

# Motorcoach Census 2008

A Benchmarking Study of the Size and Activity of the  
Motorcoach Industry in the United States and Canada in 2007



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# Executive Summary

*Motorcoach Census 2008* is a benchmarking study commissioned by the American Bus Association (ABA) to measure the size and activity of the motorcoach transportation service industry in the United States and Canada in 2007. The study provides information on the scope and impact of the motorcoach industry that cannot be found elsewhere.

In 2007, the motorcoach industry in the United States and Canada consisted of just over 3,400 companies that operated 33,536 motorcoaches. In the United States, 3,137 companies operated 29,325 motorcoaches and, in Canada, 295 companies operated 4,211 motorcoaches.

**Passenger Trips** The motorcoach industry provided about 750 million passenger trips in 2007. One in four of these trips were provided by large companies that operated 100 or more motorcoaches, 22% by mid-size companies operating 25 to 99 motorcoaches and 50% by small companies operating fewer than 25 motorcoaches. In providing these trips, the industry moved individual passengers a total of 65 billion miles in 2007.

**Services** The services offered by the industry are diverse. Nearly all motorcoach companies (96%) provided charter service in 2007, just over half provided tour service, one-sixth provided sightseeing, one-seventh provided airport shuttle, one-eighth provided scheduled service, one-ninth provided special operations, and 5% provided commuter service. Nearly half of motorcoach service mileage was for charter service and about one-quarter was for scheduled service.

**Companies** The vast majority (95%) of motorcoach companies were small and operated fewer than 25 motorcoaches. They operated a total of nearly 16,000 motorcoaches, provided nearly 380 million passenger trips, and accounted for about 40% of motorcoach mileage. Mid-sized companies, those that operated 25 to 99 motorcoaches, had a total of 7,000 motorcoaches, provided 168 million passenger trips, and had 20% of the industry's motorcoach mileage. Large companies that operated over 100 motorcoaches accounted for just over 30% of the industry's motorcoaches, provided 27% of the industry's passenger trips, and 39% of the industry's motorcoach mileage.

**Employment** The motorcoach industry provided jobs to 118,000 people in 2007, 62,000 full-time and 56,000 part-time. On average, a motorcoach company provided 34 jobs or 3.5 jobs per motorcoach. Over half of the jobs were with small companies that operated less than 25 motorcoaches, nearly 20% with mid-sized companies that operated 25 to 99 motorcoaches, and 30% with large companies that operated 100 or more motorcoaches.

**Fuel Efficiency** Motorcoaches move people with little fuel. In 2007, the average fuel efficiency of a motorcoach was 5.7 miles per gallon of fuel. With this fuel efficiency, a motorcoach carrying the industry average of 36 passengers achieved 205 passenger miles per gallon of fuel in 2007.

**Motorcoach Use** On average, a motorcoach provided 22,000 passenger trips in 2007, moved individual passengers a total of 2 million miles, employed 3.5 people, used 10,000 gallons of fuel, and traveled 56,000 miles. Over half (56%) of its service mileage was for charter, tour, and sightseeing services and 44% was for fixed-route services (airport shuttle, commuter, scheduled, and special operations).

This study reveals through numbers the scope and impact of the motorcoach transportation industry in the United States and Canada. It shows an industry that serves all people, especially students and seniors, and that moves people with great fuel efficiency. It shows an industry that provides a variety of services, including charter, tour, and sightseeing services, which are of vital importance to the travel and leisure industries, and intercity and commuter services, which are essential components of the passenger transportation systems in the United States and Canada.

### **Selected Results of *Motorcoach Census 2008***

#### **1. Size of the Motorcoach Industry in the United States and Canada in 2007**

*In the United States:*

Number of carriers .....	3,137
Motorcoaches .....	29,325

*In Canada:*

Number of carriers .....	295
Motorcoaches .....	4,211

*Grand Total:*

Number of carriers .....	3,432
Motorcoaches .....	33,536

**Continued**

**Selected Results of Motorcoach Census 2008 (continued)**
**2. Motorcoach Industry Activity in the United States and Canada in 2007**

Passenger trips .....	751 million
Passenger miles.....	65.496 billion
Miles traveled .....	1.880 billion
Miles traveled carrying passengers (services miles).....	1.798 billion
Gallons of fuel consumed.....	331 million
Employment.....	118 thousand

**3. Motorcoach Operating Ratios for 2007**

Passenger trips per motorcoach .....	22 thousand
Passenger miles per motorcoach .....	1.953 million
Miles traveled per motorcoach .....	56 thousand
Service miles traveled per motorcoach.....	54 thousand
Passengers per service mile.....	36
Miles per gallon of fuel .....	5.7
Passenger miles per gallon of fuel.....	205
Employment per motorcoach .....	3.5

**4. Demographics of Motorcoach Passenger Trips**

Students/seniors (55 years or more)/other .....	33%/32%/35%
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# 1. Introduction

*Motorcoach Census 2008* is a benchmarking study commissioned by the American Bus Association to measure the size and activity of the motorcoach transportation service industry in the United States and Canada in 2007. Industry size is measured by the number of motorcoach carriers and the number of motorcoaches they operated. Activity is measured by the number of passenger trips provided, passenger miles, services provided, motorcoach miles traveled, fuel consumed, and employment.

## **Definition of the Motorcoach Industry**

The industry consists of private-sector organizations that lease/own and operate motorcoaches and offer motorcoach transportation services to the public, including to private- and public-sector organizations on a contract basis. The industry includes, for example, motorcoach transportation companies that are hired on a contract basis by state or city transit authorities to transport commuters on motorcoaches. The industry excludes, however, governments, transit agencies or other public-sector organizations that lease/own and operate motorcoaches and offer motorcoach transportation services to the public. The industry also excludes private- and public-sector organizations that lease/own and operate motorcoaches just for their own use, such as businesses that operate motorcoaches to shuttle their employees.

## **Definition of a Motorcoach**

For this study, a motorcoach, or over-the-road bus (OTRB), is defined as a vehicle designed for long-distance transportation of passengers, characterized by integral construction with an elevated passenger deck located over a baggage compartment. It is at least 35 feet in length with a capacity of more than 30 passengers. This definition closely matches the definition of an OTRB written into U.S. law, namely “a bus characterized by an elevated passenger deck located over a baggage compartment” (Section 3038 of Public Law 105-178, 49 USC 5310 note). This definition of a motorcoach excludes the typical city transit bus, which is designed for

urban and suburban routes, and city sightseeing buses, such as double-decker buses and trolleys.

## Data Sources

Several sources of information were used to construct the estimates of industry size and activity in this study. Names of nearly five thousand potential motorcoach carriers were assembled using information from the American Bus Association, Bus Publications Group, California Public Utilities Commission, Dun & Bradstreet, Inc., International Motorcoach Group, Motor Coach Canada, Ontario Motor Coach Association, Quebec Bus Owners Association, Texas Department of Transportation, Trailways Transportation System, U.S. Department of Transportation, and the United Motorcoach Association. Information about the potential motorcoach carriers and the motorcoaches they operated was collected through a survey. The survey questionnaire was distributed to the potential motorcoach carriers in February 2008. A total of 395 usable survey responses from motorcoach carriers were returned to Nathan Associates.

\* \* \* \* \*

Many organizations gave their support to this undertaking, including the United Motorcoach Association, Motor Coach Canada, Trailways Transportation System, International Motorcoach Group, Ontario Motor Coach Association, the Quebec Bus Owners Association, ABC Companies, Motor Coach Industries, Prevost Car, and Daimler Commercial Buses North America. We acknowledge and thank them for their support. We are particularly grateful to the hundreds of motorcoach carriers that took the time to provide Nathan Associates with information about their firms on a confidential basis; their assistance was crucial to the completion of this study.

For the motorcoach transportation services industry in the United States and Canada in 2007, this report presents industry estimates of size and activity in Chapter 2 and other statistics on motorcoach carrier characteristics in Chapter 3. Appendix A describes the study methodology.

## 2. Size and Activity of the Motorcoach Industry in 2007

*Motorcoach Census 2008* reports estimates of the size and activity of the motorcoach transportation services industry in the United States and Canada in 2007. Industry size is measured by the number of motorcoach carriers and the number of motorcoaches they operated. Activity is measured by the number of passenger trips provided, passenger miles, services provided, motorcoach miles traveled, fuel consumed, and employment.

### Size of the Motorcoach Industry

In 2007, the motorcoach industry in the United States and Canada had just over 3,400 carriers and 33,536 motorcoaches (Table 2-1). In the United States, 3,137 carriers operated 29,325 motorcoaches and, in Canada, 295 carriers operated 4,211 motorcoaches. On average, a carrier operated 10 motorcoaches.

The twenty-eight largest carriers (fleet size of 100 or more motorcoaches) accounted for only about 1% of the carriers, but operated nearly one-third (31.6%) of the motorcoaches in the industry. They each operated, on average, 379 motorcoaches.

In contrast, the smallest carriers (fleet size of fewer than 10 motorcoaches) accounted for 2,703 carriers or nearly four in five (78.8%) of the carriers. They operated nearly one-quarter (23.4%) of the motorcoaches, and their average fleet size was 3 motorcoaches.

Combined, the largest and smallest carriers accounted for over half (55.1%) of the motorcoaches.

**Table 2-1***Numbers of Carriers and Motorcoaches in 2007 by Fleet Size*

Motorcoach Fleet Size	Carriers		Motorcoaches		Average Number of Motorcoaches per Carrier
	Number	Percent	Number	Percent	
100 or more	28	0.8%	10,603	31.6%	379
50-99	42	1.2%	2,900	8.6%	69
25-49	121	3.5%	4,104	12.2%	34
10-24	538	15.7%	8,068	24.1%	15
Less than 10	2,703	78.8%	7,861	23.4%	3
Industry total	3,432	100.0%	33,536	100.0%	10

Note: Percentages may not sum to 100% because of rounding.

## Passenger Trips

The motorcoach industry in the United States and Canada provided nearly 751 million passenger trips in 2007 (Table 2-2). On average, a carrier provided 219 thousand passenger trips in 2007, and a motorcoach provided 22 thousand passenger trips.

**Table 2-2***Motorcoach Passenger Trips in 2007 by Fleet Size*

Motorcoach Fleet Size	Passengers Trips		Average Passenger Trips per:	
	Number	Percent	Motorcoach	Carrier
100 or more	204,000,000	27.2%	19,000	7,286,000
50-99	64,000,000	8.5%	22,000	1,524,000
25-49	104,000,000	13.8%	25,000	860,000
10-24	196,000,000	26.1%	24,000	364,000
Less than 10	183,000,000	24.4%	23,000	68,000
Industry total	751,000,000	100.0%	22,000	219,000

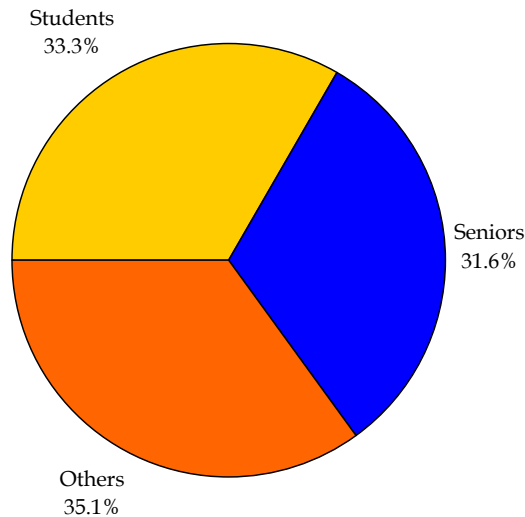
Just over one in four (27.2%) passenger trips in 2007 were provided by the largest carriers, which accounted for over 200 million passenger trips or, on average, just over 7 million passenger trips per carrier. They had an average of 19 thousand passenger trips per motorcoach in 2007.

The smallest carriers provided nearly one-quarter (24.4%) of industry passenger trips. They provided, on average, 68 thousand passenger trips per carrier and 23 thousand passenger trips per motorcoach.

Together, the largest and smallest carriers provided just over half (51.5%) of industry passenger trips.

The motorcoach industry serves all people, especially students and senior citizens (people 55 years or older) (Figure 2-1). Two in three (64.9%) of the 751 passenger trips provided by the motorcoach industry in 2007 were taken by students and seniors.

**Figure 2-1**  
*Passenger Trips by Type of Passenger, 2007*



## Passenger Miles

A passenger mile is one person transported one mile. The motorcoach industry in the United States and Canada had 65 billion passenger miles in 2007 (Table 2-3). On average, a carrier had 19 million passenger miles and a motorcoach had 2 million passenger miles.

The largest carriers accounted for over one-third (36.4%) of industry passenger miles. On average, they had 852 million passenger miles per carrier and 2.2 million passenger miles per motorcoach, the largest of any fleet-size category.

The smallest carriers, however, had the smallest average number (1.7 million) of passenger miles per motorcoach. They had, on average, 5 million passenger miles per carrier for a total of 13 billion passenger miles, or 20.3% of industry passenger miles.

**Table 2-3***Motorcoach Passenger Miles in 2007 by Fleet Size*

Motorcoach Fleet Size	Passengers Miles		Average Passenger Miles per:	
	Number	Percent	Motorcoach	Carrier
100 or more	23,842,000,000	36.4%	2,249,000	851,500,000
50-99	5,404,000,000	8.3%	1,863,000	128,667,000
25-49	8,254,000,000	12.6%	2,011,000	68,215,000
10-24	14,707,000,000	22.5%	1,823,000	27,336,000
Less than 10	13,290,000,000	20.3%	1,691,000	4,917,000
Industry total	65,496,000,000	100.0%	1,953,000	19,084,000

Note: Totals may not sum due to rounding.

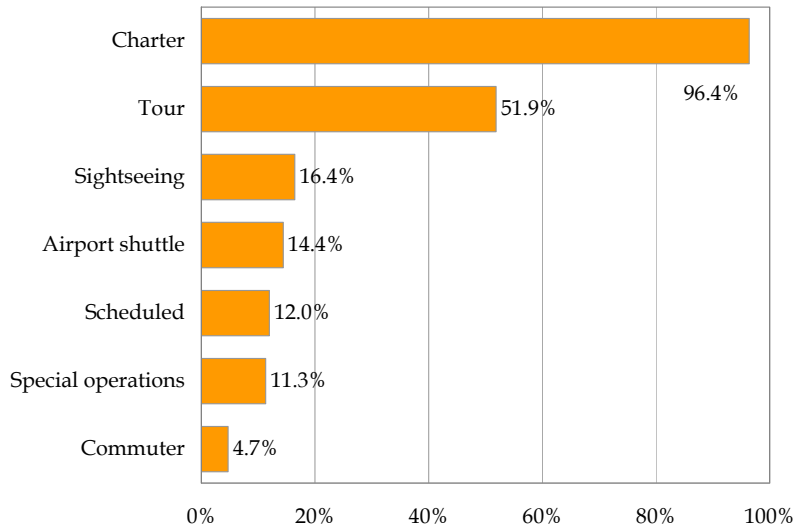
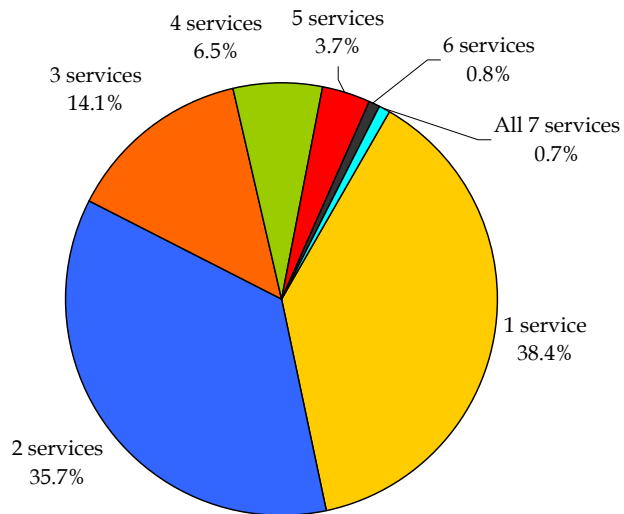
## Services Provided

The services offered by the motorcoach industry are diverse. Nearly all carriers (96.4%) provided charter service in 2007 (Figure 2-2), followed by tour (51.9%), sightseeing (16.4%), airport shuttle (14.4%), scheduled (12.0%), special operations (11.3%), and commuter (4.7%).

Nearly two in three (61.5%) carriers provided more than one service in 2007 (Figure 2-3). Two in five (38.4%) carriers had mileage in 2007 for just one service, 35.7% for two services, 14.1% for three services, 6.5% for four services, 3.7% for five services, 0.8% for six services, and 0.7% for all seven services.

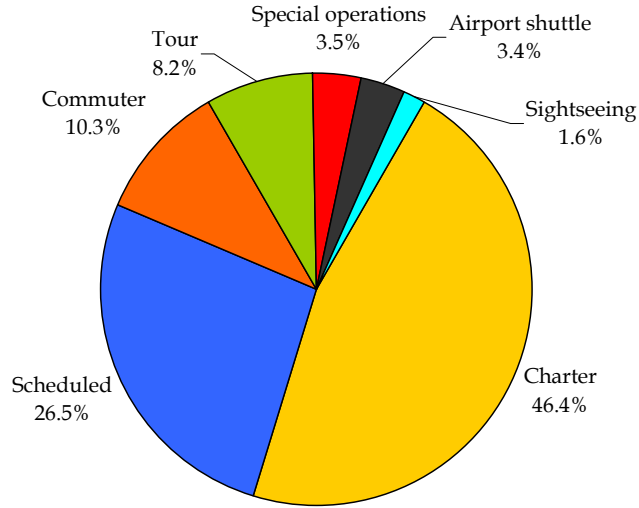
Nearly three out of four service miles (72.9%) driven by motorcoaches in 2007 were from providing charter and scheduled services (Figure 2-4). In terms of service miles traveled, charter service ranked first and scheduled service second. Charter service accounted for nearly half (46.4%) of the service miles traveled and scheduled service 26.5%, followed by commuter (10.3%), tour (8.2%), special operations (3.5%), airport shuttle (3.4%), and sightseeing (1.6%).

Over half (56.2%) of motorcoach service mileage was accounted for by charter, tour, and sightseeing services and 43.8% by fixed route services (airport shuttle, commuter, scheduled, and special operations) (Figure 2-5). Fixed-route services' share of motorcoach service mileage increases with fleet-size category, increasing from 12.0% for the smallest carriers to 75.2% for the largest carriers.

**Figure 2-2***Percentage of Carriers Providing Types of Service in 2007***Figure 2-3***Percentage of Carriers by Number of Services Provided in 2007*

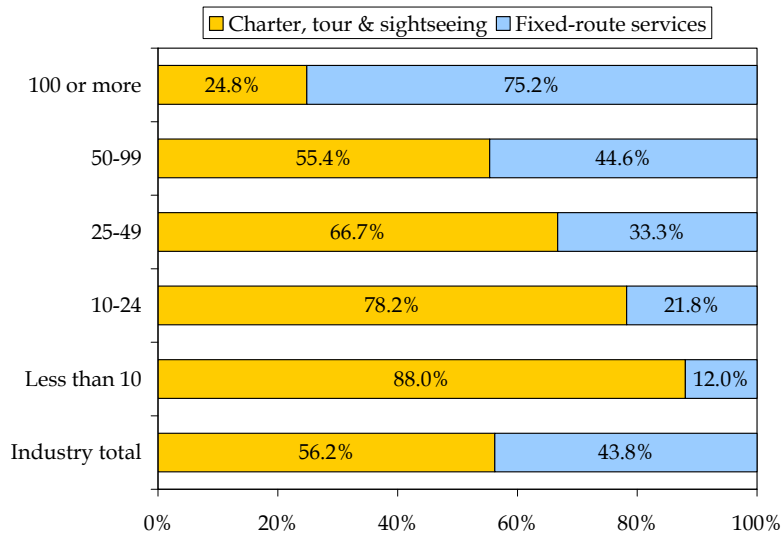
Note: Percentages do not sum to 100% because of rounding.

**Figure 2-4**  
*Percentage of Motorcoach Service Mileage in 2007 by Type of Service*



Note: Percentages do not sum to 100% because of rounding.

**Figure 2-5**  
*Motorcoach Service Mileage in 2007 by Type of Service and Fleet Size*



## Vehicle Mileage

Industry motorcoaches traveled 1.880 billion miles in 2007, averaging 548 thousand miles per carrier and 56 thousand per motorcoach (Table 2-4). Larger carriers drove their motorcoaches more on a per-motorcoach basis than smaller carriers. The largest carriers averaged 68 thousand miles per motorcoach, while the smallest carriers averaged 46 thousand miles. A total of 1.798 billion (95.6%) of the 1.880 billion in industry motorcoach vehicle mileage in 2007 was accounted for by service mileage (miles traveled with passengers).

**Table 2-4**

*Motorcoach Vehicle Mileage in 2007 by Fleet Size*

Motorcoach Fleet Size	Vehicle Mileage		Average Vehicle Mileage per:	
	Number	Percent	Motorcoach	Carrier
100 or more	725,000,000	38.6%	68,000	25,893,000
50-99	147,000,000	7.8%	51,000	3,500,000
25-49	229,000,000	12.2%	56,000	1,893,000
10-24	420,000,000	22.3%	52,000	781,000
Less than 10	359,000,000	19.1%	46,000	133,000
Industry total	1,880,000,000	100.0%	56,000	548,000

## Fuel Consumption

Over 300 million gallons of fuel was consumed by industry motorcoaches in 2007 (Table 2-5). A carrier, on average, consumed 96 thousand gallons of fuel in operating their motorcoaches, or 10 thousand gallons per motorcoach. Motorcoach fuel efficiency averaged 5.7 miles per gallon of fuel. With this fuel efficiency, a motorcoach carrying the industry average of 36 passengers achieved 205 passenger miles per gallon in 2007.

**Table 2-5**  
*Motorcoach Fuel Consumption in 2007 by Fleet Size*

Motorcoach Fleet Size	Gallons of Fuel Consumed		Average Gallons of Fuel Consumed per:		Average Mileage per Gallon
	Gallons	Percent	Motorcoach	Carrier	
100 or more	133,000,000	40.2%	13,000	4,750,000	5.5
50-99	26,000,000	8.0%	9,000	619,000	5.7
25-49	38,000,000	11.6%	9,000	314,000	6.0
10-24	70,000,000	21.2%	9,000	130,000	6.0
Less than 10	63,000,000	19.0%	8,000	23,000	5.7
Industry total	331,000,000	100.0%	10,000	96,000	5.7

Note: Totals may not sum due to rounding.

## Employment

The motorcoach industry in the United States and Canada employed 118,000 people in 2007, averaging 34 employees per carrier and 3.5 employees per motorcoach (Table 2-6). Together, the largest and smallest carriers accounted for more than half (55.3%) of industry employees. The largest carriers averaged 1,286 employees per carrier, while the smallest carriers averaged 11 employees.

**Table 2-6**  
*Motorcoach Carrier Employment in 2007 by Fleet Size*

Motorcoach Fleet Size	Employment		Average Employment per:	
	Number	Percent	Motorcoach	Carrier
100 or more	36,000	30.1%	3.4	1,286
50-99	11,000	9.2%	3.8	262
25-49	11,000	9.3%	2.7	91
10-24	31,000	26.2%	3.8	58
Less than 10	30,000	25.2%	3.8	11
Industry total	118,000	100.0%	3.5	34

Note: Totals may not sum due to rounding.

Of the 118 thousand people employed by the motorcoach industry in 2007, 62 thousand (52.5%) were full-time and 56 thousand (47.5%) were part-time (Table 2-7). On a percentage basis, the largest carriers employed more people on a full-time basis than the smallest carriers; seven in ten (69.4%) of the largest carriers' employees were full-time, compared to 43.3% for the smallest carriers.

**Table 2-7***Full- and Part-time Employment in 2007 by Fleet Size*

<b>Motorcoach Fleet Size</b>	<b>Full-time Employees</b>	<b>Part-Time Employees</b>	<b>Percent Full-time</b>
100 or more	25,000	11,000	69.4%
50-99	5,000	6,000	45.5%
25-49	6,000	5,000	54.5%
10-24	13,000	18,000	41.9%
Less than 10	13,000	17,000	43.3%
Industry total	62,000	56,000	52.5%

Note: Totals may not sum due to rounding.



## 3. Motorcoach Carrier Characteristics

The *Motorcoach Census 2008* survey of motorcoach carriers in the United States and Canada collected some information on the operating characteristics of the carriers. This chapter presents summary statistics on this information. We present industry estimates on what percentage of carriers have faced competition from transit agencies, the average age of motorcoaches, and on how carriers acquired motorcoaches and fuel. Finally, summary statistics are presented on the data reported by carriers about their founding year and their other revenue-generating vehicles.

### Competition from Transit Agencies

In the questionnaire for the survey of motorcoach carriers, respondents were asked whether they had experienced competition from transit agencies in their area. Although transit competition includes fixed-route competition, in the motorcoach industry, transit competition most commonly refers to competition for charter service which is, almost without exception, reserved for private motorcoach companies.

Nearly half (46.5%) of motorcoach carriers in the United States and Canada have experienced competition from transit agencies (Figure 3-1). Three in five (62.5%) of the largest carriers have encountered competition from transit agencies. Even a substantial percentage (46.3%) of the smallest carriers has competed with transit agencies for business. Nearly six in ten motorcoaches (56.1%) are operated by carriers that have experienced competition from transit agencies.

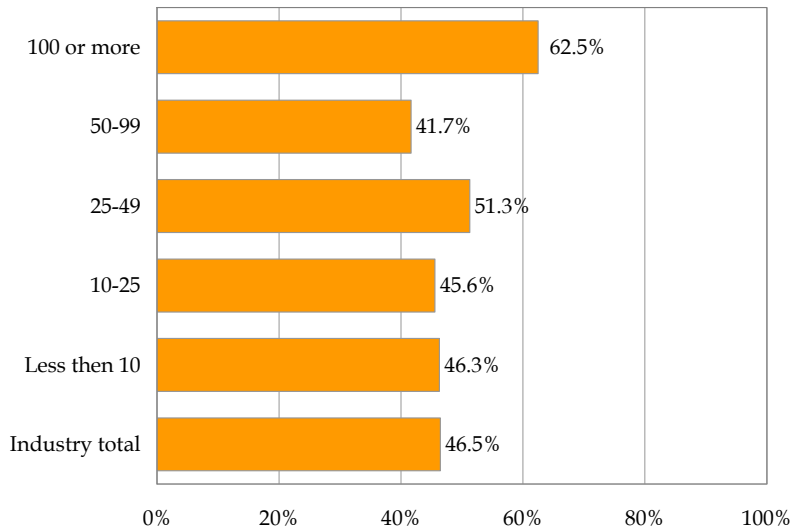
### Age of Motorcoaches

In 2007, the average manufacture year of motorcoaches operated by carriers in the United States and Canada was 2000. Among the fleet-size categories, the smallest carriers, those with less than 10 motorcoaches, had the oldest average motorcoach manufacture year (1998). The average motorcoach manufacture year for the 50-99 motorcoaches fleet-size category was

2001, and the remaining fleet-size categories each had an average motorcoach manufacture year of 2000.

**Figure 3-1**

*Percentage of Carriers that Have Competed with Transit Agencies for Business*



## How Motorcoaches Were Acquired

In 2007, 8.8% of motorcoach carriers in the United States and Canada had only leased motorcoaches in their fleet, 67.6% had only purchased motorcoaches, and 23.6% had both purchased and leased motorcoaches (Table 3-1). Smaller carriers were more likely than other fleet-size categories to have only purchased motorcoaches in their fleets.

Eight in ten industry motorcoaches in 2007 were purchased (Table 3-2). The percentage of motorcoaches that were purchased versus leased does not vary greatly by fleet-size category, ranging from a low of 79.6% of motorcoaches that were purchased in the 10-24 motorcoaches fleet-size category to a high of 85.8% for the largest carriers.

**Table 3-1***How Carriers Acquired Motorcoaches, Percentage of Carriers*

Motorcoach Fleet Size	Leased Only	Purchased Only	Both	Total
100 or more	0.0%	62.5%	37.5%	100.0%
50-99	0.0%	53.3%	46.7%	100.0%
25-49	0.0%	43.6%	56.4%	100.0%
10-24	4.9%	56.8%	38.3%	100.0%
Less than 10	10.2%	71.1%	18.7%	100.0%
Industry total	8.8%	67.6%	23.6%	100.0%

**Table 3-2***Percentages of Motorcoaches Leased Versus Purchased*

Motorcoach Fleet Size	Leased	Purchased	Total
100 or more	14.2%	85.8%	100.0%
50-99	18.9%	81.1%	100.0%
25-49	18.3%	81.7%	100.0%
10-24	20.4%	79.6%	100.0%
Less than 10	18.5%	81.5%	100.0%
Industry total	17.6%	82.4%	100.0%

## How Fuel Was Purchased

Two in three carriers (66.7%) in the United States and Canada purchased fuel for their motorcoaches only at retail in 2007, while 4.4% bought only at wholesale, and 28.9% purchased fuel both at retail and at wholesale (Table 3-3). On a percentage basis, more small carriers purchased fuel only at retail than larger carriers. More than 70% of the smallest carriers, for example, purchased fuel only at retail versus 6.7% for the 50-99 motorcoaches fleet-size category. The largest carriers had the highest percentage (93.8%) that purchased fuel both at retail and at wholesale.

**Table 3-3***How Carriers Purchased Fuel for Motorcoaches, Percentage of Carriers.*

Motorcoach Fleet Size	Retail Only	Wholesale Only	Both	Total
100 or more	0.0%	6.3%	93.8%	100.0%
50-99	6.7%	6.7%	86.7%	100.0%
25-49	17.9%	7.7%	74.4%	100.0%
10-24	40.7%	7.4%	51.9%	100.0%
Less than 10	75.6%	3.7%	20.7%	100.0%
Industry total	66.7%	4.4%	28.9%	100.0%

Note: Percentages may not sum to 100% due to rounding.

Three in five gallons (60.7%) of motorcoach fuel were purchased at wholesale in 2007 (Table 3-4). The smallest carriers purchased the smallest percentage of fuel (21.4%) at wholesale, and the largest carriers purchased the largest percentage (84.1%) at wholesale.

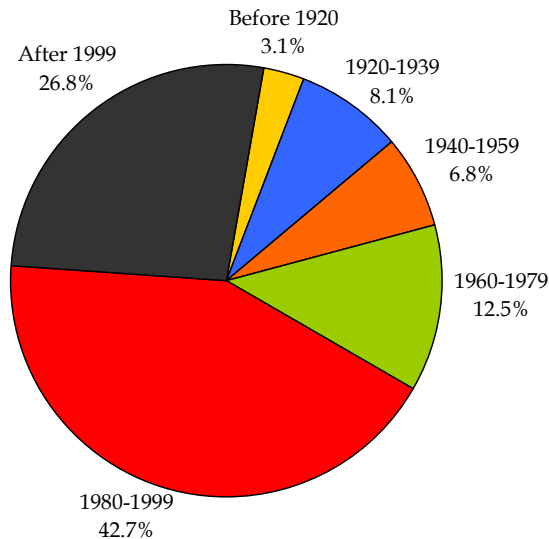
**Table 3-4***Percentages of Motorcoach Fuel Gallons Purchased at Retail or Wholesale*

Motorcoach Fleet Size	Retail	Wholesale	Total
100 or more	15.9%	84.1%	100.0%
50-99	26.8%	73.2%	100.0%
25-49	35.9%	64.1%	100.0%
10-24	55.0%	45.0%	100.0%
Less than 10	78.6%	21.4%	100.0%
Industry total	39.3%	60.7%	100.0%

## Founding Year of Carrier

The motorcoach industry in the United State and Canada is made up of old and new carriers. One in ten (11.2%) reporting carriers were founded before 1940, and one in four (26.8%) were founded after 1999 (Figure 3-2). Two in five (42.7%) were founded during 1980-1999. The average founding year of the reporting carriers was 1981. One-half of the reporting carriers were founded after 1992, and one-half were founded between 1974 and 2000.

**Figure 3-2**  
*Founding Year of Reporting Carriers*



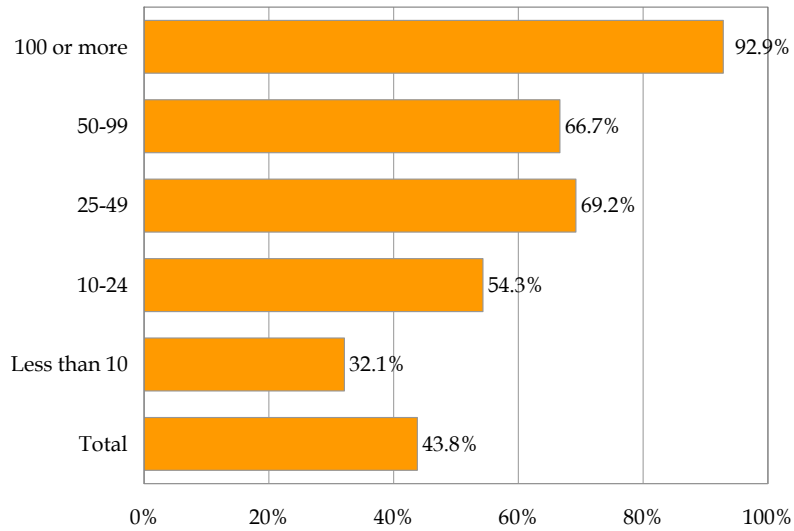
## Other Revenue-Generating Passenger Vehicles

Over two in five (43.8%) of the reporting carriers in the United States and Canada operated other revenue-generating passenger vehicles in addition to their motorcoaches (Figure 3-3). The largest fleet-size category, carriers operating 100 or more motorcoaches, had the largest percentage (92.9%) of reporting carriers operating other passenger vehicles, while the smallest fleet-size category, carriers operating fewer than 10 motorcoaches, had the smallest percentage (32.1%).

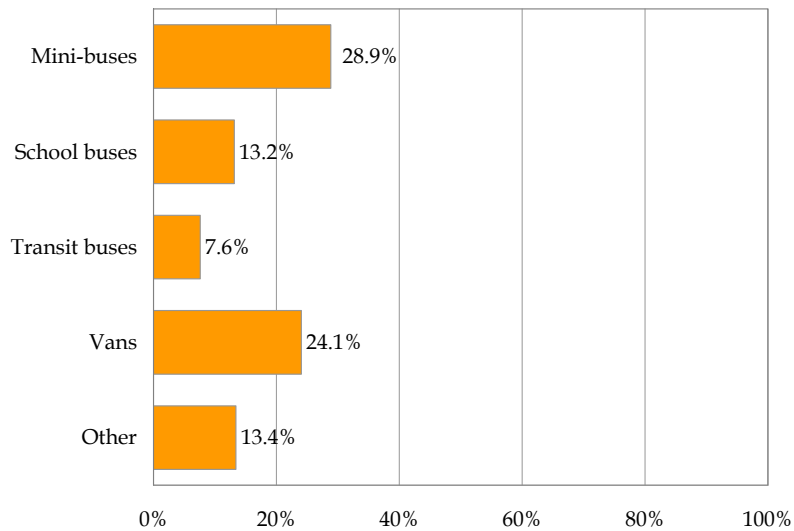
About three in ten reporting carriers (28.9%) operated mini-buses, while 13.2% operated school buses; 7.6%, transit buses; 24.1%, vans; and 13.4%, other types of revenue-generating passenger vehicles (Figure 3-4).

**Figure 3-3**

*Percentage of Reporting Carriers Operating Other Vehicles by Fleet Size, 2007*

**Figure 3-4**

*Percentage of Reporting Carriers Operating Other Vehicles by Type, 2007*



# Appendix A. Study Methodology

The American Bus Association commissioned *Motorcoach Census 2008* to measure the size and activity of the motorcoach transportation service industry in the United States and Canada. The study estimates and reports total industry size and activity for the year 2007. This appendix describes the data sources and methodologies used in the study. The appendix describes the target population, the survey frame, the survey data collection and processing, the estimation of industry size, and the estimation of industry activity.

## Target Population

The target population of the study is the motorcoach transportation service industry in the United States and Canada in 2007.

The industry consists of private-sector organizations that lease/own and operate motorcoaches and offer motorcoach transportation services to the public, including to private- and public-sector organizations on a contract basis. The industry includes, for example, motorcoach transportation companies that are hired on a contract basis by state or city transit authorities to transport commuters on motorcoaches. The industry excludes, however, governments, transit agencies or other public-sector organizations that lease/own and operate motorcoaches and offer motorcoach transportation services to the public. The industry also excludes private- and public-sector organizations that lease/own and operate motorcoaches just for their own use, such as businesses that operate motorcoaches to shuttle their employees.

Motorcoach transportation services include motorcoach charter services, tour and sightseeing services using motorcoaches, and motorcoach passenger transportation over regular routes and on regular schedules, such as airport shuttle services, commuter transportation services, and scheduled intercity and rural transportation services. The seven types of motorcoach transportation service that were used in this study are defined below.

- **Charter.** Preformed group (organization, association, tour company, shuttle service, church, school, etc.) who hires a motorcoach for exclusive use under a fixed contract.

- **Packaged/Retail Tour.** Planned or prearranged trip offered for sale by a motorcoach transportation company (including a tour company that leases/owns and operates motorcoaches) at fixed price to leisure travelers. Price usually includes lodging, meals, sightseeing, and transportation.
- **Sightseeing.** Service offered by motorcoach or tour companies to view points of interest within a specified area.
- **Airport Shuttle.** Private motorcoaches used to enhance public transportation system service to and from airports.
- **Commuter.** Fixed route bus service, characterized by service predominantly in one direction during peak periods, limited stops, use of multi-ride tickets, and routes of extended length, usually between the central business district and outlying suburbs.
- **Scheduled.** Specified, ticketed, predetermined regular-route service between cities or terminals.
- **Special Operations.** Published, regular-route service to special events, such as fairs, sporting events, or service for employees to work sites.

A motorcoach, or over-the-road bus (OTRB), is defined for this study as a vehicle designed for long-distance transportation of passengers, characterized by integral construction with an elevated passenger deck located over a baggage compartment. It is at least 35 feet in length with a capacity of more than 30 passengers. This definition closely matches the definition of an OTRB written into U.S. law, namely “a bus characterized by an elevated passenger deck located over a baggage compartment” (Section 3038 of Public Law 105-178, 49 USC 5310 note). This definition of a motorcoach excludes the typical city transit bus, which is designed for urban and suburban routes, and city sightseeing buses, such as double-decker buses and trolleys.

## Survey Frame

During November and December 2007, we assembled a list (i.e., survey frame) of potential motorcoach carriers in the United States and Canada or, in other words, a list of businesses that potentially offer motorcoach transportation services to the public. The list was developed using information from the following sources:

- American Bus Association
- Bus Publications Group (*The Motorcoach Directory 2005/2006*)
- California Public Utilities Commission
- Dun & Bradstreet, Inc.
- International Motorcoach Group

- Motor Coach Canada
- Ontario Motor Coach Association
- Quebec Bus Owners Association
- Texas Department of Transportation
- Trailways Transportation System
- U.S. Department of Transportation
- United Motorcoach Association

A total of 4,955 potential carriers were identified. Potential carriers were identified by name, mailing address, and, when available, contact name, phone number, e-mail address, and fax number.

## Survey Data Collection and Processing

Survey questionnaires with cover letters from Nathan Associates and business-reply envelopes were mailed with first-class postage to the 4,955 potential carriers on February 1, 2008. The potential carriers were given the option of completing the survey online. The due date for submitting completed questionnaires was March 7, 2008. We made follow-up solicitations to potential carriers by e-mail and fax. The American Bus Association sent notices several times to its members by e-mail encouraging them to participate in the survey. The American Bus Association or Nathan Associates asked International Motor Group, Motor Coach Canada, Ontario Motor Coach Association, Trailways Transportation Systems, and the United Motorcoach Association to contact their members to encourage them to participate in the survey. The survey response deadline was extended to April 11, 2008 and further follow-up solicitations were made by Nathan Associates via e-mail and fax and by the American Bus Association via e-mail. Both Nathan Associates and the American Bus Association made phone solicitations to larger non-responding motorcoach carriers.

Submitted electronic and paper questionnaires were reviewed for completeness and validity. Additional contact was made selectively to resolve unclear responses and to prompt for response to questions left unanswered. We consolidated the information in the paper and electronic questionnaires into one electronic survey database. The data were tabulated and evaluated for inconsistencies, irregularities and respondent-specific values that were significantly different from average reported values, and survey respondents were contacted to clarify anomalous answers. The final survey database contained usable responses from 395 motorcoach carriers. Table A-1 presents the sample sizes realized from the returns to the *Motorcoach Census 2008* survey of motorcoach carriers. Missing values were filled in using respondent mean imputation and regression imputation. For two large motorcoach carriers that did not respond, records were created for them in the survey dataset based on their

replies to the last Census survey of motorcoach carries in 2005 and on research regarding their current operations.

**Table A-1**

*Sample Sizes Realized from Returns to the Survey of Motorcoach Carriers for Data Items Applicable to All Carriers.*

Information Item	Motorcoach Fleet Size					Total
	<10	10-24	25-49	50-99	100+	
Number of carriers reporting information						
Total reporting	246	81	39	15	14	395
Fuel consumption	227	78	37	15	14	371
Mileage	232	78	38	15	14	377
Mileage by service (%)	246	81	39	15	14	395
Year founded	238	79	39	14	14	384
Employees	237	81	38	15	14	385
Average motorcoach manufacture year	233	80	38	15	14	380
Fuel purchased retail vs. wholesale	235	81	37	15	14	382
Motorcoaches leased vs purchased	232	81	38	15	14	380
Passenger trip demographics	238	80	38	14	14	384
Number of motorcoaches accounted for by carriers reporting information						
Total reporting	892	1,290	1,378	990	7,157	11,707
Fuel consumption	837	1,254	1,312	990	7,157	11,550
Mileage	859	1,252	1,339	990	7,157	11,597
Mileage by service (%)	892	1,290	1,378	990	7,157	11,707
Year founded	865	1,266	1,378	932	7,157	11,598
Employees	868	1,290	1,334	990	7,157	11,639
Average motorcoach manufacture year	843	1,272	1,338	990	7,157	11,600
Fuel purchased retail vs. wholesale	861	1,290	1,312	990	7,157	11,610
Motorcoaches leased vs purchased	845	1,290	1,338	990	7,157	11,620
Passenger trip demographics	859	1,272	1,338	920	7,157	11,546

## Estimating the Size of the Motorcoach Industry in 2007

We conducted further research to determine actual carriers from the list of 4,955 potential carriers, and each carrier's motorcoach fleet size. The research was performed using the returns to the survey of motorcoach carriers, the website of the Federal Motor Carrier Safety Administration (FMCSA), the *Motorcoach Directory*, carrier websites, and phone calls to carriers. Of the 4,955 potential carriers,

- 2,908 operated motorcoaches,
- 1,253 did not operate motorcoaches, and
- 794 could not be classified.

Of the 2,908 companies found to operate motorcoaches, 395 were identified from returned survey questionnaires and the remaining were identified from the other sources cited above. The total number of motorcoaches operated by these companies was 30,893 (see Table A-2).

**Table A-2**  
*Known Motorcoach Carriers by Fleet Size*

Motorcoach Fleet Size	Number of Carriers	Motorcoaches
100 or more	28	10,603
50-99	42	2,900
25-49	121	4,104
10-24	448	6,710
Less than 10	2,269	6,576
Total	2,908	30,893

The 1,253 potential carriers found not to be motorcoach carriers fell into five categories. First, 200 companies indicated in their survey returns that they were not motorcoach carriers. An additional 414 companies said they were not motorcoach carriers when they were contacted by phone and 197 were found not to be motorcoach operators when researched using the Internet or other sources. A total of six were duplicate listings that resulted from companies having multiple contact names. Eighty-nine were subsidiaries of known carriers. Finally, 347 of the 1,253 were companies whose survey forms were returned by the U.S. Postal Service and for which new addresses could not be found.

The remaining 794 potential carriers, for which no determination could be made, were investigated further. Based on our survey finding that 66% of respondents were carriers and the remaining 34% were not, we estimated 524 of these 794 potential carriers were, indeed, motorcoach carriers. To estimate the number of motorcoaches operated by these 524 carriers, we assumed that they were probably small carriers, *i.e.*, operated fewer than 25 motorcoaches, and had similar fleet sizes as the known small carriers. Based on the known distribution of carriers operating fewer than 25 motorcoaches, we estimated that these 524 carriers operated 2,643 motorcoaches.

Combining the estimated additional 524 small carriers with the known 2,908 carriers in Table A-2 results in an estimated industry size of 3,432 motorcoach carriers operating 33,536 motorcoaches (Table A-3), including 295 carriers in Canada with 4,211 motorcoaches and 3,137 carriers in the United States with 29,325 motorcoaches. The known carriers (2,908) accounted for 85% of the estimated industry total of 3,432 carriers, and the known motorcoaches (30,893) accounted for 92% of the estimated industry total of 33,536 motorcoaches.

**Table A-3**  
*2007 Industry Totals for Carriers and Motorcoaches*

Motorcoach Fleet Size	Number of Carriers	Motorcoaches
100 or more	28	10,603
50-99	42	2,900
25-49	121	4,104
10-24	538	8,068
Less than 10	2,703	7,861
Industry total	3,432	33,536

### **Estimating Motorcoach Industry Activity in 2007**

The first step in calculating a population total (i.e., industry total) of an activity (passenger trips, mileage, fuel consumed, and employment) was calculating sample totals by the five fleet-size categories from the survey database. Second, the sample totals were multiplied by weights to calculate population totals for each fleet-size category. Finally, these numbers were summed to calculate an industry total. A weight for a given fleet-size category equaled the population total of motorcoaches for the fleet-size category divided by the sample total of motorcoaches for the fleet-size category.