



# MEGAREGION PLANNING AND HIGH-SPEED RAIL

*Petra Todorovich*

On April 16, 2009, President Obama stood before an audience at the Eisenhower Executive Office Building and made an announcement that signaled a new era of passenger rail in the United States. Months before, the American Recovery and Reinvestment Act (ARRA) had provided \$8 billion for a new program at the Federal Railroad Administration (FRA) to issue competitive grants to states to make capital investments in high-speed and conventional passenger rail. Little did the president know that providing the single largest boost for intercity rail planning in this country in a generation had also motivated a sudden and giant leap forward in planning and governing megaregions. Luckily, regional planners had been studying emerging megaregions for the previous five years, in affiliation with the New York–based Regional Plan Association’s (RPA) America 2050 program. Again and again, the planners had identified high-speed rail as the key transportation investment to serve megaregion economies. But high-speed rail was a distant dream. That all changed with the passage of ARRA at the nadir of the Great Recession. Now a federal program exists to support high-speed rail planning and implementation. Making that program a success will largely depend on the ability of multiple actors at the local, regional, state, and binational levels to come together as megaregions to coordinate and leverage federal rail investments.

## REVISITING MEGALOPOLIS: RPA RESURRECTS THE MEGAREGION IDEA

As if planning for the Tri-State New York metropolitan region was not sufficiently complicated, in 2005 the Regional Plan Association launched a national program called America 2050 that focused on the emergence of a new urban scale: the megaregion. This was not actually a new concept for RPA. In 1967 a volume of the *Second Regional Plan* documented the emergence of “The Atlantic Urban Region,” an urban chain stretching 460 miles from Maine to Virginia (Regional Plan

Association 1967). Earlier that decade, French geographer Jean Gottmann had coined the term “Megalopolis” to describe the same region in his 1961 book, *Megalopolis: The Urbanized Northeastern Seaboard of the United States* (Gottmann 1961). The Northeast’s more or less continuous urbanization from the northern suburbs of Boston to the southern suburbs of Washington, D.C., had attracted the attention of Gottmann and RPA. But in 1967 RPA observed that while this chain of settlements containing 42 million people surely derived some benefit from their mutual proximity, the larger form of the Atlantic Urban Region was still composed of more or less independent metropolitan regions.

By 2005, when RPA revisited that larger form, the autonomy of the Northeast’s metropolitan regions was starting to wane. Rapid, low-density sprawl was erasing the formerly distinct boundaries between the New York and Philadelphia metropolitan regions, and between Philadelphia and Wilmington. The term “extreme commutes” had been coined by the U.S. Census to describe road warriors traveling more than ninety minutes each way to their jobs, with many of them located in the Northeast. And intercity business travel within the Northeast was also growing. The four most congested airports in the country were located in New York City, Newark, and Philadelphia. With 251 daily flights taking place among the Northeast’s major airports, and 40 percent of Amtrak’s rail ridership taking place on the Northeast Corridor, a Northeast Megaregion was moving from a spatial construct to reality (RPA 2007).

But at the dawn of the twenty-first century, the forces making the Northeast Megaregion a more cohesive and integrated megaregion were also threatening its demise. Growing congestion in its roads, rail network, and airports; rising house costs; loss of open space; and threats to clean drinking water all contributed to imperil the Northeast’s future as an economic competitor and healthy and pleasant place to live. In other words, the Northeast was (and is) heading toward the dystopian vision of Megalopolis—a region of continuous sprawl with infrastructure systems that are too crowded and too deteriorated to function efficiently, a high cost of living, and a natural environment that has suffered the impacts of an aggressive human footprint. As Regional Plan Association’s president, Robert Yaro, frequently remarks, “The Northeast has all the disadvantages of being the most expensive, densely populated, and congested region in the country—and none of the advantages.” The subtext of this statement is that we need to flip the equation around and capture the benefits of having the most population density, the most expansive rail transit network, and the largest concentration of skilled workers in the nation. To do so, RPA set out to understand the larger phenomenon of megaregions and how they were playing out around the country.

#### SCALING UP: AMERICA’S EMERGING MEGAREGIONS

In 2004 Robert Yaro, Armando Carbonell, and Jonathan Barnett led a graduate planning studio at the University of Pennsylvania called Plan for America. The Plan for America studio traveled to Europe on spring break to meet with Sir Peter Hall at

University College London, where students and professors alike were inspired by the European Spatial Development Perspective (ESDP), a 1999 policy statement on balanced growth in the European territory. The imaginative spatial planners behind the ESDP had identified large urban agglomerations in Central Europe like the Pentagon and the Blue Banana (Faludi 2002). Also called “global integration zones,” these networked cities and regions in the EU were supported by open border policies among EU member states and strengthened by EU investments in the Trans-European Network and high-speed passenger rail. Adopting a similar spatial perspective on urban networks in America, the Penn students identified a series of possible “supercities,” which were later redefined by RPA as megaregions.

RPA launched its America 2050 program after the Penn students issued their final report in spring 2004. The RPA prospectus on America 2050 outlined the case for adopting a megaregion perspective and national plan (RPA 2006). Generally, it argued that five major trends shaping the United States demanded a national planning and infrastructure strategy for accommodating future growth. They included the following:

- America’s rapid population growth, about 130 million additional people by 2050
- Overburdened and deteriorating infrastructure systems
- The urgent need to mitigate climate change and reduce our dependence on fossil fuels and oil imports
- Growing social and economic disparities within and between regions
- And the emergence of a new urban form: megaregions

Megaregions are networks of proximate metropolitan regions, connected by transportation systems, natural systems, settlement patterns, and linked economies. Eleven emerging U.S. megaregions capture over 70 percent of the nation’s population and jobs (see fig. 24.1). They present a new scale at which to plan and coordinate large infrastructure and natural systems—a scale at which there are few examples of governance models, let alone institutions capable of planning or financing complex systems like high-speed rail. Given this vacuum, America 2050 set out to address a planning void at two different scales: federal, where leadership would surely be required to help plan, finance, and facilitate partnerships needed to meet the challenges described here; and the megaregion, by conducting research, building coalitions, and identifying best practices for megaregion planning and coordination.

The first several years of the America 2050 program were spent building a base of research to underpin our understanding of megaregions and verify that this urban form was present outside the Northeast. All of the research that America 2050 assembled is located permanently on the America 2050 website in its research section. During this time, RPA began to think about megaregions as organized around specific relationships that present themselves at the larger scale—such as water resources in the Great Lakes Megaregion, intercity rail in the Northeast Corridor, a common coastline and vulnerability to natural and man-made disasters in the Gulf Coast, seaport and goods movement issues in southern



Figure 24.1. Emerging Megaregions of the United States

California, and urban sprawl in northern California. Recognizing these critical relationships was the key to unlocking interest by regional stakeholders in cooperating with each other. “You’re in a megaregion; do something about it” was not a compelling opening line. However, they found that “working with your neighbors is critical to solving fill-in-the-blank” elicited much more interest.

From 2005 to 2008, megaregion studies were conducted in eight megaregions, mostly at or in partnership with graduate planning schools, including University of Pennsylvania, Georgia Tech, Portland State University, Arizona State University, University of Michigan, and University of Texas at Austin. In addition, several councils of governments in California (Sacramento Area Council of Governments, San Diego Association of Governments, and Kern County) published a study of the Southwest Megaregion, which led to their continued cooperation on goods movement and airport planning. In Florida, the South Florida Regional Planning Council prepared a study of the Florida Megaregion and convened a conference around it in 2006. In northern California, the independent planning and civic organization SPUR published a study of the Northern California Megaregion, stretching from the Bay Area to Sacramento. Following the SPUR study, transportation officials from across the megaregion came together to submit a joint application for a northern California freight program that was successful in securing \$840 million from the California Transportation Commission, an achievement they regarded as a “coup” (Nelson 2008).

#### RAIL ADVOCACY IN THE NORTHEAST CORRIDOR

Back in the Northeast Megaregion, RPA helped revive a coalition of business groups that had previously advocated for Amtrak funding to form the Business Alliance for Northeast Mobility. With a reinvigorated membership of about thirty chambers of commerce and civic organizations from Maine to Virginia, the Business Alliance began lobbying Congress in 2006 for increased rail funding to bring Amtrak’s Northeast Rail Corridor to a state of good repair. The Business Alliance focused on turning one of the key disadvantages of the Northeast’s geography—fragmented governance among twelve states—into a political advantage—twenty-four U.S. senators and dozens more U.S. representatives. The Business Alliance held several rail advocacy events at the U.S. Capitol and at Union Station in Washington, D.C., in 2007–2008 with members of the Northeast Delegation. The strategy seemed to work. In 2008, after previous unsuccessful attempts, Congress passed the Passenger Rail Investment Improvement Act, which authorized approximately \$13 billion in funding for Amtrak over five years and set up a new High Speed Intercity Passenger Rail program at the Federal Railroad Administration that provided competitive grants to states to invest in capital improvements for passenger rail. This new program was put to use immediately, by serving as the legislative vehicle for the \$8 billion appropriation of high-speed rail funding in ARRA. The subsequent year, federal appropriators reaffirmed their commitment to the high-speed rail program with another \$2.5 billion for the high-speed program.

With painful irony, a relatively small share of the money made its way to the Northeast Corridor. The Business Alliance had gambled on advocating for increased national rail funding, because about half of Amtrak's annual capital investments are typically made in the Northeast Corridor, Amtrak's largest rail infrastructure asset. And, indeed, approximately \$706 million included in ARRA for Amtrak came to the Northeast Corridor in 2009, along with additional funding in the 2010 annual appropriation (Federal Railroad Administration 2010). But little of the \$8 billion in high-speed rail grants came to the Northeast Corridor, for two frustratingly technical reasons. None of Amtrak's Northeast Corridor projects could be completed in two years—a statutory requirement of the stimulus bill—and the Northeast Corridor states had recently initiated a master planning process for 2030, which had triggered the need for a new, corridor-wide environmental impact statement (EIS). All of the high-speed rail grants from the stimulus bill required a completed EIS, and the Northeast Corridor's had yet to begin and would certainly take a minimum of two years. So after playing a role in securing rail funding for the entire country, the Northeast Corridor sat on the sidelines as the largest passenger rail grants in decades were doled out in California, Florida, the Midwest, and other regions.

On the bright side, being passed over seems to have acted as a wake-up call to transportation officials in the Northeast states, who have reemerged with greater motivation to better coordinate in the future for federal funding. In June 2010, eleven Northeast states submitted an application to the FRA for \$18.8 million in planning funds to conduct a comprehensive planning study for the Northeast Corridor, building on the master plan. The new planning study would allow Northeast states to break out individual capital projects on the corridor with independent utility that could be funded through the federal high-speed rail program and complete the required EIS for the corridor for a doubling of ridership by 2030. Of most interest to this author, the planning study and EIS would also consider a true high-speed rail option of building two new dedicated tracks along the Northeast Corridor for high-speed trains, significantly increasing capacity and reducing trip times on the corridor—and competing with the other world-class high-speed rail systems being planned in California and Florida. Such an outcome could be the key to realizing the promise of an integrated Northeast Megaregion economy and act as the ultimate test for megaregion cooperation.

#### MEGAREGIONS AND HIGH-SPEED RAIL

High-speed rail is not just a test for megaregion coordination; it also promises great reward. In fact, it is likely that only with the fast and convenient ground connections provided by high-speed rail can megaregions realize the productivity benefits of their metropolitan economies acting as integrated units. This is the difference between the Northeast Megaregion's dystopian future and the desired path. High-speed rail could act as the main intercity transportation spine for an expanded megaregion-scale rail transit network, enhanced with transit oriented

development. A Northeast megaregion (and other megaregions) linked by high-speed rail could potentially realize the following benefits:

- Increased productivity for service-based businesses gained by time savings and increased mobility. Faster, more frequent, and reliable connections that enable business trips among the specialized economies of the Northeast (i.e., education and health services in Boston; financial services and media in New York; government and professional services in Washington) can foster greater productivity for the megaregion as a whole.
- Expanding the scope of labor markets accessed by major employment centers. Faster rail connections between employment hubs and adjacent, smaller cities and residential areas can deepen labor markets, giving employers access to more workers and providing workers with more and cheaper housing options (Martin Prosperity Insight 2010).
- Bringing smaller and underperforming cities within two-hour commuting distance of major employment hubs (like Boston, New York, and Washington) can potentially benefit cities like Hartford, Worcester, and Philadelphia, which have been losing jobs steadily in recent decades. This could also take pressure off the housing market in larger cities, if workers can work in New York and live in Philadelphia, for example (Regional Plan Association 2007).
- Focusing development and real estate opportunities around stations. Rail passenger stations provide focal points for transportation-oriented development, such as new office, retail, institutional, and residential development. Focusing development around transportation hubs can reduce the need to drive, enliven and activate communities, and promote energy savings through transportation and building related efficiencies.

Regional planning must recognize and capitalize on the self-interest of local actors that make up a region in order to be successful. Megaregion planning is no different in its need to tap into the mutual self-interest of component metropolitan actors. Yet megaregion planning is even more difficult than regional planning because the megaregion scale is less connected to individuals' daily experiences than the metropolitan region. In light of these challenges, America 2050 has found that megaregion cooperation must be motivated by the promise of clear and tangible rewards to be gained by megaregion cooperation. Such rewards, in the form of federal high-speed rail planning grants, have recently brought megaregions together to develop corridor-wide rail plans and explore governance models for finance, construction, and rail service operations. These regions, particularly those that span multiple states and international boundaries, will need to establish formal partnerships to manage major procedures like procurement and financing. The greater promise of high-speed rail—increased productivity, access to larger job markets, promoting sustainable land development, and revitalizing cities—will require a broader regional planning perspective at the megaregion scale. In this way, high speed is providing a laboratory for megaregion planning.