



AMERICAN PUBLIC TRANSPORTATION ASSOCIATION
S. 576, THE RAILWAY SAFETY ACT OF 2023
HOT BOX DETECTOR REQUIREMENT
FLASH SURVEY RESULTS
April 12, 2023

A bipartisan group of Senators, led by Sen. Brown (D-OH) and Sen. Vance (R-OH), introduced a bill, [S. 576, the Railway Safety Act of 2023](#), in response to the Norfolk Southern freight train derailment in East Palestine, Ohio. President Biden has expressed support for the bill and Senate leaders have discussed advancing the rail safety legislation this spring. The bill includes new rail safety requirements that impact commuter railroads.

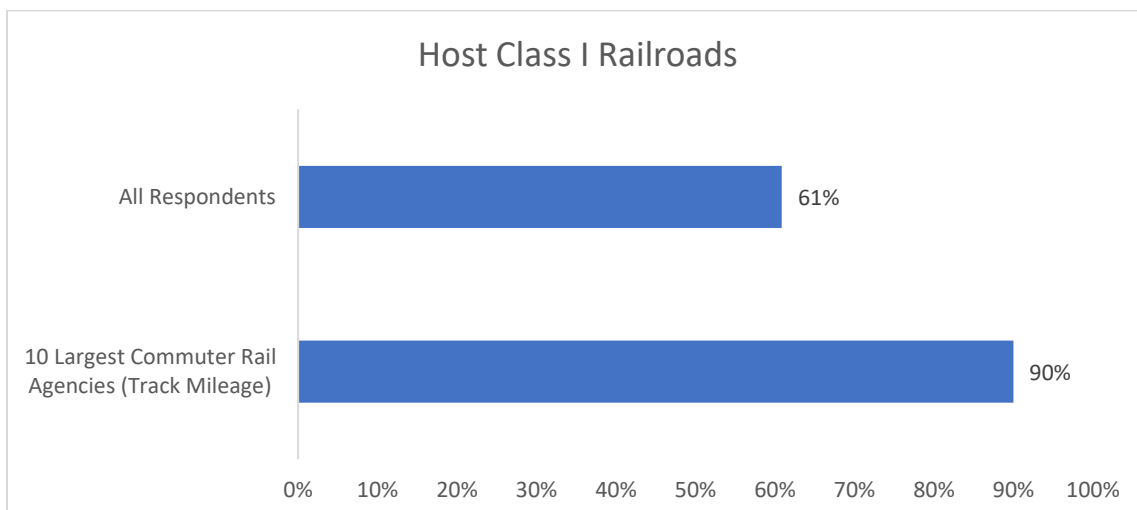
To better understand the impacts on commuter railroads, APTA conducted a Flash Survey of commuter rail agencies regarding the proposed S. 576 requirement to install hot box detectors in certain circumstances. On March 28-29, APTA reached out to 30 commuter rail agencies to better understand the impacts of and gauge their opinions on the proposed requirement to install hot box detectors as part of S. 576. APTA received responses from 23 commuter rail agencies.

APTA does not believe that commuter rail agencies should bear the cost of acquiring, installing, and maintaining hot box detector devices.

This Survey Brief outlines the Flash Survey results.

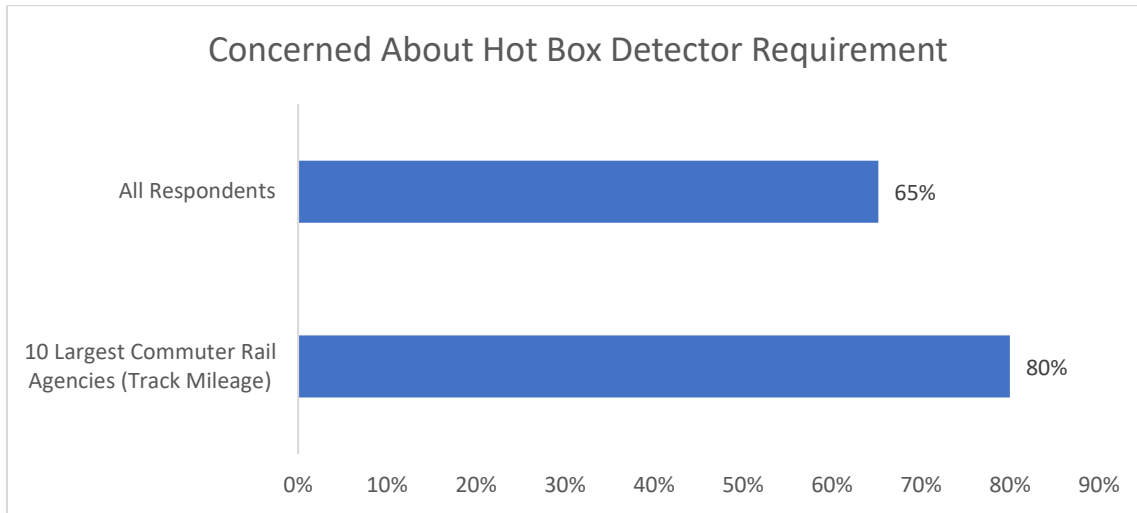
Commuter Railroads Hosting Class I Railroads

Of the survey respondents, **61 percent** of agencies stated that they host Class I railroads on the agencies' rights of way (**approximately 3,000 – 4,000 track miles**), including **90 percent of the 10 largest commuter rail agencies**. For purposes of this survey, we calculated the largest commuter rail agencies as agencies with the greatest track mileage weighted by percentage of capital responsibility (based on data from the Federal Transit Administration's 2021 National Transit Database).



Commuter Rail Agencies Express Concern with Hot Box Detector Requirement

Commuter rail agencies are concerned about the cost to acquire, install, and maintain hot box detector technology. They are also concerned about possible operational impacts on their systems. Of the survey respondents, **65 percent** of commuter rail agencies (including **80 percent of the 10 largest commuter rail agencies**) expressed concern about a requirement to install hot box detector technology on every 10-mile segment of track over which trains carry hazardous materials.



Commuter Railroad Cost Estimates for Installation and Maintenance

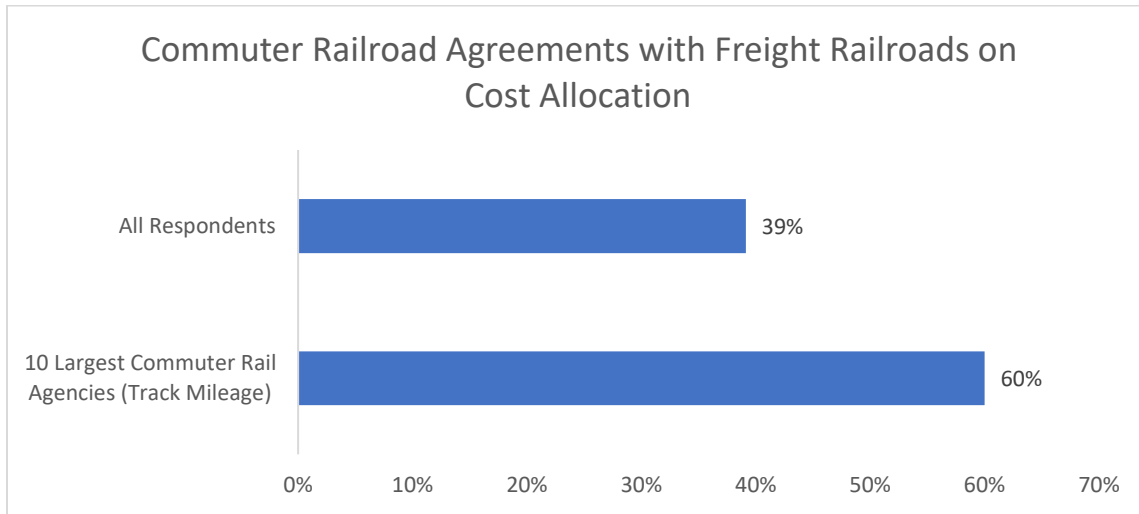
Commuter rail agency cost estimates for installation varied considerably. Some agencies estimated the cost to acquire and install hot box technology to be less than \$500,000 per device while other agencies estimated the cost to install the technology to be greater than \$1.5 million per device. Agencies also noted that other factors could increase the costs of installing these devices. For example, a statutory requirement would presumably increase demand for the devices and therefore drive up costs. In addition, section 5(c) of the bill requires wayside defect detectors to address specific parts (e.g., axles, wheel bearings, brakes, signals). If the Federal Railroad Administration (FRA) final regulation requires that hot box detectors integrate and automatically activate with other systems such as positive train control systems or signaling systems, the cost of the equipment and installation would increase.

Agencies estimated annual maintenance costs of five to 10 percent of installation costs. In addition, some agencies pointed out that the hot box detector requirement could have other unforeseen costs related to daily operational impacts on commuter railroads. For example, if a functioning hot box detector device is required for system operation and it fails, it could immediately impact commuter rail operations while awaiting repair.

APTA does not believe that commuter rail agencies should bear the cost of acquiring, installing, and maintaining hot box detector devices.

Commuter Railroad - Freight Railroad Agreements

Of the survey respondents, **39 percent** of all commuter rail agencies (including **60 percent of the 10 largest agencies**) have agreements with freight railroads that provide terms for which party is responsible for freight-only improvement costs. For instance, under an existing agreement, a commuter rail host agency may be responsible for all safety improvements on its track even for a tenant railroad's freight-only improvement.



**APTA Flash Survey
Responding Commuter Rail Agencies
Hot Box Detector Requirement**

The following commuter rail agencies responded to the APTA survey, in order of track mileage weighted by percentage of capital responsibility (based on data from FTA’s 2021 National Transit Database). Commuter rail agencies in **bold** are the top 10 agencies in terms of track mileage capital responsibility.

Commuter Rail Agency	City	State
Metra (Northeastern Illinois Reg. Commuter Railroad)	Chicago	IL
NJ TRANSIT	Newark	NJ
MTA Metro-North Railroad	New York	NY
Massachusetts Bay Transportation Authority	Boston	MA
MTA Long Island Rail Road	New York	NY
SEPTA	Philadelphia	PA
Southern California Regional Rail Authority/Metrolink	Los Angeles	CA
North County Transit District	Oceanside	CA
Peninsula Corridor Joint Powers Board (Caltrain)	San Carlos	CA
Utah Transit Authority	Salt Lake City	UT
New Mexico DOT	Santa Fe	NM
CTDOT	New Haven	CT
Northern Indiana Commuter Transportation District	Chesterton	IN
Regional Transportation District	Denver	CO
Sonoma Marin Area Rail Transit (SMART)	Marin County	CA
Trinity Metro	Fort Worth	TX
Denton County Transportation Authority	Lewisville	TX
RTA/Music City Star	Nashville	TN
San Joaquin Reg. Rail Comm./Altamont Commuter Express	Stockton	CA
Sound Transit	Seattle	WA
MDOT MTA MARC Train Service	Baltimore	MD
Virginia Railway Express	Alexandria	VA
Metro Transit	Minneapolis	MN