Proposed Research Project, February 8, 2007

Price Matters:
Free Transit with Road Pricing for the Manhattan Central Business District

Purpose

This research project will estimate the potential benefits and cost of reducing or eliminating transit fares in New York City and environs, in conjunction with a road pricing plan for the Manhattan Central Business District.

Background

Excessive motor vehicle use is a critical problem in New York City. Cars and trucks are a major source of greenhouse gases, but they also pollute the air with toxic emissions that damage public health, add to noise levels, take up scarce public space in a crowded city and consume natural resources. Motor vehicles cause deaths and injuries, not only for their occupants, but also for pedestrians and cyclists. Pedestrian-vehicle conflicts, particularly in the core of the city, result in a hostile and unforgiving streetscape. In addition to the environmental impact of cars and trucks, traffic congestion has enormous economic consequences. Measures that reduce motor vehicle use would greatly improve the livability and sustainability of the city and the health of its economy.

One strategy for reducing motor vehicle use that has received attention is a cordon road pricing plan, charging a price to drive to the core of the city. Such a pricing plan was adopted in London and has met with considerable success, reducing traffic volumes in the core by 16% and delays by 30%. A similar road pricing scheme has been proposed by a number of civic and business interests for the approaches to the Manhattan Central Business District, about the same geographic area as London's pricing zone.

Missing from the discussion is consideration of related pricing strategies for transit services that can complement a core area road pricing plan. In this study, special emphasis will be given to free transit as a pricing option. Several cities, including Portland OR and Seattle WA, offer fare-free transit on bus and light rail lines within their central business districts. In New York City, the Staten Island Ferry is fare-free. This research effort will explore the benefits and costs of free transit throughout New York City and environs.

Description

In addition to a **"no-action" scenario**, the study will develop a **future base scenario** that incorporates the key features of the Regional Rail System plan proposed by the Institute for Rational Urban Mobility, Inc. (IRUM). This plan calls for recasting the region's commuter rail lines into a single Regional Rail System, with frequent service, integrated fares and thru running. The fare integration element of this plan assumes that travelers could use the commuter rail system for local travel within a Central Zone, consisting of

New York City, Hudson County and Newark, without payment of additional fares. Likewise, commuter rail users from the suburbs could ride local buses and subways to complete their trips within the Central Zone without the payment of extra fares.

The **second future scenario** will address the effects of cutting fares in half in the Central Zone. The **third future scenario** will study the effects of dropping these fares to zero. For each scenario, cordon road pricing will be set at levels sufficient to offset diminished transit revenues. Also, several fare options for the suburbs beyond the Central Zone will be considered in the study.

The environmental and economic consequences of each scenario will be assessed using a sketch plan model initially developed to estimate impacts of large scale development in Downtown Brooklyn. The model will be extended by using available data for all 59 Community Planning Districts in NYC. The model summarizes vehicle-miles of travel (VMT) for each zone and uses this as an input to calculate travel time and greenhouse gas and other emissions and other adverse environmental consequences. The total VMT in the Manhattan Central Business District will be a useful surrogate to estimate pedestrian/vehicle conflicts in the core. The analysis will also consider the elasticity of transit and auto use, and mode split, related to price and to the service gains of the Regional Rail System plan.

A very preliminary analysis of revenue and operating cost consequences of implementing the Regional Rail System plan compared to a "no-action" scenario will be undertaken as part of this study. This will require a specialized examination using ridership counts and related information that will obtained from the commuter railroads.

The analysis will assess the ability of the existing transit system, plus the enhanced service provided by the Regional Rail System, to accommodate the shift of core-bound car users to transit and the extra load of new transit riders generated by free or reduced fares will be assessed. The cost of increased service, if needed, will be estimated.

For each future scenario the cost of meeting long term transit rehabilitation and expansion needs will be assumed to come from other sources. A high quality transit system provides substantial benefits to residents and businesses in the region. Identifying these benefits will be the subject of a subsequent research project.

The findings will be posted on the IRUM website and published in a final report.

Administration

This project will be hosted by the Institute for Rational Urban Mobility, Inc., a New York City-based not-for-profit corporation, with Internal Revenue Code §501(c)(3) status. Project manager will be IRUM President George Haikalis. Others in the study team will include Community Consulting Services, Inc., Charles Komanoff and Joseph Clift. The project is estimated to cost $100,000 and will be completed in four months.