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Cops, Cameras, and Enclosures

The safety of passengers and employees has become an increasingly important issue and a primary concern of transit systems. While data from the National Transit Database reveal that bus operators are relatively secure from violent crime, the fact remains that many transit agencies have experienced incidents of assaults against their bus operators that have resulted in serious injuries or deaths. These incidents can also expose passengers to assault and injury. Even when there are less serious consequences, assaults on the operators can lower their morale, increase absenteeism, and strain labor-management relations over whether the agencies are doing enough to protect the employees.

Because of the unique characteristics of bus service provision, the security of bus operators may be seen as less than that of workers in other transit modes, e.g. train operators. These unique characteristics derive primarily from the methods of fare collection that have remained virtually unchanged for decades. Even with the switch to exact change and the introduction of prepaid fares, many systems still offer transfers. The operator's presence serves to enforce the transit system's fare policy. If the transfer receipt does not clearly indicate the necessary information for the receiving bus operator to validate, and/or if the transit system's transfer policies are vague or too complex for customers to understand, disputes between customers and bus operators may result.

Because of the varied responsibilities placed on bus operators, the designs of their workstations on American transit buses logically submit to function. In most cases, the bus operator is nearly fully exposed to bus passengers. A modesty panel behind the operator's seat minimizes distractions from passengers and the glare from onboard lighting, but few other barriers provide physical separation and protection for the bus operator.

In general, transit agencies typically employ more than one technique to provide onboard security methods to get the most bangs for their limited bucks. With few exceptions (e.g. cab enclosures and training) most methods are employed to protect both employees and customers. Furthermore, most methods employed yield benefits in addition to providing security measures. For example, though Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) systems are typically procured for their efficiencies in real-time fleet management, their bus tracking features—integrated with advanced communication systems and video surveillance—provide significant advantages in responding to transit crime. Onboard video surveillance systems provide records of onboard passenger activity including vandalism. The video can be used as powerful evidence in prosecuting property damage crimes. Visible onboard systems, security staff, and interior designs that mitigate crime may facilitate positive marketing efforts to discretionary customers, instilling greater confidence in the security of the transit system.

Security methods may be classified differently for analyses with different purposes. One classification may differentiate technology or automated methods versus manual methods using manpower. Technology methods include communications systems, covert alarms, video surveillance, and CAD/AVL. Manpower methods primarily involve security staff and/or police patrols. The security methods for transit buses might also be categorized as proactive, reactive, or punitive. Crime prevention (proactive) methods include video surveillance, "code of conduct" postings, Crime Prevention Through Environmental Design (CPTED) principles, operator cab enclosures, security staff, police officers, and violence prevention/anger management training. Incident management (reactive) methods include CAD/AVL systems, video/audio surveillance, security staff, police officers, and self defense training. Punishment-based (punitive) methods include state laws and local ordinances to protect public transit employees and customers by providing special punishments and laws that codify greater charges for transit crimes.

According to the results of the survey, the four highest rated methods in terms of effectiveness were in-house security, an enclosure to protect operators in new bus specifications, plainclothes sworn police, and an enclosure to protect bus operators retrofitted into existing buses. The three least expensive rated methods were violence prevention training, a panic button that changes the message of the destination sign, and plainclothes security. The three highest effectiveness-to-cost ratios belong to violence prevention training, in-house security, and plainclothes security.

Keeping in mind the survey's narrow focus of each method's role in keeping bus operators secure from crime, lower rated methods may actually warrant consideration. For example, CAD/AVL rated a solid "good" in effectiveness, but its cost was also rated "expensive," which resulted in the lowest effectiveness-to-cost ratio among all surveyed methods. However, the benefits of CAD/AVL are primarily concerned with effective fleet management and dispatch, which has a large impact on a transit agency's sensitive operating budget. The security features of CAD/AVL may be viewed as added benefits. Similarly, the benefits of onboard video surveillance are shared among security, risk management, maintenance, and marketing. The survey for this project only asked respondents' perceptions of the methods in addressing security of bus operators.

Interestingly, violence prevention training was rated the technique with the highest effectiveness-to-cost ratio. This may reflect the transit industry's conservative nature in that violence prevention training has been the standard reinforcing response to keeping bus operators safe from crime. Changing times and attitudes are apparent, however, in the application of more aggressive strategies.

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