

# Analyzing the Statistics of Route 7

## Lincoln Avenue - Prospect Avenue - Yonkers Avenue Corridor

Route 7 is Southern Westchester’s “cross-town” link, connecting the cities of Yonkers, Mount Vernon, and New Rochelle, along with the smaller town of Pelham. It is one of the Bee-Line system’s busiest routes with over 2 million riders. It currently runs somewhat late, with its final trips departing both New Rochelle and Yonkers past 11:30PM. However, trips after around 7:30 PM begin operating under hourly headways with eastbound trips terminating at Mount Vernon, cutting off service to New Rochelle. An analysis was performed on businesses along its route for closing times to determine if this service is adequate.

Businesses within 1/2 mile from its route were selected, including those defined as being in the retail trade or wholesale trade, hotels, casinos, movie theatres, and hospitals. Selected businesses were required to have more than 10 employees. Internet research provided each business (from their websites, Yelp, or Google) with a given closing time, with 30 minutes added for cleanup and closure. Business closure times were then divided into four integer classes: 0 for closed or unknown, 1 for closure prior to 8 PM, 2 for closure from 8 through 11 PM, and 3 for closure past Route 7’s cutoff time of around 11:30 PM (the last trip departs New Rochelle at 11:43 PM). In the case of Mount Vernon, which lacks a mall-type feature such as Cross County or New Roc City, industrial businesses where overnight shifts may be necessary were included in the analysis and given an integer class of 3.

Shown here are “hotspots” or areas where later-operating businesses tend to cluster. Route 7’s operating hours appear to end too early for major hotspots of businesses that operate late into the evening. For example, the St. Joseph’s Hospital campus in Yonkers requires night shifts. In addition, because this route provides such an important connection between cities, it should run later to correspond with routes to which it transfers. For example, if a worker along Route 20 in Northern Yonkers wanted to return home to Mount Vernon and caught the very last 20 bus at 1:17 AM, he would have no Route 7 bus to transfer to in order to complete his trip.

### WEEKDAY:

Businesses closing before 8 PM: 19  
 Businesses closing between 8 and 11 PM: 26  
 Businesses closing after 11:30 PM: 77

### SATURDAY

Businesses closing before 8 PM: 22  
 Businesses closing between 8 and 11 PM: 26  
 Businesses closing after 11:30PM: 71

### SUNDAY

Businesses closing before 8 PM: 24  
 Businesses closing between 8 and 11 PM: 29  
 Businesses closing after 11:30PM: 78

In addition, the mean numbers of employees working at the selected businesses per closing class were calculated:

