

**TRANSIT FUNDING; WHY THE POLITICS?  
A COMPARATIVE STUDY OF PUBLIC TRANSPORTATION INFRASTRUCTURE  
FUNDING IN NEW YORK CITY AND LOS ANGELES**

**A Thesis Presented to the Faculty of Architecture and Planning  
COLUMBIA UNIVERSITY**

**In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science in Urban Planning**

**by**

**Claudia Huerta**

**May 2012**

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**ABSTRACT**

Suburban sprawl and automobile dependence has undermined support and funding for mass transit in Los Angeles and New York, and has instead dedicated funding from gas tax revenues to highways. Infrastructure coalition building in Los Angeles is turning public need and support into dollars. The challenge is what can New York City learn from the soon to be ex-autopolis and what can Los Angeles learn from the funding transit legacy of New York. This thesis asks the questions of why there is more transit momentum in Los Angeles than in New York City, and what is making it easier to fund projects in a relatively conservative political environment. Points of similarity and divergence in transit funding in New York City and Los Angeles are identified through critical review of the funding strategies of the two systems. Interestingly, though these two cities have historically pursued transit in inversely opposite manners; the newfound transit religion in Los Angeles is currently juxtaposed with what seems to be stagnate growth in New York. The impetus and values driving the grassroots coalition in Los Angeles are strengthening political support and helping secure financing for transit projects, and points to the importance of champions in securing funding for transit.

**KEYWORDS**

Transportation Planning, Transit Finance, Public Transportation, Sprawl, Local Sales Tax

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## I. INTRODUCTION

The modern city is completely dependent on transport and its economy is directly linked to the efficiency of its transportation network. In addition to mobility, transportation offers economic development along the corridors, economic competitiveness; and accessible connections between communities, goods and services. However, increasing congestion on roads is thwarting economic competitiveness. Enhancing mobility through public transportation needs to be of the utmost priority for a city in order to ensure its economic competitiveness. For Los Angeles and New York optimizing their transportation efficiency and convenience with transit is essential to help them compete with other global cities. In the mid-19<sup>th</sup> century President Abraham Lincoln recognized that transportation had to be a high priority for a growing nation when he signed the Railroad Act of 1862 into law. However, for too many decades funding priorities across the US have been steered to subsidizing private automobile use with minimal subsidies for public transportation. Today, even though the current administration is considerably more favorable to public transportation than the previous administration, the minimal federal funding for public transportation infrastructure improvements in comparison to highway infrastructure highlights the need for more support at the federal and local level. As cities take a moment to reflect on the current state of their transportation needs and funding sources, more and more they are left perplexed about how to fund their many transit infrastructure needs.

Early in the 20<sup>th</sup> century mass transit developed in both New York City and Los Angeles. Starting with its support for the development of the first subway line New York City has always been a strong enthusiast of transit and creative transit finance. Even though New York City has one of the most expansive public transportation systems in the world, congestion floods city streets especially within Manhattan's central business district and obstructs access throughout the city. In Los Angeles its early 20<sup>th</sup> century comprehensive public transit system became obsolete by the 1950s. All the while Los Angeles was capitalizing on the automobile frenzy. Land development was burgeoning in new lands opened up by the automobile and supported with state and federal governments interstate highway-building program that built new roads and increased access to suburban communities. Furthermore, as public transit was stripped down to a frail collection of bus services, automobile travel became further entrenched in Los Angeles culture.



Figure 1: Early 20th Century Transit in New York City. Columbus Circle

Early 20<sup>th</sup> century lessons of transit operations, benefits and objectives to providing equitable access within a city have dispelled the notions of transit as a private good that can pay for itself at the farebox. In 1953 New York City took over the various subway lines that had been developed throughout the five boroughs and consolidated the subway companies into one special purpose district, the New York City Transit Authority. In 1968 the State of New York merged the New York City Transit Authority with Triborough Bridge and Tunnel Authority to create the Metropolitan Transportation Authority (MTA).

Concurrently, Los Angeles was too busy driving and left public transportation policy in the rear view. Since 1924 power struggles between the City of Los Angeles and the County of Los Angeles hindered the implementation of comprehensive public transportation plans. Urban and suburban interests could not fully come to terms on the benefits of transit. Lack of public support continuously blocked public takeover of the Streetcar mass transit business that was destined to collapse in an auto-centric city with staunch limits of fare prices. Decades later, with increased congestion problems throughout Los Angeles the stalemate between suburban and urban interests was finally broken in 1980 with the passage of Proposition A, a countywide half-cent sales tax dedicated to transportation funding. In 1993 Los Angeles County merged a fragmented public transit administrative network into a countywide special purpose district for transportation, the Los Angeles County Metropolitan Transportation Authority (METRO), that has planned the County's aggressive 30 years of Transit in 10 (30-10 Plan) capital expansion campaign that was included in the Measure R transportation tax initiative passed in 2008.

The physical structure of each city has been very much defined by the availability and ease of motorized and non-motorized transport options. Los Angeles is a polycentric metropolis with sprawled land uses connected by a vast collection of freeways; and New York City is a monocentric metropolis connected by both an extensive transit system and road network. Traditionally, the provision of transit is dependent on access to funds and on land use development trends that at one point both subsidized the system and helped ensure ridership. For most of the 20<sup>th</sup> Century Los Angeles faced many difficulties gaining public support for public transportation and as a result was not able to build a comprehensive transit system for much of the century (Fogelson 1967). To a lesser degree, New York City, also faced challenges accessing funds to maintain and modernize its public transportation portfolio and many areas still have limited or no access to public transportation. Moreover, the mono and poly centricity of New York City and Los Angeles is also related to their respective economic coming of age pre or post automobile that has also had a major influence in their spatial distribution, land use and the fate of mass transit in each city. Suburban sprawl and automobile dependence has undermined support and funding for transit in Los Angeles and New York City, and instead dedicated traditional transportation funding from gas tax revenues to highways. As a result, transit reached detrimental levels of deterioration in American cities in the last half of the 20<sup>th</sup> century.



Figure 2: Traffic congestion on the 405 Freeway in Los Angeles.

Today the growing urgency of congestion in cities is breaking down existing path dependencies in local government organizational structures and public transport service provision. Sustainable public transportation policies will play a pivotal role in shaping the future spatial land use dimensions within both cities. New York City and Los Angeles live in their own perennial states of traffic. Already in Los Angeles citizens are fed up with congestion and their city's dependence on the automobile. A review of current transportation plans, policies, reports, and

interviews with public, private, and non-profit experts and stakeholders reveal that chronic congestion has boosted the necessity for public transportation improvements. However, while there is a big need for increased transit infrastructure, there are decreasing funds from the federal and state level to help cities fulfill these needs. Thus, cities and local transit agencies must either maintain and build with insufficient budgets, or increase user fees, or appeal to local voters to incur more taxes that raise the needed monies, or enter into public-private partnerships.

In Los Angeles, the negative externalities of congestion, long travel times and the costs of idle time stuck in traffic, has given rise to grassroots initiatives aimed at building regional coalitions between the public, business, labor and environmentalists to pass ballot measures that create new funding streams for transportation projects. In a recession enthusiasm for transit led voters in Los Angeles to self-tax to be able to fund the Measure R transit projects known as the 30-10 Plan. The extraordinary achievement in 2008 at the ballot with Measure R, a 30-year half-cent sales tax, is a testament of the shift in attitudes about transportation necessities and priorities and support for transit. In 2011 Measure R revenues coupled with monies from two other earlier sales tax measures, Proposition A (1980) and Proposition C (1990), locally funded 74 percent of METRO's operations. In particular Measure R revenues fund about 70 percent of the 30-10 Plan. Moreover, the Los Angeles strategy of local funding from tax dollars demonstrates a paradigm shift and necessity for an alternative transport mode to the automobile in car-country USA. More importantly the very need to use a finance model like Measure R to build more transit that helps relieve congestion highlights the need to prioritize increased funding allocations for public transportation.

Conversely, while New York City does use sales tax revenues to support their system they are arguably not enough considering the multitude of improvements needed. Furthermore, similar coalition building seems to be lacking. Ironically New York City's rich transit history is perhaps a reason that urban and suburban interests are still pitted against each other. Manhattan's hyper density often casts a shadow on the low density that permeates New York City's four other boroughs (Queens, Brooklyn, the Bronx, and Staten Island) and the New York Metro Area. Both have less access to public transportation and are more car dependant. In part, the MTA's funding struggles are also borne out of the poor management perception New Yorkers have of the MTA and the fact that the refurbishing the subway system is not as exciting and glamorous as adding new subway lines.

Enhanced transportation access is a means to achieve increased quality of life in cities. Embedded within the context of the 20<sup>th</sup> century transportation legacy of the automobile and sprawl this study considers the challenge of keeping an older transit system funded like New York City's in conjunction with the challenge of building a new system in Los Angeles. This thesis asks the questions of why there is more transit momentum in Los Angeles than in New York City, and what is making it easier to fund projects in a relatively conservative political environment. Points of similarity and divergence in transit funding in New York City and Los Angeles are identified through critical review of the funding strategies of the two systems. Interestingly, though these two cities have historically pursued transit in inversely opposite manners; the newfound transit religion in Los Angeles is currently juxtaposed with what seems to be stagnate growth in New York. The impetus and values driving the grassroots coalition in Los Angeles are strengthening political support and helping secure financing for transit projects,



and points to the importance of champions in securing funding for transit. New York City's capital expansion program lacks a comparative force. Rallying public support for transit is more complicated since the use of additional funds on signal system upgrades is harder to showcase than the opening of a new subway line, but yet it is just as essential.

## II. BACKGROUND

Congestion is an eminent problem in New York and Los Angeles. Both metro areas are expected to grow by 4 million people by 2030 and 2035 respectively. As of 2010, New York City is home to 8,175,133 people in the five boroughs (Manhattan, Queens, Brooklyn, the Bronx, and Staten Island) that collectively form a total land area of 305 square miles.<sup>1</sup> As the most populous city in the United States it is twice the size of the second largest city, Los Angeles. The New York metropolitan region is comprised of almost 19 million residents in 23 counties.<sup>2</sup> The urbanized area of the region that stretches over parts of New York, New Jersey, and Connecticut covers more than 6,700 square miles. In 2010 the City of Los Angeles had a population of 3,792,621 and is the most populous city with the 88 cities and unincorporated areas that make up nation's most populous county in the nation. The County of Los Angeles is home to 9,818,605 million residents in 4,058 square miles. The Los Angeles metropolitan region is also expansive with about 12.8 million people living in about 17,000 square miles.<sup>3</sup> Over 57 percent of commuters in New York City use public transit, while about 30 percent travel by car. In Los Angeles County over 82 percent of commuters travel by car and 12 percent use public transit.



<sup>1</sup> 305 square miles is approximately 195,000 acres or 8.5 billion square feet.

<sup>2</sup> The New York Metro Area is comprised of ten counties in New York State, 12 counties in Northern and Central New Jersey; and one county in northeastern Pennsylvania.

<sup>3</sup> The Los Angeles, Long Beach and Santa Ana metro area has a land area of 33,954 square miles but over half of the land is not heavily populated and is within eastern parts of Riverside and San Bernardino counties.

NYC COMMUTE TRAVEL MODE 2009



Figure 4: New York City

LA COMMUTE TRAVEL MODE 2009

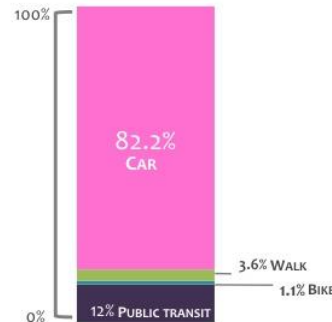


Figure 3: Los Angeles County

The MTA manages North America's largest transportation network comprised of the New York City subways and buses, the Long Island Rail Road, and the Metro-North Railroad, Bridges and Tunnels, and until just recently the Long Island Bus. The core of the combination of below grade and above ground mass transit systems that were developed in the early 20<sup>th</sup> Century laid the foundation for the current New York City network. With an annual budget of more than **\$13 billion** the MTA moves about 8.5 million riders per day or 2.5 billion passengers a year on its subways, buses, railroads; and 300 million vehicles on its bridges and tunnels. In 2010 the average cost per trip was \$2.44 with an operating budget of about \$6.1 billion. The New York City subway has been in operations for about 110 years. It has 722 miles of subway tracks, 6,300 rail and subway cars. Additionally, its 5,900 network of buses travels over 13,000 miles a day. The MTA's New York City Transit Authority<sup>4</sup> alone transports seven million people a day. New York City transit moves New Yorkers 24 hours a day and on average 55 percent of New Yorkers use public transportation in all 5 boroughs.

METRO has an annual budget of **\$4 billion** and manages the Metro Bus, Metrolink, and Metro Rail. It has a fleet of more than 2,000 buses that provide service to more than 1,400 square miles and an inter-county metro rail that provides about 80 miles of subway or light rail. Additionally, its commuter rail, Metrolink, provides access between Los Angeles County and the four other counties within the metro area Orange County, Ventura County, Riverside County and San Bernardino County. METRO also oversees the Public Transportation Service Corporation and the Service Authority for Freeway Emergencies; and provides funding for bicycle infrastructure and carpool lane development with the California Department of Transportation. The current Los Angeles rail system began operations with the Blue Line in 1990. It expanded quickly with the subsequent Red Line and Purple Line openings in 1993, 1996, 1999, and 2000; the Metro Green Line in 1995; the Metro Gold Line in 2003; Metro Orange Line in 2005; the Metro Gold Line Eastside Extension in 2009; Phase 1 Exposition in 2012; the Silver Line in 2011; and 25 lines of the METRO Rapid Program.<sup>5</sup> Today, it has over 460 million annual trips or an average of 1.3 million rides per day. In 2010 the average cost per trip was \$2.64 with an operating budget of about \$1.2 billion. The entire transit system reduces 32.3 million hours of travel time and saves bus and rail riders nearly \$590 million in costs.

<sup>4</sup> The NYCTA operates the following MTA systems: New York City Subway, Select Bus Service, Staten Island Railway, and MTA Regional Bus Operations.

<sup>5</sup> The METRO Rapid Program has Bus-Rapid-like characteristics.

a. Regional Transit Histories: New York Metro Area and Los Angeles County

At the regional level the source of current funding struggles finds its roots in the pinnacle of twentieth-century modernist urban planning: the highway-building era. New York and Los Angeles have both been emblematic in helping create the notion of the American dream and fulfilling the needs of quality of life. City development and the resulting urban form in New York City and Los Angeles have developed in tandem with transportation trends. Rail access gave way to the early suburbs in each city by providing easier access to areas that were previously too far to reach on foot or on horse in a timely and affordable manner. In Los Angeles, as Scott and Soja note in their 1996 book *The City*, the pattern of dispersed regional growth first facilitated by Red Cars of Huntington was reinforced by new migrants from the east coast and mid-west trying to escape the failures of the industrial metropolis and the West represented a “redemptive contact with nature” that fulfilled their values of quality of life, family and personal destiny.

Early on in American history, New York City became one of the major influential cities of the country. By the early age of the automobile in the 1920s it had been well developed. First bound by the acceptable walking distance peripheries around the center of town and then bound by the streetcar frontiers, the densest parts of New York City began their development before the automobile. The density and overcrowded tenement conditions of the Manhattan core prompted the development of various private mass transit systems in New York City that integrated the Manhattan core and spurred development in the other boroughs. By 1940 pressure for public ownership culminated in the purchase of the IRT's and BMT's assets for \$326 million. By 1953 the legislature unified the lines under one system and created the New York City Transit Authority. The 1966 transit workers strike triggered the creation of the Metropolitan Transportation Authority by New York State in 1968 and also began to coordinate the city's transit activities with other commuter services.

In Los Angeles oil parceling and the autonomy provided by the oil boom economy laid the foundation for the prevalence of many sub-centers within the city (Fogelson 1967). The anti-tenement ideology of residents coupled with the reign of single-family home and the arrival of the automobile supported suburban sprawl and institutionalized decentralization within the city. During the 1920s public transportation routes in suburban areas started to be cut and by the 1930s they were being replaced by bus lines. The eventual demise of the mass transit system resulted in part because the city refused to buy it – or take it over – before it became ridden with problems to fix without too much investment that would have necessitated a need to appeal to voters for additional funds. In the 1930s using an automobile was also a way “the working man could strike a blow against monopoly capitalism” that was personified by the transit tycoons (Scott and Soja 1996). Citizens also categorized the transit system as inefficient with late trains and deplorable and filthy car conditions (Fogelson 1967; Scott and Soja 1996).

b. Managing and Funding the System: New York MTA and Los Angeles METRO

New York City and Los Angeles have long ago transitioned from city economies to regional economies. Differing path dependencies from their physical structure and government

policies have shaped the current transportation policies of New York City and Los Angeles. Interestingly, even though both cities converge on average densities they achieve it through dramatic differences in physical structures. Today both are the central foci of the two largest metropolitan areas in the country. The monocentric model of New York City is centered on Manhattan and the Los Angeles polycentric model is arguably centered on automobile travel. This study considers mainly the jurisdictions that fall under the two transit agencies that manage transit systems in New York and Los Angeles.

The New York State Legislature created the MTA in 1968 to oversee transportation operations in New York City, Dutchess, Nassau, Orange, Putnam, Rockland, Suffolk and Westchester counties. Similarly, the California State Legislature created METRO in 1993 by merging two previous public authorities the Los Angeles County Transportation Commission and the Southern California Rapid Transit District. METRO oversees public transportation operations through most of the County of Los Angeles.<sup>6</sup> As public authorities, the MTA and METRO have the ability to coordinate planning over areas larger than one jurisdiction, bypass state-set ceilings on city debt and can raise their own revenues by issuing tax-exempt bonds that help with capital campaigns and operation costs. The managing boards of both agencies must approve new bond offerings. Additionally, tax-exempt bonds that will not be paid back by farebox revenues require voter approval.



Figure 6: Joseph Lhota, MTA Chairman

officials in suburban counties, but the chairman is exclusively the governor's choice (King, Forthcoming). Board members represent the 12 different counties and usually do not hold political office. The Chairman of the Board, Joseph Lhota, also serves as the MTA's Chief Executive Officer. In Los Angeles the METRO Board is comprised of

The corporate governance of each agency plays a key role in the management decisions and budgeting priorities of each transit authority. The composition of each management board is emblematic of the politics at play in the hierarchy of influence between state, regional and local stakeholders. On the New York City side the MTA Board is comprised of 21 members,<sup>7</sup> six of which are non-voting members. The Governor of New York State appoints the members and some representatives are usually nominated by the New York City mayor and elected

Figure 5: Mayor Villaraigosa, METRO Chairman



<sup>6</sup> METRO does not oversee operations for the following commuter or public transportation services in the County: Metrolink, Access Services Inc, Culver City Municipal Lines, Long Beach Transit, Santa Monica Bus Lines, Foothill Transit, Commerce, Los Angeles Department of Transportation, Torrance, La Mirada, Gardena, Montebello and Norwalk.

<sup>7</sup> Joseph Lhota (Chair), Andrew Albert (non-voting), Jonathan Ballen, John Banks (Vice Chair), Robert Bickford, James Blair (non-voting), Norman Brown (non-voting), Allen Cappelli, Fernando Ferrer, Ira Greenberg (non-voting), Jeffrey Kay, Mark Lebow, Susan Metzger, Charles Moerdler, Mark Page, Mitchell Pally, Andrew Saul, James Sedore, Vincent Tessitore Jr. (non-voting), Ed Watt (non-voting), and Carl Wortendyke.

13 members,<sup>8</sup> the mayor of Los Angeles, the five Los Angeles County Supervisors, three Los Angeles mayor-appointees (at least one of which has to be a Los Angeles City council member), four city council members from cities other than Los Angeles and within Los Angeles County, and lastly the Governor of California appoints one non-voting member usually the Director of Caltrans District 7.<sup>9</sup> The current Chair of the METRO Board is Mayor Antonio Villaraigosa from the City of Los Angeles. This is his third term as Chairman of the Board and most recently replaced outgoing Chairman, Los Angeles County Supervisor Don Knabe on July 1, 2011. From the selection and composition of each board it is clear that in the case of Los Angeles, the mayor of the City of Los Angeles has a much more direct role in the decisions of METRO than the mayor of New York City has in the management decisions of the MTA. Additionally, the majority of the METRO Board members are elected officials, whereas the MTA Board members are not elected officials and are not necessarily as driven by political agendas.

One of the biggest challenges both transit agencies face is a steady stream of capital that supports maintenance and operations, capital improvements and network growth. The first mass transit systems in New York and Los Angeles were privately owned and funded, and went bankrupt as result of government fare restrictions. As public authorities, transit agencies like the MTA and METRO obtain funds from multiple sources typically by a combination of user fees, advertising revenues, general formula tax allocations (federal, state, and local), debt issuance, competitive federal grants and loans, special taxes, payroll taxes, gas taxes, sales taxes and property taxes. Each finance model has pros and cons at the agency and user level. Choosing the right model or sets of models is very complex and varies on the agency's goals, values and ability to obtain other funds.

Since the introduction of the streetcar in the late 19<sup>th</sup> century mass transit economic viability has depended on the transportation policies developed at the federal, state and local levels. The political and business cultures of the cities have helped to determined organizational and power structures of public transportation authorities. In New York and Los Angeles, like in other localities, variations in local support, both public and private, influence the management of mass transit organizations. The historical trajectory in these two cities reveals the need for local buy-in to secure public and private funding for mass transit systems, even when systems were privately owned and more so now that they are publically owned. Funding ultimately determines the extent of mass transit development, maintenance and growth.

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<sup>8</sup> Antonio R. Villaraigosa Chair Mayor, City of Los Angeles; Michael D. Antonovich First Vice Chair Los Angeles County Supervisor Fifth Supervisorial District; Diane DuBois Second Vice Chair Vice Mayor, Lakewood; John Fasana Mayor, Duarte; José Huizar City Council Member, Los Angeles; Richard Katz City of Los Angeles Appointed by the Mayor of Los Angeles; Don Knabe Los Angeles County Supervisor Fourth Supervisorial District; Gloria Molina Los Angeles County Supervisor First Supervisorial District; Ara Najarian Councilmember, City of Glendale; Pam O'Connor City Council Member, Santa Monica; Mark Ridley-Thomas Los Angeles County Supervisor Second Supervisorial District; Mel Wilson City of Los Angeles Appointed by the Mayor of Los Angeles; Zev Yaroslavsky Los Angeles County Supervisor Third Supervisorial District; and Michael Miles Non-Voting Appointed by the Governor of California

<sup>9</sup> The California Department of Transportation (Caltrans) is responsible for planning, design, construction, maintenance and operation of the state highway system. District 7 includes Los Angeles and Ventura Counties. ([www.dot.ca.gov](http://www.dot.ca.gov))

Suburban growth centered on the dispersed single-family home had many implications for regional politics and the future of the transportation system in American cities. For instance, propositions to raise taxes have to appeal to various interests to be able to obtain voter approval. In Los Angeles suburban sprawl gave rise to fragmented institutional and political structures in a region composed of municipalities, county governments, single purpose agencies (air quality, transportation, water, and waste management), and homeowner associations (Fogelson 1967; Scott and Soja 1996). The fragmented institutional framework also gave way for redundancies in public government. As a result, agencies cross-planned, cross-regulated and often retracted positive steps forward (Erie 2004). The need for public buy-in is best exemplified in Los Angeles' many failed attempts to fund a more comprehensive transit system. Prior to 1970, Los Angeles put forth many transit plans that failed to garner much political consensus or enough voter appeal to fund them.

Despite the general criticisms with public transportation and bleak ridership numbers there has always been a segment of the population that has advocated for public transportation in Los Angeles and in 2008 they finally triumphed. Since the 1990s local non-profit institutions have started to promote new social strategies to benefit the city in education, community policing, the environment and more transportation infrastructure (Scott and Soja 1996). The passage of Measure R symbolizes a paradigm shift of the many decades of questioning whether public transportation proposals benefited enough people in the sprawled metropolis to make it worthwhile. It also marks a critical point in the future of transportation, spatial configurations and land use distribution for Los Angeles. Much of the success with Measure R can be attributed to local grassroots coalition building that helped bring together a united Los Angeles against congestion and for transit; willing to tax itself to raise funds to build a much needed transit system that can curb automobile use and provide an alternative transportation option throughout the County.

### **III. LITERATURE REVIEW**

Urban issues have a time dimension that informs the reasons for the past and the possibilities for the future. A review of the literature has identified key path dependencies that have led to the current state of transit and what it means for the future of funding sources for public transportation. In different ways but to the same end, transit rationality was replaced by highway rationality in Los Angeles and New York City. In Los Angeles freeways and roads provided an unstoppable force of urban decentralization (Scott and Soja 1996) away from transit nodes and making the provision of public transportation more challenging and costly. Road engineers made decisions about route locations and geometric standards, focused on "budgets and road building, not on urban matters" (Biles 2011). To a lesser degree in New York, freeways and roads have also perpetuated regional decentralization that believes most of the transit necessities should be solved within the urban core of New York, and most specifically Manhattan.

Progress was promoted by road building and by the 1970s images of "modernity and transportation had changed dramatically" in American society: the bus "eclipsed the rail car as the epitome of modernity" (Scott and Soja 1996) and the automobile became the ultimate symbol

of individuality and material success. In the late 20<sup>th</sup> century transit again began to have a more favorable modern image. Public transit, especially rail transit, has again become a symbol of progress and city accomplishment (Scott and Soja 1996). The literature reviewed highlights societal, cultural, political and spatial trends that have contributed to financial challenges and disparities between transit and highway funding. It also highlights the need to compliment transit infrastructure with land use policies to optimize investments and better influence travel mode choices.

a. The 20<sup>th</sup> Century Transportation Legacy

The automobile became the primary transport mode in the last century as a result of its socio-economic symbolism, metropolitan decentralization facilitated by residential and employment exodus from the central business district and increasing disinvestments in transit (Fogelson 1967 and Jackson 1985). In the most basic terms the automobile made suburban travel easier and offered freedom from congested transit systems and travel schedules. For more complex reasons the automobile almost immediately became emblematic of freedom of choice and a socio-economic relic of prosperity and the pursuit of happiness, also referred to as the American dream. However, another main reason that the automobile became the mode of choice over transit is because of its low cost to drivers. Arguably drivers have never paid the full price of driving. The government, at all levels, has subsidized a car intensive lifestyle with extensive road infrastructure and tax incentives for Americans to buy new homes that were predominately being built in the suburbs (Biles 2011, Beauregard 2006). Moreover, as government subsidies made car travel to the suburbs easier with new highway networks there was a sustained disinvestment in transit infrastructure. As a result, car use dominates urban travel in every segment of the American population, including the poor, minorities, and the elderly (Pucher and Renee 2003).

The growth of suburbia was a result of automobile preferences, demand side preferences to be away from the ails of the city, and supply-side economics that made housing more affordable. The automobile opened up new land frontiers away from crowded and expensive city centers and made homeownership more affordable. It played an important role in the development of the American metropolis as it facilitated demographic shifts from the central city to the suburbs of people, industry, retail and jobs (Biles 2011). New housing sub-divisions mainly created single-family homes that occupied more space and continued to expand away from the city center and created suburbia (Fogelson 1967 and Jackson 1985). Government policies such as home mortgage interest deductions helped to subsidize a low-density lifestyle based on the single-family home (Guiliano et. al 2008; Wolch et al. 2004). The automobile also allowed for residential segregation through zoning regulations for minimum lot size requirements and restriction on multi-family units in suburban communities that implicitly excluded the poor (Guiliano et. al 2008). In hindsight it is clear to see that the automobile promulgated inefficient land use patterns across the American landscape.

Increased population and employment decentralization and transit disinvestment have helped to reinforce the American infatuation with the automobile and created an auto-dependent society. In most American cities the decentralization of people was followed by decentralization of jobs (Guiliano et. al 2008). Firms stopped locating in the existing central business districts due

to the perceived low cost of travel facilitated by the automobile and increasing agglomeration diseconomies of traffic congestion and high land rents in central business districts (Giuliano et. al 2008). Differing employee benefits that favor parking over transit have also limited transportation choices in American cities to the automobile. The car, as Alan Pisarski in “Livability and All That” asserts has allowed people to move to suburbia and still be able travel to work and back to the excitement and cultural amenities of the city.

For many decades the acres of housing subdivision, massive factories, and colossal shopping centers in the suburbs raided tax dollars from urban areas subsequently diminishing resources to provide municipal services like public transportation infrastructure (Biles 2011). Today, cities are grappling with unrelenting levels of congestion that cause travel delays and negative impacts to their economies; increasing the costs of automobile use for individual users and for the city as a whole. Traffic congestion results from combining sprawl, automobile dependence and population growth (Mann 2005). In order to address the urban legacy of congestion and pollution of the automobile, cities must make transit more competitive with the automobile. They need to invest in a transit infrastructure that provides sufficient capacity to offer convenient access to transit, intra-system connectivity and speed to decrease travel time (RPA 2008).

The literature has still not captivated how congestion and the increasing costs of automobile use are generating increased support for local taxing efforts to fund public transportation programs in an era of declining state and federal funds for transportation. The recent passage of a 30-year half-cent sales tax in Los Angeles County known as Measure R is due to the populous reacting to the chronic congestion the region faces. While local taxes have often played a role in funding municipal services they have for the most part played a minimal role. However, revenues from Measure R are funding the majority of infrastructure projects in Los Angeles County and are also positioning Los Angeles to potentially be able to borrow against future revenues to build projects faster.

#### b. Optimizing Transit with Land Use Policies

There are strong interdependencies between car use and land use patterns (Biles 2011, Beauregard 2006, Mann 2005). At the turn of the 20<sup>th</sup> century Streetcars abound in both cities and facilitated travel through the city to emerging new communities outside of the urban core. More than any other form of transportation the automobile also helped to perpetuate low-density sprawl that constantly extends peri-urban boundaries. In compliment to organic and regulatory land use patterns that shape the spatial configuration of cities, transportation infrastructure decisions are meant to support urban functions (Giuliano et. al 2008). However, the 20<sup>th</sup> century transportation legacy that supported suburbanization has led to increased automobile dependence, inefficient land use patterns, environmental pollution, spatial segregation of race and class and decline of city centers (Giuliano et. al 2008). Cities are working hard to disentangle sprawl with transit programs that will provide more transportation options for city dwellers and with land use policies that increase land use intensification around transit stations and stops to encourage more transit use.



The success of transit policies is measured both by the creation and by the use of transit infrastructure. The literature notes – or alludes – that the rubric of success used to measure the effectiveness of transit is two-fold and to an extent assumes causality: as public transport ridership increases car use (number of trips or vehicle miles traveled) should decrease. While studies expound on the economic (Boarnet and Crane 2001; Chatman 2011) and eco-friendly (Kenworthy 2006; Stone and et al. 2007) virtues of transit for cities, developers, businesses and residents they also create a case for co-location of land uses near transit to increase ridership (Boarnet and Crane 2001) and induce agglomeration economies (Chatman 2011). However, these studies also assert that it is not enough to simply build transit infrastructure to increase transit ridership and reduce car use. Scholars and experts advocate for more mixed land uses and compact development around transit stations – commonly referred to as transit-oriented development (TOD). As a result, to optimize transit infrastructure investments zoning adjustments are often needed to induce market forces to create TOD that reduces the need for cars and curtails further sprawl cycles. Additionally, to reduce the need for automobiles TODs must also be spatially configured in a way to adequately support connections to transit stations and increase transit demand.

The arguments for density and compact growth around transit and its potential to reduce auto-dependency, congestion and pollution are strong. The right densities and street connectivity in compact growth reduces vehicles miles and vehicle emissions. TOD projects can also help meet socio-economic goals like affordable and inclusionary housing (Boarnet and Crane 2001; Jacobson and Forsyth 2008), and increase transportation equity (Jacobson and Forsyth 2008). In addition to its social and environmental benefits, transit also has the tendency to increase a city's appeal to business and industry, since transit can ease the flow of goods, services and people; and reduce the overall costs of travel. However, the crux of the problem lies in transitioning to more sustainable urban forms. To this end, Kenworthy notes that while the urban form and infrastructure systems must change, the value systems of government and the processes guiding urban interventions also need to change and better incorporate sustainable values.

The reasons for the failure of rail investments in the United States to deliver “congestion-relief and environmental benefits touted by proponents” (Cervero 2009) is a result of uncomplimentary land uses around transit stations. Developments around transit have not been compact, mixed-use, or pedestrian-friendly and still adhere to auto-centric suburban development values. The findings from the case studies in Boarnet and Crane's *Travel by Design: the Influence of Urban Form of Travel Behavior*, and Jacobson and Forsyth's “Seven American TODs: Good practices for urban design in Transit-Oriented Development Projects” show that building rail transit is hardly sufficient to ensure sufficient transit ridership. Both studies also stress the critical impact that station location has on ridership and the potential of TOD to boost transit ridership by being in close proximity to land uses like employment hubs, commercial and residential uses. They also bring to the fore the critical role that zoning plays in supporting transit infrastructure and TOD. Boarnet and Crane find that land uses and zoning around transit stations favor commercial and industrial uses over residential, and that often zoning near stations is prohibitive to TOD that includes multi-family residential uses. Additionally, aligning land use and transit investment is also important because the failure of one project can be detrimental to the future support of other projects.

The varying transportation needs and funding influence of regional constituencies on transit plans complicate the effects of sprawl. In most cases residents in low-density communities have no other practical transport choice to the automobile and continue to support transportation policy funding they believe addresses their needs. The literature is missing how transit agencies use congestion frustration to increase transit needs and create support for long-term local tax measures that play a substantial role in financing transit projects over a collection of taxes and fees that play a smaller role in financing public transportation.

c. Transportation Planning Politics, Political and Civic Support

Transit funding is often plagued with political gridlock. A challenge for public transportation in the United States is that it is often seen as a public good that will only benefit the poor. The overall impact of public transportation to the economy of the city has been ignored, dismissed or simply not understood. There is a triad of political actor groups: government, business and civil society, that play a role in transportation planning and its supportive funding sources. In general the public has preferred roads and supported or at least did not oppose top-down planning approaches to focus on highway infrastructure over transit infrastructure for most of the 20<sup>th</sup> century. Economic boom and bust cycles have often played a role in de-prioritizing transit upgrades and reducing funding for transit. Moreover, the economy has also had negative effects in the development of TOD projects in California (Boarnet and Crane 2001). A main barrier to transit infrastructure is local goals versus regional goals. Most specifically local officials and residents are often not well informed or educated about the regional advantages and the local direct and indirect benefits of transit and TOD projects.

In the United States, transit funding is a controversial issue. On the one hand funding disparities between transit and highways at all levels of government reinforce the notion that transit riders are second-class citizens. On the other hand, upper and middle class voters see transit as a transport mode they will not use and therefore should not contribute to its funding. Implementing solutions for controversial issues requires building consensus at many spheres of influence. In a 2008 study of the redevelopment of Emerson Park in the Eastside of Saint Louis, Jacobson and Forsyth find that to implement capital programs “it is worth turning local residents and business groups into partners” to be able to implement plans and weather inevitable setbacks. Additionally, the perspective of the public is malleable and highly influenced by the way arguments are framed (Layzer 2012) and simply redefining or reframing an issue in policymaking helps galvanize support (Jacobson and Forsyth 2008). Public activism coupled with media coverage can shift public opinion polls and result in political stewardship. Politicians tend to respond to widespread public activism, intense favorable media coverage, and marked shifts in public opinion polls (Layzer 2012).

In recent decades the popularity of local sales tax ballot measures like Measure R has been increasing throughout the country and quite strongly in California. In their 2007 study, “Factors influencing support for local transportation sales tax measures” Robert Hannay and Martin Wachs review the passage of a local sales tax measure in Sonoma County, California that took five attempts to pass. They note that the popularity of local sales tax measures is due to the condition that funds pay for a preset list of projects that promise congestion reduction and are built within a set timeframe in the local jurisdiction of the voters that pay the tax. As a result this

creates the sense that “those who pay directly benefit from the tax.” In the case of Sonoma County they find that despite low transit ridership the more multi-modal package succeeded on the fifth attempt at the polls because voters “rationally consider how they will benefit” from the measure and if voters perceive that projects will not alleviate congestion, measures tend to fail. While Hannay and Wachs affirm that congestion relief perception plays a big role in the success of measures, they also note that successful measures tend to “include projects from the “wish lists” of all major transportation stakeholders” regardless of the merits of their planning. To complement their findings more studies are needed to assess the role grassroots coalitions play in getting tax measures passed and what the implications this will have on the planning process.

#### **IV. RESEARCH DESIGN**

To gain insight into the politics of public transportation financing in New York City and Los Angeles County this study uses a policy review methodology to analyze current transit capital improvement programs and considers how funding commitments and plans are framing public transportation decisions. To this end, the following official documents and reports were reviewed:

- PlaNYC Climate Change, Land Use and Transportation sections
- METRO 2009 Long Range Plan
- 2012 SCAG Sustainable Communities Strategies Draft
- 2008 Tomorrow’s Transit, Regional Plan Association Study
- MTA Capital Construction 2009-2014 Program
- Final Report of the Blue Ribbon Commission on Sustainability
- 2010 New York Climate Action Council Interim Report
- Draft Capital Needs Assessment 2010-2029 MTA Report
- MTA Civil Rights Report (LA) 2011
- US Department of Transportation program requirements and press releases

In conjunction it also reviews a collection of media articles, testimonies, reports and gathers insight from the public, private and non-profit sector and academic experts to understand the facets forming current transportation policy and finance models. Data was collected through primary sources from public agencies involved in transit planning available publically via the internet and through interviews with policy makers, planners, private and non-profit sector experts, and community stakeholders. A total of 20 interviews were performed, six of which are from New York City, 12 from Los Angeles and two from the US Department of Transportation. Secondary resources such as newspaper articles, academic journals, other transportation policy research, and twitter feeds are also used to collect data and inform interview questions.

##### **a. Field Work**

The interview format was semi-structured and open-ended. Respondents were permitted to respond questions as they saw fit. Outreach for interviews was done over the telephone and via email. The people interviewed were selected based on their professional or civic expertise and roles; and some were referred by academic advisors, interview participants, or were already part of my professional network. With the exception of two interview participants all interviews were

facilitated by previous introductions or referrals. Interviews were performed in person and via telephone. Notes were taken verbatim throughout the interview, but were not recorded. Questions asked about current financing challenges cities and agencies face, political and civic support for transportation programs, transit programs, transit needs and goals, and the use of funding streams to implement programs. Responses were used to identify similarities and differences and better understand the politics of transit policy and funding in New York City and Los Angeles.

Table 1: List of Interview Participants

| Participant          | Title   | Date              |
|----------------------|---|-------------------|
| <b>New York City</b> |   |                   |
| 1                    | Ryan Harris<br>Manager of Transit Planning, Jacobs Engineering  | February 8, 2012  |
| 2                    | Richard Barone<br>Director of Transportation Programs, Regional Plan Association  | February 10, 2012 |
| 3                    | Ernest Tollerson<br>Director, Environmental Sustainability & Compliance, MTA  | February 17, 2012 |
| 4                    | Dana Coyle<br>Research Analyst, MTA   | February 17, 2012 |
| 5                    | Joel Moser<br>Partner, Bingham McCutchen LLP  | March 2, 2012     |
| 6                    | Petra Todorovich<br>Director of America 2050 Director, Regional Plan Association  | April 3, 2012     |
| <b>Los Angeles</b>   |   |                   |
| 7                    | Linda Nguyen-Perez<br>Research/Policy Analyst, LAANE  | February 2, 2012  |
| 8                    | David Yale<br>Deputy Executive Officer, Regional Programming, METRO   | February 8, 2012  |
| 9                    | Ed Wilson<br>City of Signal Hill Council Member   | February 11, 2012 |
| 10                   | Matt Gleason<br>Transit Section, SCAG   | February 16, 2012 |
| 11                   | Phil Reyes<br>City of Duarte Council Member & Board Member of the Latino Caucus<br>League of California Cities  | February 17, 2012 |
| 12                   | Rich Macias<br>Head of Transportation Planning, SCAG  | February 22, 2012 |
| 13                   | Michelle Martinez<br>City of Santa Ana Council Member   | February 23, 2012 |
| 14                   | Joseph Gonanzalez<br>City of South El Monte Council Member  | February 27, 2012 |
| 15                   | Denny Zane<br>Executive Director, MoveLA  | February 29, 2012 |
| 16                   | Victor Griego<br>President, Diverse Strategies for Organizing   | March 3, 2012     |
| 17                   | Martin Wachs<br>Senior Principal Researcher at the RAND Corporation   | March 5, 2012     |
| 18                   | Brian Taylor<br>Professor of Urban Planning at UCLA; Director, Lewis Center for<br>Regional Policy Studies; Director, Institute of Transportation Studies | April 3, 2012     |
| <b>Washington DC</b> |   |                   |
| 19                   | Warren Whitlock<br>Associate Administrator Office of Civil Rights, Federal Highway<br>Administration, US DOT  | March 6, 2012     |
| 20                   | Jorianne Jernberg<br>TIFIA Financial Analyst, US DOT  | April 2, 2012     |

## V. FINDINGS

*“Since 1980 our creativity in meeting the challenges of urban America has been severely tested, not by any disappearance of will on the part of the people, but by the painful withdrawal of the federal government from American urban life, in housing and child care, in mass transit and public education, in drug enforcement and medical services. The federal government has been on the retreat.”*

*David Dinkins, Mayor of New York City 1990-1993*

The development of public transportation is a lengthy, expensive and highly contentious process. At the most basic level transit funding comes from federal, state and local resources. Even despite the clear benefits of transit investments that help cities increase access, mobility, jobs, economic development, and climate concerns, funding transit is no easy feat. For too many years automobiles have been thought of as the main transport mode. However, as Ernest Tollerson, the Director of Environmental Sustainability and Compliance at the MTA notes, “driving is a privilege not a constitutional right.” In addition, the global economic crisis has also put a strain on budgets; as a result cities have to do more with less. As seen in both New York City and Los Angeles political and public support for public transportation projects determines the ability of each city to finance projects. At all levels the underlying condition for funding is certainly the promise of jobs, and the potential for economic infusion that adjoins increased access to mobility that facilitates the flow of goods, services and people in the economy. The role of the gas tax for public finance is declining and cities are forced to implement local solutions like tolls, fare increases, taxes and public private partnerships to fund large infrastructure projects.

### a. Federal Transportation Funding Opportunities

The federal government assists local transit agencies through the Mass Transit Account of the Highway Trust Fund that provides federal formula grant funding. Public transportation only receives a fraction of the funding in comparison to road infrastructure. Today’s federal transportation policy is still haunted by the ghost of Ronald Regan’s New Federalist policies of government devolution and decentralization. The economic development potential behind transit projects from the direct building of the system and for the economic multiplier effect generated by the increased access to transit certainly make transit investment an attractive option for the Obama administration. However, each year cities and regions receive less and less from the federal funding formula allocations for transportation as whole and to a higher degree for transit. Roger Biles in his 2011 book “The Fate of Cities” finds that transit funding between the Ronald Reagan era and the Clinton presidency gradually decreased by over 50 percent (Biles 2011). It started with reduced federal transit subsidies during the Regan years in the 1980s (Wolch et al. 2004). The legacy of a decentralized government from the Regan years that favored road funding to transit funding still resonates in Congress and to a lesser degree in the Senate. As seen with the three different transportation budget proposals in 2011 and 2012 by President Obama, the Senate, and Congress the debates over transportation funding are constant and funding for transit is uncertain. To a certain degree pro-transit policies are pointless without money to support transit operations, maintenance and capital programs. The bottom-line is that money is needed to plan and build great projects.

The biggest opportunities for cities to get additional funding at the federal level for public transportation come from the Federal Transit Administration's (FTA) discretionary funds allocated through loans or competitive grants offered through the TIFIA, TIGER, New Starts, and Small Starts programs. While there are administrative guidelines in place to allocate funds, proposals have to abide by strict specifications that make it an onerous and complex process. Moreover, planning professionals in both New York City and Los Angeles indicate that available grant and loan programs do not necessarily favor programs that fill community needs. As a result, cities spend too much time trying to structure projects to meet federal guidelines for competitive grants and loan opportunities instead of putting forth more projects that will have a bigger benefit.

The U.S. Department of Transportation (US DOT) under the FTA awards credit assistance to eligible applicants, through the authorization of the Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) to state departments of transportation, transit operators, special authorities, local governments, and private entities. Loans and loan guarantees for major projects are granted on an evaluation of many factors but most significantly a project's regional and national significance, the extent to which grantees will use TIFIA<sup>10</sup> funds to leverage additional funding sources, and the project's environmental benefits. In fiscal year 2012 the, under FTA's capital investment program President Obama requested a budget appropriation of more than \$2 billion for grants to fund capital projects under New Starts and Small Starts. The New Starts and Small Starts programs are one of the largest discretionary grant programs at the federal level that provide capital assistance for capital construction projects such as subways, light rail, streetcars, and bus rapid transit.

In an interview, Jorianne Jernberg, TIFIA Financial Analyst shares that the program provides federal credit assistance for many types of surface transportation projects, but mainly for transit and traditional highway projects. It helps borrowers' layer additional debt finance. TIFIA can lend in a senior or subordinate position, finance up to 33 percent of project costs, and lend at the treasury rate, which is typically less than a municipal bond rate even for very highly rated AAA. However, Jernberg also notes that with additional leverage comes additional indebtedness. No project is guaranteed to receive financing and TIFIA no longer accepts rolling admissions. There is a period to submit a Letter of Interest (LOI). Project sponsors must submit letters of interest and if selected they will be invited to submit an application, depending on the project sponsor this may take longer or less time, and must meet 8 different points of criteria to get financing. TIFIA is a competitive program and the collection of LOIs is 10 to 15 times above what they can possibly lend today. Moreover, Jernberg also shares that while theoretically there is not a borrowing capacity limit, in an effort to promote TIFIA in areas that have not used the program in the past in the most recent 2012 notice of funding availability geographic diversity is a new consideration.

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<sup>10</sup> According to the FTA website and to local experts TIFIA assistance can provide market liquidity, improved access to capital markets, flexible repayment terms and, and low interest rates. It can help accelerate transportation investments that without would potentially be delayed or deferred because of size, complexity or uncertainty over the timing of revenues.

Interestingly, at the LOI stage credit worthiness is a criteria and considered, but it is not the most highly weighted factor. It is however looked at more intensely during the application stage, but the primary interest is that the federal government gets paid back. Jernberg notes that the “focus and mission is not to ensure that the transit agency is over extending itself or not,” but rather criteria is much more qualitative. They are most concerned if the project can be constructed and operated. Projects do not have to have a projected reduction in vehicle miles traveled (VMT) as a measure of effectiveness or project sponsors do not have to be below a certain debt to equity ratio. Most projects pledge a dedicated source of revenue, usually toll or revenues from tax-increment finance. Indebtedness issues become more of an issue in the case of a sales tax revenue source that is also being used for a host of projects. Additionally, Jernberg notes that for most transit projects state, federal and local grants tend to be the bigger part of the funding pie.

The major buzzwords around federal transportation hubs are economic growth and jobs. Warren Whitlock the US DOT Associate Administrator of Civil Rights at the Federal Highway Administration confirms that the main priorities of the department are to encourage job creation, attain higher levels of maintenance and build more robust multi-modal networks. In a review of the US DOT press releases it is evident that discretionary funds are being prioritized for transit projects. To qualify for these funds projects must contribute to a city’s (or regional) long-term economic competitiveness, upgrade the safety and quality of existing transit infrastructure, increase energy efficiency and reduce greenhouse gas emissions, and improve the quality of life in communities through better transportation options and connectivity. The FTA also indicates that a project’s ability to increase mobility is just one factor within a larger agenda to keep the economy moving and at the same time support and showcase American ingenuity.

Since fiscal year 2009 there has not been an official transportation bill that lays out transportation spending priorities. Political infighting has kept a comprehensive bill in debate while other short-term renewals of the existing SAFETEA-LU have been made in the meantime. The House and the Senate have both put out proposed bills and budgets. President Obama has also put forth his 2013 Budget request that includes \$108 billion over six years for transit, a 105 percent increase. The Senate Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) Bill has received more bipartisan support from the start. In April 2012 it passed the Senate with the support of 52 democrats and 22 republicans, and received a State of Administration Policy (SAP) in support from President Obama and has moved to the congress. The controversial proposed House Transportation Bill, the American Energy and Infrastructure Jobs Act of 2012 was quickly rescinded after an uproar from many Congress members, state and local politicians, media and non-profits. However, the spirit of the bill highlights the notion that job creation and not access to mobility or congestion mitigation is the main objective behind transportation policy on Capitol Hill. The bill’s outrageous policy to get rid of transit funding linked to the Highway Trust Fund also brings to the fore the fickle support and vulnerability of transit funding at a national level. Less than a month after the proposed bill was presented, House Republicans abandoned the five-year, \$260 billion surface transportation bill and went back to drawing board to craft a shorter bill that does not include the changes to transit funding that rallied strong opposition, including from within the Republican party. The passage of such a bill would have been a major step backwards for the future of public transportation programs. To some avail transit advocates have

managed to curtail the recent House Bill that provoked gasps among transit circles across the country.

Cities and their respective transit agencies are in a predicament as they devise plans to reduce current congestion and accommodate increased travel demand from projected growth in population and employment. The Director of Transportation Planning, Rich Macias at the Southern California Association of Governments (SCAG) sums up the state of federal funding for transportation with one word: archaic. Federal coffers allocated for transportation have been dwindling for two main reasons. First the main source of transportation funding, the federal gas tax has not changed in nearly 20 years. Secondly, improvements to automobile fuel efficiency have reduced the demand for gasoline and as a result gas tax revenues. The costs to upgrade and increase public transportation capacity exceed available funding for transit. In addition, declines in transit funding makes it difficult for transit agencies like the MTA and METRO to plan long term and provide frequent and appealing daily transit service.

All of the people interviewed believe that there is a low possibility that government will increase the federal gas tax. They all highlight the need for federal transportation funding to transition to a VMT tax. However, they also recognize that such transition is at least five to ten years out and cities cannot wait that long to start addressing their transportation needs. An interim solution that Washington is exploring and that has many supporters is expanding the TIFIA program. As Tom Ichniowski notes in his Engineering News Record article,<sup>11</sup> “TIFIA's appeal is its multiplier effect: A modest direct federal subsidy can support big loans, leveraging non-federal dollars” to fund billion-dollar projects. However, while demand for TIFIA is high and increasing, cities and agencies still prefer federal grants to TIFIA loans, since there is nothing to repay (Ichniowski 2011). Moreover, Warren Whitlock at the US DOT also points out that cities are happy to win federal competitive grant funding but are not happy with the oversight that comes with it. Required environmental review requirements are seen as the most onerous impediment to pursue federal competitive grant funding.

#### b. Regional Transportation Policy and Funding Initiatives

In both regions funding complexity has contributed to the politicization of the planning process and development of transit infrastructure. Los Angeles is achieving regional cohesion among many stakeholders for more transit projects. Everyone agrees building more transit infrastructure is the right thing to do. Political, community, business, environmentalists and labor rallied behind Measure R to secure funds to build the 30-10 Plan. Conversely in New York City contention from suburban communities has been high for the metropolitan commuter transportation “mobility tax” (a payroll tax) that provides funding for the MTA. In early 2012 as a response to intense political lobbying and general opposition from suburban communities that feel that they do not directly benefit from MTA operations concentrated in New York City Governor Cuomo made an executive adjustment to exempt small businesses from having to pay the tax in early 2012. For 2012 Governor Cuomo used discretionary funds to make up for the expected \$320 million in revenue loss.

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<sup>11</sup> “Expanded TIFIA May Be in Transport Bill Mix” was published on March 21, 2011 in ENR.



### i. New York City Metro Area

The MTA provides key transit services for the New York City Metro region. Its subway, bus, and regional rail services provide 8.5 million rides per day for residents in New York City and the surrounding region. For many, the current New York City commute is long, unreliable, or crowded. While New York City has one of the most extensive transit systems in the world, as seen in Figure 7, it still does not provide access to many New Yorkers in the five boroughs. Most of the lines in service are congested and near capacity (see Figure 8), which often causes commute delays. Queens, Staten Island, the Bronx and Brooklyn – are the top 4 counties (respectively) with longest commutes in the country (Tomkiewicz Spring 2010) and are still heavily dependent on automobile use. The core of New York City’s transit network, the subway system is aging and needs a lot of money to maintain and achieve a full state of good repair, extend service coverage to give more access to transit poor areas and increase service capacity to alleviate overcrowding and delays as well as accommodate expected population and job growth. Petra Todorovich, the America 2050 Director at RPA highlights that improvements in the urban core of Manhattan are needed first because “even if you extend lines further into the boroughs you still run into a problem of capacity when you get into the Manhattan core. Creating new capacity in the core of the City” will benefit any connecting line.

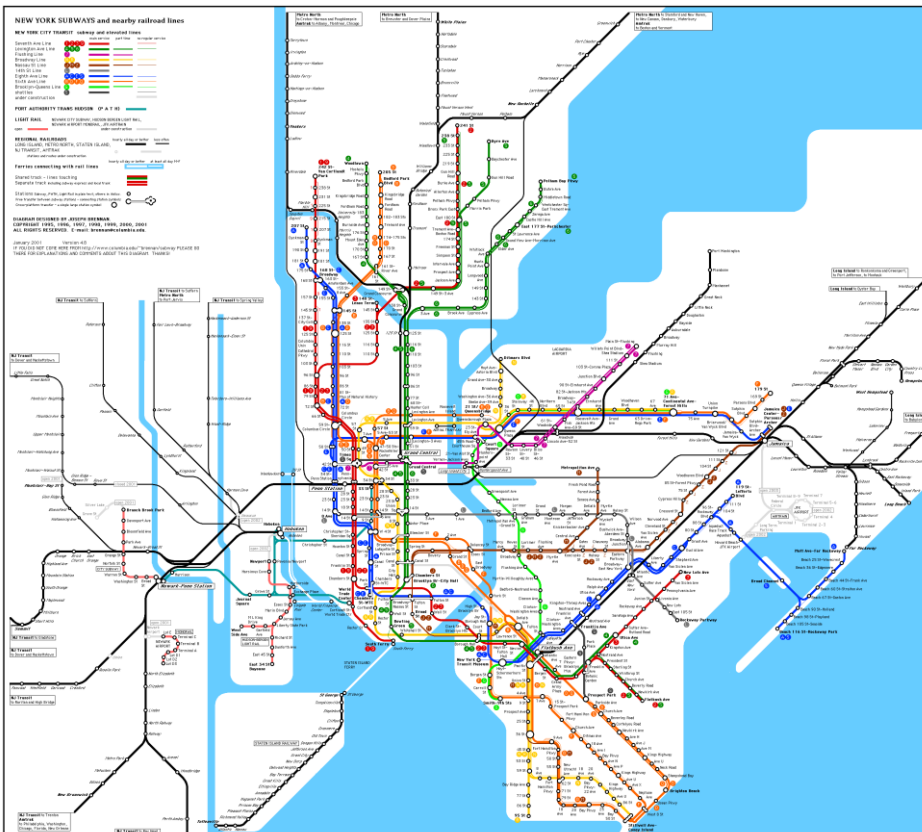


Figure 7: Official NYC Transit Map

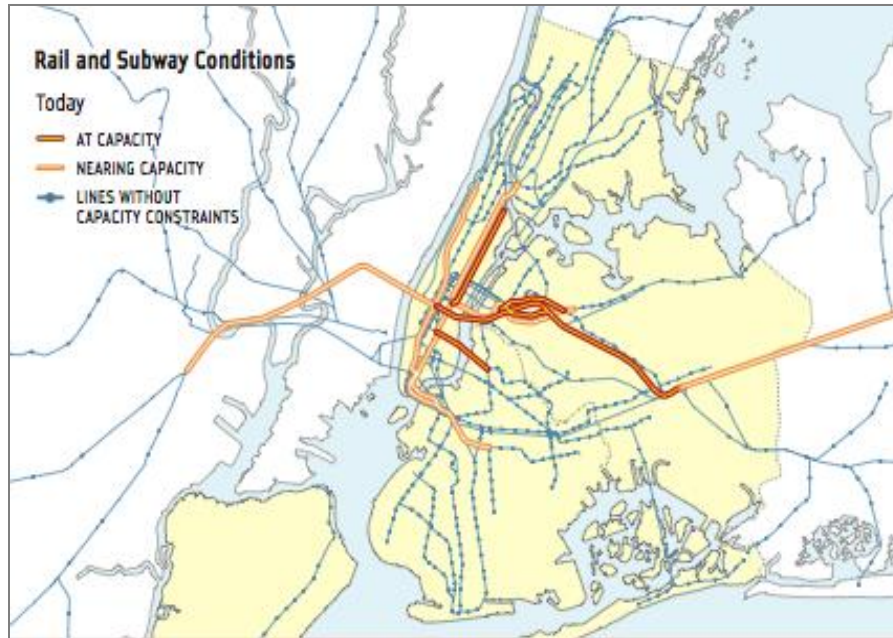


Figure 8: NYC Transit at capacity map (Source: Tomkiewicz, 2010)

Even with the MTA's funding uncertainty the region's transit mega-projects – Second Avenue Subway (\$17 billion), Eastside Access (\$7.4 billion), and the 7 Subway line extension (\$2.1 billion) – are still within their jurisdiction and are highly focused in the Manhattan urban core. Collectively, the \$26.5 billion for the three projects will provide additional services within Manhattan, reach underserved markets, and connect growing regional centers into Manhattan. The MTA also partnered with New York City to fund and launch a bus rapid transit (BRT) system the Select Bus Service (SBS); the 7 Subway line extension; expanded commuter rail service, ferry service, and enhanced bicycle and pedestrian safety, as well as proximity.

In conjunction PlaNYC has a goal to reduce greenhouse gas (GHG) emissions by 45 percent by 2030, which will require more commuters to use more transit and fewer automobiles and that will in turn place additional capacity stress on the current system if additional capacity is not achieved. PlaNYC's Air Quality plan also calls for less polluting and more efficient fuels, and emissions reductions from taxis, black cars, and for-hire vehicles. PlaNYC also includes suggestions for additional subway service to Queens<sup>12</sup> and the Bronx and plans to extend Metro North service to Queens in Co-Op City and Hunts Point that will provide direct service into Harlem.

New York City's transit network keeps out approximately about 700,000 cars of the central business district<sup>13</sup> and about 400 million pounds of soot, carbon monoxide, hydrocarbons, and other toxic substances each year. PlaNYC's 2011 Climate Change section details that New York City's GHG emissions are mostly a result of fossil fuel consumed by buildings and transportation; 20 percent of emissions are derived from transportation. In 2007 New York City

<sup>12</sup> PlaNYC suggested infrastructure upgrades include an additional station in Sunnyside Yards in Long Island City that will provide better access to eastern Queens.

<sup>13</sup> The NYC central business district is in the borough of Manhattan below 59<sup>th</sup> Street.

set a goal of reducing 30 percent of its GHG emissions by 2030. To reach this goal the Bloomberg administration has put forth a set of initiatives. However, the initiatives to reduce GHG emissions in the Climate Change section of PlaNYC mainly focus on strategies to reduce building energy consumption and not transportation. The initiative that most relates to mitigating or reducing GHG emissions derived from transportation is improved tracking for GHG emissions. Pursuant to Local Law 22, since 2008 New York City conducts an annual inventory of GHG emissions that provides more accurate data and better measures the progress of GHG emission reductions. The annual inventories provide information on the impacts of weather, population, infrastructure investments, policy decisions, and consumer behavior on GHG emissions levels. Even with its benevolent goals PlaNYC is only a policy document and the suggested GHG reductions are not enforceable. In addition, while New York State does participate in the mandatory market-based Regional Greenhouse Gas Initiative (RGGI) it does not have equivalent laws to California's Assembly Bill 32 (AB32) Senate Bill 375 (SB 375) that mandate GHG emission reduction targets.<sup>14</sup>

In 2008 RGGI set a target of 10 percent reduction in GHG emissions by 2018 for the power sector in nine northeastern and Mid-Atlantic States<sup>15</sup> via cap-and-trade system. In comparison California's AB32 and SB 375 have more comprehensive GHG emissions reduction targets and incentivize regions and localities to put in place strategies that reduce GHG emissions generated from the transportation sector. In August 2009, Governor David Patterson passed Executive Order No. 24 that sets forth a goal of reducing GHG emissions in the state by 80 percent below 1990 levels by 2050. However, Executive Order No. 24 is a policy document that at its best encourages emission reduction and does not have the same authority as California's laws. It also created the New York Climate Action Council that released an interim report in November 2010 with recommendations to reduce GHG across all economic sectors including transportation and land use. The recommendations to reduce transport related GHG emissions rely heavily on improving vehicle fuel efficiency and fuel types, and do not significantly acknowledge the benefits of transit or high-speed rail as effective means to reduce GHG emissions. The report seems to shy away from making transit a much higher priority and mandate to help the State achieve a low-carbon future. Interestingly, the New York Climate Action Council does not embrace the elementary role that public transportation plays in reducing GHG emission and primarily focuses on the carbon footprint particulars of utilities and building infrastructure. Even still the New York Climate Action Council may eventually be the promoter of a new legislation that ties emission reductions goals more directly to transportation and land use policies in New York.

On another transportation front, New York City has been hard at work making its streets more pedestrian friendly. Recently on a trip to India, New York City Planning Commissioner Amanda Burden remarks on the importance of promoting transit-oriented development: "Transportation planning and city planning go hand in hand. The city should give priority to connectivity among public transport systems and within the street grid" (Ramakrishnan 2012) A city's built form plays an important role in making sustainable transport viable. In New York City the idea behind new re-zonings is to encourage development near transit. By 2030 it has a

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<sup>14</sup> AB 32 and SB 375 are discussed in more detail in the Los Angeles sections.

<sup>15</sup> RGGI member states: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.



workforce of 9 million in the New York Metro Area that make 8 million daily trips to or within Manhattan, 2.5 million of which are done by transit and 5.5 million by automobile. As seen on the map (Figure 9) the recommendations include a host of transit improvements that include, ferry service, enhanced use of commuter rail for local purposes, extended subway capacity and connectivity, and additional BRT corridors in the 5 boroughs and the New Jersey urban core. (See Appendix B for a summary of recommended strategies)

## ii. Los Angeles County – Sustainable Communities Strategy

Public transit is a practical solution for several of Los Angeles biggest problems: traffic, pollution, high gas prices and economic development. In 1978 the passage of Proposition 13 set limits on property tax increases and added to the complexity of funding mechanisms in California for infrastructure investments. Proposition 13 is regressive on many fronts,<sup>19</sup> but most poignantly it forces cities and counties to rely on diversified portfolios of revenue streams of non-property fees and taxes like utility user taxes and sales taxes to fund public services like public transportation infrastructure (Wolch et al. 2004, Dickerson 2012). In an interview with the Los Angeles Times California economist Christopher Thornberg also notes that Proposition 13 perpetuates California's "business unfriendly" reputation by forcing lawmakers to increase sales taxes, corporate taxes and personal income taxes to make up for the property tax shortfall.

For many decades galvanizing support for transit has been difficult and contentious. For instance rail proposals for the Wilshire corridor, a main thoroughfare, failed in 1968, 1974, and 1978. In 1980 Proposition A passed with 54 percent voter approval because it included rail to the suburbs and promised lower bus fares – essentially promising something for everyone (Giulano 2004). Proposition A has funded the majority of Los Angeles current rail network including the Blue Line from Downtown Los Angeles to Long Beach, the Red Line from Downtown Los Angeles to North Hollywood, and the Green Line along the Century Freeway Corridor (the 110 Freeway). The Gold Line to Pasadena was built without Proposition A funding because by 1998 voters had come together to pass Proposition 1A that prohibited the County transit agency to use Proposition A funds for rail construction. However, in a show of political will and might Pasadena politicians were able to circumvent Proposition 1A and gather resources to construct the Gold Line. Even with these projects public officials and community leaders have across Los Angeles County been slowly embracing the fact that something more radical had to happen to be able to ease the pain and stagnation of congestion. Traffic frustration was instrumental in passing Measure R in 2008, which asked voters to help fund a set of specific transit and highway projects throughout the county with an additional half-cent sales tax over 30 years to provide about \$40 billion.<sup>20</sup>

The network of parking lot freeways during rush hour is only part of the Los Angeles congestion story. The story also reveals there is hardly an actual time when traffic is free flowing on freeways and major thoroughfares. Congestion is no longer relegated to given times of day; it is a way of life. It is always a factor. Southern California municipal elected officials were surveyed about what has deteriorated the most in their city and they ranked traffic first (as quoted

<sup>19</sup> Proposition 13 is regressive because it allows for those who owned their property the longest and as such have accumulated the most home equity wealth to be taxed the least.

<sup>20</sup> According to the private nonprofit Los Angeles County Economic Development Corporation (LAEDC), Measure R costs residents about an average of \$25 per person each year.

in Haselhoff and Ong 2005; Brennan and Hoene, 2004). To this end the Southern California Association of Government (SCAG), with its 84-member board of elected officials has identified congestion as a major regional problem that will require inter-governmental coordination and cooperation (Haselhoff and Ong 2005). Today, about 446 million miles a day are driven each day in the region and about 3 million hours each year are wasted sitting in traffic. By 2035 the region is expected to grow with an additional 4 million people and congestion will increase by 30 percent on local streets. In Los Angeles County specifically, freeways and local streets are already congested making travel extremely slow and inefficient.

The GHG emission reduction mandates set forth by California's 2006 AB32 and 2008 SB 375 laws are also poised to help bring congestion relief to the area. The passage of AB 32 laid the foundation for the more detailed SB 375 that links smart growth regional planning for housing, jobs and transportation with the GHG reduction goals stipulated in AB 32. In accordance with SB 375 the California Air Resources Board (ARB) is the administrator that sets GHG emission reduction targets in metro regions for 2020 and 2035. It stipulates that each metropolitan planning organization prepare a Regional Transportation Plan (RTP) and a Sustainable Community Strategy (SCS) that outlines the region's strategy to meet established GHG emission reduction goals. SB 375 also requires the State's Regional Housing Needs Assessment (RHNA) requirements to be included in the SCS to better integrate housing, land use, and transportation planning. It encourages the SCS to center its strategy on compact dense development that locates housing closer to jobs, retail and transit. This specification helps coordinate the State's housing and environmental goals and more effectively promote TOD, as well as socioeconomic and environmental equity throughout the region.

The SCS draft released on December 3, 2011 for the public review process and was approved on April 4, 2012. The SCS lays out a 23-year transportation and land use plan for Los Angeles County, as well as Orange County, Ventura County, Riverside County, San Bernardino County, and Imperial County. In an interview with MoveLA<sup>21</sup> Amanda Eaken, Deputy Director of Sustainable Communities at the Natural Resources Defense Council notes that the SCS reflects the market realities of the 21<sup>st</sup> Century where people want to "live closer to their jobs and shops, and don't want to spend hours stuck in the car or looking for parking. This plan gives us more choices to get out of our cars and the freedom to spend the time and money on more enjoyable acts." However, Rich Macias from SCAG also notes that a challenge in including SB 375 mandates in the SCS is that it is just a few years old and it is difficult to include projects that are not necessarily on the transportation planning decks. Additionally each county has its own commission and tends to still adhere to 'home-rule' transportation ideologies. As a result the SCS still reflects the focus on light rail and transit from Los Angeles and road capacity upgrades from Orange County. Thus, Eaken's statement only holds true for the Los Angeles portion of the SCS.

For the Los Angeles region, ARB calls for the RTP to include an SCS that reduces GHG emissions from passenger vehicles by 8 percent per capita by 2020 and 13 percent per capita by 2035 compared to 2005 levels. The SCS sets forth a plan to reduce vehicle miles traveled (VMT) by 10 percent and increase investment in public transit by 13 percent. Rich Macias notes that a

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<sup>21</sup> MoveLA is a local non-profit that advocates for transit enhancements. It was instrumental in crafting Measure R and getting it passed.

goal of the SCS is to create a nexus between transportation investments and land use while still recognizing economies of scale. The transit improvements and land use planning strategies will increase the number of new homes in proximity to high-quality transit from 34 percent to 51 percent. The number of new jobs near transit will also increase from 39 percent to 53 percent.

Table 2: SCAG Driving Projections for 2035

|     | 2012    | No Build | %     | 2035 Plan | %    |
|-----|---------|----------|-------|-----------|------|
| VMT | 224 Mil | 252 Mil  | 12%   | 234 Mil   | 4%   |
| VHT | 2.2 Mil | 3.03 Mil | 37.5% | 1.9 mil   | -14% |

From the major transit projects listed in the SCS for Los Angeles County it is evident that there is much coordination between METRO and SCAG. The SCS does propose cost cutting measures to bring the farebox recovery rate up to 33 percent from the current 29 percent. The Los Angeles County transportation plan within the SCS is aimed at reducing VMT and vehicle hours traveled (VHT). For 2012 SCAG projects 224 million daily VMT for Los Angeles County or 2,204,000 daily VHT. If none of the proposed METRO projects are built SCAG projects that daily VMT will increase by 12.5 percent to 252 million daily VMT and VHT will increase by 37.5 percent to 3,031,000 daily VHT. However, the build-out of the 2035 Plan (mostly all Measure R projects) will help minimize the increase of VMT to only 4 percent to 234 million daily VMT and reduce daily VHT by 14 percent to 1,895,000 despite population growth. In addition, the SCS strategies also provide transportation improvements that will create 4.2 million jobs and save \$5 billion in infrastructure costs to local governments, as well as save \$1.5 billion in health costs.

METRO has programming authority for 68 percent of transportation funds in Los Angeles County. The SCS funding assumptions for METRO projects rely heavily on local funding via sales tax revenues that are already in place and on expected changes to automobile user fee structures like a VMT tax that will also incentivize transit use over automobile use. As such, the financing plan of the SCS assumes that by 2025, a VMT tax will be in place. Both SCAG and METRO are strong advocates for a transition from the established gas tax to a VMT tax and are intensely lobbying Washington for the change. Officials within both organizations while not skeptical of the eventual change recognize that the change is many years out and will require much education and lobbying. However, even when there is an eventual change to a VMT tax, Washington still needs to increase its budget priorities for transit projects to ensure that revenues from a VMT tax are used for transit programs and operations and capital improvements.

c. Transportation Plans and the City

In both New York City and Los Angeles the main driver of political support for transit projects is economic development and not necessarily transit's ability to improve air quality or mitigate metropolitan sprawl. This finding is consistent with other studies that have analyzed the impetus for transit and TOD projects (Jacobson and Forsyth 2008). Political support is also instrumental in helping to secure funding for capital improvement projects. However, while

economic development tends to garner support, the politics get complicated when some politicians favor direct economic development to their particular district over regional economic development.

i. New York City – The MTA Domain

Questions remain about where a million residents will go, and how they will travel? The current plan delineated in PlaNYC has most of the expected growth going towards the outer boroughs and clustered around transit stations. Not surprisingly New York City subway ridership continues to grow. In 2011 subway ridership increased by 2.3 percent (or 36 million trips) from 2010. Subway ridership has also seen increases in average weekend trips that surpassed record high weekend ridership levels from 1947 with 5.4 million trips. The New York City subway system is 110 years old and it needs a lot of money to maintain. The MTA operated with an annual budget of more than \$13 billion and in 2011 fare box revenues accounted for 41 percent of the MTA’s budget. The MTA is constantly looking for ways to reduce its expenses through payroll cuts, improving internal management and system efficiencies, and restructuring its debt at lower interest rates. The MTA struggles to finance expansion projects because it has a plethora of repairs to make. Arguably, some would say that the public sector model of how to finance infrastructure in New York City has hit a wall.

The MTA draft 2010-2029 Capital Needs Assessment identifies over \$128 billion in asset investments; of which the backlogged State of Good Repair needs are about \$50 billion. The backlogged State of Good Repair includes signal system investments; subway cars; buses and

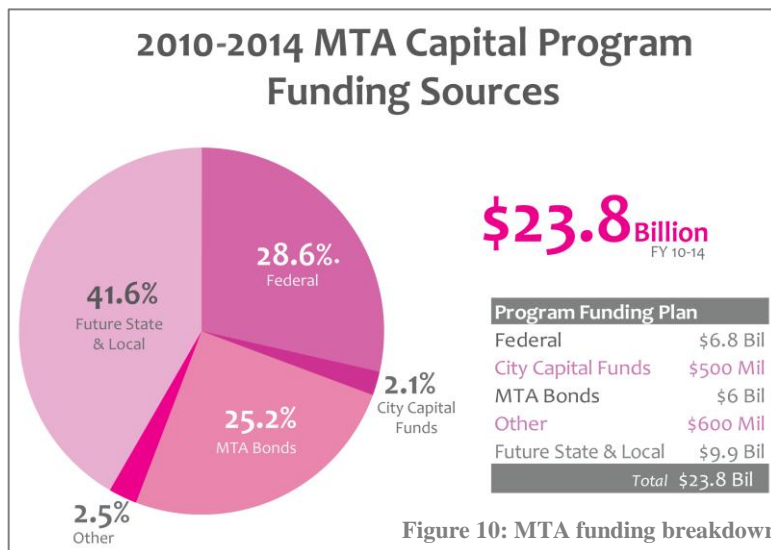


Figure 10: MTA funding breakdown

paratransit vehicles; and passenger stations. At an estimated cost of \$14.5 billion, signal systems upgrades are the single largest category of needs. The MTA Capital Construction 2009-2014 Program was approved in June 2010 for the first two years, 2010 and 2011. The plan includes a budget of about \$24 billion for capital programs, for which the majority of the funding will come from state and local funding and bonds (Figure 10). In December 2011 the board passed a revision of the last three years of the plan that

reduced the program budget by \$2 billion but still funds all of the plan’s proposed projects and does not eliminate any project benefits in the five-year capital program. Despite the budget cuts the MTA is still able to fund the entire program through a collection of efficiency improvements, real estate initiatives, participation from funding partners (federal, state, local) and financing arrangements such as bonds or public private partnerships (PPP).



In addition to its annual contribution New York City has also been providing the MTA with additional financial support to deliver some of the vital transit enhancements needed in the city most notably with the 7 Subway line extension, Select Bus Service and purchase of 74 CNG buses. The MTA is also working with New York City officials to generate additional revenues from properties that are jointly owned. However, while the three major capital improvement projects, the Second Avenue Subway, East Side Access and the 7 Subway line extension will provide additional public transport options for New Yorkers; improve the movement of goods, services and people; and facilitate more economic development in the New York Metro region these improvements continue to overlook transit needs outside of Manhattan.

There is no doubt that the system is still in need of major repairs and expansion, but a major problem in New York City is that everyone takes the system for granted and forgets that it is very costly to run. Currently on the table is the state of good repair, the completion of the Second Avenue Subway, East Side Access, the number 7 Subway extension, the Fulton Street Transit Center and massive technical upgrades to enhance system performance. In an interview Joel Moser, Partner at Bingham and expert on infrastructure finance notes that while most New Yorkers believe they are transportation experts New Yorkers simply do not acknowledge all of the constant transit upgrades going on throughout the City. This apathy makes it difficult to create momentum for additional transit projects.

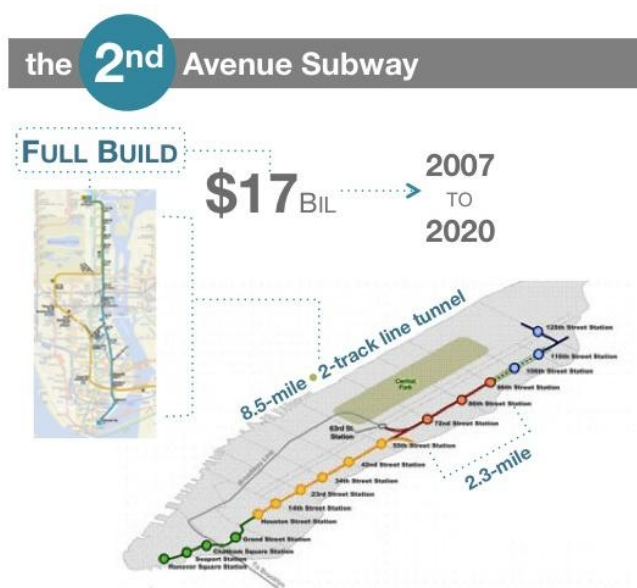


Figure 11: Second Avenue Subway, Phase 1 and Full Build

The \$17 billion price tag to build the 8.5-mile two-track line tunnel from 125<sup>th</sup> Street to the Financial District, 16 new ADA accessible stations, and a half of dozen ventilation buildings for the Second Avenue Subway line points to the other major problem: high project costs. Additionally, Governor Chris Christie of New Jersey veto of the Trans-Hudson Expressway commonly referred to as ARC is expected to create a new responsibility for the MTA. The Port Authority of New York and New Jersey had managed the project, but experts now believe that Christie's political power play does not mean the end of the project. Joel Moser also speculates that the move has simply set the project back about 5 years and was meant to put the onus on New York to fund the project, thus making it an MTA

project. On another front, according to the MTA ridership growth in 2011 was strongest on the Myrtle Avenue M line. The growth is likely due to the continuing effect of the service change that re-routed the M line via 6<sup>th</sup> Avenue in Manhattan and Queens Blvd. There is also strong ridership growth in north Brooklyn on the western portions of the L and J Subway lines that go through two fast growing neighborhoods, Williamsburg and Bushwick. The A Subway line has also had ridership growth at two stations in Queens near Ozone Park, the Aqueduct-North

Conduit Avenue<sup>22</sup> and Aqueduct Racetrack station especially after the opening of the Resorts World Casino at the racetrack in October 2011. These facts and small wins for system optimization show that the MTA is maximizing its transit dollars to bring increased services to the outer boroughs, but begs the question of why there are not more capital programs in the works for these areas or why there is not more support for transit finance on behalf of the New York City and New York Metro Area at large.

The recent history of the MTA financing transactions that have helped it continue operations in the last ten years highlight the complexity and creativity of the MTA to find ways to keep the system going. For all of its history the MTA has been in financial strain. The financial crisis the city and state faced in the 1970s dramatically trickled down to the transit agency and has had lasting effects on its financial stability (King, Forthcoming). Despite the 2.5 million daily riders and the 55 percent of commuters that depend on the New York City transit system, the MTA continues to face many financing challenges that constrain its ability to provide quality and reliable service, as well as continue growing the system in transit poor areas in the 12 county domain.<sup>23</sup> An additional hurdle is that people see the MTA as inefficient and feel that giving it more money is a waste of money.

The MTA finances operating and capital costs by a mix of farebox revenues, local, state and federal subsidies, toll payments from autos, debt financing and special taxes. Not surprisingly the largest single source of subsidy for the MTA comes from the state of New York: the Metropolitan Mass Transportation Operating Assistance (MMTOA) account. For instance the proposed 2011 budget expected a contribution from the MMTOA for about US\$1,480 million for operating costs. New York State created the MMTOA in 1981 and funds come from a composition of two regional taxes and two statewide taxes. Both regional taxes are levied within the 12 counties of the MTA region. One is a 0.25 percent sales tax and the other is a franchise tax surcharge on certain business activities within the service area. The regional taxes make up the majority of the MMTOA funds. However, these sorts of taxes are volatile and dependent on economic conditions and are not stable sources of income during recessions. The long lines statewide tax is a transportation-oriented tax levied on trucking, telegraph and telecommunications companies. The other is a 'petroleum business tax' on refining or the sale of petroleum statewide. The MTA receives 48 percent of the long lines revenue and 55 percent of the petroleum tax (as cited in King, Forthcoming). Inner state politics and needs leave statewide taxes open to more controversy than regional or local taxes and in turn are much harder to add or change.

New York City's recent congestion pricing plan required approval from state legislators. After much local lobbying by Mayor Bloomberg and the MTA the battle was lost in Albany. Though the defeat in New York's attempt at congestion pricing is largely a result of the automobile and suburban stronghold in New York City politics Assembly Speaker Shelly Silver also had a pivotal role. Political opposition came from the not so unusual suspects of New York City legislators representing auto-dependent areas of the city. One reason the City's congestion

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<sup>22</sup> The station has had ridership increase even after the closure of off-track at Aqueduct Racetrack betting in December 2010.

<sup>23</sup> New York County, Kings County, Queens County, Bronx County, Richmond County, Dutchess County, Nassau County, Orange County, Putnam County, Rockland County, Suffolk County and Westchester County.

pricing proposal failed is that even though the MTA was promised toll revenue the legislators that opposed the proposal did not think the money would be spent wisely or benefit the impacted constituents. The other problem was that the decision to give the net revenues to the MTA came after opposition against the plan had already rallied the public to oppose the proposal (King, Forthcoming).

On another front, in 2010 about 20 percent of fares were used to pay principle and interest on debt payments. This debt service schematic is of course not financially sustainable and in the most extreme cases defeats the whole purpose of raising additional funds for transit if it is going to service debt not fund more transit. However, this is not entirely the fault of the MTA. In an unprecedented manner in the 1990s Governor Pataki floated bonds that were tied to farebox revenues. As a result in financial crunch times the MTA cuts down on service. In 2000 the MTA was severely impacted by the voter's rejection of the New York State \$3.8 billion Transportation Infrastructure Bond Act that included \$1.6 billion for MTA improvements. In 2002 the MTA refinanced \$13 billion of outstanding debt as part of a \$20 billion capital improvement program that put further strains on farebox revenues. Additionally, in fiscal year 2003, the MTA authorized the sale of nearly \$2.9 billion worth of transportation bonds, the largest bond issue in the agency's history to deal with the budget gaps without having to increase fares. That same year the agency raised subway and bus fares from \$1.50 to \$2, as well as other fares and tolls. While these strategies have allowed the MTA to continue uninterrupted service they point to fact that increased bond debt is only a short-term fix for the long term needs of transit agencies.

In recent years, support for transit in New York City has seen less enthusiasm from the business community than in Los Angeles. In general the business community has shown little support for the Second Avenue Subway project. During the planning stage, the Partnership for New York City, a coalition of the top 200 influential CEOs in New York City,<sup>24</sup> released a study that concluded that the project costs were not justifiable considering the expected economic benefits. As a response to the critique, RPA performed a study that detailed the economic benefits of the new subway line for the New York Metro region. Elected officials then used the RPA study as ammunition against the critiques of the business community. Additionally, in 2009 a "mobility tax" on payrolls was passed in the region to help fix the MTA finances. The tax called for employers in the 12 counties served by the MTA to pay a tax of 34 cents for every \$100 in wages. The tax also included a series of fees on drivers and vehicles, a taxi surcharge, a \$25 surcharge on vehicle registrations, a \$2 fee on driver licenses and an additional 5 percent tax on car rentals. However, during his first weeks in office Governor Andrew Cuomo partially repealed the tax and reduced its revenues by about \$320 million per year. For 2012 Governor Cuomo is using discretionary funds to cover the short fall, but it is unclear how the MTA will recover the \$320 million in future years.

In May 2009 the state legislature passed a \$2.3 billion bailout package for the MTA that includes fare increases of 10 percent in 2009 and 7.5 percent in 2011 and 2013. The bailout also required management changes to combine the chairman and CEO positions. Additionally, the

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<sup>24</sup> In 2002 David Rockefeller helped to merge of the New York Chamber of Commerce and Industry and the New York City Partnership into one entity, the PFNYC. The group's influence in New York City politics goes back to 1768 when the New York Chamber of Commerce was first formed by a group of merchants.

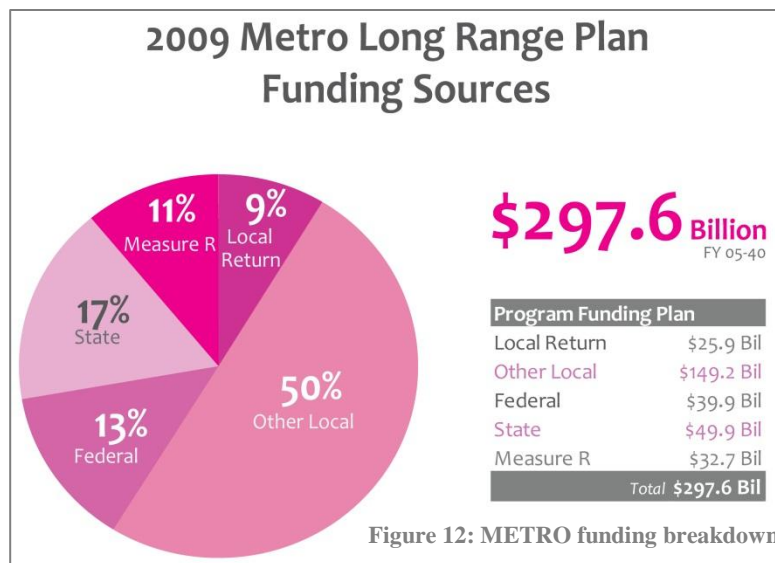
MTA has also started selling naming rights at stations, bridges, and tunnels to raise money. In 2009 Barclays paid \$4 million to have its moniker added to the Atlantic Avenue-Pacific Street subway station in Brooklyn. To raise additional funds for operations the MTA has also sold development rights above its rail yard stations. Most notably at the Hudson Yards on the far west side of Midtown Manhattan to the Related Companies for \$1 billion and the Atlantic Yards in Brooklyn to Forest City Ratner for \$100 million.

The reality in New York City is that the State is running out of money to repair bridges and roads, finance major transit projects like the Second Avenue Subway line, and as a result the MTA is in constant duress to keep afloat. In addition, there is always a public outcry to the threat of hefty fare hikes, major cutbacks in service and deferred maintenance and improvements. Expected growth in the region creates more pressure for an enhanced distributional rail transit system than currently exists and yet the MTA is not doing many long-term system capacity and extension projects due to funding constraints. New York knows it needs new methods of financing and revenue but it is hitting a wall; and the collections of many small interventions restrain its ability to create a more robust system. Even so Kate Ascher, the U.S. Principal-in-Charge at Buro Happold and professor at Columbia University is optimistic about the MTA's and City's ability to increase capacity despite the uncertainty of funding for the needed projects: "This is a city that's made do every time there's some kind of cataclysmic disaster [...] almost no urban problem has an unimagined solution" (O'Leary 2012).

ii. Los Angeles – the METRO Domain

Los Angeles is remaking its transportation system through the METRO 2009 Long Range Plan; through a \$300 billion plan that provides a vision for improving mobility over the next 35 years with a host of investments in bus and rail that will build 15 major transit corridor projects. The plan's success is dependent on the secured sources of funding for improvements to the transit system. Today funding sources for METRO's capital expansion program are mainly from local sales tax revenues. About 75 percent of forecasted funds for the 2009 Long Range Plan come from local sales tax revenues or competitive grants. However, most local funds are tied to

sales tax revenues and if sales are low, available funds for transit are diminished. Thus, the ambitious 2009 Long Range Plan cannot be successful on the efforts of citizens alone. It also needs the fair share of funds from state and federal partners, and an economic rebound of the local economy to adequately secure sales tax revenues. However, the combination of decreasing federal funds and the increasing susceptibility



California's Public Transit Account to be used to cover the State's budget deficit leaves Los Angeles County with less funding certainty to fund new projects and regular operations.

The 2009 Long Range Plan is comprised of \$163.8 billion for bus and rail services, \$94.4 billion for highway, roadway, signal, bicycle and pedestrian programs. Almost 10 percent of projected funds will be used to service debt. In the plan METRO makes funding assumptions based on previous federal, state and local contributions. Proposed investments will expand the rail system by another 105 miles and build 170 miles of carpool lanes. The completion of the plan will also grow the rail network to over 150 stations covering nearly 185 miles and the Metro Rapid service will cover 400 miles through 35 cities (Figure 13). Proposals to fund seven transit<sup>25</sup> and seven highway<sup>26</sup> projects via separate PPP models are also included. However, the Deputy Executive Officer of Regional Programming at METRO, David Yale confirmed that the transit projects are no longer being considered for PPPs; toll based highway projects are mainly being considered for PPP. Instead METRO along with a host of other stakeholders including SCAG is focusing efforts on local sales tax revenues and in advocating for a transition to a VMT tax.

Residents in Los Angeles are tired of sitting in traffic day in and day out and they want and need relief. The overwhelming support of 68 percent of voter approval for Measure R a half-cent sales tax that became law on January 2, 2009 demonstrates the enviable local support for transit-oriented policy that aims to provide congestion relief. In an interview Denny Zane, Executive Director of MoveLA, former Council Member and Mayor of Santa Monica, and one of the mastermind's behind Measure R shares that he believes the paradigm shift behind the momentum for transit in Los Angeles was triggered by what theorists would call 'pragmatic conditions' on the ground. Somewhere in 2006 the idea of "gridlock moved from theoretical to real." With a slight apocalyptic tone Zane says, "I almost remember the day that it happened" there was traffic all the way backed up to Lincoln Avenue as if there was an accident, but then it happened the next day, and the next. Before traffic was only really a phenomenon in the Westside, Downtown and the east-west corridors; now it is ubiquitous.

Measure R revenues provides funding for 12 specific projects that are also commonly referred to as the 30-10 Plan: Orange Line Extension, Phase 2 of the Exposition Transit Corridor, Goldline Foothill Extension, Crenshaw/LAX Transit Corridor, Regional Connector Transit Corridor, Van Nuys Boulevard Rapidway, Westside Subway Extension, West Santa Ana Transit Corridor, Eastside Transit Corridor Phase 2, Green Line LAX Extension, South Bay Metro Green Line Extension, and the Sepulveda Pass Transit Corridor. The 30-10 Plan comprises most of the critical transit improvements within the 2009 Long Range Plan. The expected annual

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<sup>25</sup> Transit project candidates for private sector participation: Crenshaw/LAX Transit Corridor; the Metro Gold Line Foothill Extension: Azusa to Montclair (Phase 2B); Metro Purple Line Westside Subway Extension: Wilshire/Western Station to Westwood via Wilshire BI Alignment; Regional Connector: Light Rail from Los Angeles Union Station to 7<sup>th</sup> Street/Metro Center; Union Bus Division; Metro Gold Line Light Rail Transit Extension: Atlantic/Pomona Station; South Bay Metro Green Line Extension (Redondo Beach to South Bay Corridor).

<sup>26</sup> Highway project candidates for private sector participation: I-5 North capacity improvements: SR-14 Kern County HOV & truck lanes; SR-14: I-5 to Kern County Line: HOV/Mixed Flow; SR-14 Carpool lanes: P-8 to Ave L; High Dessert Corridor; I-5 Carpool & Mixed Flow: I-605 to I-710; I-710 South early projects; I-710 North Extension.

benefits of the plan are 77 million additional transit trips, 521,000 fewer pounds of transportation-related pollution emissions, 10.3 million fewer gallons of gasoline used and 191 million fewer vehicle miles traveled. The immediate benefits will be for the 88 cities in Los Angeles County. Additionally, cities also received about \$100 million to enhance transportation needs such as pothole repairs, major street resurfacing, left-turn signals, bikeways, pedestrian improvements, streetscapes, traffic signal synchronization and local transit services.

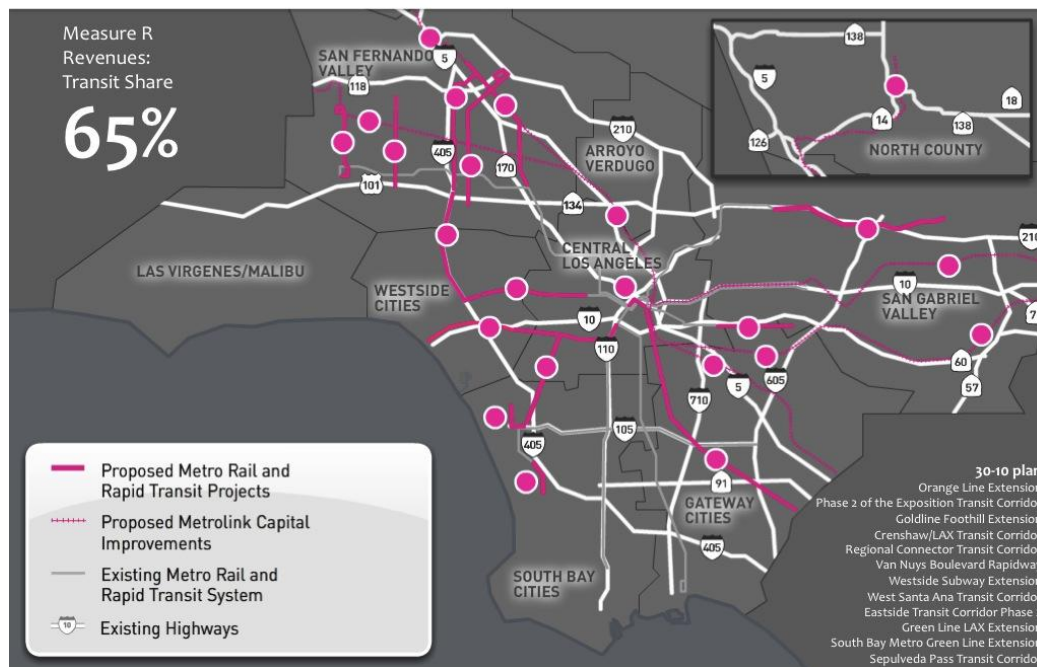


Figure 13: Long Range 2009 Proposed Projects

Measure R is a vision for a community where a new transportation network creates a more prosperous and livable Los Angeles for generations to come. The advocacy community has been key to the passage of Measure R. The ballot measure coalesced labor, business and environmental interests, as well as an overwhelming bi-partisan support behind transportation improvements. Those interviewed confirmed that the need to alleviate congestion and create jobs in the region has been able to align political will across jurisdictions. Denny Zane shares that proposing the tax initiative in the 2008 election cycle was pivotal since they had to act quickly to come to a consensus in order to meet legislature deadlines that would get the measure on the ballot during a presidential election year, which tends to have higher voter turnouts. In particular, Measure R's advocates also expected more support from voters voting for Barack Obama. After interviewing local stakeholders and decision makers in Los Angeles it is clear that there is popular support for transit. However, the success of Measure R is also due to the political leadership and ingenuity that went into its inception. Zane shares that there were plenty of times they felt that it was not going to pass but then there was a "political miracle" derived from congestion, projected population growth and the fact that there was no money to fix the situation. Politicians realized that they are all in it together and that the only way out was with a united front.

In addition, Zane notes that there was a change in the demography of voters in Los Angeles that showed up to vote for President Obama. Specifically in 2008 there was an increase in younger and Latino voters and the Howard Jarvis crowd that played a key role in getting Proposition 13 passed in 1978 is also getting smaller. There has also been a shift in attitudes about taxes. Voters are no longer as tax adverse and are friendlier to new public investment especially in the areas of education and transportation where they can see tangible benefits. Zane asserts that voters are more willing to support local tax measures when they are tied to tangible local benefits like local public transportation infrastructure improvements. Ballot support for transit improvements is also translating into increased public demand for transit. Twitter feeds from local transit user share that buses and trains are full even despite the huge focus on cars and anti-transit sentiments.

What sets the local sales tax initiative apart from other similar initiatives in California is that Los Angeles is also being very aggressive in the build out schedule of Measure R projects. The trademark of the strategy is to build 30 years of transit in 10 years and save on construction costs, but also to keep momentum strong and get more political wins. This level of project acceleration is unprecedented. According to Zane only the Denver Fast Tracks<sup>27</sup> model comes close to what Los Angeles is trying to achieve in such a short amount of time. To do this, the federal government will need to allow METRO to be able to borrow against future Measure R revenues to build the dozen transportation projects in 10 years instead of 30. However, TIFIA funding is currently not available for transportation programs and the amount of loans have to be applied for in an individual basis during the letter of interest period. METRO, the County of Los Angeles and the City of Los Angeles are fervent advocates for increased TIFIA assistance and are increasing their advocacy around the cause. The coalition-building machine of MoveLA has also started to reach out to other cities around the country with the help of the US Congress of Mayors to sign a petition to send to Congress that advocates for increased TIFIA funding. However, House republicans have been slow to lend support, and Los Angeles is pursuing other options including extending the timeframe of Measure R and Chinese investment dollars.

With a grin on his face from cheek to cheek Mayor Antonio Villaraigosa announced at a Crenshaw Line press conference in 2010, “In this town known for congestion, it isn’t easy to visualize a Los Angeles devoid of traffic and congestion to which we have all been accustomed, unfortunately it has become a way of life here in LA. We don’t need to sit in gridlock on the freeway all the time. We can create reliable, safe, easy effective public transportation options. If we can make 30-10 happen we are going to be opening a project every year for the next 7 years.” That day Mayor Villaraigosa was also joined by a host of political colleagues – Senator Barbara Boxer, Congresswoman Maxine Walters, Congresswoman Jane Harman, and County Supervisor Mark Ridley-Thomas – to celebrate the first major federal funding commitment with a low interest loan of \$546 million to accelerate the construction of the Crenshaw Line that was

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<sup>27</sup> The Denver Regional Transportation District created a FasTracks plan to build out the Denver Metro Area’s entire mass transit system by 2019 adding add 122 miles of rail rapid transit with six light rail lines, 18 miles of bus rapid transit, and 21,000 new parking spaces at light rail and bus stations. Funding for the FasTracks plan comes a 0.4 cent sales tax on every \$10 purchase that went into effect in 2005, and U.S. DOT grants. However, the program has encountered considerable cost overruns. The original projections plan estimated costs of about \$4.7 billion and even though project scopes have been reduced the program is now estimated to cost \$6.5 billion. Additionally, sales tax revenues have fallen by about \$2.45 billion. Fortunately, for Denver in August 2011 the US DOT approved a \$1 billion grant for the Eagle P3 project that includes the East and Gold commuter rail lines.

originally slated to start in 2028. The strategy of Los Angeles is to keep working on transit projects even if the project is not slated to start until at least 10 to 15 years out, just in case they do get federal monies to start projects earlier. Councilmember Joe Gonzalez from El Monte, a city that is not expected to see transit improvements until 2035 shares that in Los Angeles part of the strategy is to “just go ahead and start projects even if it is not fully funded” and then they will figure it out. Thus the Los Angeles strategy also entails getting more projects planned so that they are ready to be built in the event that they manage to get more federal loans to start projects faster, like it happened with the Crenshaw line.

Today, 74 percent of METRO’s funding comes from local sales tax revenues. However, while the transit momentum is high in Los Angeles, residents are also in conundrum: will they always have to fund transit locally? Los Angeles should learn from New York City’s current state of transit finance that local support to self-fund transit vacillates over time. What will happen if Measure R funds are not enough to build out the 30-10 Plan and if voters stop showing support? Four years after the passage of Measure R, transit advocates and policymakers are contemplating extending Measure R for at least an additional 10 years. In January 2012 Assemblyman Mike Feuer, a democrat from Los Angeles, introduced a bill in the Legislature that sets the stage for a November ballot measure to lengthen Measure R’s life span (Bloomekatz 2012). Like the passage of an initial tax measure, an extension also requires two-thirds voter majority, but even before a proposal can be put on the ballot it needs to be approved by the Legislature, Governor Jerry Brown, the METRO Board, and the County Board of Supervisors. The aim of the extension would be to create additional connectivity to Measure R projects and make up for revenue shortfalls as result of the recession’s impact on expected sales tax revenues that have gone down to \$36 billion from the expected \$40 billion. Metro Chief Executive Art Leahy believes the extension gives METRO another option, as it provides a local alternative to Villaraigosa’s initial plan of accelerating projects with federal help (Bloomekatz 2012).

Additionally, the ripple effects of the 30-10 Plan are already starting to extend outside of Los Angeles County. Councilwoman Michelle Martinez from Santa Ana shared in an interview that there has to be a connection between Los Angeles’ enhanced transit network and Orange County in the future. Currently, there are minimal connections via commuter services on Metrolink and Amtrak, but the Pacific Electric right of way is being studied by AECOM to create a connection between Downtown Los Angeles and Santa Ana even though there is minimal political support for the project. However, Councilwoman Martinez is confident that the project will eventually happen in 10 to 15 years.

Interestingly, despite the massive transit coalition in Los Angeles behind Measure R there are still some notable transit advocate groups like the Bus Riders Union (BRU) that did not join. In fact a smaller coalition of civic groups and non-profits joined together and commissioned the MTA Civil Rights report that was published in November 2011. The report considers recent fare increases and deep cuts in transit service that have reduced access for low-income people of color. It is a call to action for the FTA to force METRO to reverse service cuts and fare increases by juxtaposing civil rights concerns next to the imposition of hardships on transit dependent riders by METRO’s actions. They also highlight that METRO’s actions are as such despite the BRU’s 1994 Civil Rights lawsuit and the fact that it operates the second most crowded bus system in the country after New York City. Specifically, one of their major civil rights concern is



that 12 percent of METRO's annual bus service hours have been reduced (941,000) and 90 percent of bus riders in Los Angeles are people of color. On the other hand, the report as well as METRO's analysis confirms that operating subsidies per boarding on the Gold, Green and Blue Lines use higher subsidies<sup>28</sup> per rider than Metro Bus. Additionally, all three metro lines have higher white ridership than Metro Bus. Their other major civil rights concern is that METRO has been increasing fares at the same time that its budget is growing. As a result they note that transit ridership has decreased from 2007 numbers from 495 million annual trips to 453 million from 2010 to 2011.

Yet, the advocacy from this smaller coalition spearheaded by the BRU and the legacy of the 1994 BRU Civil Rights case may not be entirely falling on deaf ears. As Councilmember Phil Reyes from the City of Duarte and Board Member of the Latino Caucus with the State League of Cities notes there seems to be a "new priority in areas that are poverty ridden" and have high unemployment. The Blue and Green Lines both go through lower income cities with lots of social problems. Similarly the new Crenshaw Line will also traverse some of the County's more economically disadvantaged communities. In this context the civil rights concerns beg the question of why metro lines do not seem to be a good substitute for the decrease in Metro Bus service. Similarly, it is also perplexing that transit ridership has been decreasing despite Los Angeles' transit momentum and increases in the system capacity.

Transit finance experts are skeptical of the long-term effects of the overdependence on local dollars and effects of ballot measures on the planning process. Measures must appeal to a broad electorate and the legacy of Proposition 13 two-thirds majority makes policy makers cut more deals. Professor Emeritus, Senior Principal Researcher at the RAND Corporation and transportation expert, Martin Wachs notes that measures with project lists are tweaked to get them passed. They have a "gift for everyone so that everyone votes for it." However, the list of projects that is a part of the measure is not necessarily rational and it becomes "more about electoral politics than good planning." According to Zane, the grassroots coalition just focused on getting the measure passed, and METRO provided the list of projects and did the planning for those projects. Yet, this is not to say that the project list was not tweaked to get the measure passed or that it was.

Under a long-term lens there are still many challenges ahead. As planners and policy makers advocate for more transit and TOD in Los Angeles' suburban communities or even New York City's outer boroughs the big unknown is the density threshold of city residents. In fact in an article for Planning Today, "LA Reimagined" Christopher Hawthorne the Los Angeles Times architecture critic notes that in Los Angeles there is still big divide between "those who fear rising density—seeing it as a threat to single-family urbanism and quality of life—and those who welcome it as a way to bring new attention to streetscape design and new life to the shared spaces of Los Angeles." Moreover Hawthorne also notes that even though new residential construction comes "overwhelmingly in the form of multi-family developments, owners of single-family houses will continue to be a powerful political bloc in Los Angeles for the foreseeable future, ready to vigorously oppose any attempt to bring even modest density to their neighborhoods." Even so, as METRO CEO, Art Leahy shared with Los Angeles Magazine in 2010 "What's happening is that the combination of congestion, fuel prices, and convenience is

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<sup>28</sup> Light rail passengers are subsidized almost twice as much as its bus passengers.

causing the urban form to evolve. The MTA isn't causing this change. We're enabling it to the degree that we help you get around L.A. County without a car." Perhaps the increased threat of congestion will rally more residents around high-density as it succeeded in the case of transit.

## VI. RECOMMENDED ACTIONS

*"The legitimate object of government is to do for the people what needs to be done, but which they cannot, by individual effort, do at all, or do so well, by themselves ...Making and maintaining roads, bridges, and the like..."*

*Abraham Lincoln, 1854*

Transportation interventions have long-term effects and constituent preferences tend to vary on the short and long-term spectrum. Travel patterns are a result of travel needs, personal preferences, convenience, and travel options. It is no longer clear if the car or the resulting sprawled land use patterns promulgated by automobile travel will have a lasting implication on the future of prevailing transport modes in the American metropolis. To capture comprehensive economic benefits federal legislation needs to focus future spending on surface transportation that does more than just create construction jobs (Holtz-Eakin and Wachs 2011) and focuses on increasing access. It also needs to concentrate on projects that keep congestion at tolerable levels to be able to sustain a healthy flow of people, goods and services. Most encouraging is that as of late New York City has a new ally with Los Angeles. Both are vigorously lobbying Washington on all fronts for additional transit funds in the next multi-year transportation bill currently being debated.

In Los Angeles it is clear that transit advocates need to continue to capitalize on the momentum around transit with strategies that can maximize transit investments to build a better Los Angeles; with more economic opportunities and a better quality of life. New York City on the other hand needs to find momentum. While Los Angeles, as a city, a county and a metropolitan region gets the value of public transportation and smart growth; it is questionable whether New York, as a city, a county and a metropolitan gets the value of transportation and smart growth or if it simply takes it for granted. Equally as remarkable is the level of coalition building that has been achieved and how local leaders are trying to extend that outside of Los Angeles. In New York City even though everyone agreed that building the Second Avenue Subway was the right thing to do, the business community, interestingly has not been as supportive. The dichotomy and divided front on the benefits of transit is well seen with the Partnership for the City of New York published a report concluding that the benefits did not outweigh the costs of \$17 billion, and RPA quickly published a counter report. Though the lack of coalitions around transit in New York City is interesting considering transit's long transit history and demonstrated value, city leaders and citizens must consider new alternatives to raise funds to tackle current levels of congestion and increase access.

Transportation is the life-blood of every city. Its value as a public good can best be assessed by looking at it in its aggregate form. What is at stake not just mobility, but also access, economic growth, environmental sustainability, and quality of life. The goal of public

transportation policy should be to increase opportunities to access employment, education, health care, and play while avoiding negative externalities like congestion, pollution and reducing the countries dependence on fossil fuels. Even though public transportation got its start through private industry in New York City and Los Angeles it is a public good that must be subsidized by 'the' government because it provides people access to the city to do a multitude of essential and leisurely activities that power the city's economic activities. Its existence, efficiency, sustainability, safety and reliability are essential to improve quality of life and foster economic growth. However, cities must not let the uncertainty of federal funding preclude them from planning for current and projected needs. The recommendations below focus on increasing transit funding certainty in the interim phase between now and the expected transition to a VMT tax in the next five to ten years.

a. Increased Federal Loan Funding for Public Transportation

Increased federal funding for public transportation is needed to sustain projected increases in population and job growth in cities. The process and scope of federal funding for public transportation programs need to be enhanced to help cities meet their transportation needs. As Roy Kleintz from the US DOT mentioned at a Los Angeles press conference in 2010 for the Crenshaw line the federal government needs to be able to "give money for what communities want" and need not for programs that simply abide to funding requirements. The federal government acknowledges that the current process is onerous and it is making efforts to streamline the application and approval processes. However, it should also consider providing more technical assistance to agencies to help streamline the process even more and to set debt to equity ratio ceilings to ensure transit operations are not deterred as a result of high debt service obligations. Today cities are embarking on comprehensive transit programs with a portfolio of projects, yet TIFIA only provides loans on a per project basis. The federal government should prioritize funding for projects part of a bigger program and individual projects in urban areas that also aim to increase density around transit stations. There is a potential for a new type of TIFIA loan that provides funding for multiple projects that extends transit service to new areas and increases system connectivity.

When asked about the challenges of introducing a new type of TIFIA loan that provides funding for a program of multiple transit projects Jorianne Jernberg points out that the "question is not necessarily whether they can change and include program based lending, because that is certainly a possibility," but on what that will mean to the TIFIA budget. The challenge to introducing a new type of loan that provides funding for multiple projects is two-fold. One in the way TIFIA evaluates risk, and secondly in the fact that there is way too much uncertainty for projects way out in the future. She notes that the "beauty of TIFIA is that it provides low interest financing to surface transportation projects no matter their level of risk, the government just absorbs the costs of the higher risk loans." As such, if the federal government starts lending on a program basis it will most likely mean that there will be a lower pool of money for cities to borrow from because the higher risk projects will increase the cost of providing low-interest rate loans. Thus, the change may not necessarily mean a dollar for dollar increase in available funding. In addition, Urban Planning Professor Brian Taylor at UCLA believes that TIFIA loans can be very effective to build a project, but he worries that elected officials see these "financing schemes as revenue generating programs, but they are just financing schemes," the money is not

free. Transit agencies should use this financing option judiciously and not get to underwater.

The demand for TIFIA loans far exceeds TIFIA's budget. US DOT received 26 TIFIA letters of interest exceeding over \$13 billion in 2012, \$14 billion in 2011 and \$12 million in 2010. President Obama's FY 2013 budget proposes increases to \$500 million that will be able to leverage about \$5 billion in loans. MoveLA is working with many actors to ensure collaboration and momentum and it is also expanding its grassroots efforts to a national level. They are working with the US Congress of Mayors to build a coalition of mayors that advocates for increased allocations to federal transit loan programs like TIFIA over increased allocations to grant programs, for the mere potential of increased "purchasing power" since \$1 billion dollars in loan assistance can translate into a \$30 billion loan. Over one hundred mayors have already signed the petition that will eventually be submitted to Washington in an effort to get policymakers to pass transportation bills that provide increased funding for public transportation needs.

#### b. Land Use Transit Infrastructure Optimization

The transportation plans for New York and Los Angeles are also calling for an increased commercial and residential densification around transit stations, especially rail stations. Since value capture financing makes the most sense at destination points, the MTA and METRO should explore more opportunities to use value capture finance with TOD projects. For many decades the success in increased property values around Grand Central has provided a model for the potential of TOD and transportation hubs. As seen in New York City with the Hudson Yards scaled up transit-oriented development is facilitating methods like tax-increment finance (TIF) to finance transportation projects. However, METRO's David Yale notes that in Los Angeles the TIF model requires a two-thirds majority vote. MoveLA is also working to rally around a measure that would eliminate the two-thirds majority legacy from Proposition 13, which maybe able to make the TIF model easier to use in Los Angeles. Moreover, zoning around transit rich corridors should be maintained or increased to optimize transit infrastructure investments not reduced. New uses within public stations provide opportunities for transit agencies to partner with the private sector and have the private sector develop and manage retail and other uses to provide agencies with additional revenues.

## VII. CONCLUSION

*"Cities are a solution to a transportation problem."*

*Elliott Sclar*

Transportation is an equity, economics and environmental issue all packaged into one. New York City and Los Angeles are both global cities; world capitals of the confluence of economic activity and local cities where people live, work, and play. Their respective transportation systems should "maintain the global while sustaining the local" (Paaswell 2005). Today transportation is still about access and with increased automobile congestion there is little access. The histories of transportation policies in both New York City and Los Angeles are complex and politically charged. The problem with promoting transit is when it is nearing system capacity, like the New York City case, (Tomkiewicz 2010) or when it does not exist and has limited service coverage or connectivity, like the Los Angeles case. System expansion is an

obvious solution however significant budget gaps exist between needed infrastructure improvements and available funding. In addition, as seen in the New York City and Los Angeles funds for transit infrastructure improvements are not guaranteed and federal and state funds keep diminishing. The Los Angeles finance model shows a way to begin to ensure a less congested future by building coalitions to propagate collective action for regional transportation solutions that can handle future growth.

The socio-political and economic policy features of transit finance and funding in New York City and Los Angeles sheds light on the complexity in transportation planning priorities. With time both cities have been adapted and retrofitted to accommodate evolving transportation needs and preferences. However, top-down transportation policy also played a role in perpetuating the prevalence of certain transport modes over others. The history of government subsidies for highway infrastructure has arguably played an instrumental role in the proliferation of the automobile as the main transport mode across the United States. Currently, both cities face increasing congestion and travel demands are only expected to rise with anticipated population and job growth. They must act to prevent paralyzing gridlock and economic stagnation. However needed transit investments are expensive and traditional federal and state funding is increasingly limited leaving their transit agencies to either constrain their strategies or find new ways to fund their operations and capital development programs.

In order to provide reliable, safe, easy and effective transit options, agencies like the MTA and METRO need to have more sustainable and dependable sources of revenue. As seen in the variation between public support for local taxes that can help to pay for transit needs in these two cities, dependability on local support for funding is not necessarily assured. Rational economics indicates that sales taxes exacerbate boom-and-bust budgeting in state and local government and are an unsustainable long-term funding solution for transit. Additionally, while sales tax revenues are more affected by the state of the economy, both sales tax revenues and payroll tax revenues can also decline in tough economic times. Transportation is about building for the future. The prevailing decisions of rail over bus systems bring to the forefront the questions as to what really motivates new transit infrastructure. In other words what is driving political support for transit projects? Equity concerns, environmental concerns, access concerns, mobility concerns or sheer political legacy goals; and why does it matter if more transit is getting built? It matters because building transit is not just about building the infrastructure it is about having that infrastructure serve a purpose for the city and its people. Thus, while more transit is better than no transit, access also needs to be more acutely considered in transit decisions to optimize funds for transit infrastructure as well as land use planning that reduces the need to drive.

There still remains a dearth of specific studies that fully comprehend the sustainability of the Los Angeles transit finance model and to fully identify the host of lessons learned. What is known is that it has been successful in terms of aligning stakeholder interests on many fronts to build over a half of dozen projects across multiple jurisdictions. Even if the Los Angeles model is not a sustainable model to finance transit in the long run, it is still a creative solution that does not stifle needed transportation infrastructure growth. It is a good interim solution to the decreasing general federal and state transportation formula funds that can hold the line while the

federal government switches from the gas tax to a VMT tax and increases funding for public transportation.

Tax proposals like Measure R are attractive because they have a final life. However they do not necessarily encourage less driving or properly price the cost of driving. User fees like gas taxes, tolls and VMT taxes can induce people to take more transit because they increase the cost of driving. In Los Angeles, there are hardly any driving user fees. Most specifically there are few tolls, no increases in the gas tax and plenty of free parking. However, while rationally and philosophically user fees may help provide transit funds and reduce car use, the case in New York shows that it can only do so much. Professor Robert Paaswell of the City College of New York, astutely points out that revenues from local tolls and taxes “are not enough” in New York City to make the difference that local funding in Los Angeles makes in METRO’s long range planning and current expense of the capital program. While the portfolio of tolls and taxes in New York City might generate higher revenues on a per capita basis than the Los Angeles sales tax, they are still not enough to help the MTA plan for a more robust transit network in the current federal funding climate for transit infrastructure. Infrastructure coalition building in Los Angeles is turning public need and support into dollars. The challenge is what can New York City learn from the soon to be ex-autopolis and what can Los Angeles learn from the funding transit legacy of New York. In the end, whether for operating costs or expansion campaigns, the answer to all of this comes down to funding and who is going to foot the bill.

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## **IX. APPENDIX**

### **APPENDIX A**

#### DISCUSSION/INTERVIEW GUIDE

1. What is your name?
2. What Organization do you work for?
3. What is your role at the organization?
4. How long have you been at this organization?
5. How long have you been doing transportation funding?
6. What are the current funding sources for the public transportation system's operating costs? (If possible please provide percentage breakdown)
7. What are the current funding sources for the public transportation system's capital improvements and expansion programs?
8. Is it easier or harder to obtain funding for operating costs than it is for capital improvement and expansion projects?
9. What are the key challenges of obtaining funding for transit projects?
10. How have these funding sources changed in the last 10 years? And how long will they last?
11. How much does, or did, the current capital improvement plan limit itself due to expected funding availability?
12. How much of the current funding sources a result of climate change/environmental/sustainable policy mandates?
13. How have climate change and environmental concerns impacted public transit funding sources?
14. Has public support for mass transit increased or decreased? And what effect does it have on current and future funding sources?
15. What are the biggest hurdles in obtaining political support for public transit projects?
16. What are the biggest hurdles in obtaining public support for public transit projects? And what's being done about it?

17. What set of principles guide your city's transportation policy?
18. What city do you think faces similar transportation issues as your city?
19. If funding were not an issue, what do you think would be an ideal public transit scenario for your city?
20. Can the public-private partnership (PPP) model that was used for the Mexico City BRT work in cities like New York or Los Angeles?
21. Why is Los Angeles or New York City not engaging in more PPPs?
22. Public transportation experts in the US don't like PPPs because they feel that the private sector will increase fares since they are profit driven, but can't this be fixed with a contract that guard against this?
23. The recession has hit hard in the US, many thought that this would result in increased PPP activity across the board, but in LA they decided to go to the public to fund the projects with a sales tax, why have more cities not gone the PPP route for public transit projects in a recession?
24. What's the risk of cities self-funding infrastructure projects like public transportation by incurring more debt?
25. High-speed rail in California a few months ago was virtually off the table, but now it is back with a force, why the sudden momentum again?
26. In your opinion what's the model-city/system for PPP for public transportation? What is the City's typical match ratio to federal formula funding?
27. What is the traditional funding partnership with the State of New York and the City of NYC?
28. Since the 2009 Long Range Plan what's the progress on the projects identified for PPP opportunities?
29. What have been the biggest concerns in relation to the RTP by elected officials?
30. What will be the biggest challenge curving transportation trends or changing land use preferences?
31. What has helped trigger so much momentum for transit in LA, what caused such a paradigm shift?

32. Most of the news stories present a unified political front on the side of transit, how did this happen?
33. What were some of the challenges in crafting and imagining Measure R
34. Do you think voters will approve another Measure R again?
35. What is missing from the current plans?
36. Do you think a Vehicle Miles Tax is in the future of the country?
37. Now that Measure R has passed and that projects are getting build, what's next for Move LA?
38. What will be the biggest challenge curving transportation trends or changing land use preferences?
39. Do you think more transit momentum can happen more in NYC?
40. Is there a ridership number (or percentage) that projects must meet to get funding?
41. What is the biggest reason cities do not apply for more TIFIA loans?
42. 4. Are cities taking advantage of TIFIA? For their current capital programs, are New York City and Los Angeles maximizing their TIFIA borrowing capacity?
43. Is there a TIFIA borrowing cap/ceiling for cities across their entire transportation portfolio?
44. Today cities are embarking on comprehensive transit programs with a portfolio of projects, yet TIFIA seems to only provide loans on a per project basis. What are the challenges to introducing a new type of TIFIA loan that provides funding for multiple projects that extends service to new areas and increase system connectivity?
45. Whose idea was Measure R?
46. From a planning perspective what are the advantages and disadvantages of the 30-10 plan?
47. Some critiques are that it is not "good planning" would you agree or disagree?
48. Has the role of MoveLA been pivotal to the coalition building for Measure R?
49. What are the other viable alternatives to funding LA's infrastructure needs?

50. LA is advocating for more TIFIA assistance in lieu of more grant assistance, what is the caution for this type of policy?
51. Lastly, how can LA better maximize their Value Capture from TOD?
52. Should NYC be pursuing a more aggressive transit expansion agenda?
53. Would a tax Measure like Measure R work in NYC? Would an acceleration plan like the 30-10 LA plan work in Measure R?
54. How can NYC better maximize their Value Capture from TOD? Should more 7 subway line financing structures be pursued?

## APPENDIX B

### RPA SUMMARY OF RECOMMENDED TRANSPORTATION STRATEGIES FOR NEW YORK METRO AREA

Recommended strategies for the Bronx include:

- Introduce ferry service from Soundview and other eastern neighborhoods in the Bronx.
- Modify fare structure to encourage ridership on MTA Metro-North increase service at Bronx stations on the Harlem and Hudson River lines.
- Initiate express service in peak hours and direction on the Dyre Avenue line and on other subway lines where existing third track makes this an option.
- Extend the Second Avenue Subway into the Bronx.

Recommended strategies for Queens include:

- LIRR third track project from Bellerose to Hicksville to give Brooklyn and Queens connections with Nassau County.
- Establish transfer connections in two Long Island City locations to connect with Queensboro Plaza and Queens Plaza, and the E, G, and V at Court Square.
- After East Side Access opens reconfigure LIRR service to expanded service at Queens stations.
- BRT service along Queens Boulevard.
- Queens Boulevard lines overcrowding relief project to increase capacity.

Recommended strategies for Brooklyn include:

- BRT program along Nostrand Avenue.
- Explore potential ferry services between waterfront communities at Greenpoint, Williamsburg, and Bayridge.
- Reconfigure and upgrades several Brooklyn subway lines: Nostrand Ave junction, East New York junction the Canarsie line
- Add express services Jamaica Avenue J line, Rockaway Park or Spring Creek Towers.
- Establish transfers at two locations in Brooklyn – connecting the J/M with the G at Broadway and Hewes Street and the #3 and the L at Junius and Livonia Avenues.
- Consider replacing or retaining the Jamaica Avenue elevated line, some parts are 115 years old.
- Convert the Atlantic Branch of the LIRR to rapid transit service. The will provide better connections between Queens, Brooklyn and Lower Manhattan.
- Brooklyn Second Avenue Subway Extension under East River to Atlantic Avenue

Recommended strategies for Staten Island include:

- BRT service along Hylan Boulevard BRT.
- Evaluate potential for new ferry services at Mt. Loretto
- Possible connection to Hudson-Bergen Light Rail from Staten Island and 8th Street extension



### of Hudson-Bergen Light Rail

- Staten Island Expressway full-length bus lane

Recommended strategies for Manhattan include:

- Implement two BRT proposals for Manhattan on the four north-south avenues.
- Construct an entrance at the east end of the First Avenue station on the Canarsie L line.
- Explore the potential for BRT and a pedestrian / bikeway exclusive corridor for the one-way pair of Columbus and Amsterdam Avenues.
- Second Avenue Subway full-build and extend station on 125th Street westward to Broadway.
- Create the premier transit hub for three commuter railroads and Amtrak and be a catalyst for new adjacent development and for the entire west side from Eighth Avenue to the Hudson River.

Recommended strategies for the New Jersey urban core include:

- Enhance BRT network in Newark and along South Broad Street, River Road corridor along the Hudson River waterfront in northern Hudson and southern Bergen County, Bergenline Avenue
- Study Newark City Subway travel demand and assess expansion to the Route 440 extension of the HBLRT and the Sixth Street embankment with and without a link to the Secaucus Junction.
- Construct a new station on the HBLRT at Grand Street and 17th Street in Hoboken.
- Coordinate with the two Staten Island corridor studies on the possible extension of the HBLRT or a BRT link to Bayonne.