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THINKING BIGGER:

NEW YORK AND TRANSPORTATION IN THE NORTHEAST MEGAREGION

November 13, 2007

Summary Report



Sponsored by

NYU Wagner Rudin Center for Transportation Policy & Management
New York Metropolitan Transportation Council
Metropolitan Transportation Authority
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295 Lafayette Street, 2nd Floor • New York, NY 10012 • phone: (212) 998-7545 • fax: (212) 995-4611
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THINKING BIGGER: NEW YORK AND TRANSPORTATION IN THE NORTHEAST MEGAREGION

November 13, 2007

On November 13, over 300 individuals from both the public and private sectors attended "*Thinking Bigger: New York and Transportation in the Northeast Megaregion.*" The event was co-hosted by the NYU Wagner Rudin Center for Transportation Policy & Management and the New York City Metropolitan Transportation Council (NYMTC). The event was co-sponsored by the Metropolitan Transportation Authority (MTA), the University Transportation Research Center – Region 2 (UTRC), the Port Authority of New York and New Jersey (PANYNJ), along with the American Institute of Architects (AIA) New York Chapter, the Regional Plan Association (RTA), the University of Delaware's Institute of Public Administration (IPA), and the Wagner Transportation Association (WTA).

Kris Kolluri, Commissioner of the New Jersey Department of Transportation (NJDOT) and Chairman of New Jersey Transit, provided the keynote address. In addition, the conference featured two panels of experts who discussed the key transportation, economic and demographic trends that affect the movement of people and goods; the relationship between the Northeast Corridor and the New York City metropolitan area; the impacts of the capacity constraints in other locations on the New York City metropolitan area; and the issues and challenges related to moving forward with a more regional and integrated approach to transportation along the Northeast Corridor.

WELCOMING REMARKS AND FRAMING THE ISSUE

Allison C. de Cerreño, Director, NYU Wagner Rudin Center for Transportation Policy & Management

Dr. C. de Cerreño began by noting that the need to address the Northeast Corridor really struck home for her this past month as she traveled up and down the Corridor in a three week period, from New York to Washington (twice), to Trenton and Piscataway in New Jersey, and to Newark, DE – never on the same day. Not one trip was simple, whether she took the train or the car. Trains were delayed; connections were missed; and traffic on the turnpike was congested. Indeed, she was struck by the fact that there is no good way to move along the Northeast Corridor.

Thus, she posed a challenge to everyone at the event – a challenge to begin thinking about the Corridor differently. Indeed, with some of the most densely populated regions in the country, the most congested roadways, air, and railway infrastructure in the country (both in terms of passengers and freight), and very limited capacity for expansion, she suggested that we must begin to think about this Corridor differently. Moreover, the cities along it, which have the most to gain or lose, need to be part of developing such a vision.

Where We Are Now

Dr. C. de Cerreño then placed the Northeast Corridor in historical context, explaining that in 1961, Jean Gottman published *Megalopolis* to describe the Northeast Corridor, from Boston to Washington. Followed later by Claiborne Pell's *Megalopolis Unbound*, the two informed early discussions of the Northeast Corridor and painted a picture of cities as key economic generators that were connected economically and needed to be better connected in other ways. In 1965, the High-Speed Ground Transportation Act was passed, aimed at developing high-speed demonstration systems in the United States. Just as the Northeast Corridor was the first megalopolis to be described, the Northeast rail corridor was the first one to host high-speed rail, in the form of the Metroliner between Washington, DC and New York City, and the TurboTrain between New York City and Boston.

Yet, Dr. C. de Cerreño noted that more than four decades later, Europe and Asia are ahead in terms of planning regionally, especially for transportation. And, more than four decades later, they are on their second and third generations of high-speed ground transportation technologies, with the more modest of them easily cruising at 186 mph while others exceed that by far. Meanwhile, the Northeast Corridor's Acela, the flagship of intercity passenger rail in the United States, brings up the rear with maximum

authorized speeds of only 150 mph, which it rarely actually reaches, and then for less than 40 miles of a 456-mile corridor.

Corridor as a System

Dr. C. de Cerreño argued that while high-speed intercity rail may be the necessary backbone for the Northeast Corridor, it alone will not be sufficient for addressing the challenges posed by the Corridor. She suggested that if we continue to view the Corridor as we have, piece by piece and mode by mode, in another four decades, we will likely be about where we are today – with a system plagued by congestion on the roadways, on the rail, and in the air, with various inefficiencies, and lowered air quality and quality of life for our cities and surrounding areas.

Instead, she believes that our challenge is to truly begin thinking about this Corridor as a system. Just as Megalopolis provides an important conceptual basis for developing new ways of planning and new forms of governance along the Northeast Corridor, she suggested that we also need to begin thinking beyond intermodalism (which can mean linking as few as two types of transportation modes) and multimodalism (which just refers to the presence of more than one mode of transportation), to thinking of our transportation network as an entire organic system – in essence, a *megamodal* approach – in which decisions taken in one area are likely to have an impact (either positive or negative) in others; in which investments in one area (such as high speed rail), necessitate investments in others (like transit for complementary links); and in which we can begin to think about the most efficient use of our capacity for both passengers and freight across all modes, rather than continuing to try to have every mode share every travel need.

Jerome Lewis, Director, Institute of Public Administration, University of Delaware

Mr. Lewis took a moment to note that the Delaware region depends a great deal on the Northeast Corridor. This fact is part of the problem as well as part of the solution, since the transportation system affects and is affected by the regional economies. One of the challenges that the Delaware region faces is to helping people realize how important transportation is, not only to the economy, but to the quality of life in the region.

Robert Yaro, President, Regional Plan Association

Trends and Opportunities

Mr. Yaro began by referring to RPA's initiative, *America 2050*, noting there are ten megaregions in the United States. Each megaregion is connected by travel patterns, economic links, environmental resources and social and historical facts. The emergence of the megaregions necessitates a shift in planning strategies, from an urban or metropolitan scale to a megaregional scale.

Among the ten emerging megaregions, the Northeast megaregion is the oldest, densest, and most interconnected megaregion in the United States. About 49 million people live in the region, and its \$2.4 trillion economy represents one-fifth of the nation's economy. If the region were an independent country, its economy would be the 6th largest in the world. The region is expected to grow; so we need to find a way to accommodate the projected 19 million additional people by 2050.

Some say that the Northeast's capacity for growth has been largely used up; and this is why some of the hottest markets in the nation, such as Houston, Atlanta, and Las Vegas, have seen rapid job growth and have attracted people from places like the Northeast. But, Mr. Yaro stressed that the Northeast has a unique set of assets that positions it for sustainable growth under conditions of climate change and oil uncertainty. With large cities such as Baltimore, Boston, New York City, Philadelphia, and Washington, DC, and smaller cities like Newark, New Haven, Stamford, and Wilmington, the Northeast has the highest concentration of high-skilled labor and jobs in the nation, and has the highest concentration of urban and suburban centers to support transit. The region has 6 of the 10 world class research universities. The region accounts for 80% of commuter ridership in the country and 50% of Amtrak ridership. And the five metropolitan areas in the region - Baltimore, Boston, New York City, Philadelphia, and Washington, DC - account for over 2 billion more annual passenger miles than all the other passenger transit systems

nationwide. MTA alone is close to 40% of the total U.S. transit ridership. These assets will provide the Northeast Megaregion with an opportunity to organize growth for livable, walkable and mixed-use communities by making strategic investments from the neighborhood to the megaregion, and expanding local transit, commuter rail and intercity passenger rail.

What Is To Be Done

To use this opportunity, Mr. Yaro suggested that the region must provide reliable, frequent, high-speed, and low-carbon options for business travel in order to support more growth in industry clusters such as finance, health care, education, and government services. High-speed rail is a way to achieve this goal. Second, the commuter rail services, including Long Island Railroad (LIRR), Metro-North Railroad (MNR), NJ Transit, Washington Metro Service, and Massachusetts Bay Transportation Authority (MBTA), are critical to the Northeast Corridor. Keeping them in a state-of-good-repair, and engaging states in planning and operating the Corridor will open up new options for regional services. Third, like our counterparts in Europe and Asia, we need to move and think beyond geographic and political boundaries when it comes to issues such as congestion, economy, environment, and quality of life. He suggested some ideas that need collaboration at the megaregion scale such as providing more affordable and easy daily commuting between Philadelphia and New York to release pressure from the overheated housing market; linking industrial clusters in similar sectors (e.g. biomedical clusters and financial service clusters); and making passenger rail service a more viable choice of travel between New York City and Washington, DC in order to free up air and runway space.

Joel Ettinger, Executive Director, New York Metropolitan Transportation Council

Mr. Ettinger began by pointing out that the NYMTC region stops in the middle of the Hudson River and at the Connecticut State line. However, transportation does not stop in the middle of the Hudson River or at Connecticut's state line. This means that NYMTC must think bigger.

He noted that the New York metropolitan area was part of the Northeast megaregion. What happens in the New York metropolitan area affects the Northeast Corridor and what happens in the Northeast Corridor affects the New York metropolitan area. For example, if high-speed rail between Philadelphia and New York were built, people could live in downtown Philadelphia and work in New York. That would have a profound effect on people's location decisions and their travel choices. If high-speed rail were built throughout the Northeast Corridor, the impacts on the New York metropolitan area would be even more dramatic.

What Needs to be Done?

First, Mr. Ettinger talked about NYMTC's effort to better coordinate transportation planning in the metropolitan area. NYMTC will be signing a Memorandum of Understanding (MOU) with Metropolitan Planning Organizations (MPOs) in Connecticut and New Jersey. The MOU will spell out very specific activities of voluntary coordination, cooperation and consultation. In addition, NYMTC recently joined the I-95 Corridor Coalition. All state DOT's along the Northeast Corridor are members and he suggested that the MPOs along the Corridor be members as well.

Mr. Ettinger noted that NYMTC's focus is properly on transportation planning. The problem is that one cannot do meaningful transportation planning without knowing how your region plans to grow. Without a regional vision, we are planning in a vacuum. As a first step in developing a regional vision, the Principals of NYMTC have established a set of shared goals to guide its vision. Desired growth areas are being identified and necessary transportation improvements are being evaluated. He noted that you will be hearing a lot more about these efforts in the months ahead.

It is the 45th anniversary of the Federal-Aid Highway Act of 1962, an Act which changed the way we plan transportation projects in metropolitan areas. It called for 3C's in the planning process – a continuing, comprehensive, and cooperative transportation planning process for all urbanized areas. This landmark legislation created agencies such as Delaware Valley Regional Planning Commission (DVRPC) and other MPOs across the nation. It led us to the multimodal planning process for the New York metropolitan area and across the nation. MPO's have a multimodal process. However, now there is no multi-modal planning process when one looks at intercity travel.

Mr. Ettinger concluded by noting that it is time to take a new look at how we plan transportation facilities between our cities. Can we do better job at looking at intermodal trade-offs in the intercity corridors. Do we need to create a new institution to address this megaregion issue? Who in the US Department of Transportation (USDOT) should address these issues? These are very important questions that hopefully will be addressed in the next reauthorization of the Federal transportation program.

KEYNOTE ADDRESS

Kris Kolluri, Commissioner, New Jersey Department of Transportation and Chairman, New Jersey Transit

Commissioner Kolluri began by noting his appreciation of the historical cooperation between New Jersey and New York State. He said that New Jersey truly has established a strong partnership with the New York State Department of Transportation (NYSDOT), with a singular focus on making sure the region as a whole is unified. In many ways, it is a reflection of Governor Spitzer's (NY) and Governor Corzine's (NJ) commitment to working together to address issues such as climate change, security, economic growth, and congestion reduction. In addition, the two states have also shown a steady commitment to addressing crucial infrastructure needs in the region. He continued to say that this partnership is not unique to these two governors. The Coalition of Northeast Governors and other organizations have been instrumental in making sure that we establish a coherent vision for the region.

Challenges Faced by New Jersey

Before talking about the region more broadly, Commissioner Kolluri addressed the challenges faced by New Jersey in the coming years, since New Jersey is a critical link in the Corridor. First, he noted that the transportation trust fund is facing bankruptcy after all, but the problem extends beyond finance. Transportation agencies in New Jersey historically operated in a vacuum, with no common purpose and vision. However, Governor Corzine recognized the need to bring the agencies together to create a unified vision and to rationalize costs. As part of the effort to unify, the governor made the Commissioner of Transportation the chair of all key transportation agencies in New Jersey. Commissioner Kolluri said that his goal in his various capacities is to ensure a unified capital program that is designed and implemented within the context of the broader economic growth strategy that the governor has put in place.

Commissioner Kolluri explained that New Jersey is facing some serious financial challenges. Among them, New Jersey will need \$13 billion to repair and replace structurally deficient and/or functionally obsolete bridges. They include some bi-state bridges as well. Beyond the state-of-good repair of its bridges, New Jersey needs to tackle congestion. The annual cost of congestion in New Jersey is about \$8 billion. Congestion is expected to increase in the coming years. He noted, as an example, that the Port Authority of New York and New Jersey (PANYNJ), one of the largest economic generators in the region, currently handles 5 million containers each year. Within 15 years, the number will triple, and about 80% will still be traveling by truck even after all the currently planned investments are made and rail takes care of as many containers as possible.

Third, New Jersey Transit will need \$20 billion for improvement and expansion projects. New Jersey's reliance on mass transit is double the national average. New Jersey Transit takes 128 million vehicle trips off the road every year. The investment in transit is a critical component of New Jersey's congestion relief strategy.

Finally, the New Jersey Turnpike has a \$5 billion debt. To address this deficit and relieve congestion, New Jersey is going to require a minimum of a 45% increase in tolls.

It's Not Just New Jersey's Problem

According to Commissioner Kolluri, the revenues from the Parkway and Turnpike are not sufficient to maintain a state-of-good repair. The Garden State parkway system is a 175-mile road network that has been in existence for 54 years. During its entire history, there has been only one toll increase. The per mile toll is 2.2 cents, which is perhaps the lowest in the nation. The New Jersey Turnpike has been in existence for the same number of years and there have been five toll increases. The current per mile toll is 5.5 cents. This is because inflation was not factored into transportation operations. Indeed, he noted that we have collectively managed to convince the public that inflation affects every aspect of their lives, except transportation.

He said that the challenges mentioned here may seem like New Jersey's problem and they are. However, they are also the region's problems, since failure to take action in New Jersey will have spillover effects into the region.

Importance of the Megaregion as a Whole

Clearly, the Northeast has a rich history and has significant human capital and economic resources. About 49.5 million people, or almost 18% of the population of the United States, live here. The region generates one-fifth of all of the GDP in the nation. However, many of the transportation facilities were built almost 100 years ago. They perform well now. However, considering the projected population and economic growth for the next several decades, infrastructure is approaching a point where it will be overwhelmed by such growth. We need to ask ourselves if we can sustain the success we have enjoyed well into the future. Solving this is up to people in this region. Therefore, our goal should be to build a coalition and make every single state house hear this message loud and clear through the entire Northeast and in Washington, DC. While each state can operate within the context and problems that it has, the region as a whole has to be cognizant of the global and national competition it faces.

Need Regional Coalition

Commissioner Kolluri concluded the keynote address by highlighting the need for regional and interagency cooperation. He reflected on a project that was given much focus in the New Jersey and New York City area. New Jersey has been grappling with rail capacity issues for years. Currently, 23 trains per hour during the peak are sent into the tunnel – there is only one tunnel. Employment in Manhattan is expected to grow significantly over the next two decades, with over half of this growth coming in mid-town Manhattan alone. Despite this forecast, the idea of a brand new tunnel on the Hudson had been unrealistic for many years, since we did not have sufficient political will.

Today, a second tunnel is one of the projects unanimously supported in the region – Access to the Region's Core (ARC) will finally build the second tunnel under the Hudson River, connecting New Jersey and mid-town Manhattan. The PANYNJ has contributed \$2 billion and New Jersey is contributing \$1.5 billion towards the project. This is not just a tunnel. It is a confluence of our hopes and efforts to build and sustain a better and more productive region, and to provide a better quality of life.

Commissioner Kolluri concluded by saying if we do not unify and work together, all the challenges we face today will certainly become insurmountable.

PANEL 1: KEY TRENDS

Moderator: *Barry Seymour, Executive Director, Delaware Valley Regional Planning Commission*
Panelists: *Rae Rosen, Senior Economist and Officer, Federal Reserve Bank of New York*
Petra Todorovich, Director, America 2050, Regional Plan Association
George Schoener, Director, I-95 Coalition
Anne Stubbs, Executive Director, Coalition of Northeast Governors (CONEG)

Rae Rosen, Senior Economist and Officer, Federal Reserve Bank of New York

Ms. Rosen presented the importance of transportation to continuing the economic growth of the megaregion. She argued that New York City has enjoyed dramatic growth in economic output over the past 45 years, even though there was no real employment and population growth. Such growth could not be possible without high-skilled employees who commute within and to New York City using a variety of transportation modes.

Economic Trends in New York City: Dramatic Productivity Growth

Decisions on transportation infrastructure investments often depend on population projections for a region. Recent reports, including *PlaNYC 2030*, estimate that one million people will be added to New York City over the next two decades. However, Ms. Rosen said that this growth may or may not happen. Indeed, New York City's population today is just above that of the 1970s. Given the restrictions on immigration and continued population outflow to other growing cities or regions, population projections may not be sufficient in justifying transportation expenditures.

In addition to slow or no real population growth over the last 45 years, there has been no real job growth in New York City since 1989. However, Ms. Rosen pointed out in that same period, real personal income, adjusted for inflation based on the consumer price index (CPI), has more than doubled. Given these two facts, no real job growth and no real population growth, the increase in real personal income, which affects buying power, implies that labor productivity or per capita output has increased dramatically. She suggested that one factor that contributed to such a dramatic increase in productivity possible was the specialization of the labor force in New York City. The dense cluster of high-skilled and highly-specialized employees in New York City is not really duplicated elsewhere in the United States.

Importance of Inter- and Intra-Commutes to the Economy

According to Ms. Rosen, such economic clusters cannot exist without a sound transportation system where people travel within, to, and from employment centers in New York City. Approximately 760,000 people commute into Manhattan every weekday morning from neighboring counties in New York State. This is a huge number, especially considering that the size of an average city in the United States is about 200,000 people. This figure does not include inter-borough commutes. With inter-borough commutes included, the number of people entering Manhattan each weekday is over one million. Adding the number of commuters from New Jersey and Connecticut, the number of commuters into Manhattan is about 1.5 million people per day, roughly 60% of the labor force in Manhattan.

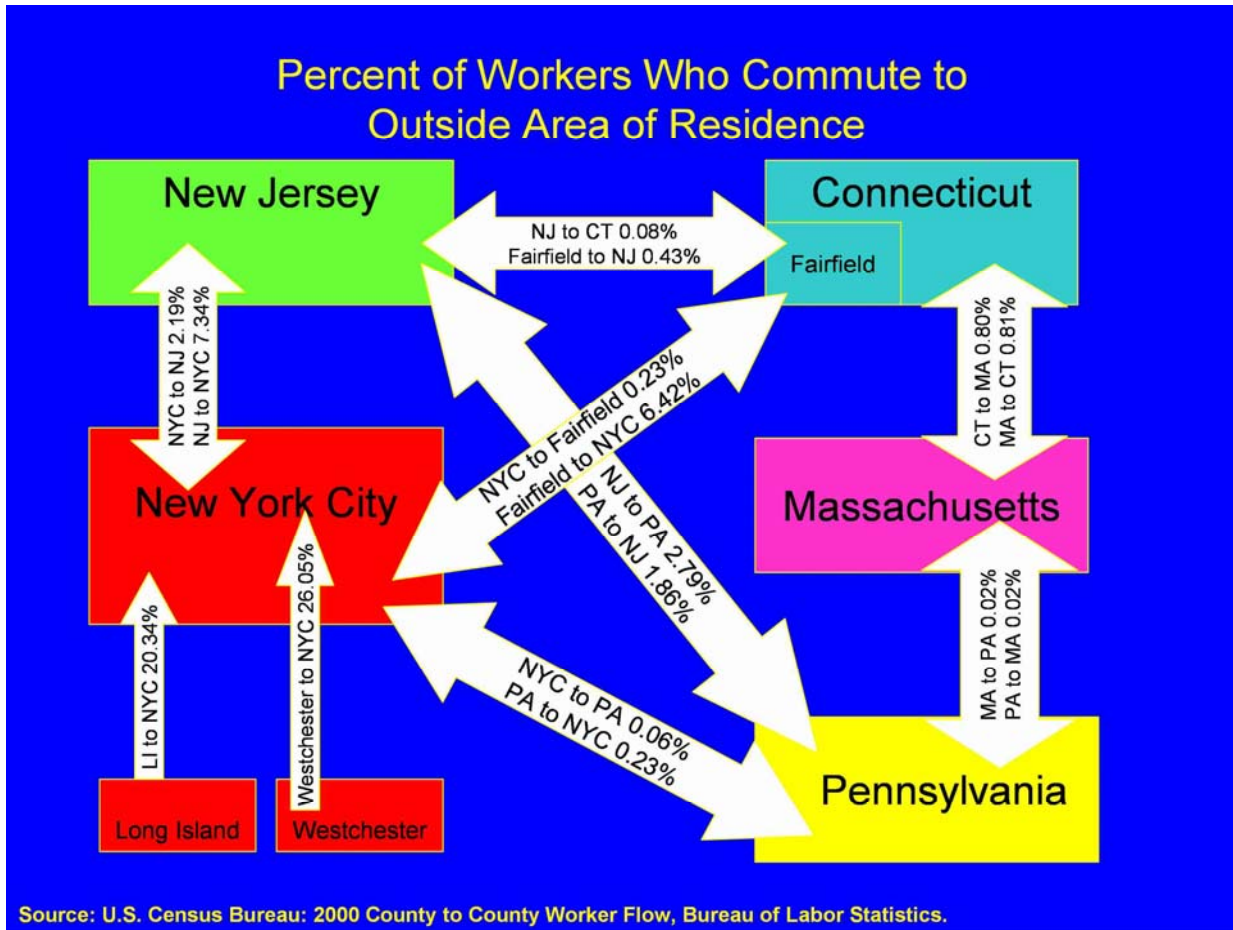


Figure 1. Percent of Workers Who Commute to Outside Area of Residence

Figure 1 shows the inter-borough and, intra- and inter-state flows of commuters along the Northeast Corridor. The largest arrows connect to New York City, implying that a large number of the labor force in the region depends upon employment in New York City. For example, about 20% of the labor force in Long Island finds employment in New York City and roughly a quarter of the workforce in Westchester finds work in New York City. Even though the numbers are smaller, over 7% of New Jersey workers and over 6% of workers in Fairfield, CT find employment in the City. Getting those commuters into and out of Manhattan is crucial to the city's economic output, making transportation infrastructure critical to the economy of the City.

Transportation Infrastructure Improvement and Economic Growth

All in all, New York City is drawing on a labor pool of 9.6 million people. Each person is highly specialized. As a result, the earnings per job have grown much faster than they have grown elsewhere in the nation. And, output has increased accordingly, doubling personal income over the last four decades.

The finance sector is certainly helping to drive this increase in personal income. Output in the finance sector has increased far more than anywhere else in the nation. We are doing things differently than anywhere else in the nation. When people mention finance in New York City, they mean someone developing corporate bonds and doing investment banking. That is not necessarily what people mean in other locations. However, finance is not the only sector that shows increased outputs. Most other sectors in New York City show the same trend. We have a premium of highly specialized workers. For example, earnings per capita in the wholesale trade sector are well over the national average. Even the government sector, is still above the national average. For almost any sector that exports its services to other parts of the region (e.g. management consulting, management operations, information services), there are benefits of having a highly skilled and specialized labor force.

Ms. Rosen concluded that the only way we can draw on this highly specialized labor market and continue to draw on people with advanced degrees and new skills is through transportation infrastructure investments. She continued to say that investment decisions should not depend upon the projections of long-term population growth; what we have produced here is clear evidence that you can have increased levels of output and growth in wealth per capita even though the population is stagnant.

Petra Todorovich, Director, America 2050, Regional Plan Association

Ms. Todorovich talked about how the future of New York City is increasingly tied to the future of the Northeast megaregion and argued that the environment, quality of life and competitiveness of the Northeast region will be threatened unless we make essential investments in the Northeast Corridor.

Emerging Megaregions and Issues

She began by explaining that the Northeast Corridor is one of ten emerging megaregions around the United States that have been identified by RPA's *America 2050 initiative* (Figure 2). In each of the megaregions, there are different issues tying the regions together. For example, the Piedmont Atlantic and Florida megaregions are dealing with serious water issues. In the Southern California megaregion, addressing goods movement to and from the Ports of Los Angeles and Long Beach is one of the critical issues.

The emergence of megaregions requires a new planning framework in which government entities, civic organizations, and business leadership come together and collaborate at the megaregion scale, beyond state or regional boundaries.

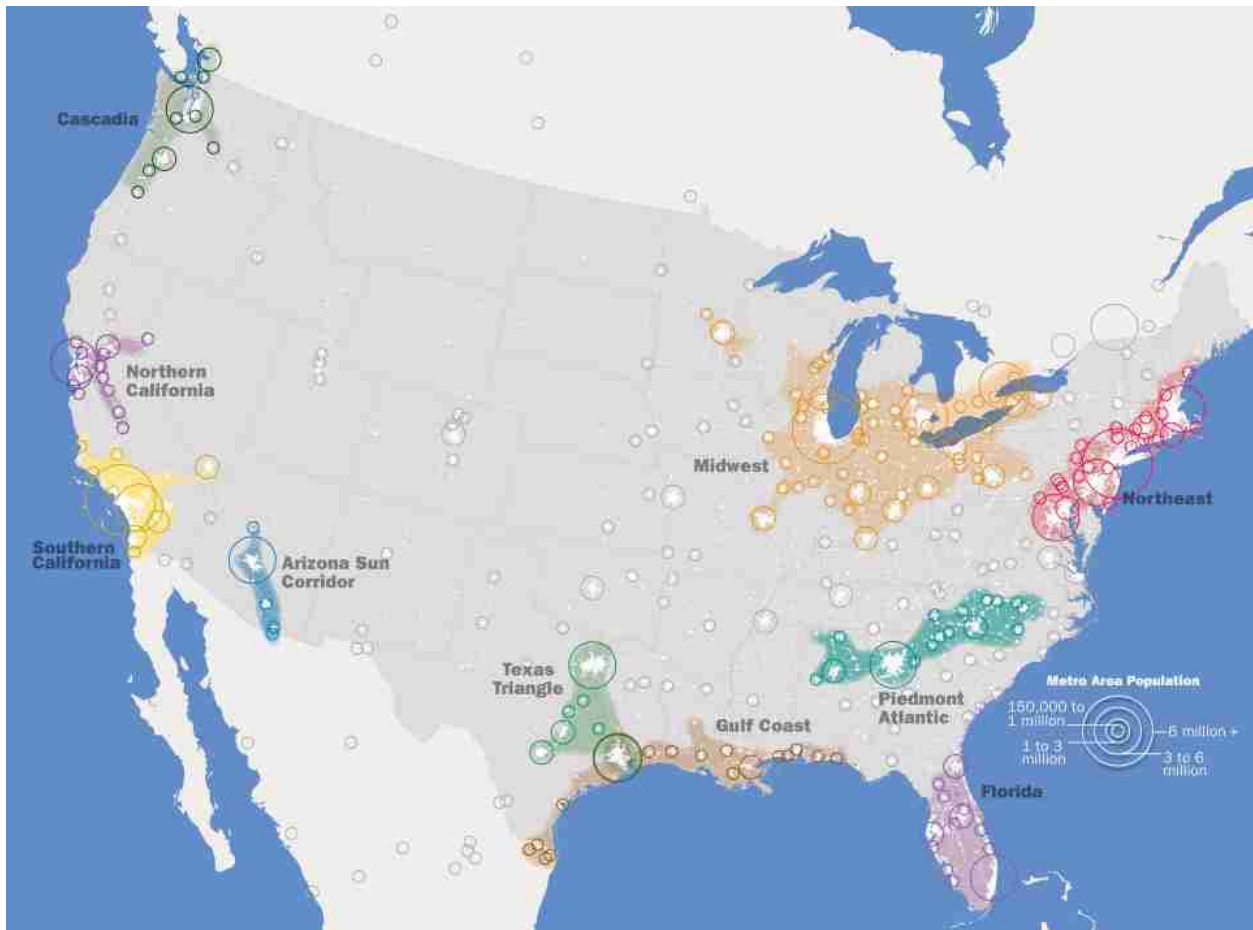


Figure 2. Ten Emerging Megaregions

The Northeast Megaregion: How Is It Connected?

The Northeast megaregion has five major cities: Baltimore, Boston, New York City, Philadelphia, and Washington, DC. About 49 million people live in this megaregion, representing about 17% of the U.S. population living on 2% of the U.S. land area. Economically, roughly 20% of total U.S. GDP is generated in this region, indicating high productivity in terms of economic output. These socioeconomic trends make the Northeast a more cohesive megaregion but also threaten its environment, competitiveness, and quality of life. Complicating the situation, the Corridor is growing. According to projections by the U.S. Census Bureau, about 19 million people will be added to the Northeast megaregion by 2050.

The most rapid growth is taking place at the edge of urban areas in the form of low-density sprawl. And, according to RPA's projections, based on current land use consumption, the region will have an urbanized area of 40 million acres (about 25.2% of the Northeast) by 2050. This will have major impacts on drinking water supply, quality of life, and air quality.

The Northeast is also linked by its dense transportation network, which is increasingly congested. Business flights can serve as a proxy for economic interactions between the major cities. According to *Flightstats.com*, there are 86 daily round trip flights between the three New York airports and Washington, DC on weekdays; 76 flights between Boston and New York City; and 42 flights between Washington, DC and Boston. Ms. Todorovich pointed out that if we had reliable intercity rail service on the Northeast Corridor, the daily flights between these major airports could be shifted to rail, freeing up much needed air space.

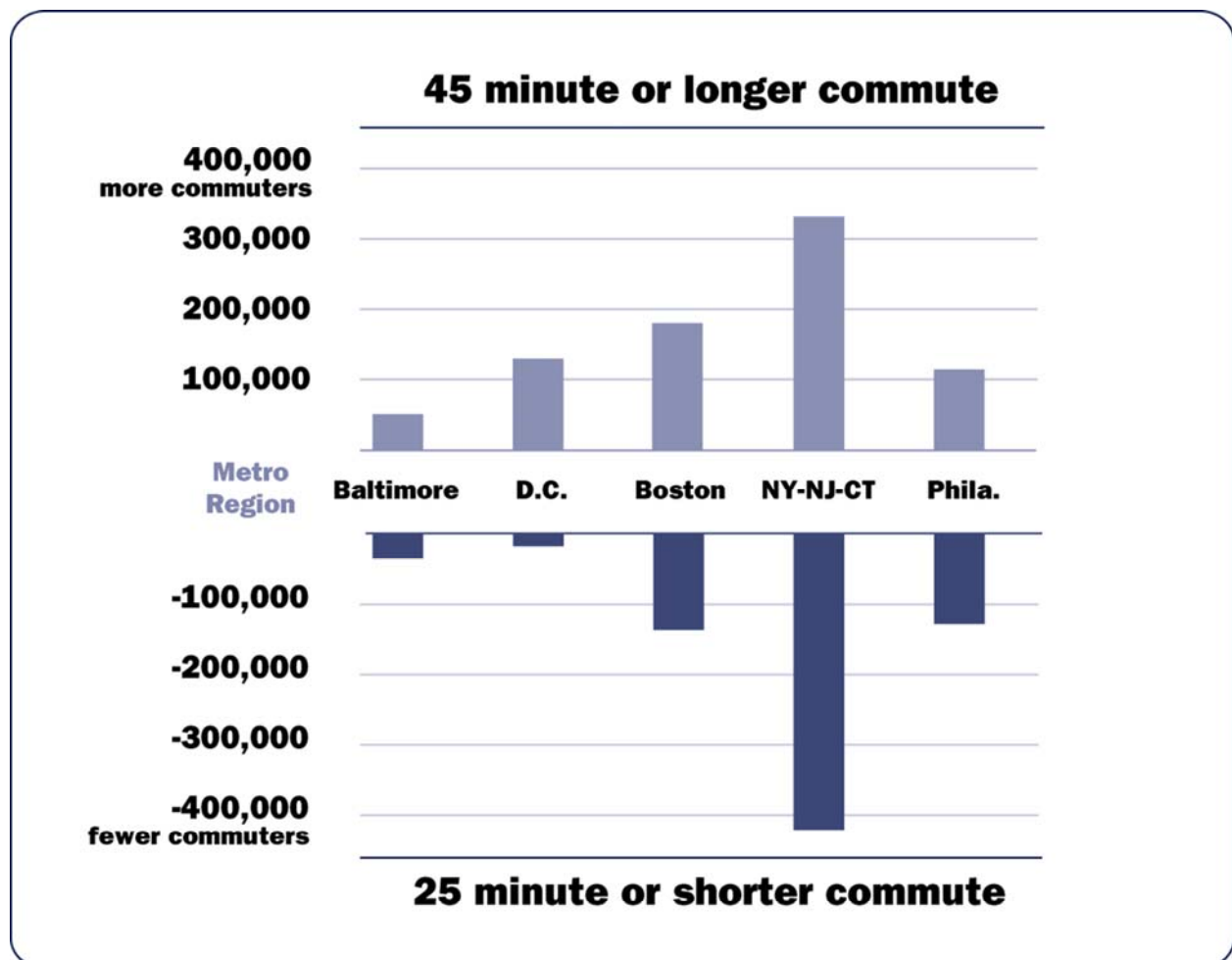


Figure 3. Changes in Commuting Patterns in Five Major Areas of the Northeast Corridor region: 1990-2000

As people are moving out to the urban fringe, they are commuting longer distances. As shown in Figure 3, more people are commuting longer distances in 2000 than they were in 1990. Moreover, there has been a rise in “extreme commutes” of 90 minutes or more each way. Also, there has been a rise in the number of people doing flex-time commuting. We have also seen a rise in the number of people who commute from one region to another. In 2000, there are about 650,000 people commuting between metropolitan areas in the Northeast on a daily basis, an increase of 37% from 1990.

These trends imply that people are moving farther and farther away from the central business district (CBD). This may be acceptable if they are commuting in sustainable and comfortable ways. However, spending all of one’s time on the highway is not great for one’s quality of life, nor for our region’s environment.

Strategies for Moving Forward

We are facing longer commutes, increasing congestion, lagging job growth, and high housing prices. How can the region be sustained? Ms. Todorovich suggested that the region has several strategic advantages as a result of its high population density. First, the region’s population density supports its knowledge-based industry clusters, which require face-to-face interactions and trust. While many industry products are outsourced overseas, knowledge-based sectors are concentrating in CBDs with highly-skilled labor forces, and a number of those CBDs are located along the Northeast Corridor.

A second strategic advantage, derived from the high density along the Corridor, relates to the likelihood that we will see a price put on carbon in the next decade. In that scenario, the Northeast becomes a more efficient and more competitive place to do business, where one move between multiple CBDs in an efficient and low carbon way.

How Do We Get There?

Based on RPA’s recent work on the Northeast Corridor, Ms. Todorovich presented several transportation investment strategies for the future of the Northeast megaregion. As a starting point for fostering coordination among states in the Northeast Corridor, RPA is looking at stable Amtrak funding for improving service on the existing lines, while bringing the system to a state-of-good repair. In addition, RPA wants to increase the frequency, speed, and reliability, while reducing the price of passenger rail. She noted that if we want to use rail to promote the type of development we would like to see in the Northeast Corridor, we need some strategies like revitalizing some branch lines on the Northeast Corridor and redeveloping older industrial cities that have capacity for housing. Dense urban growth can accommodate some of the population growth anticipated in the Northeast megaregion. Figure 4 shows a conceptual drawing of connecting hot and cold growth centers. This strategy would bring benefits to both hot and cold growth centers.

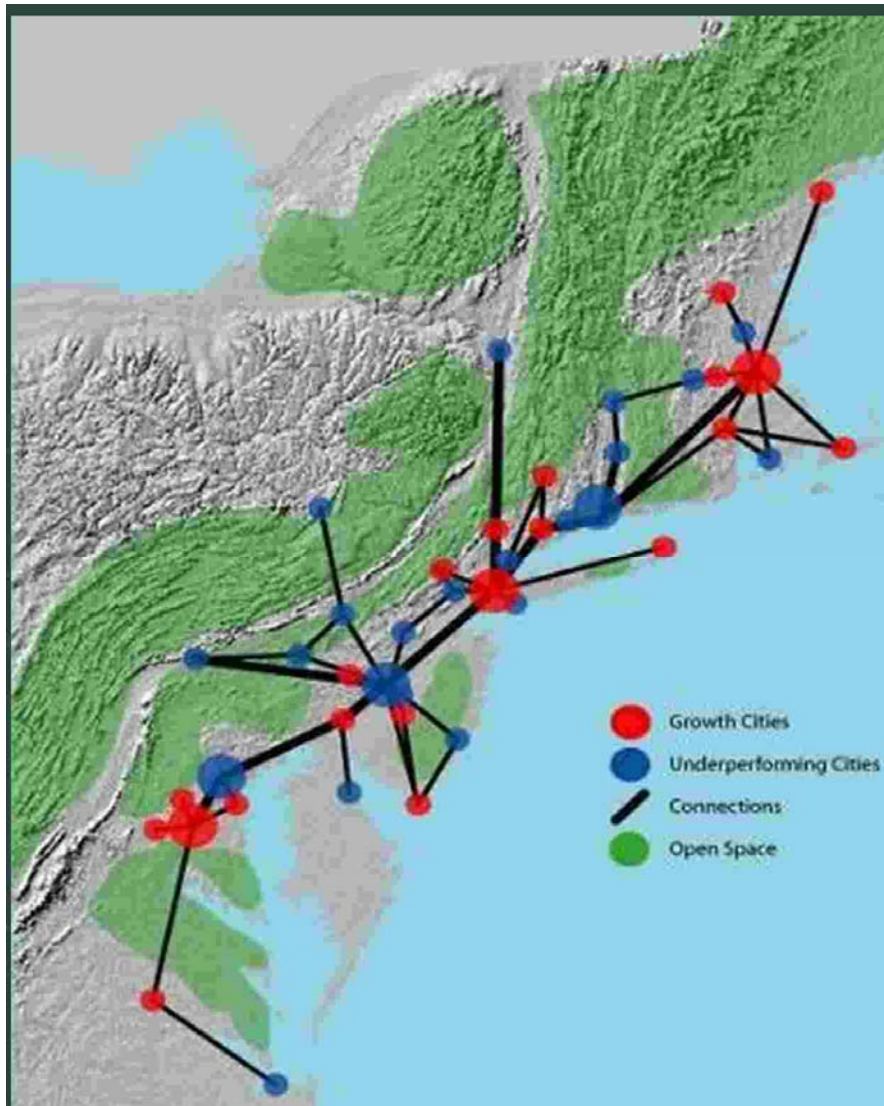


Figure 4. Connecting Cold and Hot Growth Centers (University of Pennsylvania Graduate Studio, 2004)

One of the advantages of a strategy for investing in rail is rail's ability to help reduce greenhouse gas emissions. Transportation currently accounts for about 30% of greenhouse gas emissions in the country. The Intergovernmental Panel on Climate Change (IPCC) estimated that we need to reduce carbon emissions by 80% until 2050 to stabilize carbon levels in the atmosphere. One way of addressing this is to put more people on rail, since rail is more efficient than air or automobile service at certain distances. Indeed, air travel is particularly worrisome with respect to carbon and other greenhouse gas emissions because it releases a cocktail of water vapor, CO₂, and other chemicals directly into the stratosphere, compounding the impact on global warming.

Ms. Todorovich concluded with a discussion of RPA's initiatives on the Northeast Corridor. RPA is convening a Business Alliance for Northeast Mobility to build broad support among the civic and business communities in the Northeast and to identify primary investments aimed at economic competitiveness, sustainability, and quality of life. The coalition is currently focusing on the Amtrak legislation now moving through Congress. There is an opportunity to influence and shape the House bill, so the coalition is starting a conversation and developing a vision for the long-term future of the Corridor, including but not limited to the investments needed to make true high-speed rail funding a reality. The coalition will be thinking about other transportation bills that will be reauthorized in 2009.

George Schoener, Director, I-95 Coalition

Mr. Schoener’s presentation focused on the key challenges along the Northeast Corridor. He began his presentation by pointing to the serious modal disparities along the I-95 Corridor, briefly describing some recommendations for addressing them.

Figure 5 presents a stark contrast – overwhelming truck volumes and limited rail capacity in the Northeast megaregion. About 87% of the freight moved on the I-95 Corridor is carried by truck. Moreover, by 2035 for every truck on the road today, there is going to be another truck right behind it. That is, the truck traffic volume in the region will double. On the other hand, there is little rail freight activity on the I-95 Corridor. Instead, if one looks at the national level picture, rail freight movement flows primarily east-west. Containers arrive at the Ports of Los Angeles and Long Beach, or the Port of New York and New Jersey, and then move inland by rail east or west, not north or south.

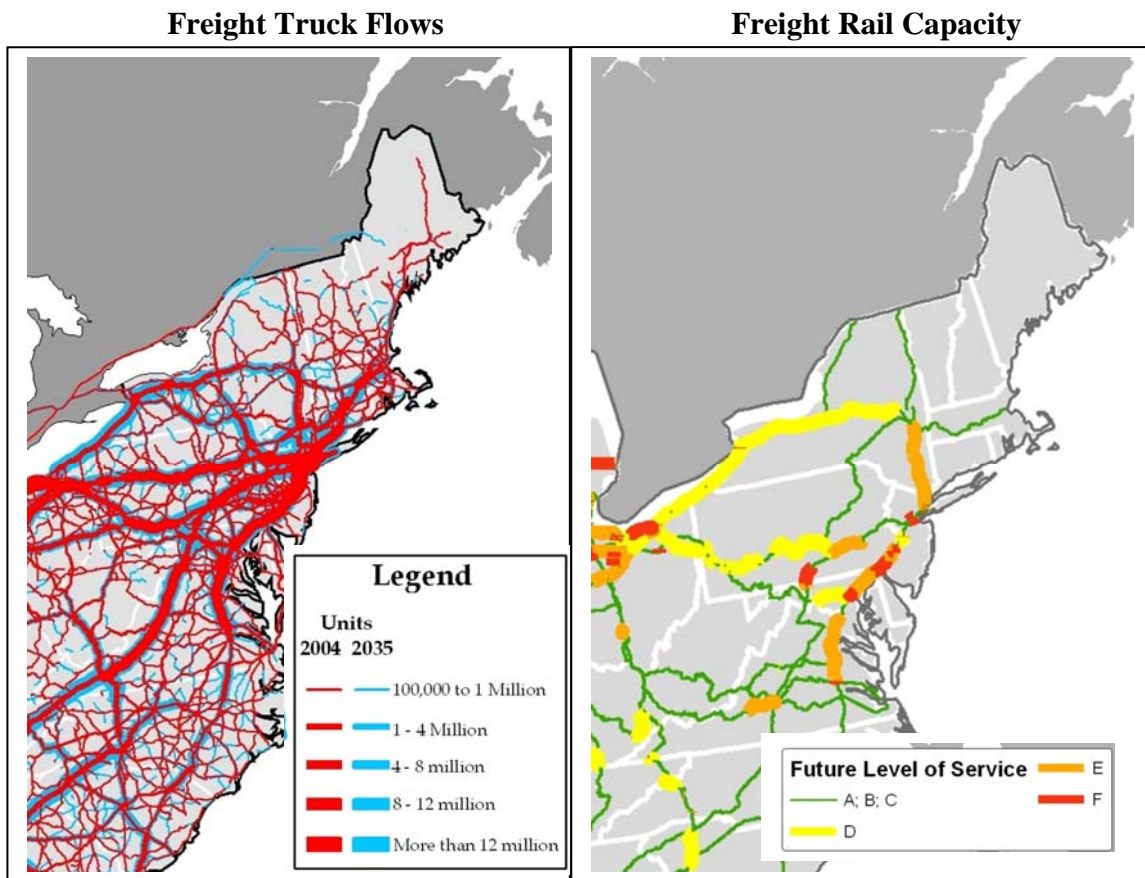


Figure 5. Freight Truck Volume and Freight Rail Capacity of the Northeast Megaregion

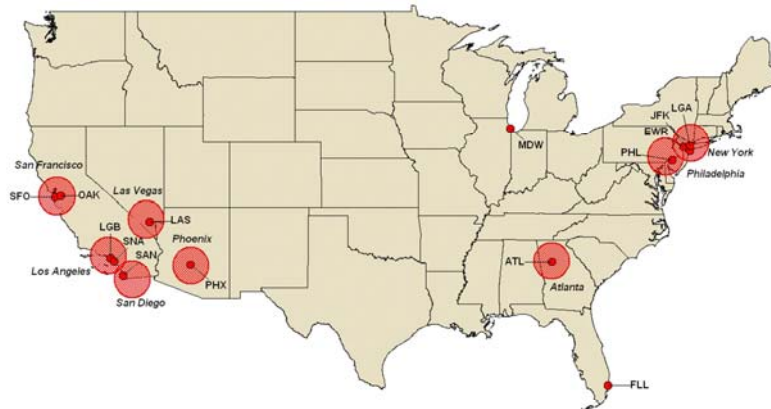
Indeed, according to Norfolk Southern and CSX, the two primary Class I railroads working along the Northeast Corridor, there are no new investment plans on the I-95 Corridor. This is because they do not see a business case for rail freight in the I-95 Corridor. This leaves the region with a mess in terms of truck traffic.

And It’s Not Just Trucks

On the passenger side, the Federal Aviation Administration (FAA) is now concerned about capacity needs in the national airspace system. The FAA looked at where the problems are going to be by 2025 in terms of airport capacity and ground transportation access and realized we are facing a crisis (Figure 6). For the first time, the FAA is considering non-aviation alternatives along the I-95 Corridor, suggesting that more investments should be made in intercity passenger rail and that short-distance flights between major Northeast cities should be reduced to free up slots for long distance and international flights.

Capacity Needs in the National Airspace System

2025 RESULTS After Planned Improvements



14 airports that need additional capacity

- ATL
- EWR
- FLL
- JFK
- LAS
- LGA
- LGB
- MDW
- OAK
- PHL
- PHX
- SAN
- SFO
- SNA

8 metro areas that need additional capacity

- Atlanta
- Las Vegas
- Los Angeles
- New York
- Philadelphia
- Phoenix
- San Diego
- San Francisco



Federal Aviation
Administration

Figure 6. Capacity Needs in the National Airspace System

Vision for the I-95 Corridor Coalition

Mr. Schoener suggested that we need a strategic vision for the I-95 Corridor, and that the I-95 Corridor Coalition is helping this happen. The goal of the Coalition is to develop a strategic vision to meet future multi-modal transportation challenges and investment requirements at a corridor scale. To achieve its goal, the Coalition is going to assess emerging policy issues and state/local visions; review future demographic, economic, land-use, and travel projections; analyze alternative supply scenarios to meet demand; conduct outreach with stakeholders; and identify and assess policy issues and choices.

I-95 Corridor: Corridor of the Future

Mr. Schoener announced that the I-95 Corridor was recognized by the U.S. Department of Transportation (USDOT) as a Corridor of the Future, along with 6 other major interstate corridors in the country. The application to USDOT had four initiatives: (1) better real-time traffic information for passengers and freight; (2) expedited incident clearance; (3) financing solutions for mega projects; and, (4) integrated intercity air/bus/rail and local transit services for the Northeast megaregion. So the agencies along the Corridor can do a better job in coordinating, scheduling, and ticketing in the Corridor.

Mr. Schoener concluded with three recommendations:

- (1) Transportation issues in the Northeast Corridor have to be dealt with on a corridor-scale basis, since transportation problems and issues do not respect state boundaries or metropolitan boundaries.
- (2) We must develop multi-state plans and investment models. Metropolitan Planning Organizations (MPOs) along the I-95 Corridor must work together to develop intercity multi-state transportation planning.
- (3) Institutional reform is absolutely necessary. Conventional institutional setting – the funding distribution and spending by mode and jurisdiction – is not going to work in dealing with the problems that we face today.

Anne Stubbs, Executive Director, Coalition of Northeast Governors (CONEG)

Ms. Stubbs emphasized that we need to return to a policy focus for surface transportation reauthorization. The importance of a safe, reliable, integrated, and multimodal transportation system has been historically well recognized by CONEG. In addition, the governors have always recognized the link between transportation, economic development, and quality of life. They have always viewed transportation as a regional issue that binds together our communities, states, and our region, and links our region to the rest of the nation and to the world. Such recognition of the region and the Corridor is well presented in a quote from the 1997 CONEG report, *Transportation in the Northeast: The Key to Quality Renewal*:

Transportation infrastructure investments are firmly associated with broadened employment opportunities, increased efficiency in the movement of goods and services, a rededication to safety and mobility, historic preservation, a diverse set of transportation modes, and rebuilding a vital transportation asset such as region's bridges. These links will contribute to a cleaner environment and more prudent use of energy and other resources. These notable goals are being accomplished by strengthened planning process at all levels of governments, increased citizen participation, and a strong federal, state, and local partnership.

This quote exemplifies the dynamic institutional and policy infrastructure created by ISTEA, probably the last time we had a policy-driven focus for the nation's surface transportation authorization, rather than just fighting over the size and the allocation of the pie.

Northeast Corridor as a Spine of the Northeast

Ms. Stubbs noted that the governors have also recognized the importance of intercity, commuter, and freight rail are integral parts of national transportation system, vital to mobility and competitiveness, connectivity, and quality of life. The Northeast Corridor network is the linchpin for our entire transportation system; it is the spine from Boston to Washington, DC and Northern Virginia. It is the linked routes from Maine, Vermont, New York, and Pennsylvania that serve the megaregion as well as the smaller communities and rural areas of the region. It is the intercity as well as commuter passenger service. It is the freight rail service that must have access to the Northeast Corridor spine in order to serve critical customers. And, finally, it is the infrastructure that is owned by Amtrak, Connecticut, Massachusetts, and New York.

Need for Intercity Rail Service

The Northeast Corridor network must provide safe, efficient and reliable service to all of its users across the region. There must also be a shared understanding on what the Corridor must be able to do both now and in the future. This means that the Northeast Corridor has to provide higher speed service for business travelers who are willing to pay a premium fare to get to destinations faster. It also has to provide reliable service to student travelers and leisure travelers who cannot afford the premium fare. It also must provide reliable and frequent service for all those commuters, who travel within the metropolitan area. A 1986 study of high-speed rail by CONEG established a goal of three-hour service between Boston and New York City so that intercity passenger rail could be time-competitive with both highways and air. A decision was made to focus on existing technologies so that we could get some results sooner and in an affordable manner. The study developed a game plan which demonstrated the feasibility of high-speed rail, drawing upon existing knowledge and expertise. The document is still being quoted by the members of Congress.

How to Mobilize

Ms. Stubbs emphasized the importance of gaining the attention of decision makers by providing objective and fact-based information. She stressed that we should remember that we need to provide a clear objective with achievable results that are not too far into the future. In addition, we have to bring all the parties together, not just once but on continuing basis to understand and better integrate the specific needs of neighboring states along the entire Corridor. She underscored that we have to respect the fact that we cannot ignore the specific needs of individual states.

The Need for Leadership

For this process, we are going to need leadership. Government agencies need to dedicate staff time. This is not a one-time event; we need to be patient and persistent. As an example, from the time the governors called upon CONEG to determine the feasibility of high-speed rail in 1986, it was ten-plus years before the first high-speed piece of equipment rolled out of the manufacturing plant in upstate New York and upstate Vermont.

One of the most difficult challenges in dealing with the Northeast Corridor is helping decision makers to understand the dynamic and linked-nature of rail networks. In other words, they need to understand that with rail, almost everything affects everything else. Achieving objectives sometimes requires that funds be spent in somebody else's political jurisdiction. To make that case, we have to have credible fact-based information to help decision makers see that investments made outside their immediate jurisdiction could still affect their communities.

Need for Sound Public Policy

Sound public policy is essential to the development and health of intercity passenger rail. We need to recognize that the discussion is about more than money and about more than Amtrak (There is great confusion in Washington about equating intercity rail with Amtrak.). The discussion needs to be about policy choices for an effective national and Northeast transportation system. Reauthorizing Amtrak and setting national policy for intercity rail is vitally important. What happens with the surface transportation reauthorization, environmental legislation, and energy legislation is equally important for the Northeast Corridor. They can all make a difference in terms of whether we are going to have an integrated transportation system that really includes rail in a meaningful way.

Institutional Relationships

To develop a successful intercity passenger rail corridor we will need new institutional relationships that enable us to rise above the current jurisdictional interests and boundaries. In order to do that, we have to be able to articulate shared strategic objectives for managing transportation assets - not just rail, but all large transportation assets. The key to developing these shared objectives lies in the realization that our own economic well-being may very much depend on transportation decisions and investments or actions that are made in neighboring communities or in other states. This may be about creating new institutions to take on the transportation challenges, but equally it may be about current institutions being able to adapt to deal with new approaches, to define new partnerships with already existing public and private entities, and to educate the users of the system as well as the decision makers.

PANEL 2: WHAT IS TO BE DONE?

Moderator: *Mark Schweiker, President and CEO, Greater Philadelphia Chamber of Commerce*

Panelists: *Paul Bea, Government Relations Advisor, PHB Public Affairs*

John Bennett, Chief, Business Strategy, Amtrak

Jean-Paul Rodrigue, Associate Professor, Hofstra University

Mark Strauss, Principal, FXFOWLE Architects

Lou Venech, Senior Manager of Transportation Policy & Development, Port Authority of New York and New Jersey

In a moderated discussion format, panelists discussed a variety of issues in the Northeast megaregion and what can and should be done to ensure the future of the Corridor.

What Are the Concerns?

Mr. Schweiker opened the panel with two questions: what are your key concerns about the Northeast megaregion and what are we going to do?

Mr. Venech said that supporting corridors like the Northeast Corridor helps promote national self-interest. He continued that investment in transportation infrastructure in the New York City metropolitan region helps promote the economic competitiveness of the region and further supports the Northeast megaregion, as well as the United States as a whole. He emphasized that there is no magic mode to solve the problems we have now. Considering a variety of modes is critical.

Mr. Strauss noted we need to take this conference one step further to look at the development opportunities and precedents around the world with regard to how we think the Corridor from the development point of view, linking activity centers with a variety of transportation modes.

Mr. Bennett framed the challenge as finding a balance between development and sustainability. That is, we need appropriate transportation investment programs to create an efficient transportation system to support economic development. However, those programs and the system developed for them should be able to help to relieve congestion, improve energy efficiency and address greenhouse gas emissions. These challenges need to be addressed and solved by institutional re-engineering, and multimodal and multiregional planning. Amtrak, commuter railroads, and freight railroads have embarked on a project—the NEC Master Plan Study—that will explore the service needs and plans of all the Northeast Corridor users with an eye to developing a collective vision of the investments needed to accommodate bringing the Corridor to a state of good repair, adding capacity for users and improving trip times to support passenger rail (intercity and commuter) service objectives.

Mr. Bea emphasized that the notion of an integrated system is absolutely essential in terms of future transportation policy since the demand for transportation services in the future cannot be fulfilled by any individual mode. This has to be addressed at the policy level and by stakeholders.

Dr. Rodrigue responded by noting the recent and probable economic trends in the United States. He argued that transportation is a derived demand (and freight transportation is particularly derived), and that derived demand will be affected by the current economic downturn. He explained that much of the economic growth that we have experienced during the last five to six years was artificial and based on premises that are not sustainable. In other words, people borrowed money against assets with inflated values. As long as asset inflation was doing well, we could not see what was happening. However, with the collapsing equity market (e.g. real estate and related markets), the process has started to reverse. Because of this economic downturn, we are going to see port traffic in many ports go down with concurrent reductions in rail traffic. Consumption, which has been driving freight, is now declining. Dr. Rodrigue suspects that, over the next few years, traffic is going to stall or decline. It is a crisis, but it is going to provide a tremendous opportunity to look at our system and structure things strategically, and begin to reinvest in the system. U.S. dollars have been debased. He suspects from the foreign asset management perspective, over the next few years, U.S. transportation assets are going to be very

attractive targets for foreign private equity firms. Since we are running out of money, they are going to come to the rescue.

Prospects for Private Investment

Continuing on the point raised by Dr. Rodrigue, Mr. Schweiker asked about the role of public-private partnerships (PPPs).

Dr. Rodrigue responded that PPPs are the latest trend. The private sector brings the money and expertise, and the public sector takes care of the red tape. Mr. Venech added that PPPs can be a helpful way to finance essential public works improvements. He said the PANYNJ offers a good example, noting that at the airports, airlines and other private partners are playing an important role in investing private equity in terminal improvements. Another potential example with implications for the Northeast Corridor is the proposal to redevelop Penn Station, which will serve both commuters and intercity travelers. Such a plan would only be possible through the efforts of a combination of public agencies, private investment, leveraging of air rights, and the development opportunities the city could confer. He added that such cooperation needs to take place at the right time. PPPs can really stretch our ability to meet our needs, but Mr. Venech added that we must not lose sight of the public interest when entering into PPPs.

Mr. Bea joined the discussion, adding the federal government is important and its role should be to think in terms of the larger picture and of the general public. If one talks to someone in the railroad business, that individual by and large is foremost thinking about his/her rail business. Similarly, states focus on their populations. However, the federal government is responsible for the large picture and the entire country.

What Can Be Done?

Mr. Schweiker then turned to the question of what needs to be done to plan for the Northeast Corridor and garner support from Washington, DC.

Mr. Venech noted that there are many corridors competing for attention in Washington, DC, and that regions like ours need to step up and provide the level of investment needed to renew the assets we have. This makes it easier to make a case in Washington for more support. On the federal side, we need federal policies that are supportive of such self-help investments, and that recognize the national interest in supporting key corridors where much of the nation's economic productivity is generated.

Mr. Schweiker wondered how we choose among improvement plans. Mr. Bennett responded that this is an issue of the transportation network as a whole, not just rail. The way we can get people to cooperate is to have an integrated multimodal plan from which everyone benefits. However, he admitted, this is easier said than done. He continued that we need to do some institutional engineering to develop a modal balance, in terms of federal funding. This may be the next step at the next reauthorization.

Mr. Bea emphasized the importance of educating policymakers and the general public to achieve a policy breakthrough. For example, he said that there is a misunderstanding that freight projects are only good for truckers. The public and our policymakers need to understand that transportation is an integrated system and that investments in one area often have multiple beneficiaries. One aspects of that integrated system must be the marine transportation sector, which, while it operates as an extension of the surface transportation system, tends to be forgotten by transportation planners.

Dr. Rodrigue agreed that the public does not fully understand the nature and role of freight. They see trucks but do not understand that they are related to freight distribution. When they go to the store and buy something, they do not realize that this is the last leg in a supply chain. They drive around and think trucks just take space away from commuting. Thus, educating the public about the importance and value of freight is critical.

Mr. Strauss also highlighted the importance of educating the public. More specifically, he said, we need to make people understand the relationship between transportation and land use and let them know that density is not a bad thing. In addition to education, he said that we need to consider the development patterns we would like to have in the future. For example, are we going to continue to sprawl? Are we going to continue to look at farm land and create development along our highway corridors? Are we going to take advantage of the transportation linkages that exist today and create opportunities for development

at rail stations and existing linkages to transportation? At the same time, he added that we need political leadership and education to get people to move beyond local resistance and appreciate that density can be good, and redevelopment around station areas is good, and there are opportunities that will make their life better if we begin to get people out of their automobiles.

Mr. Venech said that Dr. Rodrique's assumption about our economy may be correct and Mr. Strauss' point about public resistance to density is right. However, they are not reasons not to invest. Instead, these are reasons to step up what we are doing as the world changes around us. We need to invest and integrate and take advantage of the opportunities posed by our Corridor.

CLOSING REMARKS

Dr. C. de Cerreño closed the event by noting that the conversation throughout the day was wide-ranging and varied and perhaps indicative of the complexity of the Corridor. Indeed, she drew an analogy between a systematic approach to the Northeast Corridor and remodeling a room. She explained that those remodeling jobs where one plans out all the parts are the most successful. However, those that are done piecemeal usually result in a project that is not quite what one wanted. She noted that when remodeling her kitchen, including new cabinet, would have been too expensive. Thus, she decided to replace only the countertop, the appliances and the handles on the cabinets. The partly remodeled kitchen looked nice at the beginning and for a while. However, as time went on, she realized that she needed to add new cabinets after all. Worse, now she may not be able to redo the cabinets without taking out the new components that she likes.

She noted that forty years ago we started to look at the Northeast Corridor and thought what we needed. The original estimate was for \$3.3 billion, but that was quickly reduced to only \$1.82 billion because of pressure to cut costs. Over the years, there was constant tension between needs and budget reductions. The overall result was similar to the kitchen remodeling experience – a high-speed rail system that is not quite what we wanted or needed.

She suggested that we really need to develop a vision for an integrated, multimodal system, even before we talk about specific projects. In other words, Dr. C. de Cerreño stressed that we need a picture and a vision of what we want the Corridor to look like in the future. Then, with that vision, we need the leadership and political will to bring the money to make the vision a reality. Like her kitchen cabinet, all components in a system work together.

With respect to next step, Dr. C. de Cerreño suggested that while CONEG has been an important supporter of the Northeast Corridor, we need the cities that have been practically invisible over the course of the past 30-40 years. We need to get them involved as well as the MPOs, since it is the cities which have the most to gain or lose.

Toward that end, the Rudin Center will be collaborating with the AIA, NYMTC and RPA to help foster ongoing coordination and discourse on the Northeast Corridor with the hope of turning some of this discussion into action. There will be events by RPA in spring 2008 and AIA in fall 2008.

Finally, the Rudin Center will continue to look for ways to engage the private sector, cities, and various authorities. Even if we manage to develop a vision, unless everyone is on board and willing to share the vision and goals, the financial means will still remain elusive.