

# Executive Summary

## Report Purpose

*The Northeast Corridor and the American Economy* responds to a Congressional mandate established in the Passenger Rail Investment and Improvement Act of 2008, commonly referred to as PRIIA, which calls upon the Northeast Corridor Infrastructure and Operations Advisory Commission (the NEC Commission) to submit a report to Congress on the role of the NEC in supporting economic activity and opportunities for the NEC to enhance economic development.

## The Northeast Corridor Rail Network

The Northeast Corridor (NEC) rail network between Washington, D.C. and Boston, Massachusetts is an engine of economic activity for the United States in the delivery of workers to jobs, businesses to clients, goods to market, and people to their friends, family, and leisure activities. Its commuter rail and Amtrak intercity services move 750,000 people each day. Daily NEC users contribute more than \$50 billion annually to the national economy.

The NEC is a shared resource, used by eight commuter rail operators, Amtrak, and four freight railroads. It connects eight states and the District of Columbia, but its impacts extend across the country. An unexpected loss of the NEC for one day alone could cost the nation nearly \$100 million in transportation-related impacts and productivity losses, roughly the daily economic output of cities like Winston-Salem, North Carolina, Portland, Maine, or Boulder, Colorado.

## The Northeast Corridor Region and Economy

The NEC Region is home to more than 51 million people and four of the ten largest metropolitan areas in the country. The NEC connects interdependent markets that collectively are a national and global force. Its economy is the fifth largest in the world, ahead of France and just behind Germany. The NEC Region is an international center for education, healthcare, technology, media, and finance, all industries widely expected to fuel economic growth in the 21st century. Research in this report finds that the NEC contributes to the productivity and livability of the Region in ways that increase the nation's global competitiveness.

**\$3 trillion**

Annual economic output of the NEC Region - larger than the GDP of France

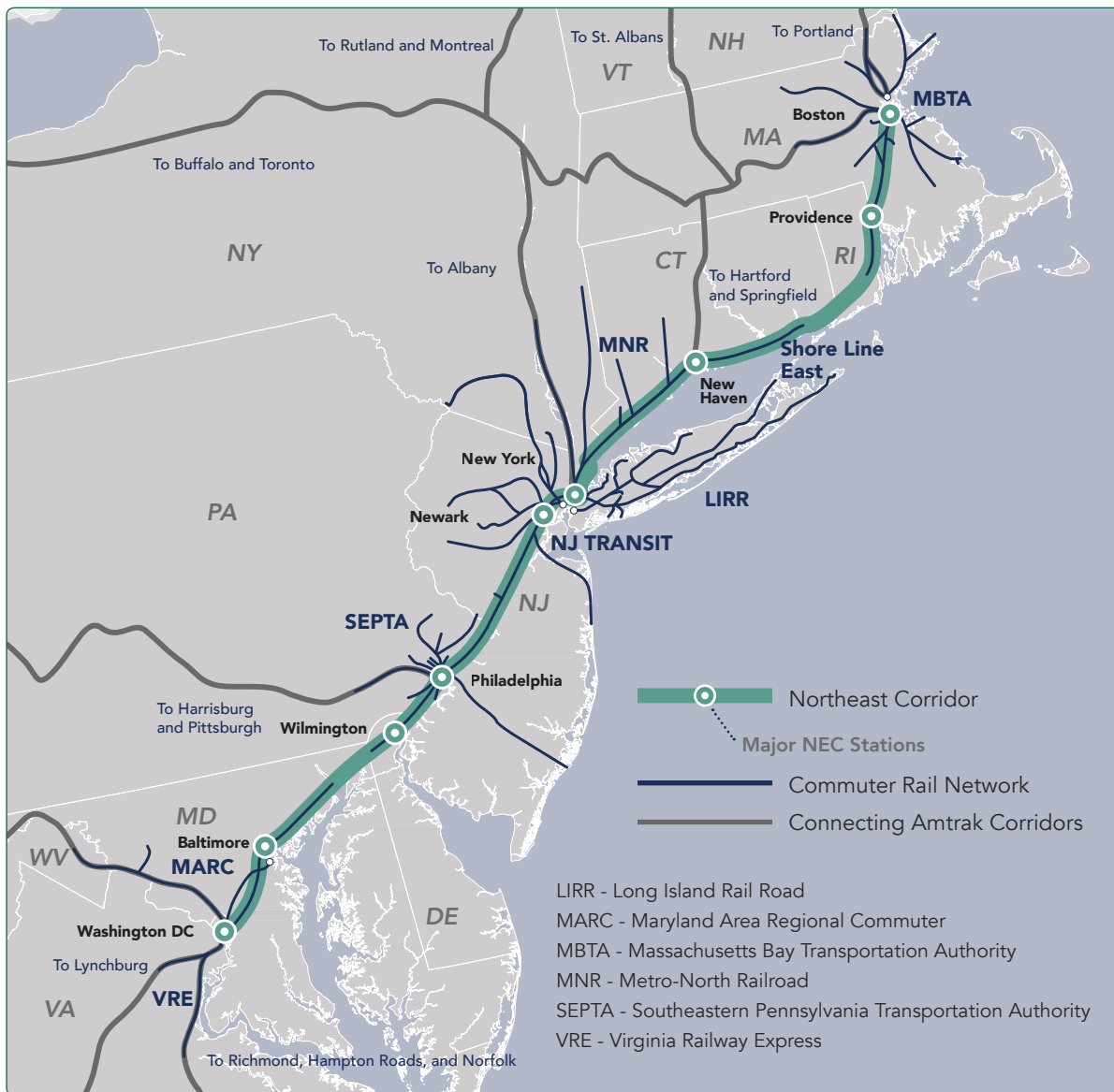
**\$50 billion**

Annual contribution of daily NEC users to the country's GDP

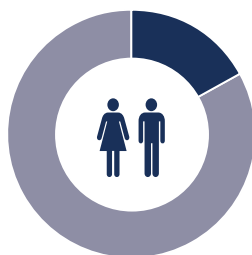
**\$100 million**

Potential impact on the U.S. economy in the event of a one-day unexpected loss of the NEC

## Northeast Corridor Rail Network



U.S. Population



Source: U.S. Census Bureau, 2010

U.S. GDP



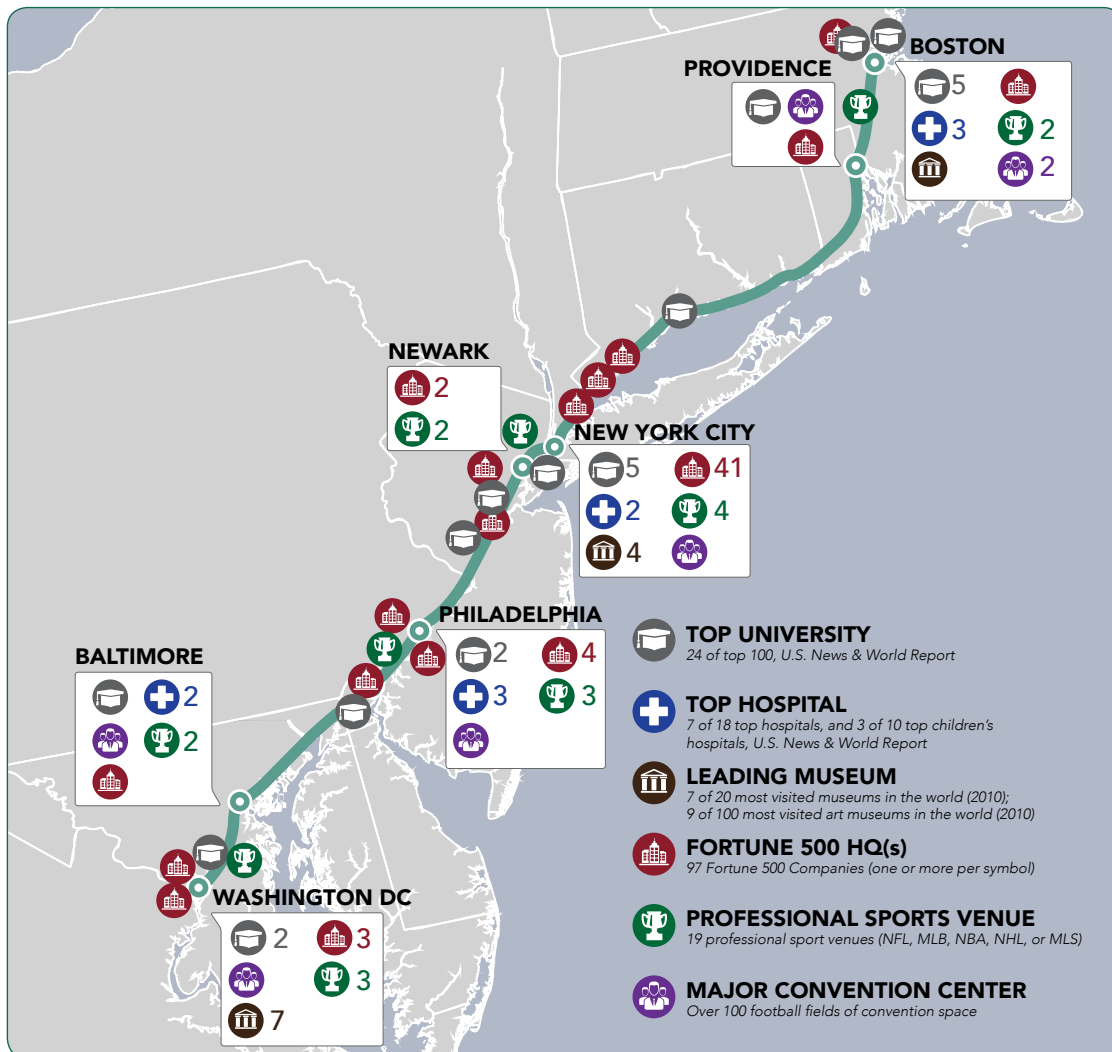
Source: Bureau of Economic Analysis, 2010

U.S. Land Area



Source: U.S. Geological Survey

## Economic and Cultural Resources Along the NEC



**1 out of 3**

Jobs in the NEC Region are within 5 miles of an NEC station



**Over 100 million square feet of development**

Within walking distance of the 10 largest NEC stations, equal to 50 Empire State Buildings

## The Northeast Corridor – An Engine of Economic Activity

Seven million jobs are within five miles of an NEC station, about a third of all jobs in the NEC Region. The NEC expands the number of communities within reasonable commuting distance of these job centers with rail service that is often faster and more reliable over longer distances than automobile. Increased job accessibility helps businesses by growing their pool of talented workers. Increased job accessibility also allows families to choose from more communities in terms of affordability and lifestyle preferences, while maintaining access to the jobs, educational institutions, cultural attractions, and major event centers in the NEC Region's core cities.

Amtrak intercity service plays a central role in traditional business and leisure travel, but also supports job accessibility in an era when more employers are becoming supportive of arrangements that combine travel with remote work, especially in the case of dual-career households.

In addition to supporting \$50 billion in annual U.S. productivity, the NEC's impact on the American economy is felt in the national aviation system. Though more than half of flight delays nationwide originate at New York and Philadelphia area airports, Amtrak relieves this pressure by carrying more passengers for trips within the NEC Region than all airlines combined. The NEC also connects the national freight rail network to east coast ports, thereby connecting manufacturing plants in states like Illinois, Indiana, Iowa, Kansas, Michigan, Nebraska, and North Dakota to international customers.



**6 of the 10**

top U.S. universities are located along the NEC



**10 of the 28**

top U.S. adult and children's hospitals are located along the NEC



**20 percent**

of U.S. patents granted since 2000; more than Silicon Valley



**1 out of 3**

Fortune 100 headquarters are in the NEC Region



**6 of the 10**

largest financial institutions in the world are based in New York



**31 percent**

of U.S. venture capital deals in 2012; equal to Silicon Valley

## Shaping Business Decisions and Driving Investment

Outreach to business and civic leaders throughout the NEC Region reveals that the NEC is a driver of business decision-making and investment. The following stories represent a sampling of the case studies presented in this report.



**4,000**

New jobs since 2010 at more than 200 small businesses located in the **Boston Innovation District** adjacent to Boston South Station, most in the fields of technology, life sciences, design, and green energy (page 41).

**1.7 million square feet**

Mixed-use development on former rail yards adjacent to Providence Station after the NEC's right-of-way was relocated in the 1980s as part of a larger successful downtown redevelopment strategy (page 44).



**\$200 million**

**Panasonic's** real estate investment, bringing 1,000 jobs to downtown Newark, New Jersey, designed to attract talented young employees with a two-minute walk to Newark Penn Station (page 54).

**6.5 million square feet**

Mixed-use development planned for **Drexel University's** Innovation Neighborhood at Philadelphia's 30th Street Station, building on nearly \$1 billion in recent station-area construction (page 38).



**\$450 million**

**PBF Energy's** reinvestment in an aging oil refinery in Delaware City, Delaware, including a \$52 million rail unloading facility linked to the NEC to process Midwestern crude oil (page 28).



## Connecting Smaller Cities to Major Markets

NEC access is a contributing factor in business and job location decisions in Wilmington, Delaware so that employees in the New York and Washington metropolitan areas can travel to oversee operations and meet with colleagues (see page 19 for examples offered by **JP Morgan Chase**, **Capital One**, and other financial institutions).



## Driving Location Decisions

Start-up technology and biotechnology firms, like **SeeClickFix** and **Trevi Therapeutics**, included NEC access to major investors in New York and Boston in their decisions to locate in New Haven, Connecticut (page 43).



## Impacting How Firms Do Business

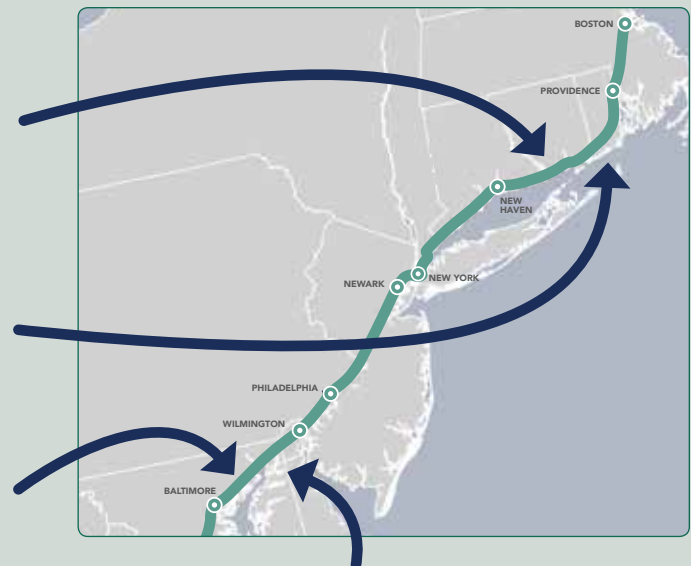
Regional offices of national companies, like **KPMG** in Baltimore (page 20), are changing the way they manage human resources across large geographies to maximize talent utilization aided by the mobility provided by the NEC.

## Linking Suppliers, Manufacturers, Shippers, and Customers

The NEC helps to remove trucks from congested highways. **Tilcon Connecticut** moves crushed stone and other construction materials on the NEC between quarries and customers, transporting the equivalent of 35,000 truck loads each year (page 24).

The NEC is the only connection between seaports in Providence, Davisville, New London, and New Haven and the national freight rail network (page 47).

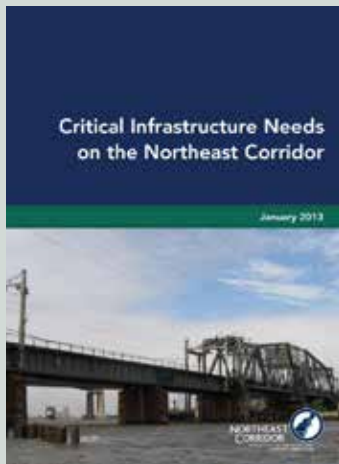
Manufacturing workers in the American Midwest working for companies like **Ford**, **John Deere**, **Mitsubishi**, and **Caterpillar** depend on the NEC when their products ship through the Port of Baltimore, where thousands more workers are employed in preparing and loading goods headed for the global marketplace (pages 25 and 48).



The NEC is the only direct connection between the Delmarva Peninsula, with thousands of agricultural, chemical, and energy industry jobs, and the national freight rail network (page 27).

## What Might the Future Hold?

The economic activity described in this report relies on infrastructure largely built generations ago. The Commission released a report in January 2013 entitled *Critical Infrastructure Needs on the Northeast Corridor* (CIN) that explained the most pressing infrastructure challenges that threaten service, many of which have caused disruptions in the last year alone.



### A Small Sampling of Recent Infrastructure Failures

- During the evening rush hour on Monday, June 17, 2013, two cars of a Long Island Rail Road train suffered a minor derailment in the East River Tunnels (CIN, page 47).
- On September 5, 2013, the New Haven Line's power supply system (CIN, page 55) suffered a failure that severed normal service between Connecticut and New York for 12 days. Over 60,000 daily NEC riders were affected by the outage, but impacts also spread to the highway network. The Connecticut Department of Economic and Community Development estimated that the State's economy lost at least \$60 million due to the disruption.
- On October 27, 2013, the Pelham Bay Bridge (CIN, page 48) halted Amtrak service between New York City and Boston when it became lodged in the open position.

Service disruptions have economic consequences. Analysis in this report, derived from reported impacts of Superstorm Sandy, finds that an unexpected loss of the NEC for just a single day could cost the country up to \$100 million in additional highway use and lost productivity. This report also analyzes potential highway and aviation system-related impacts of two future NEC service levels. These scenarios demonstrate how the NEC contributes to the performance of the overall transportation system, but do not capture the potential for increased productivity in the overall economy that could result from improved NEC service.

### **\$1.2 billion lost**

per year by 2025 in potential additional costs for the highway and aviation systems if the NEC is unable to accommodate future growth

### **\$8.2 billion gained**

per year by 2040 in potential savings for the highway and aviation systems with long-term sustained investment in the NEC

## End Note

This report illustrates the value of the NEC rail network to the NEC Region and the nation. It is the hope of the Commission that the information provided in this report is helpful to Congress and other stakeholders in understanding the many facets of the NEC's role in the American economy and can inform future investment decisions.