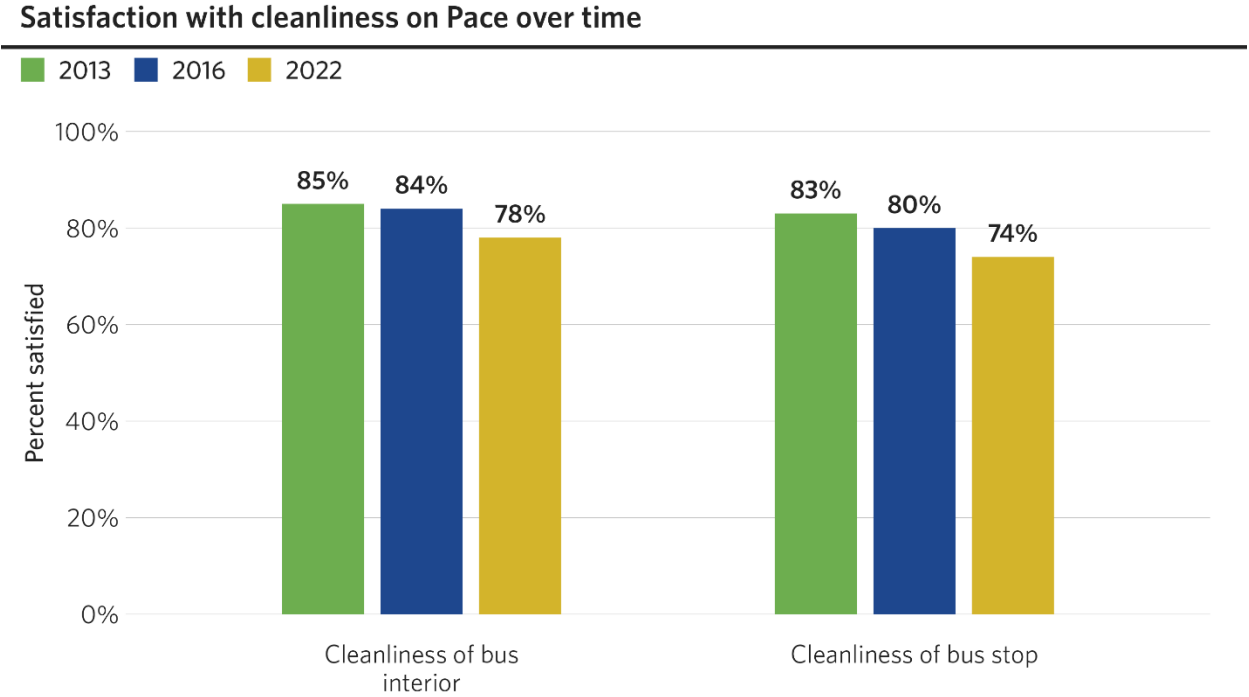
The frequency of cleanliness issues on the Metra remains manageable to date. This is reflected by overall higher rates of rider satisfaction with cleanliness across the Metra system.

# Pace

Like on Metra, reports of cleanliness incidents on Pace are less common in the media than incidents on CTA. However, cleanliness is still a growing concern.

Pace is seeing decreases in rider satisfaction with cleanliness of both the interior of buses and bus stops. According to the Pace 2022 Customer Satisfaction Survey, 78 percent of riders were satisfied with the cleanliness of bus interiors.<sup>14</sup> While this is higher than the satisfaction rate for CTA (at 49 percent for bus and train interiors), this is a 7 percentage point decrease from 2013 for Pace. Similarly, satisfaction with the cleanliness of the bus stop fell from 83 percent in 2013 to 74 percent in 2022 (Figure 3).

**Figure 3. Pace rider satisfaction with cleanliness is high but has fallen since 2013**



Source: Pace 2022 customer satisfaction survey.

In April 2022, Pace announced a commitment to continue to deep clean and sanitize vehicles daily, clean high-touch surfaces throughout the day, and provide riders with hand sanitizer.<sup>15</sup>

## CTA currently addresses the post-COVID rise in rule breaking through ticketing and additional security.

WBEZ reported that as of January 2023, smoking was still a top frustration for CTA riders, after delays and safety. The report cites riders noticing “a significant decline in cleanliness and

behavior enforcement.” Unwanted behaviors include “[l]oud music, harassing passengers, selling drugs, smoking cigarettes and marijuana, [and] feces on the trains.”<sup>16</sup>

In March 2022, the Chicago Police Department (CPD) and CTA officials announced that they would be doubling the number of unarmed security guards to deter these unwanted behaviors and enforce CTA’s Rules of Conduct. They also announced the deployment of more police officers, particularly focusing on gang and narcotics crimes on the Red Line and Blue Line.<sup>17</sup>

One of the primary methods used in response to these behaviors is ticketing. However, there are limits to the effectiveness of this approach. For example, it disproportionately affects unhoused or low-income riders who are already in precarious situations (e.g., inability to pay, lack of proper identification).<sup>18</sup> Chicago’s transit police force, which are special units within CPD, largely responds to smoking by issuing an administrative notice of violation (ANOV). ANOVs are tickets or citations issued by a CPD officer, in lieu of a physical arrest. CTA personnel and contracted security guards cannot issue a citation or exclusion (in the city of Chicago) without calling a CPD officer.

Tickets are meant to deter quality of life issues with financial consequences for the offender but may be less effective in curbing some behaviors. CPD issued about 4,400 citations in 2021, concentrated downtown and on the southern 95<sup>th</sup>/Dan Ryan branch of the Red Line and the western Forest Park branch of the Blue Line.<sup>19</sup> But CPD received payments for only roughly 5 percent of tickets. A similar number of citations (3,900) were issued in 2022, with similar results.<sup>20</sup> Ticketing and additional security alone has not led to measurable differences in cleanliness but could be a part of a more holistic program going forward.

## The rise in homelessness is leading to more unhoused riders.

Homelessness is a significant regional issue, with impacts that extend far beyond transit. However, the region’s transit agencies, especially the CTA, must grapple with its effects as part of their daily operations. This is particularly the case in Chicago. With over 11,000 active clients on Chicago Continuum of Care’s (CIC) Homeless Management Information System (HMIS)<sup>21</sup> and only 3,000 reportedly available beds across shelters in the city,<sup>22</sup> homelessness remains a critical issue for local government agencies. Homelessness is a relevant issue for CTA because its trains, buses, and facilities are a last resort for many unhoused people, particularly on services that operate overnight like the Red and Blue Lines and Owl bus routes (e.g., the #66 Chicago Avenue bus).

Metra and Pace do not experience issues with homelessness on transit at the level that CTA does. Yet the population of unhoused people at urban Metra stations is noteworthy, and combined Pace and CTA bus shelters in the outer limits of Chicago and adjacent suburbs are also sites where unhoused people seek shelter.

Unhoused people often lack access to restroom facilities and food, are more likely to suffer from unaddressed mental and physical health problems, and experience higher rates of drug and alcohol addiction.<sup>23</sup> Each of these situations have implications for personal hygiene and can contribute to incidents of uncleanness. CTA's *Meeting the Moment* action plan categorizes these concerns as security issues, stating that "individuals struggling with homelessness, mental health issues, and drug abuse are often utilizing CTA as a shelter of last resort, raising concerns around safety, cleanliness, and [the] overall function [of] transit."

As of November 2022, CTA has taken a "compassionate approach to the unsheltered".<sup>24</sup> It announced an agreement with the Chicago Department of Family and Support Services (DFSS) for "additional outreach and support services to be provided to riders who are unsheltered, as well as those grappling with mental health and substance abuse."<sup>25</sup> Night Ministry, Thresholds, the Haymarket Center, and other groups are currently serving unhoused riders. CTA is also providing up to \$2 million in funding to DFSS through December 31, 2023, to offset the cost of additional social services. This is a significant increase from the \$400,000 it was reportedly spending in previous years for outreach.<sup>26</sup>

WBEZ reported in March 2023 that even with this new funding going toward social agency partnerships, it will likely not be enough to meet demand. The presence of unhoused riders, especially on CTA, will likely persist in the near term.<sup>27</sup>

## Other transit systems are using design features and social mechanisms to reduce rule-breaking and improve cleanliness.

### Design features

The design of a transit system includes both physical infrastructure and the features of stations, stops, and vehicles. According to environmental psychology research, design elements—like beautification or lighting—can deter unwanted social behaviors by increasing riders' respect of one another and respect of the station as a shared amenity.<sup>28</sup>

Specific approaches have come under criticism by practitioners for excluding members of marginalized groups as legitimate users of public space. This includes installing sleep inhibitors on benches as well as limiting the presence of amenities like public toilets and bus shelters. These approaches can temporarily prevent unwanted behaviors. However, they do not address the root causes of challenges such as homelessness, drug addiction, and other undesirable situations or behaviors. These approaches can also negatively affect the comfort and experience of all public space users.



The following subsections explore design features that could be deployed to mitigate the impacts of negative behaviors and to alert staff of issues as they occur, allowing for a quicker response to cleanliness issues.

## Urine detectors

Urine detectors are one way to deter public urination on or near transit. In December 2013, Atlanta's transit system (MARTA) installed urine detection devices (UDDs) in elevators as a response to daily issues with cleanliness.<sup>29</sup> MARTA UDDs sound an alarm when urine is detected and render the elevator inoperable until cleaning. The initial pilot program began with one Midtown Atlanta elevator, which saw one case of public urination after one month of the pilot. MARTA later expanded this program across many of the 111 elevators in the system, as part of a larger \$149 million rehab program for the system in 2017.<sup>30</sup> The installation of these devices cost MARTA about \$10,000 per elevator. This sensor allowed transit police to catch offenders in the act and issue tickets.

After the success in Atlanta, Boston's transit system (MBTA) followed suit in 2022.<sup>31</sup> The pilot program targeted four downtown Boston elevators between October 2022 and January 2023. The sensors alerted the city's transit ambassadors, who then dispatched a cleaning team. The primary focus of this program was addressing the cleanliness issue instead of ticketing the offender.<sup>32</sup>

## Urine-resistant paint

Urine-resistant paint is another method to reduce the impact of public urination and also facilitate the cleaning process. Urine-resistant paint is a hydrophobic (or liquid repellent) material which prevents urine from leaving a stain and a lingering odor. In 2015, San Francisco's Public Works department applied urine-resistant paint to 10 walls in the city to combat local public urination issues.<sup>33</sup> This approach was inspired by the use of urine-resistant paint and a corresponding public campaign in Hamburg's St. Pauli entertainment district.<sup>34</sup>

The financial efficacy of this approach may depend on the city. One London borough, with an area of about seven square miles and a population of just over 250,000 people, spends about £100,000 (roughly \$125,000) a year cleaning urine from high traffic public spaces where public urination may occur, such as walls and footpaths.<sup>35</sup> Urine-resistant paint costs roughly \$700 to cover six square meters and requires annual reapplication.<sup>36</sup> Scaling such costs for northeastern Illinois' full transit system could be significant and cost-prohibitive. The use of urine-resistant paint could be more promising in smaller, priority public spaces, like CTA's subway stations.

## Public restroom facilities

The presence of public restroom facilities can discourage cleanliness issues related to human waste. Atlanta, London, San Francisco, and New York City are a few examples of cities whose transit systems offer restroom facilities in or near their transit stations. There are also publicly accessible restrooms in some northeastern Illinois transit facilities, including Metra's trains and

downtown terminals, Pace’s transit centers, and in facilities connected to some CTA rail stations (e.g., O’Hare Airport or Block 37).

MARTA reopened restrooms at four stations in 2013 to complement the addition of urine detectors.<sup>37</sup> After the COVID-19 pandemic, only 13 of MARTA’s 38 rail stations currently have open restrooms.<sup>38</sup> They are open from 6:00 a.m. to 7:00 p.m., while trains operate from 5:00 a.m. to 1:30 a.m. Beginning in fiscal year 2015, MARTA budgeted \$1.3 million annually, to open and operate its restrooms.<sup>39</sup>

In 2015, MARTA piloted new installations billed as “a high-tech, hands-free, self-cleaning, vandal-resistant, loiter-proof bathroom built to address every mass transit agency concern and offer safe and sanitary service to the fare-paying public.”<sup>40</sup> These “Smarta” public restrooms are expanding as of 2023.<sup>41</sup> MARTA budgeted \$5 million in the 2024 fiscal year for the SMART Restroom Program, with \$2 million planned for each of the next three fiscal years.<sup>42</sup>

Transport for London (TfL) both provides public restrooms and uses a wayfinding approach to help riders find options while navigating the system. For wayfinding, TfL publishes a subway system map of where restrooms are available<sup>43</sup> and a detailed list of station toilet facilities,<sup>44</sup> (including opening hours) available on their “Public toilets in London” webpage.<sup>45</sup>

Nearly all BART stations in San Francisco have public restrooms.<sup>46</sup> Despite closures during the COVID-19 pandemic, BART reopened most restrooms throughout 2022. The agency opened two more station restrooms in June 2023. BART is also making new capital investments, with renovation and construction of new restrooms slated for four more stations. All underground restrooms also have restroom attendants, who are on duty during all hours the stations are open to greet riders and discourage unwanted behavior.

The MTA in New York City launched a program to reopen bathrooms in January 2023, starting with nine stations.<sup>47</sup> In March, the second phase reopened bathrooms at 12 stations, with 18 more stations following in June. The phased approach has allowed the agency to slowly adjust to new cleaning and maintenance requirements.<sup>48</sup>

However, many systems may not have the capacity to maintain system restrooms. According to a Transit Cooperative Research Program survey, researchers found that 35 of 114 transit agencies considered lack of rider access to restrooms to be a problem.<sup>49</sup>

## Social mechanisms

Beyond design features, transit agencies can also rely on social mechanisms to reduce rule-breaking and improve both the reality and rider perceptions of system cleanliness.

## Presence of security and safety officials

The presence of highly visible officials can potentially reduce unacceptable behaviors that are detrimental to transit cleanliness through both deterrence and early response. These officials

exist in many forms, including Transit Ambassadors (e.g., Metro in Los Angeles),<sup>50</sup> Transit Ambassadors with Crisis Intervention Specialists (e.g., BART in San Francisco<sup>51</sup> and GCRTA in Cleveland),<sup>52</sup> Safety Response Teams, (TriMet in Portland),<sup>53</sup> guides (e.g., SEPTA in Philadelphia),<sup>54</sup> and unarmed security guards (e.g., CTA).<sup>55</sup> These distinctions can reflect differences in each transit system’s approach to handling incidents. Common responsibilities include reminding riders about rules, discouraging unwanted behaviors, reporting maintenance concerns, and requesting police assistance. Some officials are also equipped to perform crisis outreach, work with social service agencies, and give referrals for human services.

*For more information on these initiatives, see the companion PART memo on safety and security issues, available on the PART [webpage](#).*

## Incident-reporting applications

Riders can also play a role in notifying transit agencies about issues as they arise. Nationally, transit providers use mobile applications for both riders and staff to report incidents. These have tended to focus on reporting crime and security issues, such as the Los Angeles Metro Transit Watch app or the BART Watch Mobile App.<sup>56</sup> Philadelphia offers a similar Transit Watch app that includes options for reporting suspicious behaviors like smoking.<sup>57</sup> Mobile applications could potentially allow riders to directly report other cleanliness incidents as well. In this vein, CTA’s Innovation Office is seeking to develop a “Chat with CTA” feature where riders can report service quality issues, including cleanliness concerns.<sup>58</sup>

Many transit agencies, including those in northeastern Illinois, also offer a customer experience feedback form on their websites. Similarly, many transit agencies offer a customer service telephone line. These forms of incident-reporting can complement or comprise a rider reporting program.

*For more information on existing regional and peer mobile applications, see the companion PART memo on safety and security issues, available on the PART [webpage](#).*

## Resources for drug and alcohol use

Transit systems have the capability to integrate resources for discouraging drug and alcohol use into their programs and campaigns, especially if they partner with social service agencies or even research organizations.

In September 2022, Philadelphia’s transit system (SEPTA) launched a “Respect the Ride” campaign.<sup>59</sup> SEPTA partnered with the Philadelphia Department of Public Health to discourage smoking on the system and promote good behavior. Signage emphasizes that smoking or vaping on a platform or vehicle can result in receiving a ticket and a fine issued by SEPTA Transit police. As of July 2023, SEPTA has partnered with the Department of Public Health’s Substance Use and Prevention Harm Reduction division to staff public restrooms that are a part of the city’s public restroom pilot—which not only includes cleaning and maintaining facilities, but also engaging individuals who access the restrooms.<sup>60</sup>

In March 2023, Portland’s transit system (TriMet) announced its participation in a multi-agency study addressing drug use on transit systems conducted by the University of Washington.<sup>61</sup> Seattle’s Sound Transit will also participate. The study is part of multi-pronged approach to discourage smoking and drug use. TriMet’s Board of Directors also updated its code in early 2022 to allow TriMet supervisors to intervene in non-criminal violations.<sup>62</sup> For example, since possession of a small quantity of drugs and drug use are now categorized as a violation under Oregon law (ORS Chapter 153), TriMet updated its code to prohibit non-criminal violations to laws or ordinances. TriMet supervisors now have the power to address behavior with a citation or exclusion without needing to call in police. This supports efforts to reimagine public safety on transit without relying on a police response.<sup>63</sup>

In late 2020, BART in San Francisco undertook a comprehensive stakeholder engagement effort to seek input on how the community would like the agency to respond to the crisis of homelessness, behavioral health issues, and substance abuse on transit.<sup>64</sup> The broad recommendations of this report include:

- Increase the number and type of civilian professionals who respond to societal issues on BART.
- Establish more collaboration with human service organizations and counties.
- Provide more enforcement and more uniformed presence.
- Engage and educate about BART rules, what BART is doing, and how to report issues.
- Provide additional training for the BART Police Department.
- Engage frontline workers in first response.

## Resources for homelessness

Transit systems also can assist in providing resources for unhoused riders. As discussed in the previous section on the rise in homelessness, CTA has already begun partnering with organizations to address this growing issue.

LA Metro provides an example of a more integrated approach to addressing homelessness. The Los Angeles County Metropolitan Transportation Authority (Metro) details homeless and mental health outreach initiatives in its fiscal year 2023 budget, estimated at \$16.3 million.<sup>65</sup> This includes \$10 million toward expanding current outreach programs, \$2.5 million toward piloting new homeless strategies, and \$2 million toward providing homeless riders with short-term shelter, as well as other smaller initiatives.

# Recommendations

## Recommendation 1: Invest in efforts to promote cleaner transit stations and vehicles.

### Summary

The state should fund increased investments by the region's transit service providers in the cleanliness and condition of transit stations, vehicles, and facilities. This could include strategic investments in automatic sensors like urine or smoke detectors on elevators, platforms, bus stops, and vehicles to detect cleanliness issues as they occur and alert the appropriate staff (e.g., cleaning teams or security officials). It could also include other dynamic (or "smart") solutions like urine-resistant paint or automated restrooms. And it could include additional funding for ongoing efforts to "renew" transit facilities through deep cleaning, repainting, etc.

### Primary rationale

- Physical equipment that deters and reports on cleanliness issues could unburden staff and riders from the responsibility of reporting some incidents. During a vehicle's run, people are on the move and cannot always report incidents as they occur.
- Like rider reporting, automatic sensors and other smart solutions should be followed by targeted cleaning of problematic stations and vehicles, which can build rider trust in the transit agencies' responsiveness to public concerns and increase rider comfort.

### Implementation steps

The installation of physical equipment that improves incident reporting and detection will require pilot programs to test efficacy in the region, followed by capital investments on the most effective solutions. Transit agencies can fold these improvements into existing station and vehicle renewal programs, which could be expanded with additional funding. The resulting data collection and analysis can also inform how transit agencies determine the strategic points for cleaning teams and/or security officials to address issues, as well as the appropriate frequency.

### Considerations

CTA, Pace, and Metra will need to have sufficient resources and staff, as well as a defined protocol, to expand system cleanliness efforts and to respond and act to reported incidents. Automated detection of these incidents by physical equipment could assist in this initiative. This would require coordination of staff assigned to monitor detectors with cleaning teams and security officials, and further coordination with bus and train operators.

There are potential concerns on the equity of automated detection. It will be important to consider that the desired outcome of any new program is to improve the transit user





experience, both by reducing the number of incidents and improve system cleanliness. Thus, the purpose of any sensors should not be solely to police and punish those who participate in rule breaking behavior. Using sensors to catch someone in the act and ticket them has, by definition, happened after the incident has occurred. It may also be ineffective in deterring future behavior. However, more consistent detection and notification of transit system staff could enable quicker responses and an improved experience for system users.


Principles on transparency (such as signage or public awareness campaigns) that communicate the presence of sensors could be a more equitable approach, especially if it is part of a larger strategy to build social trust and respect for fellow riders. One potential standard to follow when installing sensors is the Digital Trust for Places and Routines (DTPR), which is an open-source communication standard to increase the transparency, legibility, and accountability of digital technology like sensors in the built environment.<sup>66</sup> Such standards can be incorporated into a larger, system-wide approach to ensure digital transparency in the public realm, as championed by the City of Boston.<sup>67</sup>

Capital investments for dynamic physical equipment could be a part of future CTA Refresh & Renew programs, which the agency launched in 2021 to expand ongoing maintenance through the agency’s annual operating budget. This would likely fall in similar price ranges to previous years of the Refresh & Renew program.





## Evaluation

### Policy

Category	Rating	Rationale
 <b>Mobility</b>	Medium	Increasing rider comfort also increases mobility options, as riders are more willing to ride various forms of transit (buses and trains) and different routes to complete trips throughout the day and week.
 <b>Equity</b>	Medium/ High	Sensors and automatic detection offer some equity concerns if not planned for, but there is an expected net positive effect on equity by reducing cleanliness concerns and expanding comfortable transit use for all riders. Physical equipment upgrades should have a net positive impact on equity.
 <b>Environment</b>	Medium	No incremental effect (although would not worsen environmental sustainability)
 <b>Economy</b>	Medium	No incremental effect (although would not worsen economic outcomes)



 <b>Regional benefit</b>	Regional	Coordinated improvements would positively affect rider comfort on regional, suburban, and urban rail as well as bus routes throughout the region.
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## Process

Category	Rating	Rationale
 <b>Administrative feasibility</b>	Medium	A more robust investment in system cleanliness would build on existing efforts but could require additional agency staff.
 <b>Political feasibility</b>	High	Political support for automatic detection and sensors can vary. Other equipment and station/vehicle cleanliness upgrades are less likely to be controversial.
 <b>Timing</b>	Near/ Medium	Equipment upgrades is a medium-term project but can be integrated into accessibility improvements which are already ongoing.
 <b>State span of control</b>	High	The state has the power to fund and direct these investments.

## Net cost / investment

The costs of this program could vary significantly depending on scope. For example, the budget for station renewals through the CTA’s Refresh & Renew program were \$2.1 million for 28 stations in 2022 and \$6.5 million for 29 stations in 2023. One example of a station upgrade, urine detectors for elevators, cost between \$10,000 and \$20,000, according to estimates from agencies which have implemented this technology. Investments across the region’s transit system could easily exceed \$10 million annually through capital and operating investments.

Category	2025	2026	2027	2028	2029	2030
 <b>Operations &amp; maintenance</b>   <b>Capital</b>	Costs would scale depending on size of program; \$10M+ annually could support new investments, with a mix of capital and operating support depending on program priorities.					

## Recommendation 2: Identify and address gaps in restroom access along transit corridors.

### Summary

The regional transit system could benefit from greater investments in restroom access on or near the system, including on both rail networks and at important bus connections. This could include a combination of investments in new restroom access within transit system facilities, partnerships with public or private organizations to provide restrooms near transit, and wayfinding to guide riders to restroom options. The state should consider funding these investments and building the cost of ongoing operation and maintenance into larger transit system funding structures.

### Primary rationale

- Lack of adequate public restrooms limits the accessibility of transit (and public space) to people with disabilities, seniors, families with children, and people experiencing homelessness and impinges on all riders' mobility.
- Public urination and defecation are often a last resort for those without access to a clean, safe, and accessible restroom that provides dignity and privacy. Deterring the presence of human waste on transit requires a humanizing approach to those resorting to this behavior.
- The state and the transit agencies can take a more proactive approach to identifying and addressing gaps in access to restrooms along transit corridors. Doing so can combine innovative partnerships, wayfinding, and strategic investments in public restrooms.

### Implementation steps

Agencies would first need to inventory available restrooms and identify gaps along existing transit corridors. There are some stations and facilities with access, e.g., all Metra trains already have toilets on board. However, most of the region's rail transit stations lack public restroom access.

Transit agencies can collaborate with other stakeholders (e.g., park districts and other local governments) to promote restrooms nearby, such as in parks or field houses. Transit agencies will need to create effective signage and campaigns that advertise where these existing available restrooms are. Wayfinding signage and public awareness initiatives should notify riders of the presence of these facilities at transit stations and how to access them.

Where existing options are not available or sufficient, agencies should consider how best to provide restroom access. In some cases, this may require new or newly publicly accessible restrooms within existing transit stations or facilities. Transit providers can also determine potential private partners. Private-public partnerships between transit agencies and private



businesses could incentivize private spaces to provide restroom access to transit users. The state could strengthen these partnerships by providing funding for cleaning or maintenance.

## Considerations

Restroom access is a relevant issue beyond just the transit system. As such, it will be important for transit agencies to coordinate with other stakeholders, such as local governments, as they consider how best to provide transit riders with access to and information about restrooms.

While partnerships with private businesses to provide restroom access do have precedents, there are likely to be challenges. Local businesses may hesitate to participate, e.g., due to concerns about unwanted behavior. Transit agencies may need to require guarantees with local businesses or offer additional resources and assistance to build participation. The Community Restroom Incentives Pilot in Washington, D.C., which is a result of the Public Restroom Facilities Installation & Promotion Act of 2018 passed by the DC Council, provides funding to participating businesses that make their restrooms available free of charge to any person.<sup>68</sup> This pilot is still ongoing as of 2023, but the city has not shared information on the number of participants nor the success of the pilot.


In high traffic areas like downtowns or main streets, the presence of public restrooms at transit station could alleviate stress on local businesses to accommodate demand for restroom access. Another private-public partnership could be local businesses supporting or sponsoring public restroom initiatives that are staffed, cleaned, and monitored by public employees.





Constructing or reopening public restroom facilities within the transit system will also require proper staffing. Expanded cleaning and maintenance teams, with different responsibilities than those who maintain trains and buses, will be necessary for transit-operated restrooms or if a transit agency is partnering with public or private restrooms near the transit line.

Public restroom hours at train stations may need to reflect and meet the needs of the transit line, such as extended hours on the CTA’s Red and Blue lines due to their 24-hour operation schedule.





## Evaluation

### Policy

Category	Rating	Rationale
 <b>Mobility</b>	Medium	Public restroom access should have a positive effect on transit system users and increase mobility for riders for whom the lack of restrooms posed challenges. However, overall impacts on transit ridership are likely to be modest, at least in the immediate term.



 <b>Equity</b>	High	Public restrooms can increase equity for people with disabilities, seniors, families with children, and people experiencing homelessness. Additional restroom access could also limit unwanted behaviors like urination in elevators, which can pose a significant mobility challenge to riders who rely on elevators to access transit.
 <b>Environment</b>	Medium	No incremental effect (but will not worsen environmental outcomes)
 <b>Economy</b>	Medium	No incremental effect (but will not worsen economic outcomes)
 <b>Regional benefit</b>	Regional	The identification and closing of gaps in restroom access along all transit corridors in the region would have positive effects on all regional transit riders.

**Process**

Category	Rating	Rationale
 <b>Administrative feasibility</b>	Medium	Administrative support may be needed for partnerships. Funding programs for ADA requirements can support the construction of public restrooms.
 <b>Political feasibility</b>	Medium	Political support for public restrooms can vary.
 <b>Timing</b>	Near/Medium/Long (would phase over time)	The service boards can integrate the construction of new facilities into accessibility improvements which are already ongoing. Otherwise, construction of new facilities is a medium- to-long-term project. The service boards can pilot other strategies for wayfinding and partnerships (public and private) in the near term.
 <b>State span of control</b>	Medium	While the state could direct and fund investments, some elements of this recommendation would rely on the participation of private actors.

## Net cost / investment

The cost of constructing new public restrooms (outside of a transit system) can cost \$1M to \$2M per facility, according to similar efforts in Los Angeles and New York City. BART renovations of existing public restrooms at transit stations are estimated to be between \$100K to \$550K. Wayfinding and signage to nearby public restrooms would require investment, but would be substantially cheaper. Public-private partnerships across the region with businesses to open their doors to public transit users could vary based on incentives.

Category	2025	2026	2027	2028	2029	2030
 <b>Operations &amp; maintenance</b>	Cost would scale depending on the number of restrooms and model pursued; staffing for restrooms within transit systems or compensation for private businesses could require \$10M+ for a significant program					
 <b>Capital</b>	Cost would scale depending on the number of restrooms; \$10M in annual capital investments could enable meaningful progress if paired with sufficient operating funds					

## Recommendation 3: Strengthen the involvement of social services agencies and research organizations in tackling the causes of unwanted behaviors.

### Summary

The state should facilitate stronger partnerships and require additional coordination between transit agencies, private and public social agencies, and research or advocacy organizations and engage them as they investigate the causes of unwanted behaviors on the transit system. The state should also fund pilot programs that reimagine the public response to issues like homelessness, drug and alcohol abuse, and public hygiene beyond only police enforcement.

### Primary rationale

- Cleanliness and riders’ comfort on transit, in the long-term, requires a human-centered strategy to build social trust and respect for fellow riders. Deterring unwanted behaviors like alcohol and drug use, smoking, and soliciting requires a humanizing approach to those doing this behavior.
- Further research is necessary to reduce open alcohol and drug use on public transit, such as the root causes for rule breaking behavior among both persistent and infrequent offenders.

## Implementation steps

To prevent recurring unwanted behaviors on transit, the service boards need more insight on the causes of these behaviors. Social services agencies and research or advocacy organizations are already undertaking this work and can assist in program design. While expanding physical and digital infrastructure can facilitate reporting and detection of open drug and alcohol use, it does not necessarily deter persistent offenders, nor does it reduce the higher prevalence of open alcohol and drug use among under-resourced or marginalized communities.<sup>69</sup> Instead, these approaches focus on putting an immediate stop to the offense and restoring comfort to surrounding riders.

The state could also support investments that address root causes of these behaviors. For example, transit agencies can partner with private and public social agencies to advertise ways that riders can seek help if they are struggling with addiction. Research organizations are a promising partner for launching public engagement initiatives to directly work with those caught smoking, drinking, or using drugs on transit systems. Health advocacy organizations can assist with discouraging unwanted behavior through public campaigns.

Cook County and United Way of Metro Chicago support individuals in need with the local 211 service. 211 is a free resource that provides users with health and social service support through phone, text, web chat, or database search. Transit agencies can leverage this resource by advertising the service and/or providing training for transit ambassadors and station attendants on how to use 211 to support riders in need.


*This strategy would also benefit from complementary investments in a transit ambassadors program, described in the companion memo on safety and security (available on the [PART webpage](#)).*





## Considerations

Existing unwanted behaviors may be the product of a combination of challenges, including mental health issues, homelessness, alcohol and drug addiction, and more. In many cases, these issues are co-occurring problems that reinforce one another. Successfully addressing these challenges will require efforts that go beyond just transit agencies.





## Evaluation

### Policy

Category	Rating	Rationale
 <b>Mobility</b>	Medium	Improvements in rider respect and building social trust (with one another and with the system) improves people's mobility across neighborhoods and areas of the region.

 <b>Equity</b>	High	Partnering with existing social service and research or advocacy organizations can ensure a holistic, evidence-based approach to issues.
 <b>Environment</b>	Medium	No incremental effect (but will not negatively impact environmental sustainability)
 <b>Economy</b>	Medium	No incremental effect (but will not negatively impact economic opportunities)
 <b>Regional benefit</b>	Regional	The involvement of social service agencies and research or advocacy organizations in tackling the root cause of unwanted behaviors on transit can improve the social situations of many vulnerable groups across the region.



## Process

Category	Rating	Rationale
 <b>Administrative feasibility</b>	High	There are already examples of these collaborations underway.
 <b>Political feasibility</b>	Medium	Political support could vary based on the type of intervention considered.
 <b>Timing</b>	Near/Medium	Social services partnerships could be expanded in the near term. Research projects may take longer but can be done in the medium term.
 <b>State span of control</b>	Medium	The state could direct existing public agencies to participate and partner with transit providers. However, elements of this recommendation involve non-state actors, such as non-profits and research or advocacy organizations.

## Net cost / investment

CTA's current partnership with Department of Family and Social Services (DFSS) is budgeted to cost around \$2 million.<sup>70</sup> Expansion of this program may cost upwards of \$5-10 million per year, which can allow for expansion to Pace and Metra as well as working with research or advocacy

organizations in addition to other social service agencies. Implementation of the solutions that come from a multi-agency regional study on drug and smoking use could cost upwards of \$1 million based on similar efforts elsewhere.<sup>71</sup>

Category	2025	2026	2027	2028	2029	2030
 <b>Operations &amp; maintenance</b>	\$5-10M annually would support expansion of existing partnerships and new efforts; funding could come from non-transit sources.					
 <b>Capital</b>	NA					

## Recommendation 4: Improve two-way rider communication on cleanliness issues through existing and new mobile applications.

The state should support ongoing and new efforts by the region’s transit agencies to improve two-way communication between riders and agency staff on issues related to system cleanliness. This recommendation closely aligns with the complementary recommendation in the PART memo on safety and security, “Improve two-way rider communication through existing and new mobile applications,” which can be accessed on the PART [webpage](#).

With appropriate resources and innovative solutions, this rider reporting mechanism could better connect riders with staff managing live reports of incidents as well as staff that can coordinate with janitors and cleaning teams. The state could also fund and direct agencies to consolidate this function into an integrated application, either new or building on existing platforms.

### Primary rationale

- Riders can report non-threatening incidents to CTA, Pace, and Metra’s customer service lines and immediate safety and security concerns to the police. But it is not easy for riders to directly report cleanliness issues and concerns, or to see the resulting action in response to those concerns.
- A two-way rider reporting mechanism can provide riders with the opportunity to act when they witness a cleanliness incident and see a prompt response from transit providers. To succeed, reports should be followed by targeted cleaning of problematic stations and vehicles, which can build rider trust in the transit agency and increase comfort and cleanliness for all riders.

## Implementation steps

Expanding existing mobile applications (which are primarily used for other purposes) could be the most effective way to strengthen rider reporting on cleanliness issues. Metra currently has a mobile application (the Metra COPS app) that allows riders to report crimes and suspicious behavior to Metra Police from a train or station. It allows riders to anonymously send photos and video with a description of the event. Metra could expand the app’s purview to include reporting cleanliness incidents or rule breaking behavior.

This recommendation also aligns with a pillar of CTA’s *Meeting the Moment* action plan for the system, which states the agency will try to “upgrade our digital tools to improve rider communication.” CTA’s Innovation Office is seeking to develop a “Chat with CTA” feature where riders can report service quality issues, including cleanliness concerns.<sup>72</sup>

There are also alternatives to mobile applications for implementing rider reporting mechanisms. An easy-to-use mechanism might involve QR codes that lead to companion web sites, text messages, or direct telephone line to call. Digital kiosks at transit stations, on platforms, or even on trains and buses themselves could be a rider reporting mechanism for those without access to a mobile phone or internet connection.


The digital infrastructure that supports any rider reporting mechanism should publicly share reported data (such as incident prevalence and response time) by train station, bus stop, or route. Doing so could improve rider satisfaction with their cleanliness campaigns. A web-based platform and/or open data portal for data analysis, user dashboards, visualizations, and collection of incidents and response could show riders improvements over time and the effectiveness of this policy in increasing cleanliness and comfort on transit.





## Considerations

The transit agencies would need to hire or contract with additional technical staff to support the expansion of digital infrastructure to improve cleanliness incident reporting and detection. The rollout of any rider reporting mechanism and installation of sensors would need to go smoothly to ensure community buy in, public awareness, and accessibility. Transit providers will also need to have sufficient resources and staff, as well as a defined protocol, to respond and act when incidents are reported.





## Evaluation

### Policy

Category	Rating	Rationale
 <b>Mobility</b>	Medium	Increasing rider comfort also increases mobility options, as riders are more willing to ride various forms of transit (buses and trains) and different routes to travel throughout the day and week.

 <b>Equity</b>	Medium (note risks)	Rider reporting can lead to profiling or discriminatory behavior if not managed carefully, but there is a positive effect on equity by reducing cleanliness concerns and expanding comfortable transit use for all riders.
 <b>Environment</b>	Medium	No incremental effect (but will not worsen environmental outcomes).
 <b>Economy</b>	Medium	No incremental effect (but will not worsen economic outcomes).
 <b>Regional benefit</b>	Regional	Coordinated improvements would positively affect rider comfort on regional, suburban, and urban rail as well as bus routes throughout the region.

**Process**



Category	Rating	Rationale
 <b>Administrative feasibility</b>	Medium	Transparency and accountability in rider reporting requires more administrative capacity as well as expanded technical staffing to develop and deploy communication tools.
 <b>Political feasibility</b>	High	There is likely existing political support for expanding digital infrastructure for cleanliness incident reporting and detection.
 <b>Timing</b>	Near	For example, Metra launched its mobile application within 6 months of initially approving the contract. <sup>73</sup>
 <b>State span of control</b>	Medium	The state could fund and direct these investments. However, success may require partnership with outside stakeholders (e.g., existing mobile application developers).

**Net cost / investment**

Developing a new application or modifying an existing application would also require upfront capital investment. Operating costs would include hosting, maintenance, and staffing the application. However, to maximize the value of investment, transit providers could combine this approach with the complementary recommendation on two-way rider communication for safety and security topics. Staffing for quickly responding to rider issues would require



additional investment, as detailed in the recommendation above on system cleanliness investments.

Category	2025	2026	2027	2028	2029	2030
 <b>Operations &amp; maintenance</b>	<i>See Recommendation #2 from the companion memo on safety and security, available on the PART <a href="#">webpage</a>.</i>					
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