## **Motorcoach Census**

A Study of the Size and Activity of the Motorcoach Industry in the United States and Canada in 2020



**FINAL** 

Prepared for the American Bus Association Foundation by John Dunham & Associates January 7, 2022

#### **Motorcoach Census**

## A Study of the Size and Activity of the Motorcoach Industry in the United States and Canada in 2020

**January 7, 2022** 

## **Contents**

Exe	cutive Summary	5
	Selected Results	6
1. In	ntroduction	7
	Definition of the Motorcoach Industry	7
	Definition of a Motorcoach	7
	Data Sources	7
	Disclaimers	8
2. Si	ize and Activity of the Motorcoach Industry in 2020	9
	Size of the Motorcoach Industry	9
	Passenger Trips	9
	Passenger Miles	10
	Services Provided	11
	Vehicle Mileage	12
	Employment	12
3.	Motorcoach Industry Trends	13
App	pendix A. Study Methodology	14
App	pendix B. Impact of COVID-19 on 2020 Operations	18
Tab	oles	
	2-1. Total Carriers and Motorcoaches in 2020 by Fleet Size	9
	2-2. Motorcoach Passenger Trips in 2020 by Fleet Size	9
	2-3. Motorcoach Passenger Miles in 2020 by Fleet Size	10
	2-4. Motorcoach Vehicle Mileage in 2020 by Fleet Size	11
	2-5. Motorcoach Carrier Employment in 2020 by Fleet Size	12

3-1. Overview of the Motorcoach Industry, 2019-2020	13
A-1. The Motorcoach Industry by Size of Fleet $-$ U.S. and Canada $-$ 2018-2020	15
A-2. Statistical Significance of the Survey	
B-1. Change in Business due to COVID-19	17
Figures	
2-1. Percentage of Carriers Providing Types of Service in 2020	10
2-2. Percentage of Carriers by Number of Services Provided in 2020	11

## **Executive Summary**

*Motorcoach Census* is a study commissioned by the American Bus Association Foundation (ABAF) to measure the size and activity of the motorcoach transportation service industry in the United States and Canada in 2020. The study provides information on the scope and impact of the motorcoach industry that builds upon earlier census research.

In 2020, the motorcoach industry in the United States and Canada consisted of 1,873 companies that operated 30,860 motorcoaches. In the United States, 1,717 companies operated 27,753 motorcoaches, and in Canada 156 companies operated 3,107 motorcoaches.

Effect Of COVID-19 – The COVID-19 pandemic and related shutdown of the world economy had a devastating impact on the travel and tourism industry in 2020. The hardest hit sector was likely the motorcoach industry since it is both capital-intensive and faces cost burdens associated with its regulated workforce, make it especially difficult to reopen once operations are halted. On top of this, the industry is highly dependent on conferences and business meetings. With the onset of COVID-19 in person conferences and trade shows were canceled in mass. In addition, in 2020 virtually no high school and college sports activities were conducted, nor were field trips. Finally, the commuter market is highly concentrated in those areas of the country where the government-imposed shutdowns were the most extreme and long lasting, particularly in the Northeast. All these factors led to a virtual standstill of the industry in 2020, and forced many carriers, including both large and small carriers to cease operations or to close entirely.

**Passenger Trips** – The motorcoach industry provided 124.6 million passenger trips in 2020. About 56.2% of these trips were provided by large companies that operated 100 or more motorcoaches, 22.0% by mid-size companies operating 25 to 99 motorcoaches and 21.8% by small companies operating fewer than 25 motorcoaches. The industry moved individual passengers a total of 19.2 billion miles in 2020.

**Services** – Motorcoach companies offer a diverse variety of services. About 96.0% of motorcoach companies provided charter service in 2020, 34.8% provided tour service, 20.3% provided sightseeing, 22.3% provided scheduled service, and 10.1% provided commuter services.

Companies – The majority (88.6%) of companies were small and operated fewer than 25 motorcoaches. All told, these firms operated 10,795 motorcoaches, provided 27.2 million passenger trips, and accounted for 20.1% of motorcoach mileage. Mid-sized companies, those that operated 25 to 99 motorcoaches, ran 8,187 motorcoaches, provided 27.4 million passenger trips, and accounted for 23.9% of the industry's motorcoach mileage. Large companies that operated over 100 motorcoaches accounted for 38.5% of the industry's fleet, provided 56.2% of the industry's passenger trips, and 56.0% of the industry's motorcoach mileage.

**Employment** – The motorcoach industry provided jobs to 49,430 people in 2020. On average, a motorcoach company provided 26 jobs or 1.6 jobs per motorcoach. Small companies – those that operated fewer than 25 motorcoaches – provided for 32.7% of motorcoach industry jobs. Mid-sized companies – those that operated between 25 and 99 motorcoaches – provided for 22.8% of motorcoach industry jobs. Large companies – those that operated more than 100 motorcoaches – provided for 44.5% of motorcoach industry jobs. <sup>1</sup>

5

This figure may differ from that provided by the "The Economic Impact of the Motorcoach and Group Travel Industry" due to differences in the types of service modeled in the two analyses.

**Motorcoach** Use – On average, a motorcoach provided 4,037 passenger trips in 2020, accounting for 623,700 passenger miles, employed 1.6 people, and traveled 21,945 miles.

The study reveals the scope and impact of the motorcoach transportation industry in the United States and Canada. It shows an industry that serves a broad range of customers that moves people with great fuel efficiency. It shows an industry that provides 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 both the United States and Canada.

1.	Size of the Motorcoach Industry in the Unit	ted States and Canada in 2020
	United States:	
	Motorcoach carriers	1,717
	Motorcoaches	27,753
	Canada:	
	Motorcoach carriers	156
	Motorcoaches	3,107
	Total:	
	Motorcoach carriers	1,873
	Motorcoaches	30,860
2.	Motorcoach Industry Activity in the United	l States and Canada in 2020
2.	Motorcoach Industry Activity in the United Passenger trips	
2.	Ţ Ţ	124.6 million
2.	Passenger trips	
2.	Passenger trips	
	Passenger trips	
	Passenger trips Passenger miles Miles traveled Employment	
	Passenger trips Passenger miles Miles traveled Employment  Motorcoach Operating Ratios for 2020	
<ol> <li>3.</li> </ol>	Passenger trips	

See: "The Economic Impact of the Motorcoach and Group Travel Industry," John Dunham & Associates, 2020. Available at: https://www.buses.org/aba-foundation/research-summary/economic-impact/motorcoach-economic-impact-study

### 1. Introduction

Motorcoach Census is a study commissioned by the American Bus Association Foundation to measure the size and activity of the motorcoach transportation service industry in the United States and Canada in calendar year 2020. 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, 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 motorcoach transportation companies that are hired on a contract basis by state or city transit authorities to transport commuters. The industry excludes governments, transit agencies or other public-sector organizations that lease/own and operate motorcoaches and offer transportation services to the public. The industry also excludes private- and public-sector organizations that lease/own and operate motorcoaches 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 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 potential motorcoach carriers were assembled using information from prior censuses, the American Bus Association Foundation, Data Axle, the 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. A total of 338 usable survey responses from motorcoach carriers were returned to John Dunham & Associates.

John Dunham & Associates research efforts were supported by a number of industry groups, companies, and organizations, including the United Motorcoach Association, Motor Coach Canada, Trailways Transportation System, International Motorcoach Group, Ontario Motor Coach Association. We acknowledge and thank them for their support. We are particularly grateful to the 338 motorcoach carriers that took the time to provide information about their firms on a confidential basis; their assistance was crucial to the completion of this study.

This report presents industry estimates of size and activity in Chapter 2 and other statistics on motorcoach carrier characteristics in Chapter 3 for the motorcoach transportation services industry in the United States and Canada in 2020. Appendix A describes the study methodology and Appendix B describes the impact of COVID -19 on the industry.

#### **Disclaimers**

This analysis was prepared by John Dunham & Associates based on individual company responses to a survey. JDA's role was to aggregate the data in order to present an overview of the motorcoach industry in the United States and Canada while maintaining the confidentiality of the individual respondent's information. All estimates are based solely on those provided by the companies.

Overall, the analysis is based on data that are statistically significant to the 95 percent level; however, individual size and service breaks are not statistically significant, and have never been so. This should be considered when analyzing changes from year to year, as they are likely quite variable. In addition, data for 2020 contains responses from companies that ceased operations during the year due to the COVID-19 pandemic.

Any errors in the aggregation and presentation are our own.

## 2. Size and Activity of the Motorcoach Industry in 2020

*Motorcoach Census* reports estimates of the size and activity of the motorcoach transportation services industry in the United States and Canada in calendar year 2020. 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, and employment.

#### **Size of the Motorcoach Industry**

In 2020, the motorcoach industry in the United States and Canada consisted of 1,873 carriers and 30,860 motorcoaches (Table 2-1). In the United States, 1,717 carriers operated 27,753 motorcoaches and, in Canada, 156 carriers operated 3,107 motorcoaches. The average carrier operated 16 motorcoaches.

**Table 2-1** *Total Carriers and Motorcoaches in 2020 by Fleet Size* 

Motorcoach	Carriers		Motorcoaches		Average Number of	Motorcoaches by Capacity (Passengers)	
Fleet Size	Number	Percent	Number	Percent	Motorcoaches	30 to 45	Over 46
100 or more	32	1.7%	11,878	38.5%	371	1,079	9,551
50 to 99	63	3.4%	3,959	12.8%	63	354	2,818
25 to 49	119	6.4%	4,228	13.7%	36	473	3,353
10 to 24	376	20.1%	5,654	18.3%	15	390	4,628
1 to 9	1,283	68.5%	5,141	16.7%	4	479	4,147
Industry Total	1,873	100%	30,860	100.0%	16	2,774	24,497

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

#### **Passenger Trips**

The motorcoach industry in the United States and Canada provided 124.6 million passenger trips in 2020 (Table 2-2). The average carrier provided 66,512 passenger trips and an average motorcoach provided 4,037 passenger trips.

**Table 2-2** *Motorcoach Passenger Trips in 2020 by Fleet Size* 

Motorcoach	Passenger	Trips	Average Passen	ger Trips per:	
Fleet Size	Total Percent		Motorcoach	Carrier	
100 or more	70,004,300	56.2%	5,894	2,187,635	
50 to 99	17,535,700	14.1%	4,429	278,344	
25 to 49	9,837,600	7.9%	2,327	82,669	
10 to 24	19,394,100	15.6%	3,430	51,580	
1 to 9	7,805,700	6.3%	1,518	6,084	
<b>Industry Total</b>	124,577,400	100.0%	4,037	66,512	

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

The largest carriers (100 or more motorcoaches) provided 70 million passenger trips and accounted for 56.2% of passenger trips in 2020, which, on average, amounts to 2,187,635 million passenger trips per carrier. Motorcoaches

Note that this reflects the number of companies still operating at the end of 2020.

operated by large carriers provided an average of 5,894 passenger trips per motorcoach in 2020.

The smallest carriers with fewer than 10 motorcoaches provided 6.3% of industry passenger trips, which is, on average, 6,084 passenger trips per carrier and 1,518 passenger trips per motorcoach.

#### **Passenger Miles**

A passenger mile is defined as one person transported one mile. The motorcoach industry in the United States and Canada provided 19.2 billion passenger miles in 2020 (Table 2-3). On average, each carrier generated 10.3 million passenger miles and each motorcoach generated 623,700 passenger miles.

**Table 2-3** *Motorcoach Passenger Miles in 2020 by Fleet Size* 

Motorcoach	Passengers N	Miles	Average Passenger Miles per:		
Fleet Size	Number	Percent	Motorcoach	Carrier	
100 or more	10,772,631,700	56.0%	906,933	336,644,741	
50 to 99	2,138,112,600	11.1%	540,022	33,938,296	
25 to 49	2,462,232,400	12.8%	582,363	20,691,028	
10 to 24	2,393,612,600	12.4%	423,354	6,365,991	
1 to 9	1,480,891,800	7.7%	288,053	1,154,241	
Industry Total	19,247,481,100	100.0%	623,696	10,276,285	

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

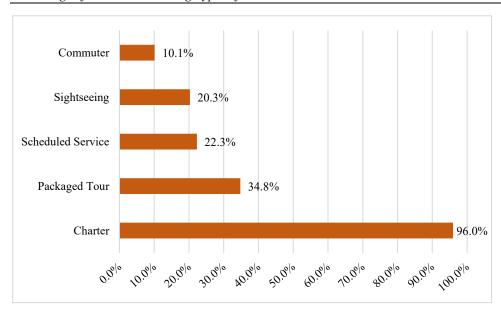
The largest carriers (100 or more motorcoaches) accounted for about 56.0% of industry passenger miles. On average, a large carrier accounted for 336.6 million passenger miles, or 906,900 passenger miles per motorcoach; the largest of any fleet-size category.

The smallest carriers, those with a fleet size of fewer than 10 motorcoaches, operated the smallest average number (228,053) of passenger miles per motorcoach. They averaged 1.2 million passenger miles per carrier for a total of 1.5 billion passenger miles, or 7.7% of industry passenger miles.

#### **Services Provided**

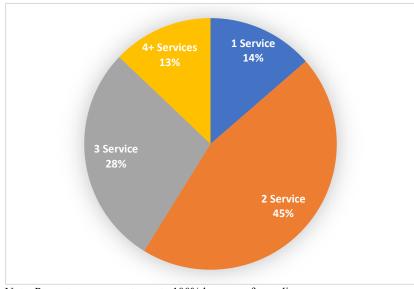
The services offered by the motorcoach industry are diverse. Many carriers offered multiple types of service. Nearly all carriers (96.0%) provided charter service in 2020, followed by tour (34.8%), scheduled service (22.3%), sightseeing (20.3%), and commuter service (10.1%).

**Figure 2-1**Percentage of Carriers Providing Types of Service in 2020



In 2020, 86.4% of carriers provided more than one service. Approximately 13.6% carriers had mileage in 2020 for just one service, 45.2% offered two services, 28.3% offered three services, 10.7% offered four services, and 2.2% offered five or more services.

**Figure 2-2**Percentage of Carriers by Number of Services Provided in 2020



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

#### Vehicle Mileage

Industry motorcoaches traveled 677.2 million miles in 2020, averaging 361,571 miles per carrier and 21,945 miles per motorcoach. The largest carriers with over 100 motorcoaches averaged 31,910 miles per motorcoach, while the smallest carriers – those with fewer than 10 motorcoaches – averaged 10,135 miles per motorcoach.

**Table 2-4** *Motorcoach Vehicle Mileage in 2020 by Fleet Size* 

Motorcoach	Vehicle Mil	leage	Average Vehicle Mileage per:		
Fleet Size	Number	Percent	Motorcoach	Carrier	
100 or more	379,034,500	56.0%	31,910	11,844,828	
50 to 99	75,229,400	11.1%	19,001	1,194,117	
25 to 49	86,633,500	12.8%	20,490	728,013	
10 to 24	84,219,100	12.4%	14,896	223,987	
1 to 9	52,105,100	7.7%	10,135	40,612	
Industry Total	677,221,600	100.0%	21,945	361,571	

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

#### **Employment**

The motorcoach industry in the United States and Canada employed 49,500 people in 2020, averaging 26 employees per carrier and 1.6 employees per motorcoach (Table 2-6). The largest carriers with over 100 motorcoaches averaged 687 employees per carrier and 1.9 employees per motorcoach, while the smallest carriers with fewer than 10 motorcoaches averaged 7 employees per company and 1.7 employees per motorcoach.<sup>3</sup>

**Table 2-5** *Motorcoach Carrier Employment in 2020 by Fleet Size* 

Motorcoach	Emplo	yment	Average Employment per:		
Fleet Size	Total	Total Percent		Carrier	
100 or more	22,000	44.5%	1.9	687	
50 to 99	5,300	10.7%	1.3	84	
25 to 49	6,000	12.1%	1.4	50	
10 to 24	7,600	15.4%	1.3	20	
1 to 9	8,600	17.3%	1.7	7	
<b>Industry Total</b>	49,500	100.0%	1.6	26	

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

.

This figure may differ from that provided by the "The Economic Impact of the Motorcoach and Group Travel Industry" due to differences in the types of service modeled in the two analyses.

See: "The Economic Impact of the Motorcoach and Group Travel Industry," John Dunham & Associates, 2020. Available at: https://www.buses.org/aba-foundation/research-summary/economic-impact/motorcoach-economic-impact-study

## 3. Motorcoach Industry Trends

A comparison of the Motorcoach Censuses conducted over the past three years reveals an industry that experienced some decline in total companies, passenger trips, and mileage.

In the United States and Canada, total companies declined from 2,454 to 1,873, due to mergers, companies going out of business, and companies discontinuing motorcoach service. From 2019 to 2020, passenger trips declined by 76.7%, and miles traveled declined by 61.7%.

**Table 3-1**Overview of the Motorcoach Industry, 2019-2020

	2019	2020	% change
Overview			
US Carriers	2,111	1,717	-18.7%
US Motorcoaches	32,474	27,753	-14.5%
Canada Carriers	343	156	-54.5%
Canada Motorcoaches	6,042	3,107	-48.6%
Total Carriers	2,454	1,873	-23.7%
Total Motorcoaches	38,516	30,860	-19.9%
<b>Industry Activity</b>			
Passenger Trips	535,771,600	124,577,400	-76.7%
Passenger Miles	61,939,690,000	19,247,481,100	-68.9%
Miles Traveled	1,770,293,500	677,221,600	-61.7%
Employment	75,200	49,430	-34.2%
Operating Ratios			
Passenger trips per motorcoach	13,910	4,037	-71.0%
Passenger miles per motorcoach	1,608,160	623,696	-61.2%
Miles traveled per motorcoach	45,963	21,945	-52.3%
Employment per motorcoach	2.0	1.6	-18.0%
Average Passenger Loads			
Charter Average Passengers	38	30	-21.5%
Packaged Tour Average Passengers	36	31	-13.4%
Sightseeing Average Passengers	35	28	-18.5%
Fixed-Route Average Passengers	36	24	-35.3%

## Appendix A. Study Methodology

The American Bus Association Foundation commissioned the *Motorcoach Census* 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 2020. 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 2020.

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. The industry excludes 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 A 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 A planned or prearranged trip offered for sale by a motorcoach transportation company (including a tour company that leases/owns and operates motorcoaches) at a fixed price to leisure travelers. Price usually includes lodging, meals, sightseeing, and transportation.
- **Sightseeing** A service offered by motorcoach or tour companies to view points of interest within a specified area.
- Commuter A 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 A specified, ticketed, predetermined regular-route service between cities or terminals.

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**

John Dunham & Associates assembled a list (i.e., survey frame) of carriers in the United States and Canada that potentially offer motorcoach transportation services to the public. The list was developed using information from the following sources:

- Prior motorcoach census research
- American Bus Association Foundation
- Data Axle
- U.S. Department of Transportation
- The Canadian Public Transit Discussion Board

Potential carriers were identified by name, trade name, mailing address, contact name, phone number, e-mail address, and fax number.

Outside of the *Motorcoach Census* no comprehensive source of company information on motorcoach operators is publicly available. Data sources often contradict each other, and most listings are either out of date or inaccurate. Companies that operate motor coaches are often combined with transit service providers, companies that operate school buses or firms that use smaller passenger vans. In conducting surveys for the *Motorcoach Census* over the past eleven years, JDA has had direct contact with more than 4,800 potential carriers. Throughout the survey process, JDA identified companies that were no longer in business, did not operate motorcoaches as defined for the purposes of this study, or had disconnected phone numbers or outdated addresses. JDA will continue to refine the numbers for future Motorcoach Censuses.

While there have been adjustments to JDA's earlier estimates, the total number of motorcoach operators has also decreased, and by directly contacting companies JDA was able to determine a number of companies had gone out of business, merged with other companies, or been acquired by larger companies. JDA estimates that, in 2020, there were 1,717 companies operating in the United States and 156 operating in Canada, for a total of 1,873 companies. This is 23.7% fewer companies than in 2019.

**Table A-1** *The Motorcoach Industry by Size of Fleet – U.S. and Canada – 2018-2020* 

	<b>Total Carriers</b>				
Fleet Size	2018	2019	2020		
1 to 9	3,115	2,961	1,283		
10 to 24	462	439	376		
25 to 49	155	155	119		
50 to 99	50	50	63		
100 or more	19	23	32		
Total	3,801	3,628	1,873		

The motorcoach industry experienced a decline in the size of companies due to mergers and acquisitions, companies going out of business, and companies discontinuing motorcoach service. From 2019 to 2020, the industry decreased in size by 23.7% companies. It is estimated that about 275 companies ceased operations in the United States in 2020, and 88 ceased operations in Canada during the year primarily due to the loss of business resulting from the COVID-19 pandemic

#### **Survey Data Collection and Processing**

Online survey questionnaires with cover letters from the ABA were sent electronically to potential carriers. The potential carriers were given the option of completing the survey online, by e-mail, or over the phone. JDA and the American Bus Association Foundation (ABAF) made follow-up solicitations to potential carriers by both e-mail and phone. The ABAF sent notices several times to its members by e-mail encouraging them to participate in the survey.

Submitted electronic and paper questionnaires were reviewed for completeness and validity. Additional contact was made selectively to resolve unclear responses and to prompt response to questions left unanswered. JDA consolidated the information from all surveys collected into one database. The data were tabulated and evaluated for inconsistencies, irregularities, and respondent-specific values that were significantly different from average reported values. Survey respondents were contacted to clarify anomalous answers. The final survey database contained usable responses from 338 motorcoach carriers.

#### **Estimating the Size of the Motorcoach Industry in 2020**

Throughout the survey process, JDA identified companies that were no longer in business, did not operate motorcoaches, or had disconnected phone numbers and bad addresses. JDA assumed that the companies with bad addresses and/or disconnected phone numbers were out of business and did not count them as motorcoach operators. In all, JDA identified a total of 1,873 motorcoach companies operating in the United States and Canada (not including subsidiaries of larger entities).

In order to determine the size of the motorcoach industry by fleet size, JDA relied upon survey collection efforts. Even in the case of a motorcoach operator that did not wish to complete the survey, JDA attempted to verify the total motorcoaches operated by the company. As a result, JDA verified the number of motorcoaches operated by all of the companies, either through Data Axle data, FMCSA data, CTPDB data, survey responses, phone calls, or company websites.

#### **Estimating Motorcoach Industry Activity in 2020**

To estimate a population total for the activity of the motorcoach industry, John Dunham & Associates calculated sample totals for the types of activity measured (passenger trips, mileage, and employment). Then, JDA estimated the total motorcoaches in each fleet size category using the mean motorcoaches operated in each fleet size category of the sample population. The sample totals were multiplied by weights to calculate population totals for each fleet size category. Each fleet size category was weighted by the estimated population total of motorcoaches in the category divided by the sample total of motorcoaches in the category. After weighting the sample totals by fleet size, the population totals for each fleet size were summed to calculate an industry total.

One of the major issues with business surveys is developing a data panel that is statistically significant. This means that the probability of the sample mean of the data matching the population mean is below a specified level (generally set to 10 percent in this type of analysis). In any analysis that involves drawing a sample from a population, there is always the possibility that an observed effect would have occurred due to sampling error alone. If the sampling statistic is lower than the significance level, it is possible to conclude that the survey reflects the characteristics of the whole population.

In the Motorcoach Census, the sample is significant to the 10 percent level for the population; however, the level of significance is not high for many of the sampling size categories. Table A-2 below outlines the level of significance for each of the category levels.

**Table A-2**Statistical Significance of the Survey

Coaches	Population	Sample	Level of Significance
1-9 buses	1,283	142	6.21
10-24 buses	376	81	7.73
25-49 buses	119	34	11.41
50-99 buses	63	26	11.88
100+ buses	32	21	10.19
Total	1,873	304	5.15

# **Appendix B. Impact of COVID-19 on 2020 Operations**

In early 2020, the coronavirus pandemic brought large sections of the economy to a screeching halt. Local and national governments all across the world grappled with various types of shutdowns and quarantine procedures, which affected all corners of the economy. While some industries and jobs were able to easily adapt to limited travel and work-from-home transitions, it struck at the absolute core of industries that rely on group travel and transportation. The motorcoach industry would be one of the most heavily battered industries navigating the pandemic.

According to responses from the 2020 Survey, motorcoach businesses saw an overall 76.7% decline in passengers from 536 million in 2019 to just 125 million in 2020. Every sector of the industry felt this change, from Charter to Scheduled, however Sightseeing Trips were hit the hardest. The table below summarizes changes in industry passengers by service.

**Table B-1**Change in Business due to COVID-19

2020 Survey Results							
				Passengers			
Coaches	Charter	Package/Tour	Sightseeing	Commuter	Scheduled	Other	Total
1-9 buses	11,459,850	407,204	224,826	46,055	284,775	183,441	12,606,152
10-24 buses	26,892,093	451,028	6,612	359,711	3,012,984	2,461,350	33,183,779
25-49 buses	7,391,274	43,507	10,437	315,514	3,166,873	7,263	10,934,869
50-99 buses	10,752,463	77,261	-	1,581,890	6,276,615	461,709	19,149,938
100+ buses	6,474,023	20,321	24,082	12,850,703	20,864,851	8,468,625	48,702,605
Total	62,969,704	999,320	265,958	15,153,874	33,606,099	11,582,388	124,577,343

2019	Survey	Results

	Passengers						
Coaches	Charter	Package/Tour	Sightseeing	Commuter	Scheduled	Other	Total
1-9 buses	70,831,339	7,516,317	4,349,121	3,561,582	2,869,778	911,757	90,039,894
10-24 buses	85,544,230	8,837,172	10,602,240	2,385,902	4,174,635	5,727,186	117,271,367
25-49 buses	54,042,683	9,380,744	5,601,294	6,744,805	10,662,147	746,152	87,177,825
50-99 buses	37,899,102	5,738,837	5,538,045	22,514,960	9,067,637	561,381	81,319,962
100+ buses	23,087,254	2,582,257	1,590,364	42,338,581	68,660,324	21,703,756	159,962,537
Total	271,404,609	34,055,327	27,681,065	77,545,829	95,434,521	29,650,232	535,771,584
Difference	(208,434,905)	(33,056,007)	(27,415,107)	(62,391,955)	(61,828,422)	(18,067,844)	(411,194,241)
Percent Loss	-76.8%	-97.1%	-99.0%	-80.5%	-64.8%	-60.9%	-76.7%