Executive Report on Curbside Motorcoach Safety

Special Report

NTSB/SR-11/02
PB2011-917003

National Transportation Safety Board

NTSB/SR-11/02
PB2011-917003
Notation 8350
Adopted October 12, 2011

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Executive Report on Curbside Motorcoach Safety

National Transportation Safety Board

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National Transportation Safety Board. 2011. *Executive Report on Curbside Motorcoach Safety*. Special Report NTSB/SR-11/02. Washington, DC.

Abstract: Motorcoach safety has received increased public attention after several serious accidents during 2011, some of which involved curbside carriers. As a result, the National Transportation Safety Board conducted an investigation of motorcoach safety with an emphasis on curbside operations. The objectives of the investigation were to (1) describe the characteristics of the curbside business model among interstate motorcoach carriers; (2) describe the safety record of interstate motorcoach carriers, including those that use a curbside business model; and (3) evaluate the adequacy of safety oversight for interstate motorcoach carriers using a curbside business model. This report focuses primarily on those issues that pertain only to curbside operations.

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Abbreviations

CDL	commercial driver's license
CSA	compliance, safety, and accountability
DOT	Department of Transportation
FMCSA	Federal Motor Carrier Safety Administration
FMCSR	*Federal Motor Carrier Safety Regulations*
NTSB	National Transportation Safety Board
OOS	out of service
PCA	principal component analysis

Summary

This executive report summarizes the information found in the National Transportation Safety Board's (NTSB) *Report on Curbside Motorcoach Safety*. In that report, motorcoach transportation safety was examined comprehensively with an emphasis on curbside motorcoach operations. The full report also addresses the Federal Motor Carrier Safety Administration's (FMCSA) oversight of all sectors of the motorcoach industry so that comparisons with curbside operations can be made.

This executive report focuses primarily on those issues that pertain only to curbside operations. In addition, this report presents the list of conclusions from the full report. Readers are encouraged to refer to the full NTSB report for a complete view of interstate motorcoach operations, including those providing curbside service.[1]

The analyses conducted during this investigation accurately depict the results from the comparisons of the various motorcoach carriers defined in this report based on the data available from the FMCSA. This investigation could not account for uncertainty associated with the identification of curbside carriers or for missing or inaccurate data from FMCSA data sources. Applying these results to different groups of motorcoach carriers would require additional categorization of the motorcoach carrier groups and new analyses.

Of the 4,172 active interstate motorcoach carriers operating in the United States, 71 were identified as scheduled motorcoach carriers providing curbside service. Although accidents among all types of interstate motorcoach carriers (including those applying the curbside business model) are infrequent, curbside carriers have higher fatal accident and death rates and higher out-of-service (OOS) rates resulting from driver violations (specifically, fatigued driving and driver fitness violations) compared with scheduled conventional carriers. Curbside carriers also have higher driver fitness violation and OOS rates, and these carriers are overrepresented in driver logbook violations. The safety record of individual curbside carriers varies, with some carriers having very good safety records and others having worse safety records.

In addition, the oversight of this segment of the industry has several challenges. FMCSA and state investigators are overburdened by the number of inspections and compliance reviews that need to be accomplished to properly assess a motor carrier's safety performance due to the large number of motor carriers that the investigators have to oversee in addition to motorcoach carriers. The prohibition of routine en route inspections, the minimal requirements for obtaining new operating authority, the inconsistent enforcement of the requirement to submit mileage and other essential information to the FMCSA, and language barriers all indicate that oversight of curbside carriers is more challenging than that for other segments of the motorcoach industry.

[1] For more information, see *Report on Curbside Motorcoach Safety*, Safety Report NTSB/SR-11/01 (Washington, DC: National Transportation Safety Board, 2011).

Chapter 1: Introduction

Curbside Operations

The term "curbside operations" refers to a business model (that is, the means by which motorcoach service is provided) rather than a type of motorcoach carrier. In fact, no formal definition of curbside carriers exists, and federal and state oversight authorities have no unique categorization or tracking mechanism for these carriers. For the purpose of this report, curbside motorcoach operations are those in which interstate motorcoach carriers conduct scheduled trips from one city to another city or a destination and originate or terminate at a location other than a traditional bus terminal; most of these operations discharge passengers at one or more curbside locations.

Although curbside motorcoach carriers apply a similar business model, they vary greatly in other characteristics. Some carriers operate large fleets of motorcoaches throughout the United States, whereas others have a fleet of only a few buses that operate in local regions. Driver training practices differ, with some curbside carriers providing multiweek training programs and others using a less formal driver instruction process. Safety oversight practices also differ, with some curbside carriers having safety quality assurance programs that incorporate sophisticated real-time motorcoach monitoring, random driver observations, and safety event trending; in contrast, other curbside carriers have no formal safety programs or processes. The safety record of individual curbside carriers varies, with some carriers having very good safety records and others having worse safety records.

Curbside motorcoach operations began as an inexpensive means of travel between New York City and Boston primarily for low-income Chinese workers.[2] Most curbside motorcoach carriers provide other services, including charter operations[3] for private groups.[4] Currently, one-way curbside fares can be as low as $1 to $5 for those buying seats weeks in advance,[5] and the fares typically do not exceed $30.[6] The number of curbside operators and the number of locations from where they operate are increasing.

Conventional motorcoach carriers (which provide scheduled service from one terminal to another terminal) have lowered their fares to compete with curbside carriers. As a result, the term "low-cost carrier" is no longer meaningful because conventional and curbside motorcoach carriers now charge similar fares.

[2] J. Chen, "Brief History of Chinatown Bus," GotoBus.com, 2011 <http://www.gotobus.com/chinatownbus/history> (accessed September 21, 2011).

[3] For charter operations, an individual or an organization contracts with an interstate motorcoach operator to provide service between two points. Charter trips typically involve tour or social groups or sports teams.

[4] *2011 Membership Survey and Industry Assessment* (Alexandria, Virginia: United Motorcoach Association).

[5] Some curbside bus operators use a yield management system in which the first seats sold are the least expensive, and then seats become more expensive as the time of the trip grows closer.

[6] Megabus.com, "Megabus.com Offers 100,000 Free Seats to Stimulate Travel in 2010," press release, December 8, 2009.

Many curbside carriers rely heavily on bus brokers to sell tickets: 72 percent of curbside carriers use such services to sell their tickets compared with 22 percent of conventional carriers. Unlike brokers that facilitate the transportation of property, bus brokers are not subject to the Secretary of the Department of Transportation's (DOT) jurisdiction. Accordingly, bus brokers are not required to register with or obtain operating authority from the Federal Motor Carrier Safety Administration (FMCSA).[7] Bus brokers are also not required to disclose the name of a carrier to the consumer when a ticket is purchased. As a result, this information is often not provided, making it difficult for passengers to evaluate a carrier's safety record and other relevant information. On June 13, 2011, the FMCSA Administrator testified before Congress that "unregulated websites broker and sell tickets with no transparency to the public" and that the FMCSA was seeking authority to regulate brokers of passenger tickets as is done for brokers of freight and household goods.

Objectives

The objectives of this investigation were to (1) describe the characteristics of the curbside business model among scheduled interstate motorcoach carriers; (2) describe the safety record of interstate motorcoach carriers, including those that use a curbside business model; and (3) evaluate the adequacy of safety oversight for interstate motorcoach carriers using a curbside business model.

Methodology

The National Transportation Safety Board (NTSB) used a multifaceted approach to collect data and information to accomplish the objectives of this investigation. Among the methods used, the NTSB

- reviewed relevant literature on motorcoach safety, regulatory requirements, and oversight procedures as they pertain to curbside carriers;
- analyzed accident, inspection, and compliance review[8] data and performed retrospective data analyses of the safety performance of interstate motorcoach operators;
- developed a nationwide list of scheduled interstate motorcoach carriers that conduct curbside operations;
- conducted primary focus groups with state motor carrier inspectors and FMCSA safety investigators and supplemental focus groups with motorcoach drivers;
- visited curbside motorcoach operators;
- observed motorcoach operator compliance reviews and motorcoach inspections; and
- met with motorcoach industry associations.

[7] Title 49 *United States Code* 1306 (a)(14).

[8] A compliance review is an on-site examination of a motor carrier's operation to determine the carrier's compliance with the *Federal Motor Carrier Safety Regulations* (FMCSRs) and evaluate the carrier's management controls.

Investigation Limitations

While developing the list of curbside motorcoach operators, the NTSB found that many of the carriers' common names (trade names) were not registered with the motorcoach carriers' legal names (corporate names) in the FMCSA's database. As a result, although the list is the first known publicly available source for this information, the list likely omits some carriers. Further, the data sources did not permit the identification of charter/tour motorcoach carriers that had added scheduled trips to their services if the carriers had not notified the FMCSA of this change.

The NTSB obtained data from the FMCSA's data portal and FMCSA staff. Because of the varying definitions and categorization of bus types and uses in state and federal records, direct and exact comparisons among the carriers was not always possible. The most important mechanism for collecting motorcoach mileage information is the FMCSA's MCS-150 form, which motorcoach operators are required to update every 24 months. However, the FMCSA appears to be inconsistent in enforcing the requirement for updating the MCS-150 form.

The cumulative effect of these limitations could reduce the accuracy and precision of the resulting data analyses. As a result, the findings from the data analyses should be interpreted with those limitations in mind. Also, the findings should be interpreted as an indication of general safety rather than an evaluation of individual operators.

Chapter 2: Quantitative Analysis of Curbside Motorcoach Transportation Safety Data

The analyses presented in this chapter were conducted primarily using data obtained from the FMCSA's data portal or FMCSA staff.[9]

Although motorcoach carriers are required to report their annual fleet mileage to the FMCSA every 2 years using the MCS-150 form, the NTSB found that 32 percent of all motorcoach carriers did not report any annual mileage. Another 32 percent of the carriers had not updated their annual mileage since 2008. The lack of reliable annual mileage information for 64 percent of all motorcoach carriers renders this source of information as unsuitable for use in analysis. Typically, the number of miles traveled is used to calculate rates so that meaningful comparisons can be made, including those between curbside and conventional carriers. Because such comparisons were not possible in this analysis, the NTSB used the total number of vehicles operated by a carrier as a replacement exposure measure.

Classification of Motorcoach Carriers Based on Type of Service

The NTSB identified 4,172 active U.S. interstate motorcoach carriers from the entire passenger carrier population. Of these 4,172 carriers, 122 were identified as providing interstate scheduled regular route service. The other 4,050 carriers, referred to as "nonscheduled other carriers," showed no evidence of providing such service. These nonscheduled other carriers provided mostly charter or tour services.

Of the 122 scheduled service carriers, the NTSB identified which carriers provided curbside service and which ones showed no evidence of providing curbside service. To be classified as providing curbside service, evidence was needed showing that the carriers had routes that originated or terminated at locations other than terminals, such as at a street corner or outside of a retail business. Of the 122 carriers that provided scheduled interstate services, 71 were considered curbside carriers, and 51 were considered conventional carriers.

There is uncertainty associated with the identification of curbside motorcoach carriers because regulatory authorities have not developed a formal definition or category. This investigation could not account for that uncertainty or for missing or inaccurate data from FMCSA data sources. The analyses conducted in this investigation accurately depict the results from the comparisons of the various motorcoach carriers defined in this report based on data available from the FMCSA. Applying these results to different groups of motorcoach carriers would require additional categorization of the motorcoach carrier groups and new analyses.

[9] The FMCSA data portal (<https://portal.fmcsa.dot.gov>) provides single sign-on access to numerous central and field systems. For this report, the NTSB used the FMCSA's portal to obtain access to, and extract data from, the Motor Carrier Management Information System and the analysis and information databases. Detailed information about the FMCSA data systems can be found at <http://www.fmcsa.dot.gov/about/infosys/publicinformationsystems/publiccoresystems.aspx>. (Both websites were accessed on October 6, 2011.) FMCSA staff extracted detailed inspection data during a 24-month period for a list of 4,172 motorcoach carriers.

Characteristics of Motorcoach Carriers

The locations where the 4,172 U.S. motorcoach carriers are registered are shown in figure 1 by service type. Thirty-five percent of these carriers are located in five states: California, New Jersey, New York, Pennsylvania, and Texas. Most of the 122 scheduled route service carriers (including curbside carriers) are based near large metropolitan areas, especially along the northeast corridor. Pennsylvania has the highest number of curbside service carriers with 16 such carriers.

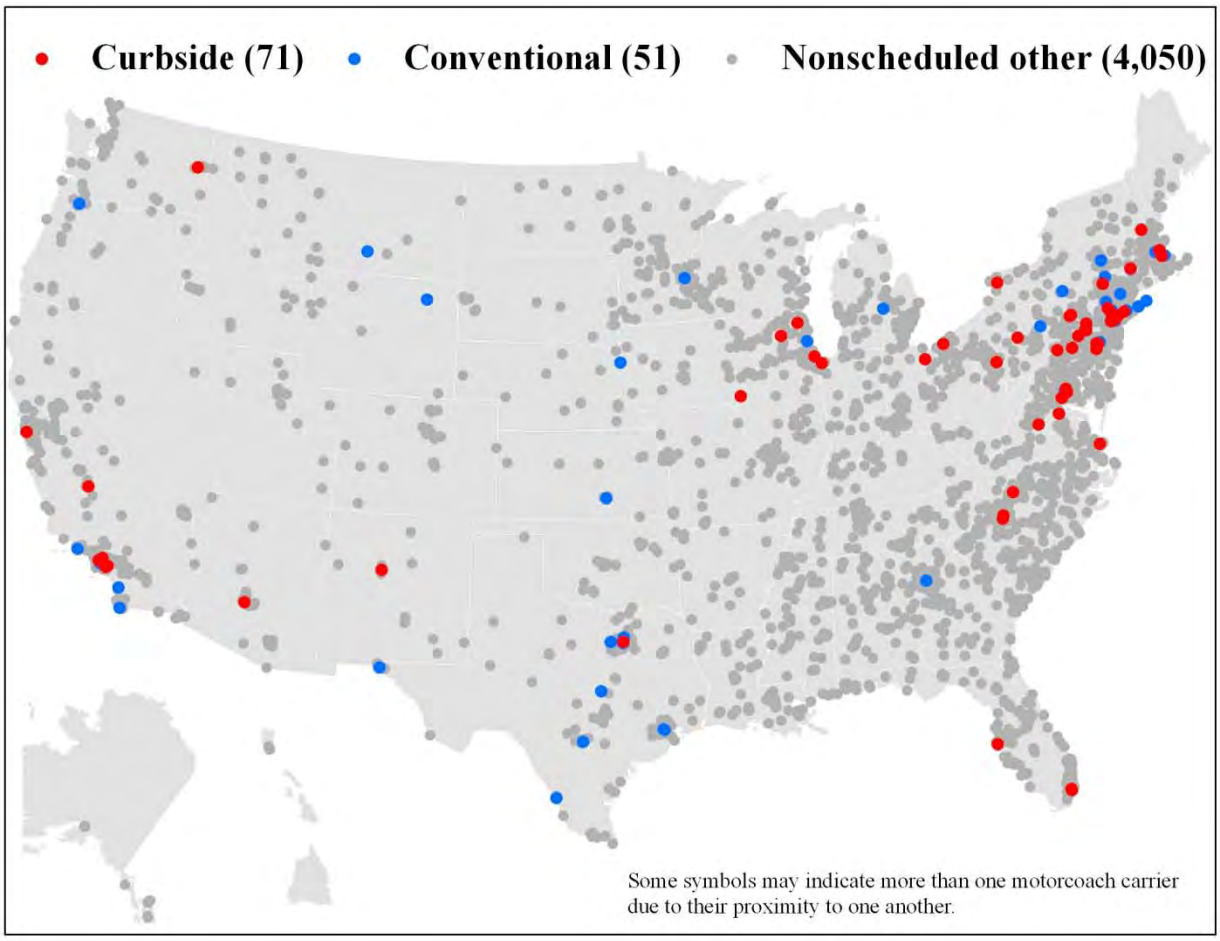

Figure 1. Locations of U.S. Motorcoach Carriers by Service Type.

Figure 2 shows that 35 percent of curbside carriers have 10 or fewer motorcoaches, whereas 61 percent of conventional carriers and 86 percent of nonscheduled other carriers have 10 or fewer motorcoaches. Table 1 shows that 52 percent of curbside carriers, 63 percent of conventional carriers, and 58 percent of nonscheduled other carriers have been in business for 10 years or less. The thresholds of up to 10 motorcoaches and up to 10 years in service were found to be useful discriminators for safety comparisons.

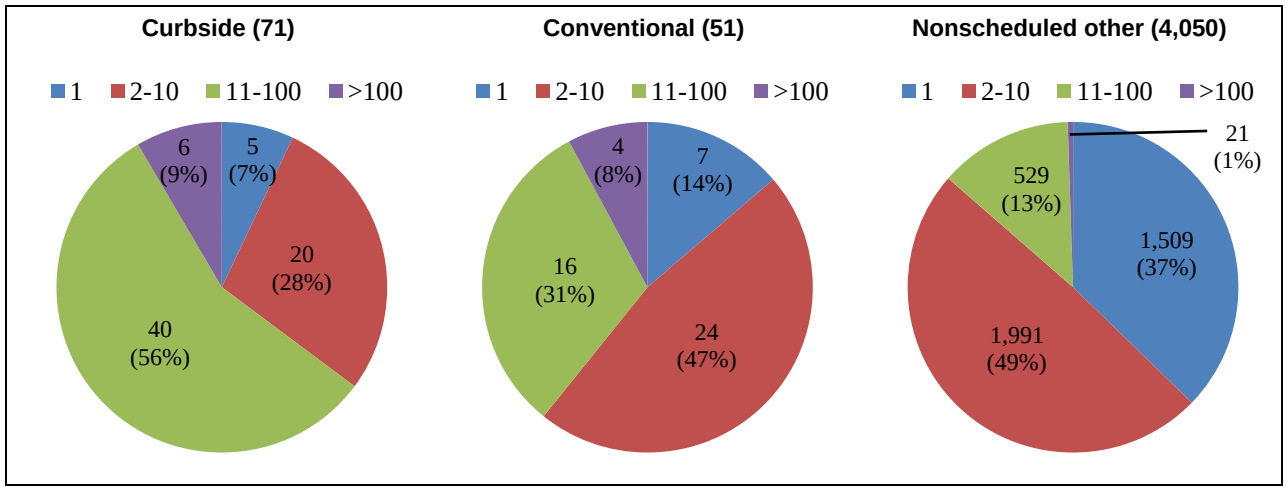

Figure 2. Distribution of Carriers by Number of Motorcoaches and Service Type.

Table 1. Motorcoach Carriers in Business for 10 Years or Less.

Service type (number of carriers)	Number	Percent
Curbside (71)	37	52
Conventional (51)	32	63
Nonscheduled other (4,050)	2,338	58
Total (4,172)	2,407	58

Inspections of Motorcoach Carriers, April 2009 to March 2011

Table 2 shows the distribution of carriers that received at least one inspection between April 2009 and March 2011. Eight percent of curbside carriers, 12 percent of conventional carriers, and 37 percent of nonscheduled other carriers did not have inspections during that period, which is important to note because the FMCSA's Compliance, Safety, and Accountability oversight program depends on data derived, in large part, from these inspections.

Table 2. Number of Motorcoach Carrier Inspections by Service Type, April 2009 to March 2011.

	Carriers with no inspection		Carriers with at least one inspection		
Service type	**Number**	**Percent**	**Number**	**Percent**	**Total**
Curbside	6	8	65	92	71
Conventional	6	12	45	88	51
Nonscheduled other	1,508	37	2,542	63	4,050
Total	1,520	36	2,652	64	4,172

Compliance Reviews and Safety Audits, January 2007 to April 2011

From January 2007 to April 2011, the FMCSA conducted 3,691 compliance reviews for motorcoach carriers, representing 76 percent of all compliance reviews for passenger carriers. Figure 3 shows the distribution of ratings resulting from these compliance reviews. Most compliance reviews (85 percent) resulted in satisfactory ratings, 44 compliance reviews (1 percent) resulted in unsatisfactory ratings, and 448 compliance reviews (12 percent) resulted in conditional ratings.

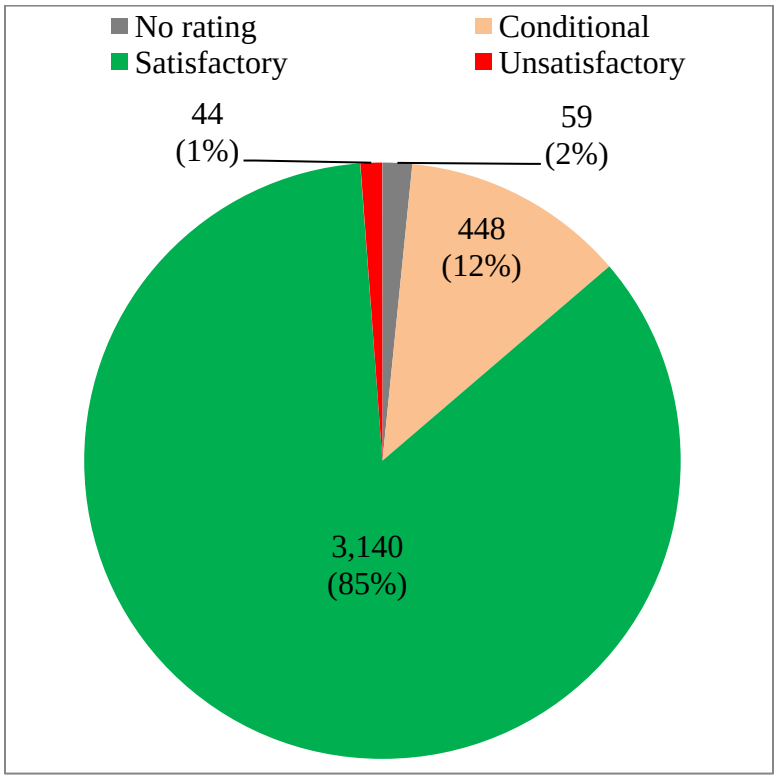

Figure 3. Distribution of Compliance Review Ratings for Motorcoach Carriers, January 2007 to April 2011.

Of the 3,794 motorcoach carriers that had been in business for more than 18 months, 87 percent of curbside carriers, 94 percent of conventional carriers, and 65 percent of nonscheduled other carriers received at least one compliance review between January 2007 and April 2011. Of the 1,303 motorcoach carriers that received no compliance review during that period, 252 (19 percent) received at least one safety audit.

Classification of Motorcoach Carriers Based on Accident and Inspection History

The NTSB used a quantitative approach to classify all of the 4,172 motorcoach carriers based on their overall accident and inspection history, which was derived from the FMCSA's Motor Carrier Management Information System.

The NTSB calculated adjusted inspection, violation, and out-of-service (OOS) violation rates[10] and expressed these rates per 100 vehicles (based on the number of vehicles operated) for each carrier during two inspection periods.[11] Also, the adjusted accident rates for each motorcoach carrier from January 2005 to March 2011 were computed using a similar approach. In addition, the NTSB examined information on the number of states where inspections occurred as well as the percent of roadside motorcoach inspections for reasons other than traffic enforcement.

A principal component analysis (PCA)[12] was used to define composite variables that could be used to categorize the 4,172 carriers. This analysis produced three principal components that accounted for most of the variance in the data. On the basis of the carriers' principal component scores, the following three categories were identified: (1) those carriers with high accident rates, (2) those carriers with high inspection and violation rates, and (3) all other carriers not defined by high accident or inspection/violation indicators (grouped for comparison purposes).

To evaluate the type of violations, the NTSB further categorized the carriers using the more detailed inspection data (from April 2009 to March 2011) obtained directly from the FMCSA. An adjusted violation rate per 100 vehicles during the 2-year period was then computed. An additional analysis of carriers that ranked among the top 10 percent (that is, in the 90th percentile) in specific violation categories augmented the PCA results by further highlighting carriers with severe violation rates.

Operational Characteristics of Motorcoach Carriers With Substandard Accident and Inspection History

The relationship between the type of service provided by a carrier and the carrier's accident and inspection history was examined. Although curbside carriers comprised 2 percent of all motorcoach carriers, they comprised 5 percent of carriers in the high accident rate category and 6 percent of carriers in the high inspection and violation rate category, as shown in table 3. More than 90 percent of carriers with high accident rates or high inspection and violation rates were nonscheduled other carriers.

[10] In this chapter, the term "OOS violations" refers to OOS orders resulting from inspections.

[11] Some motorcoach carriers were not in operation during the entire period covered by the inspection data (January 2007 to March 2011 for motorcoach inspections and April 2009 to March 2011 for all bus inspections). As a result, the NTSB derived adjustment factors using the number of months that a carrier had been in business relative to the length of the inspection records.

[12] PCA is a statistical method that evaluates the correlations among a set of variables to create linear combinations of the original variables that are uncorrelated (orthogonal). The number of these linear combinations, or principal components, is constrained to be less than or equal to the number of original variables. This transformation is defined so that the first principal component accounts for as much of the variability in the data as possible and that each succeeding component has the highest possible percent of variance explained, with the constraint that the component be uncorrelated with the preceding components.

Table 3. Accident, Inspection, and Violation Rates by Type of Service.

	Curbside		Conventional		Nonscheduled other	
Category (number of carriers)	**Number of carriers**	**Percent**	**Number of carriers**	**Percent**	**Number of carriers**	**Percent**
1: High accident rate (74)	4	5	0	0	70	95
2: High inspection and violation rates (279)	16	6	9	3	254	91
3: Comparison (3,819)	51	1	42	1	3,726	98
Total (4,172)	71	2	51	1	4,050	97

Although table 3 indicates that a total of 20 curbside carriers were categorized as having either high accident rates or high inspection and violation rates, the remaining 51 curbside carriers were not considered to have high rates in either category. Further analyses of the operational characteristics of the curbside carriers showed that the 20 curbside carriers operated fewer motorcoaches (averaging 17 motorcoaches compared with 63 motorcoaches operated by the 51 remaining curbside carriers) and that they had less time in business (with a median time of 6 years compared with 16 years for the 51 remaining curbside carriers).

Comparison of Accident, Inspection, and Violation Rates by Service Type

The NTSB evaluated driver fitness violations from April 2009 to March 2011 and found that, for curbside carriers, 11 percent of the driver fitness violations were due to English language deficiencies. In comparison, for conventional and nonscheduled other carriers, 3 and 5 percent, respectively, of the driver fitness violations were due to English language deficiencies. Regarding OOS orders associated with English language deficiencies, the contrast among curbside, conventional, and nonscheduled other carriers was even greater. Specifically, 55 percent of driver fitness OOS violations for curbside operators were due to English language deficiencies, whereas the corresponding percentages were 11 and 23 percent for conventional and nonscheduled other carriers, respectively. Figure 4 compares these percentages.

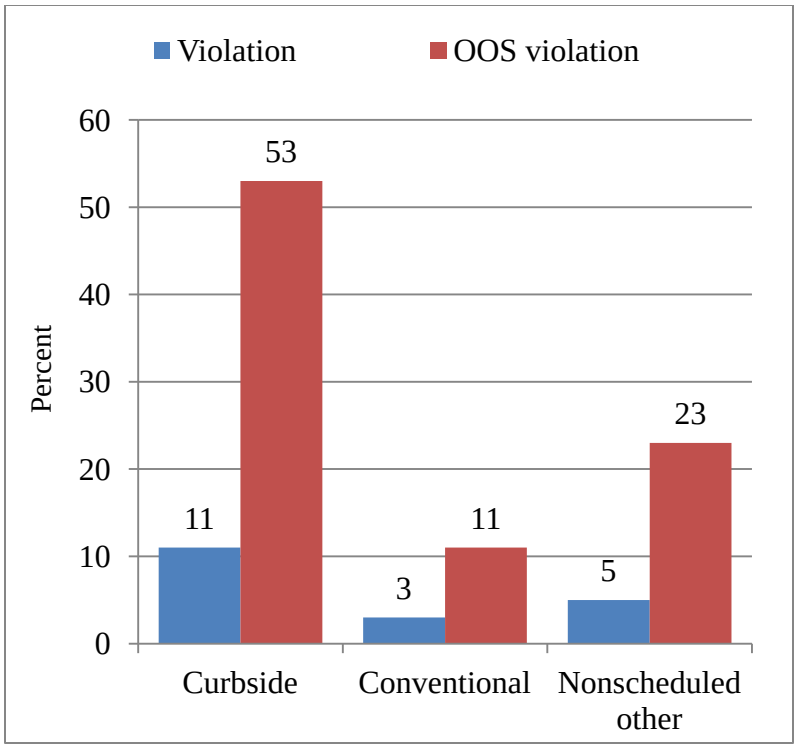

Figure 4. Distribution of Driver Fitness Violations and Out-of-Service Orders Associated With English Language Deficiencies.

The NTSB compared the accident and OOS violation rates among the three types of motorcoach carriers (curbside, conventional, and nonscheduled other service). Adjusted accident rates, inspection violation rates, and OOS violation rates were computed for each motorcoach carrier. These rates were then averaged by service type. There was a high degree of variation in these rates among carriers within each service type. Figures 5 and 6 compare the rates for the three types of carriers.

Figure 5 shows that curbside carriers had the highest overall accident rates and the highest death and injured person rates among the three service types. There were 1.4 fatal accidents per 100 vehicles operated by curbside carriers from January 2005 to March 2011 compared with 0.2 fatal accidents per 100 vehicles operated by conventional carriers. The death rate (number of people killed per 100 vehicles) was 1.9 for curbside carriers compared with 0.2 for conventional carriers. Figure 6 shows that curbside carriers had a higher driver fitness OOS violation rate of 13.8 compared with 4.7 for conventional carriers as well as a higher fatigued driving OOS rate (16.7 versus 11.2), whereas conventional carriers had a slightly higher unsafe driving violation rate and vehicle maintenance OOS violation rate.

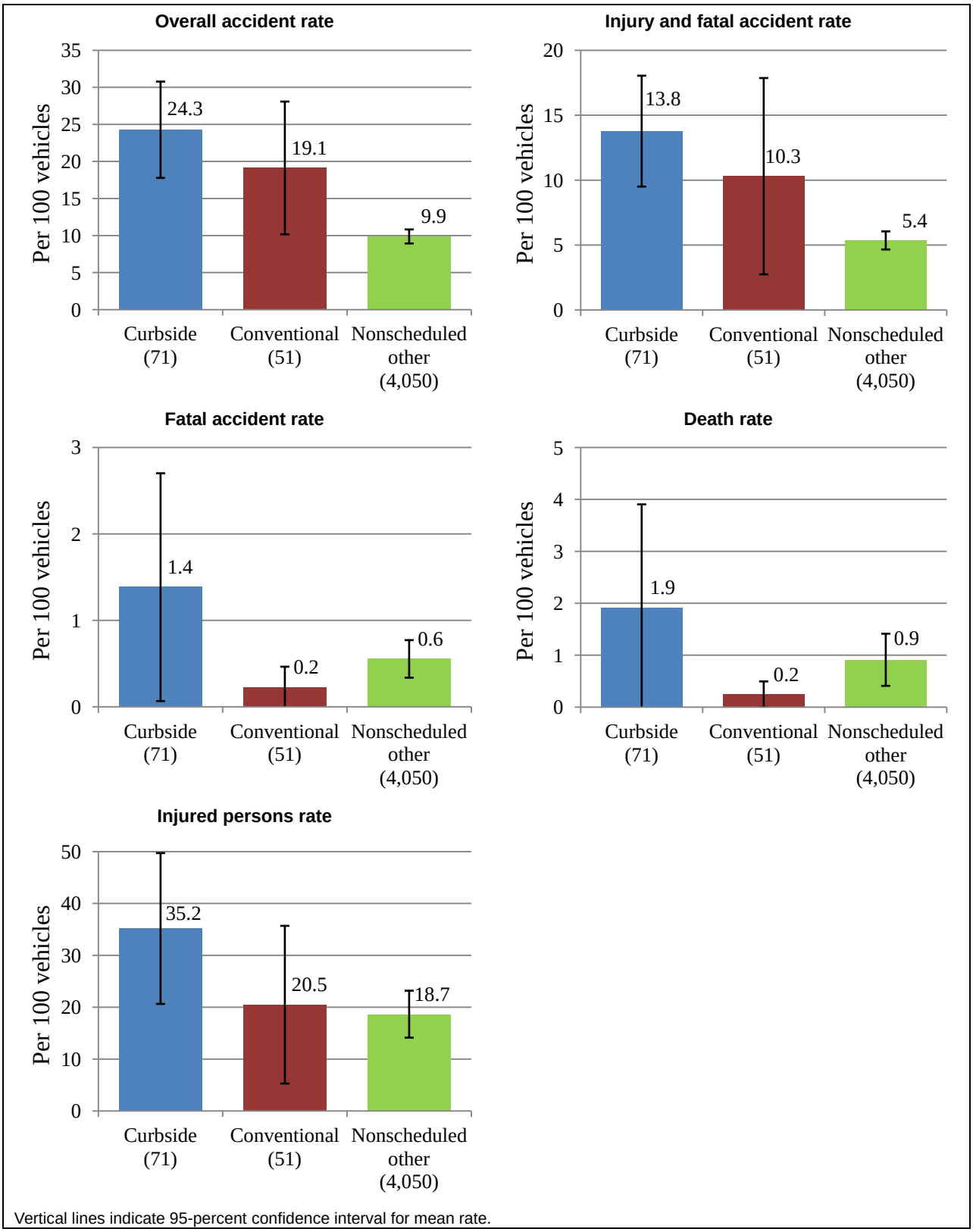

Figure 5. Average Rates for Overall Accidents, Injury and Fatal Accidents, Deaths, and Injured Persons by Service Type, January 2005 to March 2011.

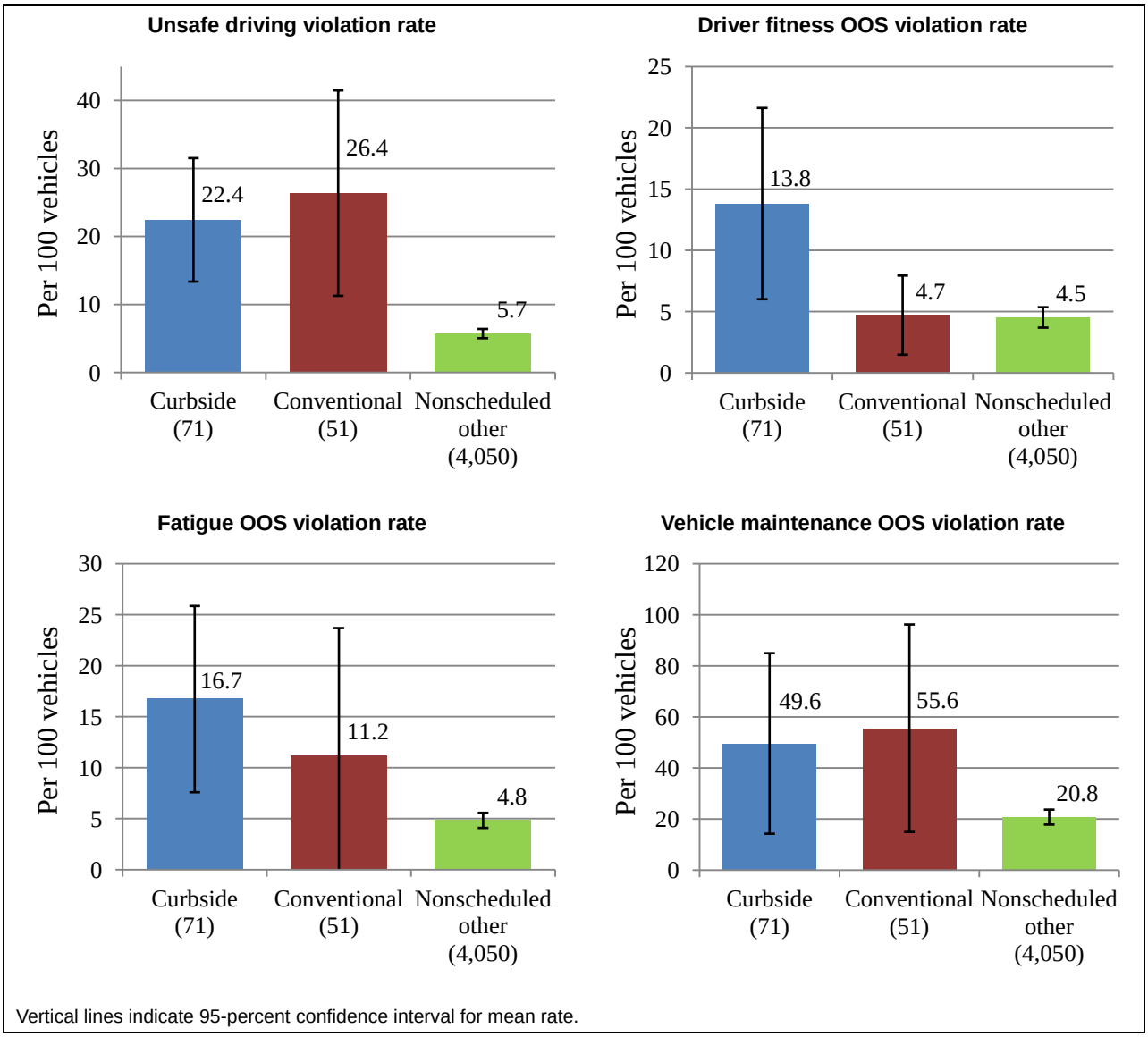

Figure 6. Average Violation Rates and Out-of-Service Violation Rates by Service Type, April 2009 to March 2011.

Additional analyses of accidents were conducted but were limited to curbside and conventional carriers only. Nonscheduled other carriers were excluded from these analyses because they have different operating practices and likely have lower mileage.[13] Figure 7 shows that, among scheduled carriers, curbside carriers were involved in 45 percent of all reported accidents and 43 percent of injury accidents from January 2005 to March 2011. These rates were lower than might be expected considering that curbside carriers represented 58 percent of all scheduled motorcoach carriers and operated 52 percent of all scheduled motorcoaches (as indicated by the dashed and solid black lines in the figure). Conventional carriers represented

[13] Nonscheduled other carriers were not included in this comparison because the NTSB believes that scheduled motorcoaches (curbside and conventional) travel more miles per motorcoach in a given year. Consequently, scheduled motorcoach carriers would likely experience more accidents per motorcoach than nonscheduled carriers because of the higher mileage exposure.

42 percent of all scheduled carriers and operated 48 percent of all scheduled motorcoaches. These carriers were more likely to be involved in a reported accident (55 percent) or an injury accident (58 percent) than curbside carriers. Curbside carriers had higher percentages than conventional carriers for fatal accidents (57 percent), number of deaths (64 percent), and number of injured persons (58 percent). Thus, the data indicated that curbside accidents were more likely to result in injury or death for road users involved in an accident.

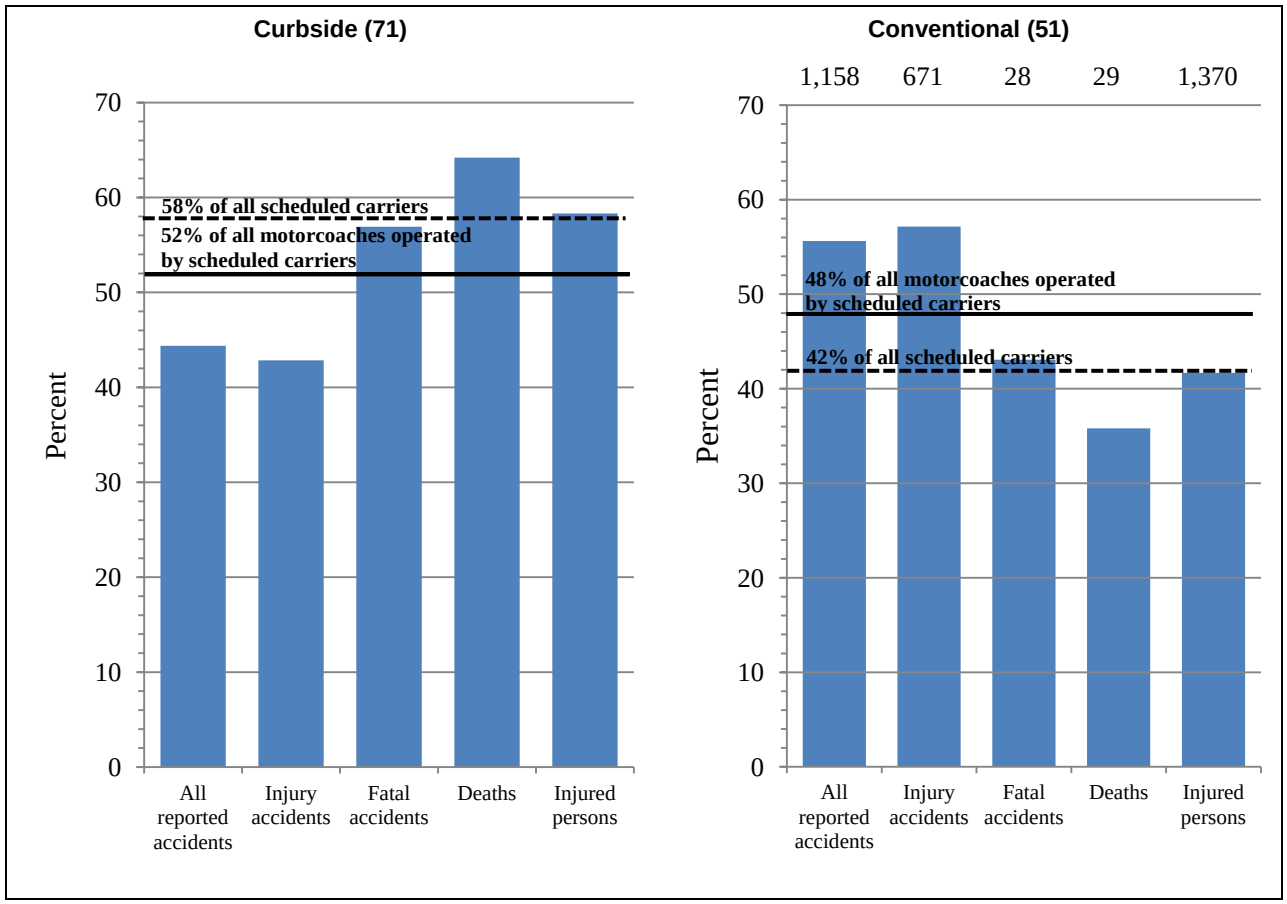

Figure 7. Distribution of Accidents, January 2005 to March 2011.

Chapter 3: Qualitative Data on Curbside Motorcoach Safety

Qualitative data were collected and analyzed during this investigation to help answer the questions of why and how motorcoach safety violations occur. These data complement the quantitative data presented in chapter 2. To collect qualitative data, the NTSB conducted primary focus groups with 9 state inspectors who perform roadside inspections and some compliance reviews of interstate motorcoach carriers and 12 FMCSA safety investigators who perform compliance reviews.

In addition, to understand common challenges experienced by drivers in the interstate motorcoach industry, the NTSB conducted two supplemental focus groups of motorcoach drivers. The 11 participating drivers had a broad range of driving experience. Their work involved charter and tour bus operations and scheduled motorcoach operations, including curbside operations. The topics discussed during the focus groups included safety challenges, hours of service, rest and sleep opportunities, fatigue, working conditions, and the role of government in promoting motorcoach safety.

Findings from the focus groups regarding curbside safety, oversight, and operations are listed below.

Hours-of-Service Compliance

To demonstrate compliance with the hours-of-service regulations, drivers are required to maintain handwritten logbooks; the voluntary use of automated (mechanical or electronic) recorders for this purpose is permitted. State inspectors described drivers as being adept at masking violations of these regulations. State inspectors and FMSCA investigators said that detecting falsified logbooks was a continuing challenge and that they supported the use of electronic onboard recorders to determine driving hours.

English Proficiency

Participants in all of the focus groups and industry representatives highlighted concerns about drivers and motorcoach company officials who could not communicate well in English. These drivers could receive a violation because 49 *Code of Federal Regulations* 391.11(b)(2) requires that commercial driver's license (CDL) holders have a basic understanding of the English language.[14]

State inspectors and federal safety investigators also expressed concern about the lack of English language skills among owners and operators of curbside carriers. The inspectors and

[14] FMCSR section 391.11(b)(2) requires a driver with a CDL to "read and speak the English language sufficiently to converse with the general public, to understand highway traffic signs and signals in the English language, to respond to official inquiries, and to make entries on reports and records."

investigators cited the following difficulties: conducting compliance reviews with owners and operators who do not speak English, reviewing and evaluating company records that are written in a language other than English, and encountering answering machine messages or services that are in a foreign language. In such instances, it is difficult for investigators to schedule and conduct a compliance review without a translator.

These issues, although frustrating for FMCSA investigators, are not illegal. The investigators stated that their major concern was that owner and operators with limited or no English language skills often violated regulations due to lack of knowledge of the regulatory requirements.

Concerns Identified by State Inspectors and Federal Safety Investigators

In addition to the difficulties they face in detecting falsification of logbooks, the state inspectors and federal safety investigators face other challenges, as indicated below.

Federal law prohibits routine en route inspections. As a result, drivers can only be inspected after they have dropped off passengers or if they are at a planned stop location (unless police officers believe that an imminent hazard exists). This constraint hampers oversight of curbside and other motorcoach carriers because drivers on particular routes or nighttime trips might be able to avoid inspections, especially those conducted at fixed sites that can be bypassed, such as rest stops. Another challenge is that inspections of curbside carriers must take place on streets rather than in terminals, which poses logistical problems. Federal safety investigators pointed out logistical challenges involving passengers if a driver is placed out of service. The FMCSA has asked Congress to permit en route inspections because of the potential safety benefits that could be achieved.

Some motorcoach carriers engage in practices that make oversight difficult. One oversight challenge involves detecting reincarnated carriers. Repainting buses, especially simply painted "ghost buses,"[15] and placing company ownership in a relative's name are common practices for reincarnated carriers. The FMCSA does not currently have a standard federal definition for a reincarnated carrier, so the agency has to apply each state's definition for corporate succession, which creates problems for federal safety investigators. The FMCSA has asked Congress for the authority to establish a uniform federal standard for determining whether a new carrier has been reincarnated from a previous carrier with safety violations.

State inspectors and FMCSA investigators said that some curbside carriers hold multiple DOT numbers and are able to transfer their vehicles and drivers after receiving bad safety ratings. The inspectors and investigators believed that this practice was more common among small low-cost carriers, many of which were considered to be curbside carriers. Vehicle identification numbers are currently not recorded unless a passenger carrier has been inspected or has received a compliance review, and inspectors would like to know these numbers sooner to help identify (using motor carrier names and DOT numbers) the carrier that is operating the vehicle.

[15] The term "ghost buses" refers to motorcoaches that are painted white or black with minimal transportation information on the outside of the vehicle, which allows reincarnated carriers to easily paint over a company name and DOT number with new information.

Some curbside carriers are difficult to contact. FMCSA investigators and state inspectors reported difficulties contacting some owners and/or managers of curbside carriers to schedule a compliance review due to incorrect addresses or telephone numbers provided by the carriers. Also, FMCSA investigators are not always certain that they are dealing with the actual owner and/or manager of the intended company, especially when they meet with company representatives in restaurants and other nontraditional places.

The MCS-150 form is often submitted late and with inaccurate information. State inspectors and federal investigators were concerned that passenger carriers were not submitting the MCS-150 form every 2 years, as required. Further, the investigators indicated that MCS-150 form data, including contact information, were often inaccurate and that such occurrences were more common among curbside carriers.

Some motorcoach carriers are more likely than others to violate rules. FMCSA investigators thought that smaller carriers, particularly those with only one or two motorcoaches, and new carriers were more likely to violate rules, including those for drug testing and hours of service. The investigators believed that large motorcoach carriers could not afford to operate illegally. State inspectors said that some motorcoaches that provided curbside service were not being maintained adequately.

Chapter 4: Conclusions

Motorcoach safety is not a function of whether passengers are picked up and dropped off at a curbside or a terminal or how much passengers are charged for fares. Rather, motorcoach safety, including curbside motorcoach safety, is strongly influenced by the management of the carriers that own these vehicles and the drivers that operate them.

This chapter provides the primary conclusions from the findings of the NTSB's investigation of curbside motorcoach safety. Characteristics associated with curbside motorcoach operators, their safety performance compared with other motorcoach operators, and FMCSA oversight procedures have been described and analyzed. The effectiveness of FMCSA oversight procedures was assessed through data analyses, discussions with FMCSA management staff, focus groups with state inspectors and federal safety investigators, discussions with industry representatives, and observations of motorcoach inspections and compliance reviews.

It is important to note that there is uncertainty associated with the identification of curbside motorcoach carriers because regulatory authorities have not developed a formal definition or category for these carriers. This investigation could not account for that uncertainty or for missing or inaccurate data from FMCSA data sources. The analyses conducted in this investigation accurately depict the results from the comparisons of the various motorcoach carriers defined in this report based on data available from the FMCSA. Applying these results to different groups of motorcoach carriers would require additional categorization of the motorcoach carrier groups and new analyses.

Findings

1. In general, curbside, conventional, and nonscheduled motorcoach carriers all provide a safe mode of travel.

- Accidents among all types of interstate motorcoach services, including those applying the curbside business model, are infrequent.
- Motorcoach occupant fatalities are uncommon. Most of the deaths in fatal motorcoach accidents are occupants of other vehicles.
- In an accident, bus occupants have a lower risk of dying than passenger vehicle occupants.

2. The term "curbside operations" represents a business model (that is, the means by which motorcoach service is provided) rather than a category of motorcoach carriers.

- Curbside motorcoach operations are those in which interstate motorcoach carriers conduct scheduled trips from one city to another city or a destination and originate or terminate at a location other than a traditional bus terminal; most of these operations discharge passengers at one or more curbside locations.
- Curbside carriers may also provide other services, such as conventional, commuter, shuttle, and unscheduled service (for example, charter and tour.)
- Although curbside bus is a common term used by the public, the term is not a recognized regulatory or operational classification.
- The Federal Motor Carrier Safety Administration (FMCSA) does not collect information about the types of terminals used and the routes provided by motorcoach carriers.

3. The curbside business model is becoming increasingly popular and is being applied by a growing population of new and established interstate motorcoach carriers.

- After years of declining ridership from 1960 to 2005, annual motorcoach service growth rates ranged from 5.1 to 9.8 percent between 2006 and 2010.
- Large established motorcoach companies are now using the curbside business model.
- At least 71 of the 122 scheduled motorcoach carriers identified in this investigation offer curbside service.

4. **Motorcoach carriers with 10 or fewer motorcoaches and carriers that have been in business for 10 years or less have higher accident rates and higher roadside inspection and violation rates.**

5. **Scheduled motorcoach carriers that have drivers and vehicles linked with other carriers (that is, their drivers or vehicles are listed in the inspection records for more than one company) are more likely to have higher accident rates.**

    - Carriers included in the high accident rate category, as defined in the full report on curbside motorcoach safety, have a higher percentage (38 percent) of their inspected drivers linked to other carriers compared with 26 percent for the comparison category.
    - Carriers included in the high inspection and violation rate category have a higher percentage (40 percent) of their vehicles linked to other carriers compared with 29 percent for the comparison category.

6. **Curbside carriers generally have higher fatal accident and death rates than other carriers not identified as providing curbside services; however, this finding does not apply to every curbside carrier.**

    - The adjusted fatal accident rate for curbside carriers from January 2005 to March 2011 was 1.4 per 100 vehicles versus 0.2 per 100 vehicles for conventional carriers.
    - The adjusted death rate for curbside carriers during the same period was 1.9 per 100 vehicles versus 0.2 per 100 vehicles for conventional carriers.
    - Curbside carriers represented 5 percent of all motorcoach carriers in the high accident rate category but comprised about 2 percent of all motorcoach carriers.
    - The safety record of individual curbside carriers varies, with some carriers having very good safety records and others having worse safety records.

7. **Curbside carriers generally have higher out-of-service (OOS) rates due to driver violations compared with carriers not identified as providing curbside operations; however, this finding does not apply to every curbside carrier.**

    - Curbside carriers represented 6 percent of all motorcoach carriers with high inspection and violation rates but comprised about 2 percent of all motorcoach carriers.
    - Curbside carriers have higher fatigued driving and driver fitness violations compared with conventional carriers.

8. **More than 90 percent of carriers in the high accident rate category and high inspection and violation rate category are neither curbside nor conventional carriers; rather, they are unscheduled carriers.**

    - About 20 percent of the long-distance trips taken on buses occurred on scheduled motorcoaches, and about 80 percent occurred on unscheduled carriers.

9. **Motorcoach driver fatigue is a continuing safety concern.**

    - The National Transportation Safety Board has identified driver fatigue as a contributing factor to fatal motorcoach accidents and has identified driver fatigue as an issue on its Most Wanted List of Safety Improvements.
    - By logging off-duty time between driving periods, motorcoach drivers may be allowed to drive even if more than 14 hours have elapsed since starting their work day. Drivers are required to have only 8 hours off duty.
    - Electronic onboard recorders would make it easier to detect and deter violations of hours-of-service driving limits.

10. **The FMCSA's Compliance, Safety, and Accountability (CSA) program is an improvement over its SafeStat program, but challenges exist.**

    - Unlike SafeStat, the CSA program includes information on driver behavior and all roadside inspection violations.
    - One of the major challenges to fully implementing the CSA program is that key data (for example, accidents, speeding citations, updated information on power units, and mileage) are incomplete or missing.

11. **The FMSCA has performed inspections and compliance reviews for a higher percent of curbside and conventional carriers during the last 5 years compared with nonscheduled other carriers.**

    - About 96 percent of curbside, 98 percent of conventional, and 78 percent of nonscheduled other motorcoach carriers received an inspection, compliance review, and/or another evaluation during this time period.

12. **The statutory exemption of motorcoaches from routine en route inspections reduces opportunities to discover safety violations.**

    - Curbside carriers have fewer locations where unscheduled inspections can be conducted compared with motorcoach carriers that use terminals.

13. A carrier's safety performance cannot be assessed without inspections.

- The CSA program requires that adequate data be collected through inspections or from the states (in the form of accident data or operator violation data) for a carrier to be evaluated.
- If no data are collected for a carrier, then it cannot be easily evaluated using the CSA operational model.
- Between April 2009 and March 2011, 8 percent of curbside carriers, 12 percent of conventional carriers, and 37 percent of nonscheduled other carriers did not have inspections.

14. The information reported by carriers on the FMCSA's MCS-150 form is not reliable.

- Many motor carriers are failing to submit their MCS-150 form every 24 months, as required.
- FMCSA regions are not uniformly following up with motor carriers that have passed their due date for filing a new form.
- Motorcoach mileage data and other information are frequently inaccurate or missing.
- These data are critical for determining violation and accident rates and comparing CSA safety indicators.

15. The FMCSA's voluntary safety reporting system is not meeting its full potential as a supplemental source of motorcoach safety information.

- FMCSA managers indicated that the FMCSA does not have a formal program to incorporate voluntary violation or safety reports involving motorcoach operations into its CSA oversight program.
- The FMCSA's system lacks a component that allows for anonymous reporting of incidents.
- The FMCSA does not generate summary statistics on the frequency and type of reports received.
- It is unclear whether the FMCSA has evaluated the extent that passengers, drivers, and others are aware of methods for reporting safety concerns and whether the current methods are easy to use.

16. The FMCSA's evaluation of motorcoach safety performance is predicated on how an individual carrier compares with similar-sized motor carriers. This comparison grouping may not accurately measure the relative safety performance of motorcoach carriers.

- The type of motor carrier operation (for example, passenger carrier, for-hire freight, and private carrier) is not considered in the comparison grouping.
- Interstate motorcoach carriers are grouped with interstate freight carriers for safety performance comparisons.

17. FMCSA and state investigators are overburdened by the number of compliance reviews and inspections that need to be done.

- A total of 878 FMCSA and state personnel are qualified to perform compliance reviews for all 765,221 U.S. motor carriers, resulting in a ratio of 1.15 investigators per 1,000 motor carriers.
- There are 2,327 state and federal personnel who are qualified to conduct motorcoach inspections for the 53,097 motorcoaches for which the FMCSA exercises oversight. These state and federal personnel also are responsible for performing oversight of other types of motor carriers.
- A thorough compliance review takes 1 to 2 weeks or even longer when motor carriers have 10 or more vehicles or have records that are not well organized.

18. Bus brokers are stakeholders in motorcoach safety.

- Curbside carriers use the services of bus brokers more than conventional carriers: 72 percent of curbside carriers use online brokerage services or consolidated ticketing websites to sell their tickets compared with 22 percent of conventional carriers.
- Brokers can often be the only information source available to consumers when purchasing a ticket.
- Some brokers obfuscate information regarding individual motorcoach carriers, making it difficult for passengers to identify the carrier.
- The FMCSA has no oversight or regulatory authority for organizations functioning as brokers for motorcoach services.
- The FMCSA has asked for authority to regulate brokers.

19. The FMCSA does not provide oversight of leasing agreements among interstate motorcoach operators.

- The absence of a requirement for written leases for interstate motorcoach operations increases the likelihood that motorcoach owners, managers, lessees, operators, and customers could either intentionally or inadvertently participate in improper or illegal motorcoach operations.
- The FMCSA stated that it would initiate rulemaking during 2011 to require that passenger carriers are subject to the same limitations on the leasing of equipment as interstate for-hire cargo carriers.

20. It can be difficult for consumers to determine the safety record of a motorcoach carrier.

- It can be difficult to interpret safety performance information presented on the FMCSA's website. Scores are computed on a scale of 0 to 100 percent, with 100 percent indicating the worst performance and 0 percent indicating the best performance.

- The website does not permit direct comparisons of the relative safety of different motorcoach carriers.
- The widespread practice of motorcoach carriers leasing vehicles and drivers from each other means that consumers often do not know what company will actually be providing motorcoach service.

21. Speeding is an important indicator of unsafe operations.

- Motor carriers that have a higher unsafe driving percentile (which primarily reflects speeding citations) are at an increased risk of getting into accidents.
- The frequency of speeding is understated because some police officers are reluctant to ticket motorcoaches due to safety hazards and passenger inconvenience (resulting from having the motorcoaches pull over onto road shoulders).
- A substantial number of speeding tickets do not get uploaded into the FMCSA's data system because they are issued by officers who do not have access to the system.

22. The process of becoming a new entrant carrier does not prevent unqualified carriers from transporting passengers.

- The process to obtain a Department of Transportation (DOT) number and a motor carrier number does not require demonstration of safety and regulatory knowledge.
- The cost to receive interstate passenger operating authority is $300.
- The FMCSA has requested authority to conduct a comprehensive review of new passenger carriers before they start providing service.

23. Some curbside motorcoach carriers are engaging in practices that hinder state and federal oversight of compliance with safety rules.

- A curbside motorcoach carrier can hold multiple DOT numbers, operate under multiple names, and appear to be multiple companies.
- Because selection for inspections and compliance reviews is influenced by prior violations and accident history, some curbside carriers spread violations across multiple DOT numbers, which hinders the ability of enforcement personnel to identify companies appropriate for oversight.
- Falsification of logbooks is a problem for all motorcoach carriers, and curbside carriers are overrepresented in this area.
- Among motorcoach carriers, curbside carriers received 20 percent of all false logbook violations and 26 percent of all false logbook OOS violations issued from April 2009 to March 2011 but comprised about 2 percent of all motorcoach carriers inspected during the same period.

- Conversely, among motorcoach carriers, conventional carriers also comprised 2 percent of all motorcoach carriers inspected from April 2009 to March 2011 but received 4 percent of all false logbook violations and 4 percent of all false logbook OOS violations during the same period.

24. Reincarnated carriers that resume operations after getting unsatisfactory safety ratings are deliberately engaging in deceptive practices.

- A reincarnated carrier is essentially the same entity as a former carrier with the intent of avoiding penalties applied to the former carrier.
- Reincarnated carriers may attempt to transfer drivers and vehicles and keep operating under the same management after being placed out of service.
- The FMCSA has a new applicant screening program to detect reincarnated carriers.
- Each state has its own criteria for determining what constitutes a corporate successor, which are used to define reincarnated carriers. The FMCSA has requested authority to implement standardized criteria for reincarnated carriers.
- FMSCA investigators and state inspectors reported concerns with reincarnated carriers, especially among curbside carriers.

25. In many cases, FMCSA monetary fines for violations are too low to act as a deterrent, and motorcoach carriers may view the fines as a cost of doing business.

26. States vary in the standards that they apply for vehicle inspections and commercial driver's licenses (CDL).

- Motorcoach carriers can register in a state with less stringent oversight even if their primary operations are located in another state.
- Drivers can obtain a CDL in a state with less stringent requirements.
- The FMCSA has issued a final rule to standardize CDLs among states, but this rule will not become effective until 2014.
- States vary in how much oversight they exercise over motorcoach carriers. Some states have formal bus inspection programs.
- FMSCA investigators and state inspectors reported concerns with motorcoach carriers choosing to register in states with less oversight, especially among curbside carriers.

27. Curbside motorcoach carrier drivers are more likely to receive English deficiency driver fitness violations.

- Eleven percent of driver fitness violations among curbside carriers were due to English language deficiencies compared with 3 percent for conventional and 5 percent for nonscheduled other carriers.

- Fifty-three percent of driver fitness OOS violations among curbside carriers were due to English language deficiencies compared with 11 percent for conventional carriers and 23 percent for nonscheduled other carriers.
- FMCSA investigators and state inspectors expressed concern about the lack of English language skills among many curbside carrier management representatives. This deficiency, although not illegal, may lead to misunderstandings and violations of FMCSA regulatory requirements.

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