

2015 Independence Day Travel Overview

U.S. Intercity Bus Industry

Chaddick Institute for Metropolitan Development, DePaul University
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This Intercity Bus Briefing summarizes the Chaddick Institute for Metropolitan Development's estimates of travel on scheduled intercity bus lines in the United States over the **2015 July 4th holiday period**. The report seeks to help fill the void created by the absence of a publically-available dataset on holiday travel via bus by providing data-informed estimates described in Section 2 below. Preparing these estimate required drawing upon a variety of data sources, including proprietary reservation information on Wanderu.com and the Chaddick Institute's Intercity Bus Data Set.

Results are presented to show both the anticipated travel volumes over the five-day holiday period from Wednesday, July 1 – Sunday, July 5, which allows for comparisons with air and automobile travel estimates, such as those by the American Automobile Association (AAA), which are typically reported over the five-day interval for this holiday.

HOLIDAY TRAVEL PROJECTIONS

Our estimates for the holiday bus travel volumes are as follows:

- **Passenger travel on scheduled bus lines is expected to be at its highest level in at least a decade** surpassing all previous 4th of July holidays over the past ten years. This trend reflects a continuing revival in the intercity bus industry.
- **An estimated 1,312,905 passengers will make trips of 50 miles or more by bus** between Wednesday, July 1 and Sunday, July 5. This represents an increase of about 6 percent compared to the same period in 2014.
- **Booking are 27% higher on Wed., July 1 and 26% higher on Thur. July 2 as compared to the typical days of the week during the summer months.** Thursday is projected to be the strongest travel day throughout the country, while Sunday is expected to be the busiest for the heavily traveled Northeast Corridor markets.
- **Passengers traveling on a budget are finding bus travel to be a particularly attractive option.** Less than a week before the holiday, peak-hour departures were available between New York – Washington for \$37 each way, while Chicago – Detroit fares and Portland – Seattle one-way fares were \$38 and \$28, respectively.

The following factors will affect the demand for travel:

- The fact that July 4th falls on a weekend this year is favorable to bus travel, making a roundtrip over a long holiday weekend an attractive option.
- This is the first holiday in which travelers on Greyhound, the largest provider of intercity bus transportation, can use BusTracker, a GPS tracking system that allows customers to see where their bus is, and when it will arrive at their destination. Many travelers already use the Megabus USA mobile bus tracking application.
- The number of daily scheduled operations by intercity conventional and discount city-to-city bus lines together grew by 2.1% during normal travel periods between 2014 and 2015.
- A strengthening economy is fueling this growth in bus travel. Declining fuel prices have had only modest effects on the demand for travel by bus.
- Demand is also bolstered by the growing availability of discount city-to-city express services by BoltBus, Greyhound Express, Megabus, Peter Pan Express, and many other lines. These services include guaranteed seating, and other such amenities as free Wi-Fi and power outlets, which are now standard on most motorcoaches.

Table 1:
Memorial Day Travel Estimates
 Projected Ridership



This table shows the estimated number of passengers traveling on scheduled intercity bus lines for the five-day period (Wednesday, July 1 - Sunday, July 5), and allows for comparisons with air and automobile travel, such as those by AAA. These do not include passengers using charter, tour, and airport-shuttle operations.

Figure 1
Forecasted Travel Volumes on U.S. Intercity Bus System
Journeys 50 miles or more

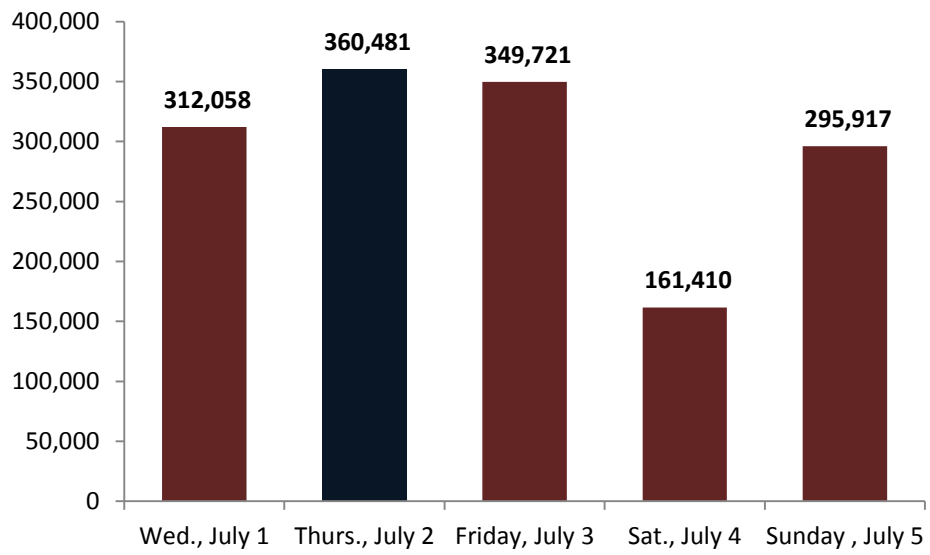


Figure 2
Booking Levels for Intercity Bus Travel
Advance bookings throughout US

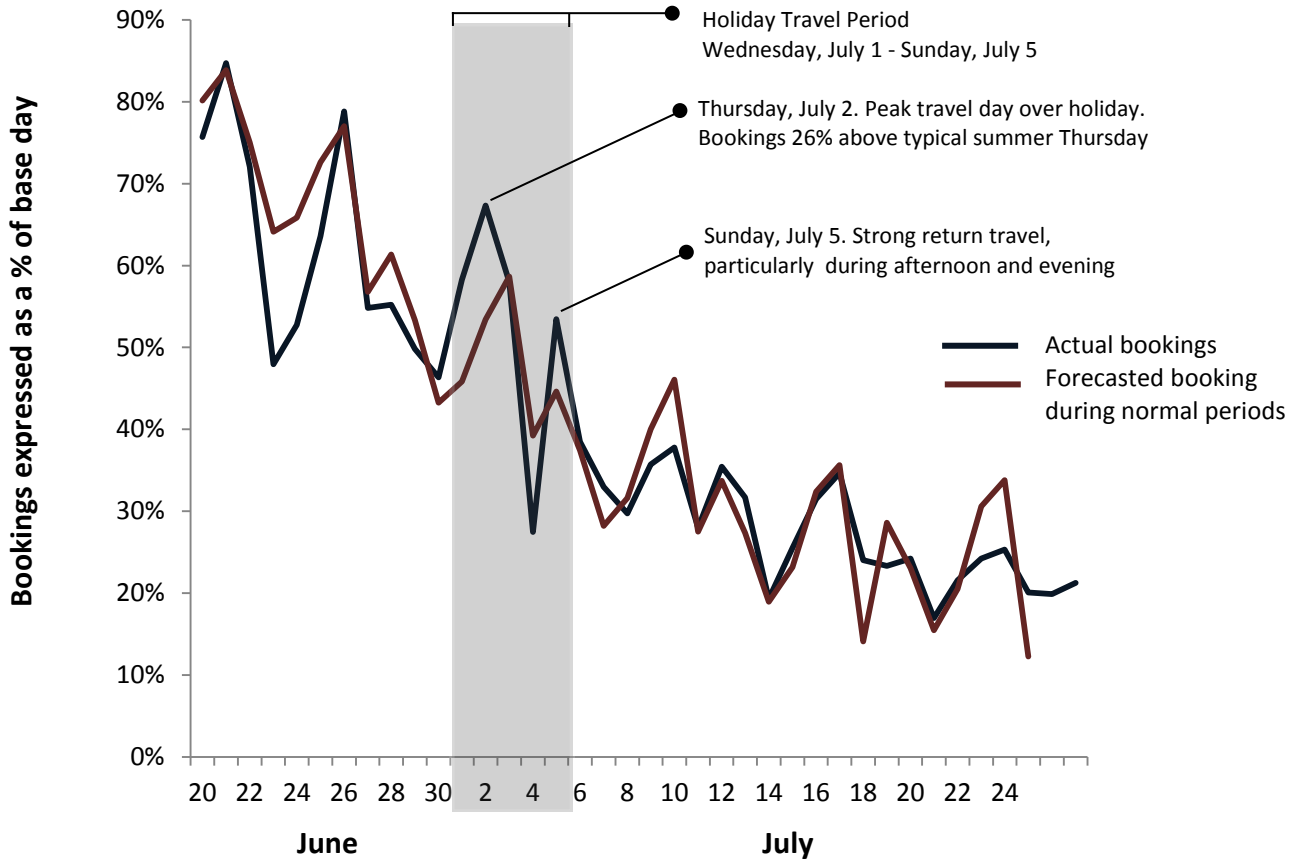


Figure 2 shows booking levels for travel in the lower 48 states expressed as a percent of June 18 levels. As the downward trend shows, the number of bookings tend to fall for trips farther in the future. The blue line shows actual booking levels, while the red line shows forecasted travel levels on a typical (non-holiday) summer day, adjusted for the day of week. Booking levels are appreciably higher than forecasted normal levels on Wednesday, July 1; Thursday, July 2; and Sunday, July 5. Activity is lower on Saturday, July 4 than on a typical summer Saturday. (Analysis based on advanced booking data provided courtesy of Wanderu.com)

METHODOLOGY

The estimates presented above are supply-driven, derived by looking at the amount of service provided over the holiday and then estimating ridership based on those services provided. Service estimates are made separately for the four different types of bus companies, including: i) conventional bus lines, ii) city-to-city express lines, iii) Chinatown bus lines, iv) Hispanic carriers, and v) casino operators. These estimates do not include charter bus operations, local transit operations, or airport-shuttle operators. Similarly, they exclude public transit and commuter-bus operations on routes less than 50 miles. The estimates are based on data from four primary sources:

- **The Chaddick Institute’s Intercity Bus Data Set**, which includes estimates of *the amount of bus service* that is provided nationwide by conventional and discount city-to-city carriers. Presently, the Chaddick Institute monitors 105 intercity carriers offerings scheduled service as part of the Data Set.
- **Chaddick Institute estimates** on daily operations of Chinatown and Hispanic oriented bus lines that are not included in the Data Set, as noted below.
- **Wanderu.com bookings data**. Estimates of travel behavior over the holiday relative to other parts of the year are determined by reviewing all reservations made on this prominent travel aggregator website.
- **Chaddick Institute analysis of extra sections**. In May 2015, the Chaddick Institute collected data on the number of extra sections added by the largest carriers to meet demand.

Estimates are made using a three-step process: **Step 1** involves estimating the amount of service and how many passengers travel by bus on the typical day throughout the year. **Step 2** involves making an estimate of the extent to which traffic over the holiday will deviate, percentage terms, from the typical day throughout the year. **Step 3** applies factors, such as an estimate of the share of trips that are 50 miles or more and the results of the first two steps, to make a comprehensive travel estimate. These steps are described with additional detail below.

Step 1: Estimate the amount of service provided by bus lines on the typical day during the year.

Estimates for the four types of bus operators are made as follows:

Conventional services: These carriers operate traditional services, over fixed routes that primarily use traditional terminals in larger cities. This category includes luxury operators, regional operators, and rural transit companies that operate with public subsidies. Examples of carriers in this category include Greyhound, Peter Pan, Trailways, and Coach USA services operating to and from New York’s Port Authority Bus Terminal. Express service by these carriers, such as Greyhound and Peter Pan Express services, are included in these estimates.

The amount of service provided by these carriers was determined using the Intercity Bus Data Set, which has information on daily bus operations for “branded” intercity bus providers in the United States. (The data set excludes, for example, Chinatown and Latino operators). The Chaddick Institute has gradually expanded this record from only bus lines publishing schedules in traditional ways to *all* intercity bus providers throughout the country that we have been able to identify. Since its inception in 2008, the database has grown to include data on 20,000 bus departures, organized by carrier, since 1960.

We estimate that conventional carriers operated slightly more than 3,330 daily schedules throughout the United States.

Discount city-to-city operators: These are bus lines focused on express downtown-to-downtown service between major cities, rely on internet ticketing, and often use a mix of terminal and curbside drop-off and pickup locations. Discount operators do not participate in “interline” arrangements with Greyhound or other bus companies. Unlike many conventional bus companies, the carriers offer guaranteed seating and are not oriented toward serving airports. Examples include BestBus, Boltbus, Megabus, and DC2NY bus.

We estimate that conventional carriers operated 1,066 daily schedules throughout the United States.

Latino-oriented and Chinatown operators: A dearth of published data exists on the amount of service provided by Chinatown—typically Asian-owned lines operating from Chinatown districts in major cities—and Latino carriers, which often do not invest in clearly identifiable brand names, do not publish printed timetables, and do not interline with major bus companies. The Chaddick Institute conducted an audit of the number of Latino and Chinatown carriers to support research for the Federal Highway Administration in early 2015. This review was used as the basis to estimate the number of schedules operated daily in each of these categories. This number should be regarded as an approximation. The estimates for the Latino category excludes transborder trips.

Our estimates show that the Latino and Chinatown carriers together operate approximately 1,200 daily buses. Although these numbers should be understood as estimates, they are based on an audit using prominent publically accessible sources. Moreover, these operators account for only a small share of intercity operations in the U.S., making measure error of relatively small consequence in the aggregate estimate of bus travel.

Casino operations over long-distance routes: In addition, our analysis for FHWA suggests that there are approximately 225 daily schedules operated by casino-oriented lines with routes of 50 miles or more.

Step 2: Determining ridership levels on a typical day.

The number of passengers that moves on intercity buses on a typical day is determined by multiplying the number of daily bus operations (scheduled) identified in Step 1 above with an estimate of the average number of passengers per trip.

Between 2009 and 2015, the Chaddick Institute has employed data-counters that rode more than 250 intercity bus trips to support our analysis of traffic patterns and traveler use of technology. We estimate that, on average, 40 passengers travel on a bus between each major origin and destination on conventional bus lines, while an average of 44 passengers travel on city-to-city express operators (and on express-oriented services by conventional operators, such as Greyhound and Peter Pan Express). For buses making multiple stops, many of these passengers are onboard for only a small portion of the trip.

Furthermore, our estimates also suggest that the average scheduled bus operation serves about 1.10 major origin-destination (O&D) combinations. For example, a New York – Washington bus may serve two major O&Ds: New York – Philadelphia – Washington, with some passengers traveling the entire distance between New York and Washington. Therefore, the estimated number of passengers is multiplied by 1.1 to account for the fact that about 10% of buses serve more than one major O&D combination.

As a result, the study projects that the typical bus operation (scheduled) not including extra sections includes 39.6 passengers on conventional bus lines and 49 passengers on express bus lines. As previous noted, the number of passengers on buses may be considerably less than this due to fact that many use the bus for only

a small portion of its trip.

Step 3: Estimate how traffic will change during the upcoming holiday from the normal baseline period.

To develop a forecast for the 2015 4th of July holiday, the amount of traffic over this period relative to the typical period of the same length was evaluated by reviewing advanced booking patterns on Wanderu.com, a major travel aggregator site based in Boston, MA, which sells tickets on most of the largest U.S. carriers. Analysis was undertaken of bookings from June 18 – August 31, 2015. In addition to evaluating travel patterns in the U.S. market as a whole, the analysis considered bookings data for the Boston – New York route, which is one of the country’s largest bus markets.

A separate analysis was undertaken to assess the number of extra sections that have been scheduled. Our discussions with major bus lines, including one major line that provided detailed data, shows that about 1.06 buses are operated per one scheduled departure. In other words, 6% of buses are “second sections” or “third sections” (or even fourth or fifth sections) to meet the demands. It should be noted that the preponderance of extra sections appears to be operated primarily within the Northeastern U.S. and on major hubs by BoltBus, Greyhound, Megabus, and other high-volume carriers. As noted in *Chart 1*, on some routes, such as Boston – New York, more than 33% of all Greyhound buses operating at the peak of the holiday travel period are extra sections.

Making traffic projections also required us to estimate the share of passengers traveling 50 miles or less, which is the typical standard used to measure holiday travel. However, estimates for the FHWA suggest that only about 25% of trips are less than 100 miles on intercity buses. Our analysis of major origins and destinations served by national bus lines suggests that only about 6% of trips are less than 50 miles. (Virtually all traffic on discount city-to-city carriers moves more than 50 miles, and the elimination of small-town stops on many routes has substantially reduced the number of short-hop trips).

CONCLUSION

This report fills the void on bus traveler projections for the upcoming 4th of July holiday. It estimates that over 1.3 million passengers will make trips of 50 miles or more by bus between Wednesday, July 1 and Saturday, July 5, illustrating the national trend that more and more people are opting to travel longer distances by bus.

The rise in bus travel has several favorable implications. Buses are generally more fuel efficient than other major modes of intercity travel, creating environmental benefits. They also lessen congestion on roads by reducing private vehicular traffic, which is particularly important during high-traffic holiday travel periods. The expansion of bus travel also fosters economic development in the downtowns of major cities, which are primarily the originating points and termini on most major routes. Our analysis also indicates that bus travel saves travelers money, as it is generally priced less than air and rail travel. Bus fares are also generally below the variable costs of driving (predominately fuel and tolls, and ignoring the costs of vehicle ownership) among those traveling alone.

Researchers who seek additional information on our data analysis should email chaddick@depaul.edu. We would be happy to provide more detail about our computations for this report.

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