# Cities and Infrastructure: A Rough Road Ahead

# Gregory K. Ingram and Anthony Flint

merican cities have promising longterm prospects as hubs of innovation and growth, with expansion in technology and health sciences beginning to offset the decades-long erosion of manufacturing. Cities also remain places of vitality, offering urban design, density, and transport options that attract residents of all ages and backgrounds. In fact, nine of the ten most populous U.S. cities gained population over the last decade, according to the 2010 U.S. Census.

Yet the short-term prospects for cities are fraught with challenges. The recent sharp decline in tax revenues, caused by the 2008 housing market collapse and related financial crisis and economic slowdown, has made it extraordinarily difficult for state and local governments to maintain basic services, let alone plan for investments in infrastructure. Federal funds from the American Recovery and Reinvestment Act (ARRA) helped local governments offset revenue declines in the past three years, but ARRA funds are no longer available for the coming fiscal year (a transition now termed "the cliff"), leaving local officials to confront the full force of revenue shortfalls.

The 2011 Journalists Forum on Land and the Built Environment: The Next City brought scholars, practitioners, and political leaders together with print and broadcast journalists to explore the theme of infrastructure for cities in the context of the ongoing economic recovery. This program is an annual partnership of the Lincoln Institute of Land Policy, the Nieman Foundation for Journalism at Harvard University, and Harvard Graduate School of Design.

Two roles for infrastructure investments and related services permeated discussions at the Forum. First was the near-term role of investment in infrastructure as a fiscal stimulus aimed at turning around the economy and increasing employment. Second was the longer-term role that infrastructure plays in sustaining the transformation of municipal economies and increasing their competitiveness and livability in a globalized world.

# Infrastructure and the Local Government Fiscal Crisis

The country's need for fiscal stimulus to jump-start the economy in 2009 raised the prospect of massive infrastructure investments to help meet that need. However, the kinds of projects that could be launched quickly at the local level tended to be smaller-scale efforts, such as roadway repairs and facilities maintenance. More ambitious initiatives, such as intercity high-speed rail, failed to materialize due to spending and debt concerns and because much more design was needed before implementation could proceed.

Lawrence H. Summers, who recently returned to his professorship at Harvard after being director of the White House National Economic Council, defended the Obama administration's stimulus plans, which he said were necessary to restore confidence in the financial system and keep the recession "out of the history books." However, he said, "while local governments were able to use stimulus funds to cover revenue shortfalls, there were very few large shovel-ready projects."

Moreover, the grim reality of fiscal stress is that cities cannot focus on large-scale, long-range infrastructure projects because they are struggling to cut spending and reform the delivery of local public services, noted Michael Cooper, reporter for *The New York Times.* Some examples of lost services include the Hawaii program that furloughs public school teachers every Friday through this school year; the San Diego boy who died choking on a gumball because a nearby fire station had been shuttered on a rotating basis; Colorado Springs' decision to turn off a third of its streetlights each



night and to auction off the police helicopter; and the California town that recalled its mayor because he revamped the city's failing wooden pipes in its water system, but increased water fees to pay for it.

Many jurisdictions also have ongoing fiscal problems with the underfunding of pension funds and benefits. Some are worsening the problems simply by not making the required annual payments, a stopgap applied by Governor Chris Christie in New Jersey, among others. The municipal bond market faces tumult and some cities, like Harrisburg, Pennsylvania, are on the brink of bankruptcy. Fiscal deficits are growing because local governments have now expended the last of their ARRA funds.

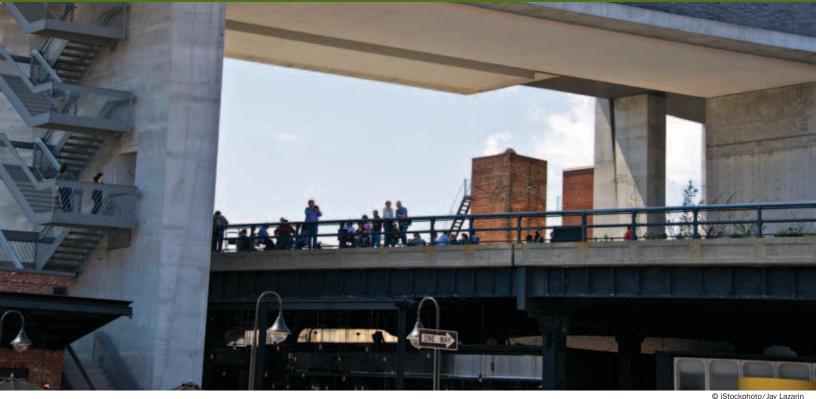
Adrian Fenty, former mayor of Washington, DC, said cities need to be run on a more businesslike basis, moving to the politics of performance and away from the politics of patronage. Improvements are needed in both the efficiency of basic service delivery and the management of city finances. Because education is so important to the economic growth of cities, his administration gave priority to education reform—human infrastructure as well as physical infrastructure. During his term as mayor, his administration closed 20 percent of the schools and reduced administrative personnel by 50 percent. He also revamped teacher contracts, offering a merit pay system without tenure that 60 percent of the teachers opted to join.

# Infrastructure Challenges: The Case of High-Speed Rail

President Barack Obama's \$53 billion high-speed rail initiative has brought the challenges of the local government fiscal crisis into sharp relief. Governors in Florida, Ohio, and Wisconsin returned the federal funding allocated to those states for intercity rail, claiming that their state and local governments could not possibly afford the resulting maintenance and operating costs, and questioning ridership projections. The high-speed rail project in California, though financed by a voter-approved bond issue, faces similar opposition because of financial burdens and local land use disputes.

Bruce Babbitt, former governor of Arizona and secretary of the U.S. Department of Interior, and a member of the Lincoln Institute board of directors, said the Obama administration's campaign for high-speed intercity rail was a "political disaster," and that the underlying vision needed a reassessment. He suggested that the Northeast Corridor should be the model, and that a revised plan should include a well-defined system of reliable financing—similar to the approach used to build the interstate highway system. © iStockphoto/Denis Tangney Jr.

Boston's well-used subway system is one of the oldest in the country and in need of upgrading.



People gather on New York's High Line elevated park under the new Standard Hotel. Paying for high-speed rail infrastructure will require a dedicated funding stream, perhaps from an increase in the gasoline tax in the states where the new rail lines would be located, and a system of value capture to engage private landowners who benefit from increases in property value as a result of such public works projects. "We don't have the political courage to define our priorities," Babbitt said. It will take a "national hammer" to address the nation's infrastructure deficit without abdicating control to governors and states.

High-speed rail may live or die based on economic considerations. Petra Todorovich, executive director of America 2050, which has issued numerous analyses of high-speed rail's potential, proposed a framework of 12 U.S. megaregions that represent collections of metropolitan areas where enhanced rail service offers the greatest potential for replacing automobile and short-haul airline travel. High-speed rail can deepen labor markets, increase agglomeration economies, and boost productivity by linking urban centers. Japan, France, and China are among the countries that have demonstrated how rail lines between major cities can foster economic synergies through the strategic location of high-speed rail stations and their connections to commuter rail and transit.

This economic payoff argument was seconded by Edward Rendell, former governor of Pennsylvania and mayor of Philadelphia, who is part of Building America's Future, a campaign for investments in crumbling infrastructure nationwide. Rendell argued that the United States has been resting on its past investments, and that shoring up the nation's decaying physical foundations is now an urgent priority. Without world-class infrastructure, the country will not be competitive in attracting private investment, sustaining rapid technological innovation and productivity growth, or maintaining the growth of good jobs domestically.

## **Infrastructure and the Future of Cities**

As the recovery continues and economic growth returns, investments in new communication technology, green energy, smart urban systems, transport such as high-speed rail and mass transit, and other infrastructure will be needed to help cities fulfill their roles as the centers of innovation, culture, and productivity.

The vision of infrastructure combined with long-range planning is also a central theme in how cities can adapt to the inevitable impacts of climate change, including a possible one-meter sea level rise and associated storm surges, flooding, and increasing numbers of extreme weather events. Infrastructure in most coastal cities is so old that even a moderate storm event can do extensive damage, said Ed Blakely, public policy professor at the University of Sydney and former hurricane recovery czar in New Orleans.

Cities have been able to base their current plans on the relatively calm meteorological record of the last 200 years, but that calm is likely to erode with climate change, making much of the existing infrastructure inadequate or obsolete. Attention should not be focused on rebuilding after disasters like Hurricane Katrina, Blakely said, but on relocating, repositioning, and "future-proofing" for more resilient cities.

Infrastructure as an amenity that improves city livability is seen in New York's High Line project, the conversion of an elevated freight line through the Meatpacking District and Greenwich Village. One of the architects on that project, Liz Diller, principal in Diller, Scofidio + Renfro, suggested that such retrofits can transform urban areas, provide a focal point for social and cultural events, and promote economic activity—though she cautioned that "architecture can't really fix big problems."

In spite of the current fiscal crisis, cities are expected to experience other changes that may aid their economic recovery. Among these are the fallout from the current housing crisis that is likely to spur demand for rental units and the demographic shift as the baby boom generation enters retirement age and begins to downsize housing choices.

Professor Arthur C. (Chris) Nelson, professor at the University of Utah, noted that both changes may generate more demand for urban lifestyles. For example, the current reduction in demand for owner-occupied, single-family houses at the metropolitan periphery is evident in the Intermountain West, Southwest, and South, where entire subdivisions are virtually empty. The percent of households owning homes has declined from a high of 69.2 percent in 2004 to 66.4 percent in 2011, fostering more demand for rental units that typically are located in more urbanized areas.

Demographic shifts are also related to changes in household composition. By 2030 single-person households will constitute one-third of the population, and only about one out of four households will include children, a decline from 45 percent with children in 1970 and 33 percent in 2000. These changes are likely to foster a significant adjustment in housing markets and values as aging baby boomers offer their suburban houses for sale and move to more urbanized locations with access to transit and walkable neighborhoods. At the same time, upcoming changes in mortgage markets and the reform of Fannie Mae and Freddie Mac may make mortgage financing (and homeownership) more costly and cause younger families to choose renting over owning.

### **Cities as Engines of Growth**

Investing in infrastructure to support metropolitan regions might have an additional rationale grounded in the surprising resilience of cities themselves. The ongoing urban resurgence is visible in the income growth of highly skilled professionals, the relatively modest housing price declines and even recent increases in several prospering cities, and a concentration of innovation in urban areas, said Harvard economics professor Edward Glaeser. "We could move anywhere that suits our biophilia," he said. "Yet we keep flocking to cities."

Urban population growth is highly correlated with average urban incomes, education levels, and the share of employment in small firms as cities continue to draw entrepreneurs and foster productivity. If incomes everywhere were like those in New York City, the national GDP would rise 43 percent, Glaeser said. Cities will also continue to be prized for their environmental value as places of density and transit, reflecting relatively lower per capita energy use and carbon emissions than suburban and rural areas. Glaeser argued against restrictive zoning and regulations that discourage greater density and leave older, low-rise urban neighborhoods "frozen in amber." He also stressed that public education remains the most important investment that cities can and should make to enhance their continued economic growth and quality of life.

As both the national economy and local government revenues recover, a key priority will be to balance expenditures between current services and longer-term investments. Economic growth will make it easier to finance investments in infrastructure, but investments in infrastructure are needed to increase economic growth. The challenge is to find a politically feasible way of breaking into this virtuous circle. **I** 

#### ABOUT THE AUTHORS

**GREGORY K. INGRAM** is president and CEO of the Lincoln Institute of Land Policy. Contact: gkingram@ lincolninst.edu

**ANTHONY FLINT** is fellow and director of public affairs at the Lincoln Institute of Land Policy. Contact: anthony. flint@lincolninst.edu