Northwestern University Transportation Center

Beyond Transportation: The Economic Impact of Rail in Illinois

Summary and Key Findings

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Laurence Audenaerd
Breton Johnson
Dr. Pei-Wei Lin
Christopher Lindsey
Dr. Hani Mahmassani
Charlotte Whitehead
Northwestern University Transportation Center
Executive Summary

On January 15, 2010, Illinois Governor Pat Quinn hosted *Beyond Transportation: The Economic Impact of Rail in Illinois* at the Mid America Club in Chicago in partnership with the Northwestern University Transportation Center and the Environmental Law Policy Center. Approximately 150 people attended the summit, including members of Congress, State representatives and senators, heads of planning agencies and non-governmental advocacy organizations, business owners, transportation and economic development experts, university faculty and students. The summit put forward a shared strategic vision for rail investment in the state of Illinois, and the ensuing economic development and job creation impact that such investment in the state’s mobility of people and goods would provide.

At the summit, speakers reflecting federal, state and local government perspectives highlighted strategies and planning activities for high-speed rail (HSR) development and the importance of freight rail in Illinois and throughout the United States. In between opening and lunch speakers, experts from the Northwestern University Transportation Center, the Northwestern University Kellogg School of Management, the Illinois Manufacturing Association and the Center for Neighborhood Technology moderated four panel discussions that examined four areas for potential economic impact: local development/redevelopment/tourism; manufacturing; global connectivity; and innovation and sustainability. Taken individually and collectively, the four panels made a compelling case for the significant opportunities for rail-based investment to generate economic benefits through higher levels of connectivity and spatial synergy for businesses and individuals, strengthening the position of the state and the Midwest as a globally competitive inter-connected mega-region. Community revitalization, specialized high-value manufacturing, efficient logistics processes and a modernized economic base are major potential benefits resulting from strategic rail investment.

Key Findings

The presentations and panel discussions culminated in the identification of four opportunities for The Office of the Governor to build upon to enhance economic development and job creation in Illinois and the Midwest.

#1 – **Illinois has the necessary elements of a strong rail system-related manufacturing base that is poised for expansion, but requires adequate demand.**

As a significant recipient of funding for HSR from the American Recovery and Reinvestment Act (ARRA) of 2009, the state of Illinois and more broadly the Midwest possess an opportunity
to re-kindle and modernize the rail manufacturing industry in its territory. A core group of rail component producers already calls Illinois home, and foreign-based companies have indicated they are prepared to establish operations here. Therefore, an opportunity exists to nurture a manufacturing cluster through well conceived strategic planning and investments aimed at enhancing the competitive position of existing rail-related businesses and creating the synergies that attract private investment in new businesses. The state’s Department of Commerce and Economic Opportunity should assist by carefully assessing the existing industrial base, the total market opportunity, and the potential workforce development needs.

#2 – Consistent and ongoing investments will be required to develop and maintain the infrastructure and networks to realize sustainable economic benefits from intermodal passenger travel and freight movement.

Exclusive reliance on singular opportunities (such as the American Recovery and Reinvestment Act of 2009 and federal transportation bills that are reauthorized every five or more years) is not sufficient to ensure that the state can maintain a world-class transportation system. The state of Illinois, in cooperation with public transportation organizations and city and regional governments, must evaluate alternative recurring revenue streams, such as development fees, user fees, pricing fees or inventive public-private partnership financial mechanisms, to support the development and renewal of the network and its critical assets.

#3 – Well-integrated intermodal passenger and freight mobility across the Midwest has the potential to bring real economic benefits through enhanced business connectivity and increased job opportunities.

Well-connected surface travel modes, specifically rail, transit, auto, bicycling and pedestrian, integrated with state-of-the-art mobile telecommunications, provide a tremendous opportunity to affect economic prosperity through a better connected workforce, a regionally extended business and social activity network, and a reduction in congestion-related friction and cost. In addition to the design and implementation of critical linkages that enable intermodal travel and freight delivery options, the state must enable policies to ensure economic collaboration and competitiveness and to lower the barriers to intermodal connectivity.

#4 – Investments in rail require a regional commitment and regional planning to improve the likelihood of economic returns and job creation.
The development of an interconnected Midwest rail network, well-integrated with other surface transportation modes at the regional and urban levels, provides a historically notable and economically motivated incentive to expand planning boundaries beyond traditional borders to the broader region for economic competitiveness and growth. For example, planning activities must include land use development, housing, sustainability and workforce development, in addition to transportation. The state of Illinois should take the Memorandum of Understanding for “The Implementation of High-Speed Rail Passenger Service and Connections Involving Corridors Linking Cities in Their Respective States,” agreed to among eight Midwest states and the city of Chicago in the Summer of 2009, to a more comprehensive level of cooperation to spur economic competitiveness across the Midwest.
Introduction and Speakers

Illinois Governor Pat Quinn has partnered with the Transportation Center at Northwestern University and the Environmental Law Policy Center to chair a summit titled Beyond Transportation: The Economic Impact of Rail in Illinois on January 15, 2010 in downtown Chicago. As stated Governor Quinn, it is one of his top priorities to develop high-speed rail (HSR) and improve the rail infrastructure in Illinois. The summit invited experts from the federal government, state government, regional planning organizations, policy agencies, universities and industrial partners for a dialogue to move rail policy forward and expand economic development. The recommendations from this summit will be used to create policy and economic development plans around rail investment.

The morning and luncheon speakers highlighted the benefits of the investment in HSR and also emphasized the impacts of HSR on economic growth, especially in the area of job creation. Howard Learner, president and executive director of the Environmental Law & Policy Center, set the tone for the summit. He first enumerated the many potential benefits from HSR development in Illinois, including economic growth, job creation, connectivity, global competitiveness and environmental improvement. Then, Learner described the challenges ahead and charted a course for what needs to be accomplished for HSR in the Midwest. Jack Lavin, chief operating officer of Governor Quinn, stated that investment in 21st century rail infrastructure will create quality jobs in the region and Chicago. Last year through the $31 billion Illinois Jobs Now! plan, funding support was provided for HSR, the CREATE Program, public transportation, and Amtrak in the amounts of $400, $300, $250 and $150 million respectively. According to Lavin, the investment in rail is expected to generate 41,000 jobs across various industries and commercial markets in the first four years. He urged the summit attendees to capitalize on the HSR opportunity, as Illinois risks losing opportunities for jobs and economic growth. As the historic centerpiece of rail and transportation in the United States, Chicago and Illinois should make every effort to remain the hub of progress and activity.

Chicago is a critical hub for several transportation networks, including air travel, freight rail, passenger rail, and intermodal freight. Consistent with this legacy, Secretary Gary Hannig of the Illinois Department of Transportation, outlined a HSR rail network centered on Chicago that connects to major cities in eight states within the Midwest. To achieve this vision, he suggested that the success of the HSR investment requires a partnership and a balance of spending between passenger and freight rail. Hannig also emphasized the environmental benefits of passenger rail, a position shared by Congresswoman Debbie Halvorson in her comments. Congresswoman Halvorson urged Illinois to act as a leader in the HSR effort and the move toward a cleaner and greener transportation system. In closing the morning speaker
session, John Fernandez, Assistant Secretary of Commerce, emphasized the need to consider rail investment as a regional commitment to economic growth and business impact that will require regional collaboration among many stakeholders.

During the luncheon, Governor Quinn highlighted his main objectives for rail investment. These included providing a mechanism to create jobs and stimulate the local economy, improving rail infrastructure for intermodal freight in Illinois, and moving people around more efficiently. U.S. Senator Richard Durbin, who grew up in a railroad family, also shared his support for rail investment in Illinois and throughout the Midwest. Over the summer, Senator Durbin supported Governor Quinn in his successful effort to sign a Memorandum of Understanding on HSR with seven other Midwest states and the city of Chicago to coordinate and document individual applications to the Federal Rail Administration for funding from ARRA. The afternoon session concluded with Federal Railway Administrator Joseph Szabo presenting the national vision for HSR and asserting the importance and the growth of the freight and passenger railroad industry in the United States.

Summary of Panel Discussions

After the morning speakers and keynote address, the summit divided into two break-out rooms to further discuss four topics related to rail investment and economic development. Using a moderated panel discussion format, the four break-out sessions investigated:

- Local Development / Redevelopment / Tourism;
- Manufacturing;
- Connectivity in Global Economy; and
- Innovation and Sustainability.

The panels were guided by leaders from the Northwestern University Transportation Center, the Kellogg School of Management, the Illinois Manufacturing Association and the Center for Neighborhood Technology. The comments of the panelists and the insight provided through the question and answer period for each session are next summarized.

Local Development / Redevelopment / Tourism

As outlined by the panel moderator, Dr. Therese McGuire from the Kellogg School of Management at Northwestern University, this panel addressed the implications of rail investment on local economic development, community revitalization, and the regional tourism business. MarySue Barrett, president of Metropolitan Planning Council, emphasized multimodal applications, such as retouring back for Amtrak use, for freight rail use, and daily passenger use
by Metra. Mayor Chris Koos from the town of Normal highlighted the need to seize upon the opportunity to redevelop land and businesses along the HSR rail line, and particularly at rail station locations. This is consistent with the federal strategy to build sustainable, livable communities that should be developed along the corridors. According to Jan Kostner, deputy director of Illinois Bureau of Tourism DCEO, the tourism business in Illinois has generated on average $13.8 billion worth of revenue per year. Kostner was particularly enthusiastic about the prospect of improving (and marketing) the way that travelers, especially international visitors, could trek throughout Illinois. Steven McCullough, president and CEO of Bethel New Life, a faith-based community organization on the west side of Chicago, focused primarily on the community development. McCullough described the benefits generated by the development of a multiuse facility near a rail station in the community Bethel supports, as an example of how similar development around HSR hubs could benefit his and other communities in the state. According to Gabe Sanders, deputy director of business development of the Illinois Department of Commerce and Economic Opportunity (DCEO), DCEO evaluated the economic impact of rail investment in terms of manufacturing expansion, community redevelopment at rail stops, and infrastructure improvement along the rail corridor. Using several established economic development models, DCEO estimated that at least eleven areas of job creation would benefit in the state. In sum, the panel agreed that investment in rail could help create jobs through both redevelopment in towns with designated stations and the potential influx of rail equipment providers to Illinois.

Three themes emerged from the panelist presentations and the ensuing dialogue among summit attendees:

- HSR is potentially a catalyst for domestic and international tourism.
- A strong HSR corridor will spur development at rail stations/hubs and attract new businesses, such as real estate developers, retailers, hotels, restaurants, etc. It is an opportunity to develop suburban and rural areas.
- HSR provides the opportunity to generate near-term and long-term jobs in the development and operation of rail infrastructure, rail stations, and businesses centered on the stations.

Manufacturing

Contextualizing the regional influence of manufacturing, Greg Baise from Illinois Manufacturer’s Association, illustrated a few statistics on Chicago. As home to the third busiest intermodal container facility in the nation, the seventh busiest maritime traffic port, and the world’s second busiest airport, Chicago presents the best option as the premier rail hub in the Midwest. Although in recent years Illinois has suffered a significant manufacturing decline (over 700 firms closed and 58,000 jobs lost), manufacturing capacity and skill remain a statewide
strength. Chicago remains well positioned to assume the role as the HSR hub of the Midwest, as it does for the national freight rail network.

Other panelists from industry highlighted the sustainable benefits of rail, including fuel efficiency and lower emissions. John Hamilton, president and CEO of Electro Motive Diesel, a producer of freight, passenger, and road-switching locomotives, noted that freight rail is more fuel efficient than freight moved by truck. Frank Mochizuki, president of Nippon Sharyo USA, highlighted the success of passenger rail in the United States and expressed willingness for participating in the revival of passenger rail service. He further mentioned that Nippon Sharyo will consider establishing a new rail car factory in the Chicago area by expanding and transferring its business from Japan if rail development were to begin. Vice President of Marketing and Sales, Jim Wurtz, from National Rail Equipment Company, a provider of new and remanufactured locomotives and wheel services, echoed the emission and fuel consumption benefits of rail. He also championed Illinois as a natural location to build a cluster of rail manufacturing companies. Concluding the session, Steve Goff from Funk Linko, Inc., a minority owned and operated provider of fabricated metal products that serve the rail industry, discussed the history of the company and emphasized its commitment to supplying the manufacturers of low emission locomotives. All agreed that in order for the manufacturing base to be a viable economic engine, there must be adequate levels of demands for these products.

Four themes emerged from the manufacturing discussion:

- Use the national commitment to build HSR to grow the rail industry, both passenger and freight, in Illinois.
- International companies are poised to locate in Illinois and bring foreign investment, product innovation know-how and jobs.
- Rail presents an opportunity to establish a “green” industry – sustainable transportation systems.
- The potential for a strong manufacturing base exists, but requires the demand for products to be adequate.

Connectivity in a Global Economy

Session moderator Dr. Hani Mahmassani, director of the Northwestern University Transportation Center, opened the discussion by proposing that the entire Midwest, its financial centers, educational and research institutions, and business and trade sectors, would benefit from more reliable and efficient intraregional connectivity. Building on this premise, three panelists primarily focused on freight connections, whereas Richard Longworth, senior fellow at the Chicago Council on Global Affairs, focused on passenger travel. Longworth, whose book “Caught in the Middle” examined the decline of the Midwest manufacturing industry, made a
compelling case for building the economic competitiveness of the region by “reducing” the distance between major industrial centers.

The maintenance and improvement of freight connectivity remains a priority for Chicago and Illinois in its role in the global economy. As an example, Francisco Conde, director of special projects & communications at the North America’s Super Corridor Coalition, described a freight corridor that stretches from Canada to Mexico with Chicago and Texas as key connection points. In this “super corridor”, Chicago is the key hub of this north-south trade route, one that will require further investment to enhance reliability of service. Mike Mullen, CEO of Centerpoint Properties, discussed the intermodal facility investments that his company has made in the Chicago area. He noted that intermodal logistics takes advantage of the efficient movement of goods in containers on rail over long distances to logistics parks where they can be transferred to trucks for delivery to local retailers.

Even though Class 1 railroads have invested heavily in rail infrastructure around the country and in Illinois, the state of rail system in the Chicago area remains a constraint to the growth of north-south trade and intermodal freight delivery. The speakers collectively touted investment in rail and complementary infrastructure as a vital component to regional economic prosperity. One example, cited by Michael W. Payette, chairman of Illinois Railroad Association and assistant vice president of government affairs at Union Pacific Railroad, is CREATE, a public-private partnership established to identify freight rail bottlenecks in the Chicago region and secure government funding to match private investments.

Four themes emerged based on the talks and discussions in this session:
• Enhanced intra-region passenger and freight connections are essential to global connectivity.
• A vision of developing North American freight corridors with Chicago as a hub.
• Economic development is a regional issue for Midwest economic and innovation engine.
• Rail provides an alternative for “green” transportation.

Innovation & Sustainability

The Innovation and Sustainability panel, led by Maria Choca from the Center for Neighborhood Technology, primarily addressed the topic of transit oriented development (TOD). TOD, as described by Choca and Doug Farr, is a multipurpose residential or commercial area that is designed to maximize access to public transportation and often incorporate features to encourage transit ridership. By encouraging these dense, efficient developments, residents can save on transportation costs while the public sector benefits from reduced costs to provide transportation, utilities, and emergency services. Choca discussed the logistical and industrial
counterpoint to TOD, cargo-oriented development (COD), wherein business clusters are located near freight transportation assets. As an example of TOD planning, Benet Haller, director of urban design & planning for the city of Chicago, described the Chicago Central Area Action Plan (CAAP), which has a vision “to encourage the implementation of policies and projects essential for the Central Area’s effective functioning, growth and quality of life.” One CAAP recommendation cited by Haller is to integrate transit service with office and retail development in a Chicago west-loop transportation center. The speakers agreed the adoption of new strategies and policies takes time and requires cooperation among many stakeholders, but nevertheless, the use of TOD and COD concepts should be accelerated.

Building on these ideas, the discussion examined how metropolitan TOD concepts could be applied at a regional level. Howard Learner from the Environmental Law and Policy Center further emphasized the importance of an integrated transportation system, with Chicago as a hub. With integration, stated Learner, there is a strong case to be made for the improved quality of life in connected, rural areas. For example, as health care costs increase, and the baby boomers age group are less likely to drive, access to family, friends and medical care will become increasingly important for rural populations, one third of which is over 65 years old. Therese McMillan, deputy administrator of the Federal Transit Administration (FTA), indicated that TOD concepts have consistently been focus area for the FTA. However, she noted that TOD strategies must provide more benefits than infrastructure development around transit stations; it must involve planning for housing and jobs within the corridor of transit routes. Highlighting DOT’s current strategic objectives, McMillan implored that communities must be “livable and sustainable,” therefore development, including transportation-oriented development, must connect people to places they want and need to go with an efficient use of resources.

Two themes stood out in this session:

- Transit Oriented Development (TOD) and Cargo Oriented Development (COD) are useful models for rail network and economic development planning in Illinois.
- An integrated, efficient infrastructure connecting the region would improve quality of life for both urban and rural residents in the Midwest.

Key Findings and Opportunities for Further Development

**Key Finding #1 – Illinois has the necessary elements of a strong rail manufacturing base that is poised for expansion with the renewed demand for rail equipment.**

Illinois remains the hub of freight rail movement in the United States. All Class 1 railroads converge in northern Illinois in and around Chicago. Illinois and surrounding states
possess a significant amount of rail manufacturing know-how. Most of this manufacturing talent currently supports the freight rail business, not the passenger rail business. But if there is an opportunity to rekindle a next-generation passenger rail industry, why not in Illinois?

As previously discussed, two large players in non-high speed rail manufacturing, Electromotive and National Rail Equipment Corporation, are based in Illinois. Nippon Sharyo, whose largest customer in the United States is Metra, has pledged an interest to build a passenger car manufacturing facility in Illinois. The state of Illinois should engage Nippon Sharyo, and other foreign companies such as Siemens, to better investigate incentives to encourage the expansion of business operations in Illinois.

Several other companies with various skill sets form the basis of a regional industry cluster. These include Progress Rail, Amsted Industries, and Wi-Tronix in Illinois, for example, and SuperSteel in Milwaukee, Wisconsin. Although none of these companies have direct experience in HSR, they do provide a cluster of manufacturing and design talent that could be leveraged. Furthermore, Illinois and surrounding states provide strong information technology, manufacturing, and financing capabilities that are required to support complex design and production industries.

Illinois must invest to maintain its strong educational foundation in transportation (rail) engineering, economics, and management. Illinois is also home to one of the last, if not the last, rail engineering programs in the country at the University of Illinois at Urbana-Champaign. At Northwestern University, the Transportation Center maintains strong connections to the rail industry via rail carriers, financial institutions, management consultants, technology providers, and the American Association of Railroads through its Business Advisory Committee (BAC). For example, one BAC member from IBM was recently assigned to the IBM Global Innovation Center in China, where “smart rail” is a key initiative. These educational programs, along with others and the research strengths of Argonne National Laboratory, must be nurtured to generate a skilled workforce for the rail industry.

Recommendations:
1. Since skilled and unskilled labor is needed to support industry growth in freight and passenger rail, attention must be given to encourage and train students to pursue an education in the rail industry.
2. Explore USDOT funding mechanisms to support the next generation of rail education, both at the university and community college level.
3. Conduct an industry analysis to understand the scope and scale of the existing rail manufacturing base in Illinois, the Midwest and beyond.
4. Conduct a study to understand the magnitude of the potential market opportunity. Is it large enough to warrant state of Illinois investment and to produce real job growth?

**Key Finding #2** – *Consistent and ongoing investments will be required to develop and maintain the infrastructure and networks to realize sustainable economic benefits from intermodal passenger travel and freight movement.*

If it is desirable for intermodal passenger travel to emerge as a long-term option for travelers in the Midwest, then new mechanisms and approaches to transportation funding must be explored and implemented. Illinois and its Midwest partners should not rely only on routine sources of funding from the federal government. The investment impact provided through the American Recovery and Reinvestment Act of 2009 was an unexpected opportunity that grew out of a time of crisis. Furthermore, reliance on federal funding through surface transportation reauthorization bills every five to eight is not sufficient for steady planning.

**Recommendations:**
1. Consider transit-oriented development fees, passenger fees and local government financial participation to support regional rail and intermodal transportation planning activities.
2. Evaluate successful models of public-private-partnership financing strategies to develop and maintain rail and intermodal transportation infrastructure and network construction and maintenance.

**Key Finding #3** – *Well-integrated intermodal passenger travel across the Midwest has the potential to bring real economic benefits through enhanced business connectivity and increased job opportunities.*

The reinvention of intermodal travel in Illinois and Midwest provides several potential benefits. At the core, infrastructure revitalization that benefits passenger rail also benefits freight rail, and stimulates near and long-term job creation. Rebuilding grade crossings, creating new sidings, and ultimately double tracking for true HSR will demand numerous construction jobs for years to come.

It is strategically important for the global economic competitiveness of the Midwest to integrate HSR with efficient and reliable intermodal transportation to major international airports in Chicago, Detroit, and Minneapolis, for example. This action may draw an increasing number of international tourists and provide incentives for international business locations (e.g., Nippon Sharyo), particularly in Chicago.
There is also great potential benefit of reinvented intermodal travel to improve domestic social and business connectivity. The Midwest, when considered collectively, is home to substantial industrial clusters of economic activity, such as pharmaceuticals. An alternative mode of efficient and reliable transportation, such as HSR, can foster improved mobility of workers, industrial collaboration and knowledge sharing. Chicago is well positioned to be the hub of this growth engine.

Other social benefits of intermodal travel, intermodal freight, and freight rail must also be considered. There is a significant opportunity cost of congestion, including lost wages, reduction of business profits and unwanted CO2 emissions from idling vehicles, both passenger and freight. Improved intermodal connectivity options and network planning can mitigate growing congestion. Outside the major cities, another opportunity exists to rethink the travel connections in smaller urban communities such as Normal and Springfield, Illinois.

Recommendations:
1. Investigate economic clusters in the Midwest that could benefit from improved worker mobility.
2. Uninterrupted intermodal travel will require common fare collection systems, or at least technology strategies to make fare collection transparent even among different systems. For example, IPASS is honored nationally through a multi-party inter-governmental agreement.
3. Cooperation and planning among passenger rail and freight rail operators, systems users and customers, and local and regional government is essential.

Key Finding #4 – Investments in rail, including HSR, require a regional commitment and regional planning to improve the likelihood of economic returns and job creation.

Illinois is not alone in the rail business. The federal government has invested in a Midwest rail system. Accordingly, Illinois should think, plan and act locally and regionally. Various planning activities and actions, for example, should avoid zero sum job creation strategies among states.

Investment in intermodal connections at rail hubs is necessary to build value in HSR investments. Appropriate investment requires planning. However, not one plan fits every location. Planning activities must be flexible and relevant to the local situation.

Several planning organizations and advocacy groups such as the Metropolitan Planning Council, the Center for Neighborhood Technology, and the Environmental Policy and Law
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Center – to name a few – have been at the forefront of these discussions. Topics covered have included, but have not been limited to, land use planning, transit-oriented development, sustainable development and housing development. These transportation planning activities should be considered in concert with economic development planning, including workforce development, manufacturing capacity, and technology and innovation based development.

The Illinois Department of Commerce and Economic Opportunity must connect the dots among rail investment, economic development, and job creation.

Recommendations:
1. Engage the communities at designated HSR stops to determine what constitutes economic prosperity and livable communities (e.g., transit-oriented development).
2. Avoid an Illinois-centric mentality and embrace Midwest state partners to understand regional economic opportunities and industry and innovation strengths.
3. Explore the creation of Midwest equivalent to the Southern Policies Growth Board to coordinate regional economic policies and goals.

The Way Forward

The summit clearly brought out the strong inter-relation between economic development and the kind of inter-city and intra-regional mobility afforded through high speed rail. To achieve the vision put forward at the summit, several activities need to be taking place, including: (1) comprehensive planning that takes a mega-regional perspective; (2) long-term view of the joint development of economic activity and supporting transportation infrastructure and services for both passengers and freight; (3) systematic design of the specific sections, stations, services and schedules to maximize attainment of the economic development impact; (4) provision of financing mechanisms that ensure predictable revenue streams to allow for completion of a meaningful network of services and continue operation and maintenance of the resulting system—exclusive reliance on federal funds or special appropriations will not create the stability and predictability necessary to achieve the desired benefits; and (5) investment in educating the cadre of professionals needed to plan, design, operate and maintain the new HSR and existing freight rail networks and services, and training the large pool of skilled labor required for its operation. In all of these, the engagement of stakeholders and support of the public is essential. Additional efforts targeted in that direction, especially with regard to understanding the public’s expectations for these services and communicating the value of investment to the public, would go a long way towards accomplishing these goals and achieving sustainable economic growth.