

# **Preliminary Analysis of the Carpool Rule in New York City**

Prepared for  
Transportation Alternatives  
and  
NYPIRG Straphangers Campaign

February 25, 2002

---

## EXECUTIVE SUMMARY

---

Debate over the Carpool Rule instituted after September 11 has centered on reductions in the number of people entering the Manhattan Central Business District (CBD). The Carpool Rule applies to autos entering Manhattan below 60<sup>th</sup> Street during weekday mornings from 6 a.m. to 10 a.m. A recent report commissioned by the Metropolitan Parking Association concluded that 189,687 fewer persons came into the Manhattan CBD by auto in November 2001 as compared with October 2000. The report focused on the Carpool Rule as the main cause of this fall-off.

In fact, there is no documentation that the Carpool Rule has in any way discouraged people from entering Manhattan. In fact, it appears that many people switched from auto to transit as a result of the Carpool Rule. Factors such as the loss of Manhattan jobs and temporary declines in entertainment activity appear to account for the fall-off in the number of people entering Manhattan in November 2001.

An analysis of the Metropolitan Parking Association report show that:

- Only 6.7% of the 189,687 reduction in persons entering the CBD occurs during 6-10 a.m. on bridges and tunnels governed by the Carpool Rule. The other 93.3% of the fall-off occurs at other times or at entry points not affected by the Carpool Rule and thus is not attributable to the Carpool Rule:
  - ◇ 22% is from closure of the Brooklyn Battery Tunnel, which is due to the closure of West Street and not from the Carpool Rule.
  - ◇ 32% is from declines in the number of people entering Manhattan from north of 60 Street, also not affected by the Carpool Rule.
  - ◇ 39% is from fewer people crossing bridges and tunnels that are governed by the Carpool Rule but outside the 6-10 a.m. time period that the rule is in effect.
- Declines in the number of people entering Manhattan at most East River crossings are lower during the 6-10 a.m. time period than at other times, the opposite of what should occur if the Carpool Rule were discouraging people from coming to Manhattan.
- Only one East River crossing—the Queens Midtown Tunnel—shows a greater fall-off in person-entries during 6-10 a.m. than at other times. The QMT fall-off is entirely offset, however, by increases in Long Island Rail Road ridership, suggesting that auto users may have switched to the LIRR.
- Subway ridership has fallen less quickly than auto travel into the Manhattan CBD, also suggesting that some auto users have switched to transit.

It is also important to note that the vast majority of people coming into Manhattan from 6-10 a.m. when the Carpool Rule is in effect travel by bus, subway and rail, and are thus unaffected by the Carpool Rule.

A fair and balanced assessment of the Carpool Rule requires analysis of more-recent data that would go beyond the immediate aftermath of the September 11 attacks. A full

assessment should also take into account the benefits of the Carpool Rule in reduced traffic congestion, faster travel speeds and less air pollution. City policy must rely on a comprehensive assessment of travel impacts and resulting costs and benefits.

---

## DETAILED ANALYSIS

---

### *FACTUAL ISSUES*

1. The study conducted by The Sam Schwartz Company for the Metropolitan Parking Association and other groups, vastly overstates the impact of the Carpool Rule by attributing the total reduction in persons entering Manhattan to the Carpool Rule. In fact, of the 189,687 reduction in persons entering Manhattan, only 12,745 occurred during the 6-10 a.m. peak using bridges and tunnels affected by the Carpool Rule. The Carpool Rule thus directly accounts for only 6.7% of the total fall-off in persons entering Manhattan. See Figure 1.
2. The Metropolitan Parking Association report includes in the 189,687 reduction in persons entering Manhattan the effects from closure of the Brooklyn Battery Tunnel to autos. This restriction is due to closure of West Street and is unrelated to the Carpool Rule.
  - The Battery tunnel accounts for 42,008 of the 189,687 fewer person-entries calculated in the report (22% of the total).
3. The Metropolitan Parking Association report also overstates the impact of the Carpool Rule by including the drop in person entries across 60<sup>th</sup> Street, which is not affected by the Carpool Rule.
  - 60,012 fewer people entered Manhattan via the 60 Street screenline, or 32% of the 189,687 reduction in person-entries.
4. The impact of the Carpool Rule is also overstated by the report's lumping the drop in Manhattan entries after the ban is lifted at 10 a.m. with the drop while the ban is in effect from 6 a.m. to 10 a.m.
  - 74,922 fewer people entered Manhattan outside the 6-10 a.m. time period on bridges and tunnels governed by the ban. This is 39% of the 189,687 fall-off in person-entries.
  - Thus, only 12,745 fewer people entered Manhattan during the 6-10 a.m. peak using bridges and tunnels affected by the Carpool Rule, which is 6.7% of the total fall-off in persons entering Manhattan.
5. Data in the Metropolitan Parking Association report show that for most crossings into Manhattan, there is virtually no difference in the reduction of auto entries for the period the Carpool Rule is in effect (6-10 a.m.) and the rest of the day. If the Carpool Rule were truly the cause of fewer people entering Manhattan, one would expect significant and systematic differences between the morning peak and other times. In fact, this is not the case.
  - Of crossings shown in Figure 2, only on the Brooklyn Bridge is there a greater reduction in vehicle entries 6-10 a.m. compared with the full 24-hour period—and there, the difference is only one percentage point.

6. The only East River crossing where traffic has dropped significantly more during the morning peak than during the rest of the day is the Queens Midtown Tunnel. Interestingly, the one public transportation provider (other than ferries) showing an increase in ridership is the Long Island Rail Road, suggesting that Queens-Midtown tunnel drivers may have switched to the LIRR.
  - QMT shows a 1,708 decrease in persons entering by motor vehicle from 6-10 a.m., while the number of persons entering the Manhattan CBD on the LIRR increased by 1,781—almost the identical figure.
7. Traffic has also dropped more during the morning peak than other times at the Lincoln Tunnel. New Jersey Transit and PATH ridership has also fallen. It is unclear why the experience at the Lincoln Tunnel differs from changes on East River crossings. This issue bears further analysis.
  - The Metropolitan Parking Association report does not provide data needed to evaluate possible explanations such as increased vehicle occupancy at the Lincoln Tunnel, shifting of traffic to the shoulder periods (5-6 a.m. and 10-11 a.m.) and shift of jobs from Manhattan to New Jersey.
8. The Metropolitan Parking Association report fails to take into account the role of through travel on bridge and tunnel traffic. A substantial number of commuters pass through Manhattan on their way to workplaces outside of Manhattan. The reduction in people entering Manhattan includes persons simply passing through Manhattan who may now be taking other routes to their destination.
  - For example, the 1990 Census shows 27,191 Brooklyn residents driving alone to work in Manhattan. There were also 18,952 Brooklyn solo drivers who commuted to the Bronx, the northern suburbs or New Jersey, many of whom probably drove through Manhattan and would now take other routes to get to their jobs.
9. Drawing policy conclusions from the November traffic data is inherently flawed. Both critics and proponents of the Carpool Rule are concerned about its impacts prospectively as we move further into 2002 and beyond. The situation in the immediate aftermath of the September 11 attacks is unlikely to be a reliable guide to how a continued Carpool Rule would affect travel.
10. It should also be noted that the vast majority of Manhattan-bound commuters are unaffected by the Carpool Rule that is in effect from 6-10 a.m., weekdays, for water crossings below 60 Street.
  - 84% of persons entering the Manhattan hub (60<sup>th</sup> Street to the Battery) travel by subway, bus, railroad, ferry, tram or bicycle.<sup>1</sup>
  - Of the 16% who arrive by auto, one-third carpool, and are thus not subject to the Carpool Rule.
  - Only 12% of Queens residents who work in Manhattan drive alone to work.<sup>2</sup>
  - The comparable figure for Brooklyn is 8%.<sup>3</sup>

---

<sup>1</sup> Source: 1998 New York Metropolitan Transportation Council Hub-bound report.

<sup>2</sup> Source: 1990 U.S. Census.

- The solo driver figure for all workers commuting into Manhattan was 14% in 1990.<sup>4</sup>

### ***INTERPRETIVE ISSUES***

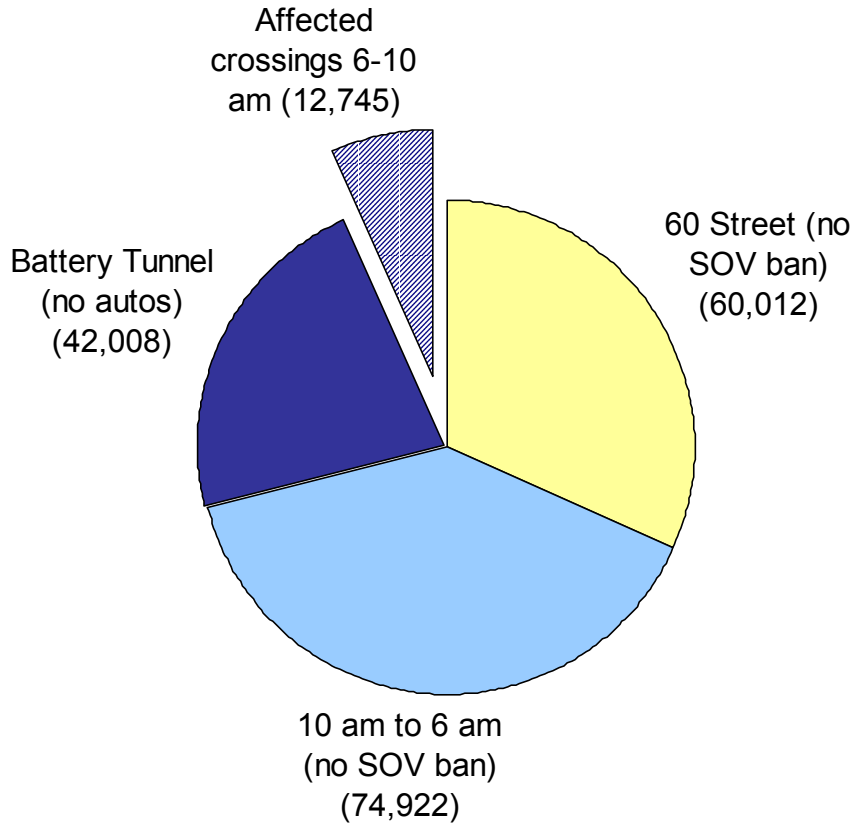
1. There are many reasons that fewer people came into Manhattan in November 2001. These include: rapid loss of jobs due to the combined effects of national recession and the September 11 attacks; closings of highways, bridges, tunnels and streets that discouraged use of autos; fear and anxiety about traveling into New York City; and the sobering emotional atmosphere that reduced the public's interest in going out for entertainment and shopping purposes. The Carpool Rule has doubtless had some effect on travel behavior. But the data in the Metropolitan Parking Association report do not support the hypothesis that the Carpool Rule has caused significant numbers of people to avoid coming into Manhattan.
2. The Metropolitan Parking Association report interprets the smaller drop in subway ridership, relative to auto entries, as showing that the Carpool Rule has discouraged auto use. In fact, these data can just as readily be given the opposite interpretation. The smaller declines in subway ridership may indicate that auto commuters have switched from auto to the subway for Manhattan-bound travel.
3. The Metropolitan Parking Association report omits any consideration of benefits from the Carpool Rule. Analysts have long documented that delays from traffic congestion waste billions of dollars in person-hours, raise the cost of commerce in the city, and spew additional pollutants out of automobile tailpipes. Improved mobility and air quality must be considered in a fair and balanced assessment of the merits of the Carpool Rule.

---

<sup>3</sup> Source: 1990 U.S. Census.

<sup>4</sup> Source: 1990 U.S. Census. Preliminary results from the 2000 Census are very close to the 1990 results.

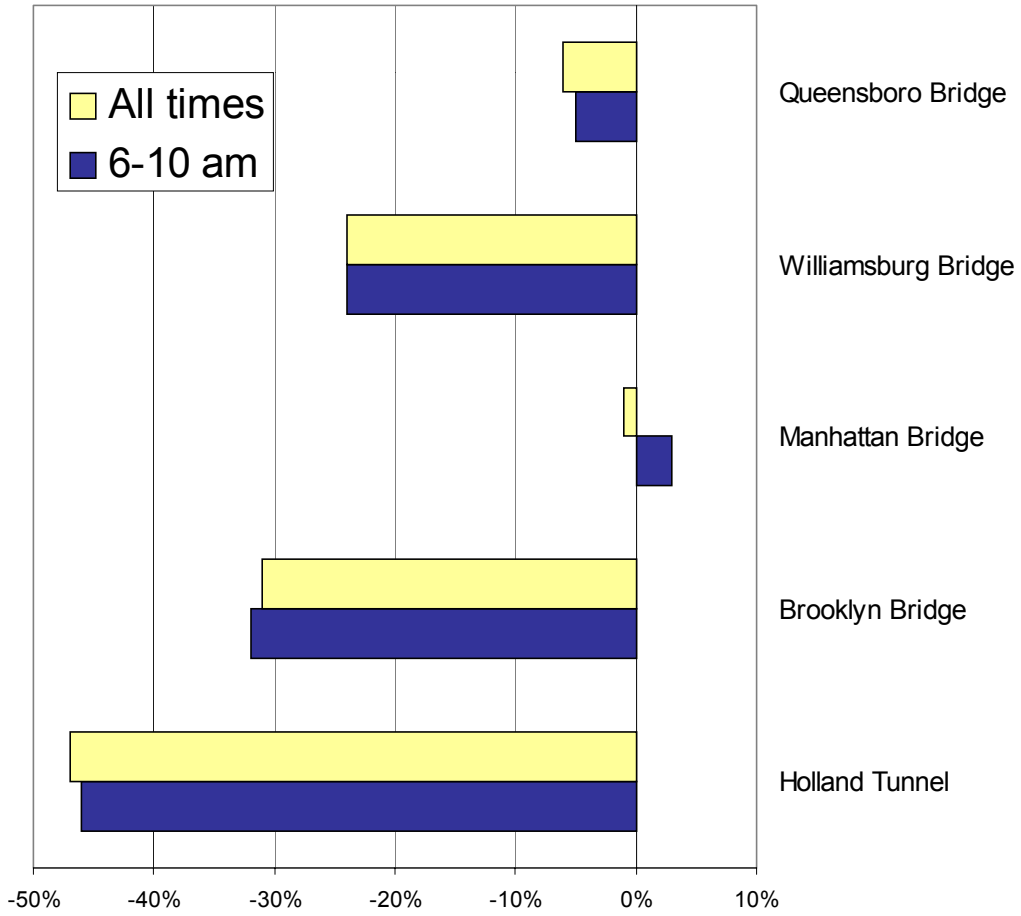
Figure 1. Reduction in Daily Number of People Entering Manhattan South of 60 Street



Auto entries only. Data are for the period October 2000 to November 2001.

Source: The Metropolitan Parking Association, "Toward a Safe and Sensible Transportation System," January 2002.

Figure 2. Reduction in Motor Vehicle Entries at Selected Crossings



Data are for the period October 2000 to November 2001.

Source: The Metropolitan Parking Association, "Toward a Safe and Sensible Transportation System," January 2002.