



# Bureau of Transportation Statistics

## Special Report

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## Highlights of the 2006 National Census of Ferry Operators

by Elizabeth Roberto

Ferries perform valuable functions in our nation's transportation system. They provide a vital link across many of the nation's waterways and, in some cases, present drivers with an alternative travel option. In some areas of the country, the ferry system offers a vital link between land routes in the event of an emergency or natural disaster.

When the terrorist attacks in New York City in 2001 damaged the Port Authority Trans-Hudson Corp. (PATH) rail lines, reducing the cross-Hudson River passenger capacity, commuters turned to the ferry system as an alternate travel option between New York and New Jersey.<sup>1</sup>

<sup>1</sup> Ronald Smothers, "Port Authority Moves to Enhance Ferry Service," *New York Times*, Oct. 26, 2001.

At the request of Congress, in 2006 the Bureau of Transportation Statistics, a branch of the U.S. Department of Transportation's Research and Innovative Technology Administration, conducted a Census of Ferry Operators. Selected findings are described below:

- Nationwide, ferries transported a total of 108 million passengers in 2005.
- Travel by ferry amounted to 618 million passenger-miles in 2005.
- The five states of California, Massachusetts, Michigan, New York, and Washington accounted for two-thirds of all U.S. ferry passenger capacity.

### How Many People Travel by Ferry?

Ferries operate in 38 states and 3 territories. Nationwide, ferries transported a total of 108 million passengers in 2005.

**Table 1: Ferry Passengers and Passenger-Miles for States with More than 3 Million Passengers in 2005**  
(millions)

State	Number of passengers	Passenger-miles
New York	NA	NA
Washington	14.7	124.5
California	9.4	66.6
New Jersey	9.1	46.3
Texas	7.5	15.9
Louisiana	6.9	NA
Massachusetts	5.3	42.3
Michigan	3.4	51.4

**SOURCE:** U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Census of Ferry Operators, 2006.

**NOTE:** "NA" indicates that data were not available for release.

Data for New York have been withheld at the request of ferry operators to protect their confidentiality. Those operators in New York who did not require confidentiality reported 27 million passengers in 2005.

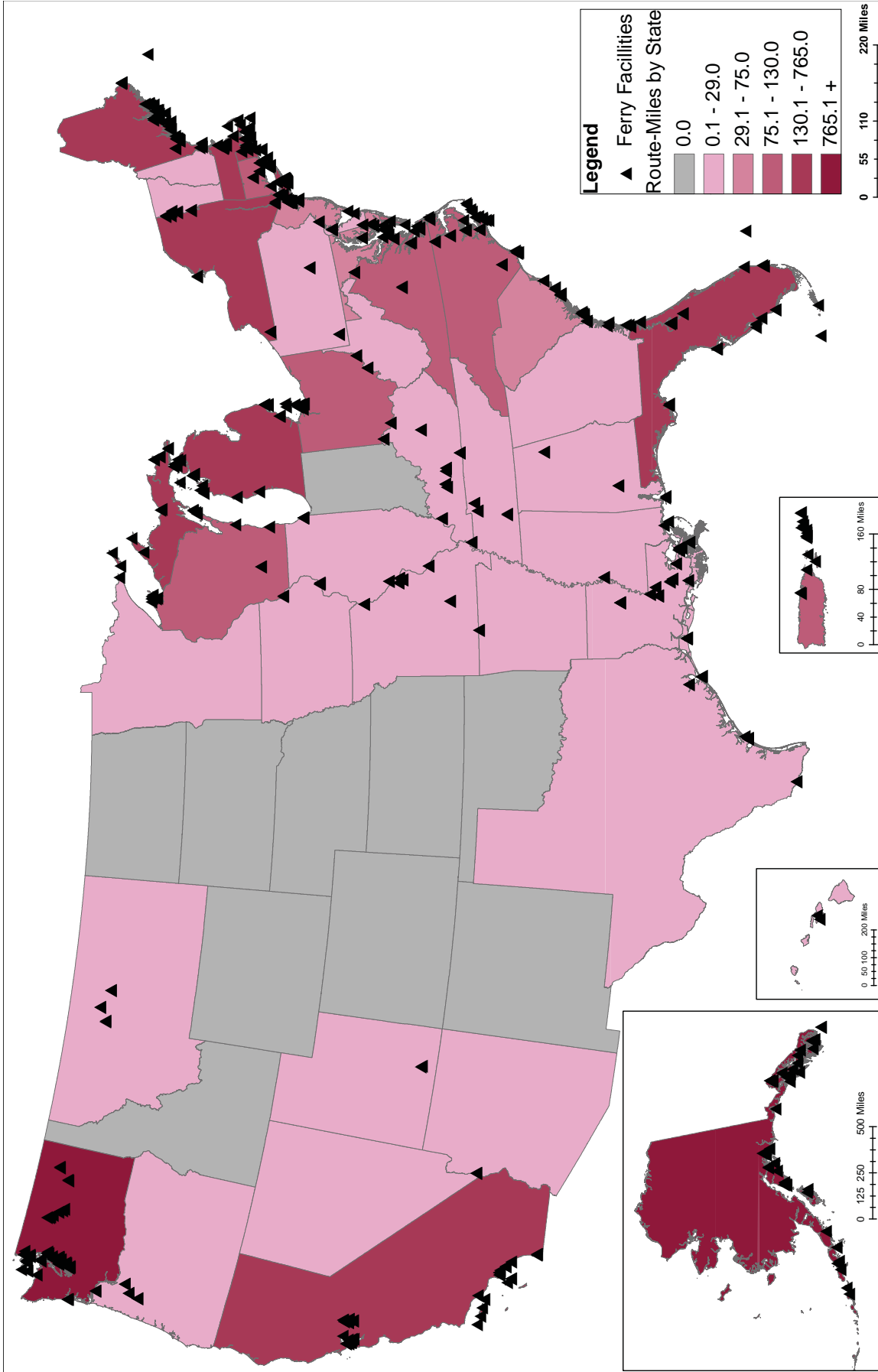
Data on passengers and passenger-miles have been imputed to correct for missing data. The imputed value for passenger-miles in Louisiana has a coefficient of variation greater than 30 percent and has been omitted. For more information on the imputation methodology, see the BTS technical report, *Multiple Imputation of Missing Passenger Boarding Data in the National Census of Ferry Operators*.

The states of New York, Washington, California, and New Jersey had the highest reported number of passengers, each with over 9 million passengers in 2005 (table 1).

Travel by ferry accounted for 618 million passenger-miles in 2005.<sup>1</sup> By comparison, highway travel by passenger car

<sup>1</sup> Passenger-miles are the cumulative sum of the distances traveled by passengers. A ferry carrying 100 passengers 1 mile would generate 100 passenger miles.

Figure 1: Ferry Route-Miles by State, 2005



SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Census of Ferry Operators, 2006.

**Table 2: Ferry Operators, Terminals, and Vessels for Five States**

	Ferry operators		Ferry terminals		Vessels		Passenger capacity	
	Count	Percent of all	Count	Percent of all	Count	Percent of all	Sum	Percent of all
New York	14	6.1	56	8.8	69	10.0	55,965*	25.6
Washington	17	7.4	49	7.7	51	7.4	40,197*	18.4
California	18	7.8	47	7.3	62	9.0	19,801*	9.1
Massachusetts	15	6.5	29	4.5	61	8.8	19,173	8.8
Michigan	16	7.0	32	5.0	46	6.7	9,373*	4.3
Five States	80	34.8	213	33.3	289	41.9	144,509	66.1
All ferries	230	100.00	640	100.00	690	100.00	218,490	100.0

**SOURCE:** U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Census of Ferry Operators, 2006.

\* Passenger capacity is not known for 44 vessels (6.4 percent), including 5 in California, 1 in Michigan, 6 in New York, and 1 in Washington (indicated in table with an asterisks).

accounted for 2,670 billion passenger-miles,<sup>2</sup> and travel by transit accounted for 50 billion passenger-miles in 2005.<sup>3</sup>

### Where Do Ferries Travel?

Ferry service is primarily located in states with extensive coastline or inland waterways. Most states have some degree of ferry service, as seen in figure 1. In 2005, the majority of ferry routes traveled within a state (81 percent), with the remaining routes either between states (13 percent) or between the United States and another country (6 percent), including Mexico, Canada, the British Virgin Islands, and the Bahamas. The median length of a ferry route was 5 nautical miles<sup>4</sup> (or approximately 5.8 statute miles), and the median travel time was 30 minutes per ferry route.

### Which States' Ferries Transport the Most Passengers?

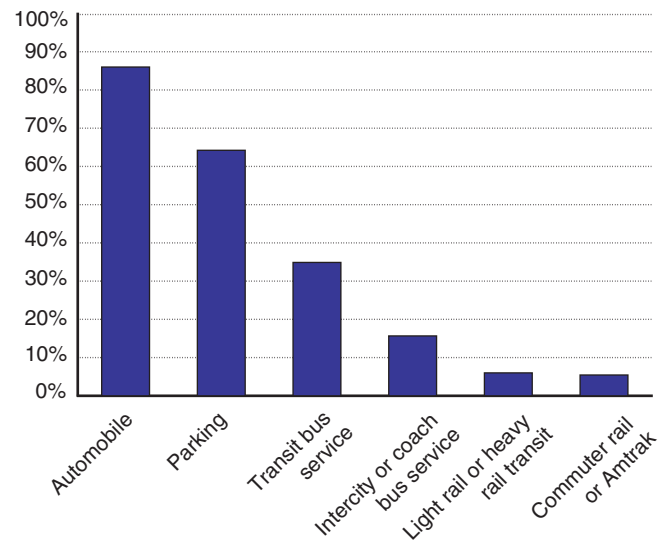
Operators in the five states of California, Massachusetts, Michigan, New York, and Washington accounted for one-third of all ferry operators in the United States (table 2). Combined, these five states housed one-third of all ferry terminals<sup>5</sup> and their operators ran 289 of the 690 ferries in service in 2005. Two-thirds of all passenger capacity is accounted for by these five states. At the time of the survey, the 289 ferry vessels in these states had capacity for 144,509 passengers, amounting to 66 percent of the Nation's ferry capacity.

### What Types of Access are Provided at Ferry Terminals?

Almost all ferry terminals can be accessed by automobile and about two-thirds provide parking (figure 2). Based on

the ferry operator's self-reported responses, local transportation is provided at many terminals – 35 percent have transit bus service and 6 percent provide access to rail transit, and some terminals have connections for nonlocal travel by intercity or coach bus service (16 percent) or commuter rail or Amtrak (6 percent).<sup>6</sup>

**Figure 2: Access at Ferry Terminals as Self-Reported by Operators**



**NOTE:** Access to transportation modes and facilities was defined by each operator. Access is unknown for 1 of the 640 terminals (0.2%).

**SOURCE:** U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, National Census of Ferry Operators, 2006.

<sup>2</sup> U.S. Department of Transportation, Federal Highway Administration, Highway Statistics (Washington, DC: Annual issues), table VM-1, and Internet site <http://www.fhwa.dot.gov/policy/ohpi/hss/index.htm>.

<sup>3</sup> American Public Transportation Association, *Public Transportation Fact Book* (Washington, DC: Annual issues), table 10.

<sup>4</sup> A nautical mile corresponds approximately to one minute of latitude along any meridian, which is about 1.15 statute miles on average.

<sup>5</sup> A terminal is a station at either end of a ferry route.

<sup>6</sup> The results from the National Census of Ferry Operators and the ferry data in the BTS Passenger Intermodal Connectivity Database vary because the Census relied on self-reported responses by operators without the benefit of specific criteria, and the Connectivity Database uses proximity-based criteria to define intermodal access and applied the criteria uniformly to passenger transportation facilities nationwide. The Connectivity Database is available at [www.bts.gov](http://www.bts.gov).

## What Are the Characteristics of the Average Ferry?

The average passenger ferry vessel is about 25 years old and holds 338 passengers. The typical operating speed for ferries is 14 knots<sup>7</sup> (or approximately 16.1 statute miles per hour), compared to their average maximum speed of 17 knots (or approximately 19.6 statute miles per hour). The majority of ferries have hulls that are made of steel (53.2 percent), and about one-fourth have hulls made of aluminum (26.1 percent). Nearly all self-propelled ferries use diesel fuel (96.9 percent).

<sup>7</sup> A knot is a unit of speed equal to one nautical mile (6,076 ft.) per hour.

## How Do Ferry Businesses Operate?

About half of all ferries are privately owned and operated, and one-third are publicly owned and operated. Most of the remaining ferries are contracted by a public agency and privately operated. About 73 percent of passenger ferry routes operate year round. The remaining ferries operate on a seasonal schedule, most with service during about half of the year. 🔄

### About this Report

This article was prepared by Elizabeth Roberto, Research Analyst, at the Bureau of Transportation Statistics (BTS). BTS is a component of DOT's Research and Innovative Technology Administration.

This report presents findings from the 2006 National Census of Ferry Operators, which queried ferry operators about their operations as they were structured in 2005. The data were collected from 230 ferry operators by the Bureau of Transportation Statistics, a component of the Research and Innovative Technology Administration in the U.S. Department of Transportation. The data were supplemented by other sources of ferry data, such as the U.S. Coast Guard and the Army Corps of Engineers. The database contains information on ferry systems, including operators, routes, vessels, and passenger and vehicle boarding. The ferry database is available online – [www.bts.gov](http://www.bts.gov).

The Census includes ferry operations that provide itinerant, fixed route, common carrier passenger and/or vehicle ferry service, but not operations that are exclusively non-itinerant, such as excursion services or long distance passenger only cruise ship services.

Passenger and vehicle boarding data are not available for ferry operators that did not respond to the Census, did not have access to these numbers, refused to report them, or required BTS to keep them confidential. For more information on data confidentiality and imputation procedures, see the BTS Technical Report, *Multiple Imputation of Missing Passenger Boarding Data in the National Census of Ferry Operators*.

A similar Census was conducted by the Federal Highway Administration in 2000. Data from the 2000 and 2006 Census may not be comparable due to differences in survey methodology and data processing.

### Other RITA/BTS Passenger-Travel Publications

- *Multiple Imputation of Missing Passenger Boarding Data in the National Census of Ferry Operators*
- *Making Connections: Intermodal Links in the Public Transportation System*
- *National Transportation Atlas Database CD 2007*
- *Highlights of the 2001 National Household Travel Survey*
- *National Household Travel Survey: Pre- and Post-9/11 Data Documentation*
- *Winter Travel Quick Facts*
- *Summer Travel Quick Facts*
- *Daily Travel Quick Facts*
- *Long Distance Business Travel Quick Facts*
- *Long Distance Travel Quick Facts*

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