

MBTA Parking Analysis  
FY09-FY11

FINAL REPORT  
TO THE MBTA ADVISORY BOARD

March 23, 2011

**Introduction**

In 2010 members of the MBTA Advisory Board asked staff to analyze parking usage across the Authority. At the time members expressed concern that the high cost of parking, driven by the November 2008 fee increase, was hindering MBTA use. In other words, the total cost of commute (parking fee + fare) was forcing potential riders away from the MBTA and onto highways. Members expressed interest in a new dynamic pricing model for MBTA parking facilities that would tailor parking fees to use, and perhaps incentivize parking at less-full facilities.

**Methodology**

In an attempt to answer these questions, Advisory Board staff analyzed parking usage at group lots by month from the start of FY08 (July 2008) to the end of calendar 2010. The MBTA reports monthly revenue per lot to the Advisory Board as part of its annual operating budget review. To translate monthly revenue into monthly usage, the revenue number was divided by the daily fee in effect at that time. This gives an estimate of the usage per month of each facility. The period July to October for each year was then isolated and compared, to allow a like-with-like evaluation year over year.

**Usage Analysis**

On average, parking use declined by 28.74% for the period July 1 – October 31 2009 versus the same period in 2008. It declined 28.20% for the same period in 2010 compared to 2008. However, use increased for this period in 2010 versus 2009 by an average of 0.76%. From 2008 to 2009, the Abington lot saw the largest percentage drop in use for the time period, from an average of 11,291 per month in 2008 to an average of 3,314 in 2009, a decline of 70.64%. The Oak Grove lot saw the smallest decline from 22,837 in 2008 to 22,235 in 2009, a decline of 2.64%. The only parking facility that saw increased use was the North Scituate lot, where use grew from an average of 1,630 per month for the 2008 period to 2,484 for the 2009 period, an increase of 52.42%. Period over period declines occurred across all modes, and across all geographies. For instance, usage declines of more than 50% are observed at lots in Quincy, Gloucester, Walpole, Roslindale, Rowley, and Waltham. Steep declines were also experienced at the Quincy boat (63.83%), Watertown bus lot (43.04%), Mattapan red line, (40.33%), and Orient Heights blue line parking facilities (38.08%).

**Revenue Analysis**

While use declined, revenue did not. Average monthly parking revenue for the period July 1, 2009 to October 31, 2009 increased by 22.70% compared to the same period in 2008, even though use declined by 28.74%. Even though the number of cars paying the fee declined, the fee per car increased, accounting for the overall revenue growth. In 2008 the parking fee increased \$2.00 regardless of any previous rate. Most lots, especially at commuter rail stations, saw the daily rate double from \$2 to \$4, a 100% increase. On

average, parking fees increased 90.07% Authority wide. This increase seems to have convinced thousands of drivers to stop parking at MBTA facilities. Nevertheless the increased revenue from the thousands who continue to park at them has more than made up the difference.

**Post hoc ergo propter hoc**

That usage at MBTA lots declined after the fee increase is undoubted. However, it is unclear if the parking fee alone caused it. Although no one knew it at the time, the effects of the Great Recession started being felt in earnest in late 2008 and early 2009, just as the fee increase took effect.

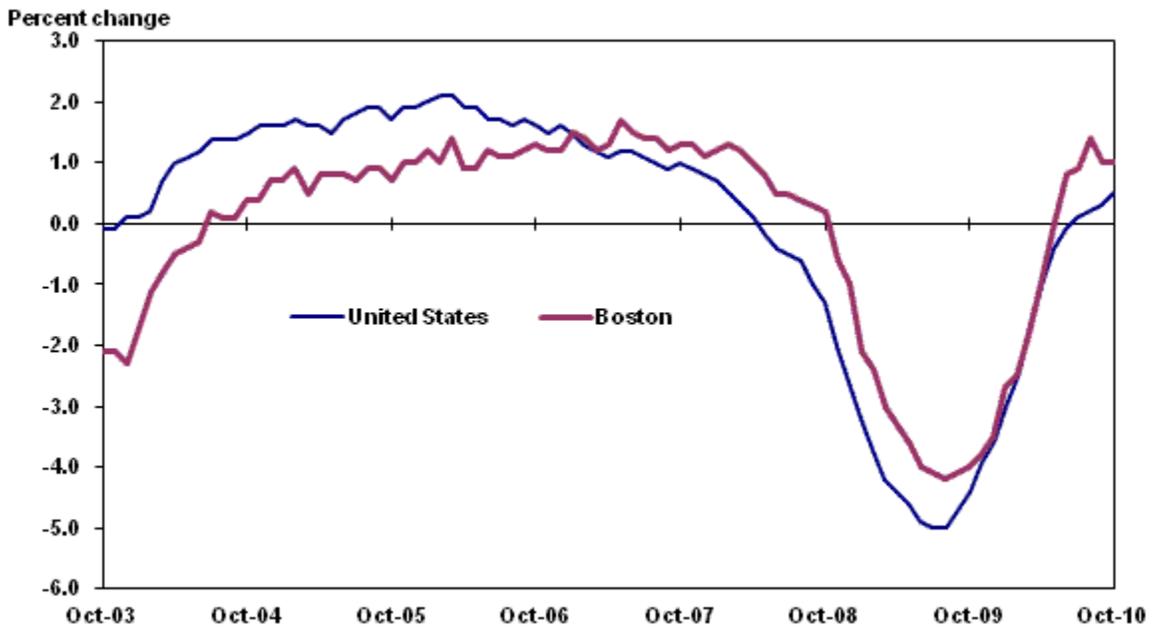


Figure 1 Total nonfarm employment, over-the-year percent change in the United States and the Boston metropolitan area, October 2003 - October 2010. Source: US Bureau of Labor Statics

The table above tracks the percentage changes in employment year over year as a snapshot every October for both the United States and the Boston metropolitan area. For each category it shows a massive decline between October 2008 and October 2009. This suggests that joblessness began in earnest in the Boston area in the fall of 2008, bottomed out around the fall of 2009, and has only recently begun to level off. The parking fee increase took effect in mid-November 2008. Commuter parking use, especially at commuter rail lots, is significantly related to employment. Without jobs to commute to, riders do not park in commuter lots, and do not ride trains, buses, or boats. While much more sophisticated statistical analysis could possibly determine how much of the downturn in use was caused by the fee increase versus other factors, it seems clear that the fee increase alone cannot account solely for the drop in MBTA parking lot use.

**Suggestions**

The MBTA's parking regime is antiquated. While it has recently begun to address issues around its honor boxes, and bill-stuffing, more needs to be done. Plans to increase pay-by-phone and monthly pass methods are most welcome. However, more dynamic and innovative solutions may also be required. The Advisory Board's FY11 Operating Budget Report stated: "the MBTA's got it wrong when it hiked its parking fees by \$2 across the board... instead of a broad brush increase across all MBTA lots, perhaps a more targeted, variable pricing structure taking into account local needs conditions, and micro-economies may yield the best of both worlds- increased revenue and increased use of MBTA parking facilities." We stand by this statement and believe it truer today.

Many cities and towns, especially in the inner-core, have recently begun installing multi-space meters to better organize their on and off street parking facilities. This technology allows a single administrator to review usage in real time, and if needed, adjust pricing to increase use with the stroke of a keyboard. One suggestion for the Authority as part of its next parking management RFP is to require multi-space meters at its open air lots. Such technology will encourage cash-less transactions, and could even be programmed to accept EZ pass and/or CharlieCard media for payment. Such technology could also work seamlessly with pay-by-phone and monthly pass programs. Furthermore, such technology could allow users to purchase time in a spot, rather than a spot for the day, perhaps increasing turnover and allowing for more dynamic pricing for those who use the T for part of the workday, or even outside traditional work hours.

The MBTA, especially now, relies on parking revenue more than ever. It behooves it to look closely at its parking regulations and pricing regime to ensure that the total cost of commute is competitive and delivering value for money. The Advisory Board looks forward to working with the Authority in the future to improve MBTA parking for the betterment of the Authority and the cities and towns that host parking facilities.