



Economic Development Workshops – Summary

July 2015



U.S. Department
of Transportation

**Federal Railroad
Administration**

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1. Introduction

NEC FUTURE is a comprehensive planning study being led by the Federal Railroad Administration (FRA) to define, evaluate, and prioritize future investments in the Northeast Corridor (NEC). The NEC is defined as the existing rail transportation spine of the Northeast region, which is anchored by Washington Union Station in the south, Penn Station New York in the center, and Boston South Station in the north. As the rail transportation spine of the Northeast region, the NEC is a key component of the region's transportation system and vital to its economy. A Tier 1 Environmental Impact Statement (EIS) is being prepared as part of the NEC FUTURE program.

1. NEC FUTURE Background

First established 150 years ago, the existing NEC is inadequate to meet the region's current and future needs. By 2040, continued population and employment growth in the Northeast is expected to create increasing demand for travel options across the passenger transportation system—rail, air, highway, transit, and intercity bus. And yet today, the aging infrastructure and capacity limitations of the NEC already result in congestion and delays for daily commuters and for regional and intercity travelers. Forecast growth in population and employment in the Northeast will put increasing pressures on this already constrained NEC rail network. These trends—along with changes in technology, business practices and lifestyles—will continue to influence future travel needs and signify opportunities for new types of service on the NEC and its connecting corridors.¹

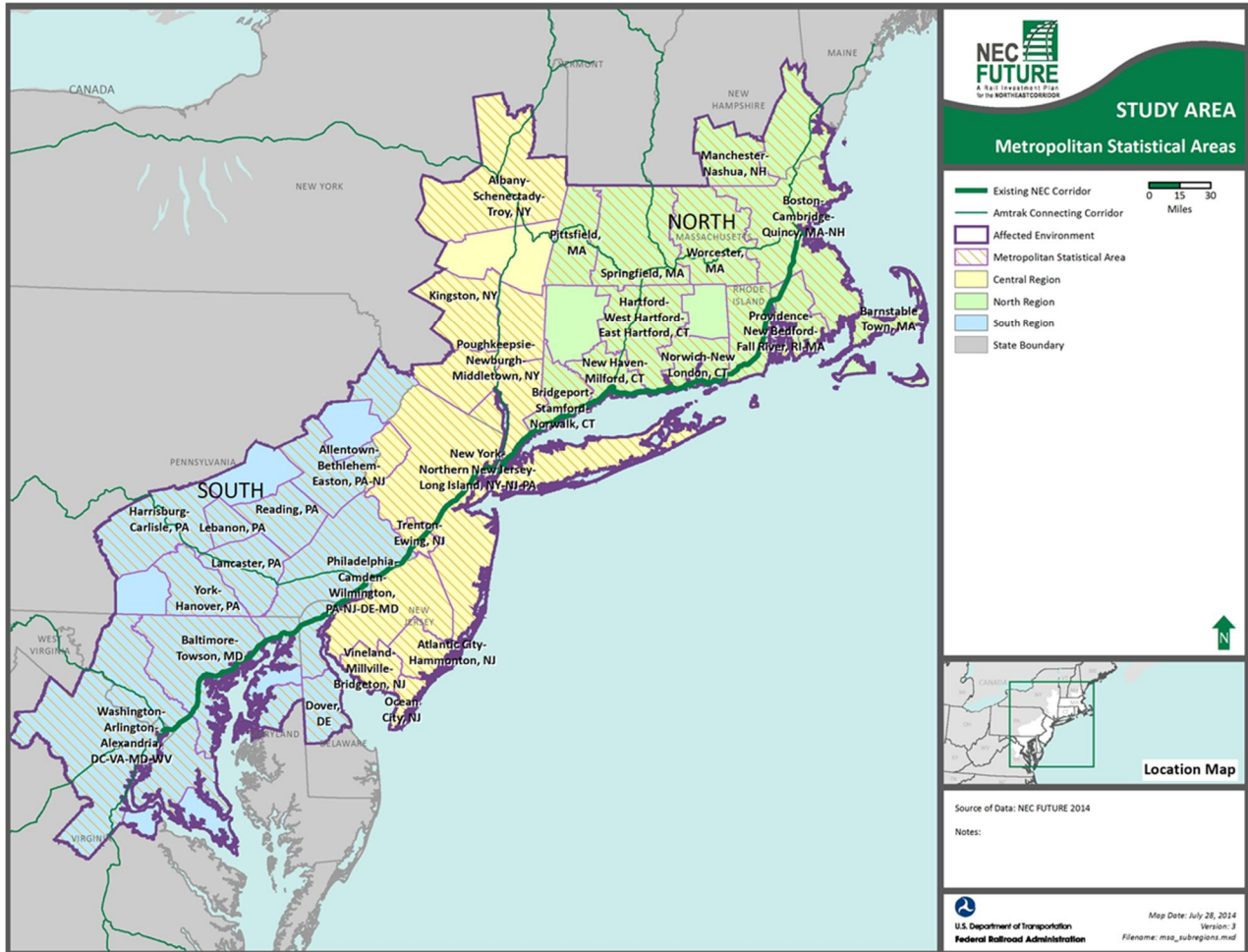
NEC FUTURE is defining a long-term vision to improve passenger rail service on the NEC in a manner that will enhance mobility options and expand passenger rail service in support of future population and employment growth in the NEC FUTURE Study Area. The Study Area extends from the Washington, D.C., metropolitan area to the Boston, MA metropolitan area (Figure 1). The purpose of the NEC FUTURE program is to upgrade aging infrastructure and to improve the reliability, capacity, connectivity, performance, and resiliency of future passenger rail service on the NEC for both intercity and regional trips, while promoting environmental sustainability and economic growth.

A National Environmental Policy Act (NEPA) Tier 1 EIS is being prepared for the NEC FUTURE program. The Tier 1 EIS will examine, at a broad programmatic level, environmental, socioeconomic, and transportation impacts of a range of Tier 1 EIS Action Alternatives, each comprising a different long-term vision for the NEC. Impacts will be compared against a No Action Alternative, and assessed assuming full implementation and build-out of an alternative by 2040. For the purposes of the Tier 1 EIS analysis, the FRA is considering 2040 as the analysis year. However, investments proposed in the NEC FUTURE program are likely to include infrastructure improvements expected to last well beyond 2040 and into the

¹ Those travel corridors that connect directly to a station on the NEC. These include (1) corridor service south of Washington Union Station to markets in Virginia and North Carolina including Lynchburg, Richmond, Newport News, Norfolk, and Charlotte; (2) Keystone Corridor (connects Pittsburgh and Harrisburg to Philadelphia 30th Street Station); (3) Empire (serves the major cities of Niagara Falls, Buffalo, Rochester, Syracuse, and Albany with connections to Penn Station New York); and (4) New Haven-Hartford-Springfield (to New Haven Union Station).

next century. Therefore, the FRA is considering future needs of the NEC beyond 2040 in the development and analysis of alternatives.

Figure 1: North, Central and South Sub-Regions of the Affected Environment



Source: NEC FUTURE team, 2015

A No Action Alternative and three Action Alternatives have been developed for evaluation in the Tier 1 Draft EIS:

- ▶ The No Action Alternative represents the condition of the Northeast region's multi-modal transportation system in 2040 without the NEC FUTURE investment program. It serves as a baseline for comparison with the three Action Alternatives. The No Action Alternative includes improvements to the rail system that are currently planned and programmed, as well as planned highway and airport upgrades. It includes a modest proportion of the significant backlog of work associated with bringing the NEC to a state of good repair. Under the No Action Alternative, NEC rail services do not keep pace with the region's growth, and as a result, service quality is likely to decline.
- ▶ Alternative 1 maintains the role of rail as it is today, with sufficient service levels to keep pace with the significant growth projected in the region's population, employment, and travel demand. This alternative

expands capacity, adds tracks, and relieves key chokepoints, particularly through northern New Jersey, New York, and Connecticut.

- ▶ Alternative 2 grows the role of rail to accommodate a greater proportion of Northeast travelers as population and employment increase. South of New Haven, CT, service and infrastructure improvements are focused generally within the existing NEC, while north of New Haven, a new supplemental, two-track route is added between New Haven and Hartford, CT, and Providence, RI. Alternative 2 serves new markets, reduces trip times, and addresses capacity constraints to support a very significant growth in rail traffic. The existing NEC expands to four tracks, with six tracks through portions of New Jersey and southwestern Connecticut.
- ▶ Alternative 3 transforms the role of rail in the Northeast, positioning it as a dominant mode for travel in the region. In addition to upgrading the existing NEC, Alternative 3 includes a new two-track second spine that supports high-performance rail services between major markets, provides significant reduction in travel time, and provides additional system capacity. South of New York, the second spine closely parallels the existing NEC, while adding new stations in downtown Baltimore, MD, downtown Philadelphia, PA, and at Philadelphia International Airport. Between New York and Boston, several route options are being analyzed.

Each Action Alternative improves service on the existing NEC, achieves a state of good repair, and expands the range of service offerings on the NEC. Each also protects freight rail access and the opportunity for future freight expansion.

The FRA will identify a Preferred Alternative in the Tier 1 EIS Record of Decision (ROD). Following the issuance of the ROD, the FRA will prepare a Service Development Plan (SDP). The SDP will describe a phased implementation plan that details operational, network, and financial aspects of the Preferred Alternative.

1.1 ECONOMIC EFFECT COMPONENT OF THE TIER 1 EIS

The economic effects assessment compares the potential economic effects of each of the Tier 1 EIS Action Alternatives within the NEC FUTURE Study Area (Figure 1). The Tier 1 EIS Alternatives would generate near-term economic effects during the NEC FUTURE program's construction period and initial periods of operation. Longer-term economic effects could include a market response to improved and new rail services.

Certain key factors that affect station-area development, broader economic development, and barriers to development can be more qualitative or uncertain than the models in the economic effects assessment can represent. To better understand these factors, the FRA conducted a series of workshops in locations that represent major urban economies along the NEC.

2. Role of Workshops in Evaluating the Alternatives

2.1 PURPOSE

The purpose of the economic development workshops was to supplement the data-driven portion of the economic effects assessment with expert opinion on the probable market response to the new passenger rail services offered under these alternatives. The collective conversation among experts knowledgeable about real estate and broader economic development forces within the Study Area complements the assessment of near- and long-term economic development effects. Through a facilitated discussion, the participants shared their professional experience to appraise whether the range of Tier 1 EIS Alternatives would:

- ▶ Affect land values near existing or proposed stations
- ▶ Attract private development near existing or proposed stations
- ▶ Alter the pattern of development among the various metropolitan areas within each of the three sub-regions (South, Central, and North) (see Figure 1)
- ▶ Change the potential for, and possible locations of, land premium (value changes) outside of station areas
- ▶ Alter the type and density of development in station areas as trip times are reduced
- ▶ Create the potential for agglomeration economies within or between the urban nodes along the corridor (e.g., Philadelphia and New York City)
- ▶ Impact the economies along the corridor in ways not identified above

2.2 OUTCOMES

Collectively, the stakeholders' views and the data analysis provided a basis for understanding the potential for Tier 1 EIS Alternatives to alter land values as well as development levels and patterns within the Study Area, with a primary focus on metropolitan areas and those neighborhoods where stations are anticipated to be located. The outcome of the Economic Development Workshops is a qualitative description of the potential for development changes under the various Tier 1 EIS Alternatives in terms of volume and mix, an approximate sense of the timing of such effects and related investments, and actions that may also be needed for these changes to be realized.

2.3 EXPERT OPINION TO SUPPLEMENT DATA ANALYSIS

The economic effects assessment of Tier 1 EIS Alternatives is based on published data such as historical statistics on the Study Area economy, economic forecasts developed by Moody's Analytics, and information developed by the project team on the performance of each alternative. Information gathered from knowledgeable experts will supplement quantifiable data, particularly where the nature and location of the alternatives have the potential to change existing economic relationships. This additional step is undertaken because economic models, by their nature, extrapolate existing economic relationships into the future to predict outcomes. When there is the potential to restructure economic relationships, as there is with the

introduction of some features of the Action Alternatives, economic models are less reliable. In these cases, the views of knowledgeable experts are a good check on where and how the models might miss important features of the analysis.²

3. Workshop Process

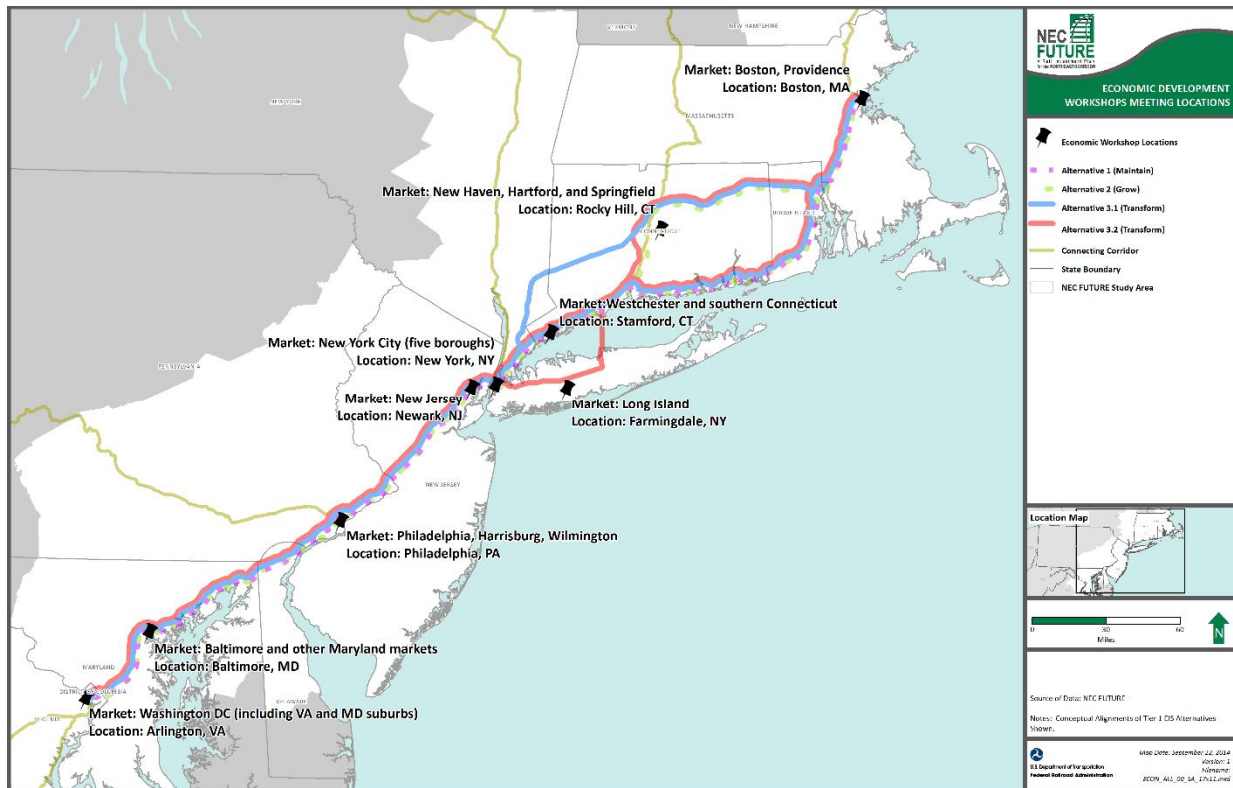
To understand the key factors that affect station-area development, broader economic development, and barriers to development, the FRA conducted a series of workshops in locations that represent major urban economies along the NEC. Figure 2 shows the urban economies and the locations of the workshop, which include the following:

- ▶ Washington, D.C., and suburban Maryland and Virginia (Arlington, VA)
- ▶ Baltimore and other Maryland markets (Baltimore, MD)
- ▶ Philadelphia and Harrisburg, PA, and Wilmington, DE (Philadelphia, PA)
- ▶ New Jersey (Newark, NJ)
- ▶ New York City (five boroughs) (New York City, NY)
- ▶ Long Island (Farmingdale, NY)
- ▶ Westchester, NY, and Southern Connecticut (Stamford, CT)
- ▶ New Haven and Hartford, CT, Springfield, MA (Rocky Hill, CT)
- ▶ Boston, MA, and Providence, RI (Boston, MA)

The FRA invited various stakeholders to each workshop to gather information that will help differentiate between the potential for economic development within and between markets along the NEC for each Alternative. The workshops provided participants with an overview of the NEC FUTURE program No Action and Action Alternatives. Stakeholders provided valuable insights and information for their respective markets.

² This is an established and proven technique for assessing future outcomes when structural changes to the economy are anticipated. A retrospective assessment of forecasts of the telephone's impact on the economy found that the best projections of the technology's adoption and impact on economic activity were made by people involved in the industry, who understood how to operate the technology as well as how to implement it in a way that would generate revenues. (Pool, Ithiel de Sola. 1983. *Forecasting the Telephone: A Retrospective Technology Assessment*. New Jersey: Ablex Publishing Corporation.) The introduction of high-speed rail service or a significant diversification of rail services are large market changes similar in scope to the technological introductions and gradual adoption of the telephone.

Figure 2: Economic Development Workshops Meeting Locations



Source: NEC FUTURE team, 2015

Note: Route options shown in map have been updated since the time of the workshops.

3.1 STAKEHOLDERS

The FRA conducted nine workshops to obtain information from a variety of key stakeholders, ranging from private developers to academicians (Figure 2). Grouping the workshops by markets allowed information about the NEC FUTURE program to be presented to all stakeholders while tailoring each workshop to the unique characteristics that affect each market. In addition, this also allowed for a comparison across markets to better understand both the differences and similarities between markets. The nine workshops had attendees representing the following stakeholder groups:

- ▶ **Private Developers:** These attendees focused on factors that both drive and hinder property investment, as well as the role that rail connectivity and availability plays in supporting economic development and driving their investment and development decision-making process.
- ▶ **Local Planners/Economic Developers:** These attendees shared what aspects of passenger rail are most important to economic development, what other factors drive economic development, how existing/lack of rail infrastructure and connectivity to other markets constrains regional development, and what transit-based factors hinder businesses and/or people from locating in that specific area.
- ▶ **Academic Institutions:** Representatives from academic institutions included both faculty members and administrative officials. Attendees from academic institutions focused on their relationships with

corporations, the importance of connectivity between institutions, and the importance of connectivity to the local urban market for the institution.

- Faculty, Researchers, and Transportation Experts provided insights and expertise in transportation’s relationship with regional economies.
- Administrative Officials described their institution’s perspective on passenger rail as a major employer/landowner in the community. Universities’ decisions concerning development can strongly affect the economy in the surrounding neighborhoods and they can be important partners in station-area development.

4. Synopsis of Workshop Discussions

The following major questions, focused on market-specific potential, were explored in each workshop:

- ▶ The potential for localized station-area development
- ▶ The potential for agglomeration/productivity impacts
- ▶ Labor market effects

Individual workshops varied in the energy devoted and perceived relevance of the three topics to the local market. At times, the conversation discussed one or more topics in tandem—for example how anticipated labor market effects might impact the character of station-area development. This section provides a summary overview of the collective opinion on the three major topics, noting commonalities and differences across the markets.

4.1 FINDINGS AND INSIGHTS

4.1.1 STATION-AREA DEVELOPMENT

Workshop participants uniformly agreed that while rail service was an important contributor to economic development, many other factors need to be in place to have a full “development package.” The most commonly noted economic development factors included the presence of good schools, low crime rates, availability of land, ability to assemble parcels, willing institutional and local government partners, the presence of transit services (preferably a variety of modes), appropriate zoning that permits sufficient density for developers to build, utilities, and supporting infrastructure such as sidewalks and parking.

Participants similarly agreed on the ability of rail service to accelerate and shape development. While developers indicated that they respond to existing infrastructure and/or infrastructure under construction rather than future plans for infrastructure or service, there was agreement that improved rail access and connectivity, particularly in new markets, could accelerate development once in operation and sometimes even before operation when the commitment to the project is announced.

Participants from Wilmington shared a Market-Ready (Re)Development Assessment Tool developed for Delaware local governments. The tool includes the following indicators of whether a community is prepared to advance strategic development, as in station-area development:

- ▶ Sufficient public involvement to establish a clear vision for growth and development
- ▶ Sufficient plans to build on the foundation of its Comprehensive Plan
- ▶ A sound and market-responsive regulatory environment
- ▶ Business-friendly and streamlined processes, an inventory of high-priority market-ready (re)development sites
- ▶ Programs that market local assets and incentivize business attraction³

Rail service pricing was considered an important factor in station-area development. Having a range of service options at different prices was viewed as important for spurring mixed-use development near stations. The pricing of the service determines who uses it and how it is used, which in turn influences the types of projects developers select for the site. The higher-cost premium services more likely serve a business travel market, while the mid-range and lower-cost options attract a broader spectrum of the market and encourage more frequent use.

4.1.2 AGGLOMERATION

In considering economic effects of the three Action Alternatives, one of the largest questions is whether the cumulative changes in travel times and patterns of connectivity could change the way the individual metropolitan economies relate to one another. For example, do the changes in market access reinforce the dominance of the New York market, or by contrast, do the smaller cities benefit to a greater extent and close some of the gap with New York? Strikingly, the participants at each workshop along the NEC selected New York as the most important market for greater rail service connectivity—even when other major markets were physically closer to them. New York City itself sought better mobility within its own economy; participants did not identify the need for greater rail capacity to connect to other major NEC markets except for areas surrounding New York that could supply labor. This suggests that the corridor will remain a New York-centric economy even as smaller individual markets become more integrated over time.

Participants in the Stamford, CT, Long Island, NY, and Newark, NJ, workshops developed the concept of a “City Region User.” This is a traveler with the ability to utilize a greater range of amenities within a single metropolitan region such as New York because of enhanced metro region mobility. The key difference is a shift from core-periphery linkages within the New York metropolitan economy to one that has travelers bypassing the core as a destination and traveling directly between secondary activity centers such as Stamford, CT, to Newark, NJ. The intuition behind this idea is similar to business agglomeration. Businesses gain productivity in large, dense economies because they have access to greater diversity of specialized skilled labor, information, and new innovations. The City Region User is a household that has access to a greater range of employment, shopping, entertainment, and recreational options from the residential location. Greater mobility allows the City Region User to expand his range of activities in the local economy—making the region more attractive for households and supporting local consumption and associated economic activity.

This idea was introduced by participants in the Stamford, CT, workshop. Participants in the subsequent Long Island, NY, and Newark, NJ, workshops were asked about the concept and found it interesting and

³ Cited from University of Delaware memorandum titled “Delaware Local Government Market-Ready (re)Development Assessment Tool.”

shared the perspective of the Stamford participants that the ability to more readily “crisscross” the region would benefit them and change where they work, shop, and play. While it was not discussed directly in the New York workshop, the New York participants’ discussion focused on types of trips within the region (to the airport and evolving commuting patterns for example) as well as how to capture a larger share of the surrounding labor shed—ideas consistent with the internal focus⁴ of the City Region User as it pertains to greater rail accessibility. Outside of the region’s ability to attract workers from the surrounding areas, participants in the New York workshop did not mention the need for better connections to other major NEC markets.

4.1.3 LABOR MARKET EFFECT

Participants in the individual markets varied in their assessment of whether and how enhanced rail service could offer labor market benefits. There was no clear pattern spatially or by size of a metro’s economy. Participants in the Boston and New York workshops—the northern and central anchors of the corridor—thought that the labor market benefits would be huge for their economies. In Washington, D.C., the anchor of the southern corridor segment, participants did not focus on labor market benefits. A number of smaller metro areas also anticipated labor market benefits but varied in their strategy to leverage the labor market integration into development. Baltimore, Wilmington, and Philadelphia all saw opportunities for greater labor market integration among themselves, with frequent and cost-competitive rail service. Of note, rather than serving as bedroom communities to a larger economy, both Wilmington and Baltimore saw enhanced rail service as essential for businesses in their communities to recruit talent and jobs to their communities.

Long Island and the smaller Connecticut communities also anticipated that enhanced rail service would offer labor market benefits. In Long Island, the improved access would allow them to attract convention and tourism visitors and support interaction among the national laboratories and universities with similar institutions in the surrounding region, for example. In Connecticut, the labor market focus was more bi-directional. Participants in both Long Island and Connecticut felt that their economies could attract and retain jobs with the implementation of enhanced rail service, as those communities offered lower-cost alternatives to New York and also supported large defense industry manufacturers. They also, however, maintained a New York-centric orientation and cited the economic impact of hosting residents who work in the city but live and spend in their home economies.

Individual markets varied in their assessment of an acceptable travel time for a commute. In New York and Philadelphia, an hour or less was considered the tipping point. In smaller cities, 30 to 45 minutes was more frequently cited.

4.1.4 TRAVEL TIME, FREQUENCY, AND RELIABILITY

Across all workshop conversations, the tradeoffs among reduced travel time, connectivity, reliability, and frequency of service were explored. Participants uniformly valued reliability of service as the most important or among the leading qualities of service. Participants in the southern and central parts of the corridor indicated that travel time was secondary, and that frequency of service and connectivity to target markets were the most important qualities needed for enhanced rail service to spur development in their communities. In the northern portion of the corridor, however, travel time was valued more highly. Current

⁴ The “internal focus” refers to a local emphasis on enhanced mobility and connectivity *within* the broad New York metropolitan market, as opposed to *external* connections between the New York metropolitan market and other metropolitan areas, such as Philadelphia.

rail service travel time does not permit a day trip between Boston and New York City. Participants indicated that there was a threshold effect regarding the prioritization of travel time and frequency—faster travel times were more important up to the point where they permitted a Boston to New York day trip. Once that time was attained, additional frequencies and types of service became more important as in the southern portion of the corridor.

In the context of travel time and reliability, the value of direct one-seat rides was stressed by participants in all workshops, particularly by the developers who participated. Aside from the comparative time savings associated with a direct connection versus transfer, a direct connection was perceived to reduce the risk of delay. Locations with ready direct access to a variety of markets were favored for private development investment. In addition, because of the greater ease of access, market locations with higher densities of direct connections to other markets have greater agglomeration potential, all else being equal.

4.1.5 AIRPORT ACCESS

Rail connectivity to airports was discussed in several workshops. Participants in the Baltimore workshop maintained that rail service to the airport would permit Baltimore-Washington International Airport (BWI) to expand further and become a greater job generator for the economy. They also felt that it would support the burgeoning tech cluster that is growing near BWI. Participants in the Stamford, CT, workshop also discussed the need for better airport access in their region. Aside from serving consumer choice in the region, better airport access was viewed as important for relieving congested New York, NY, and Newark, NJ, airports and helping mid-central Connecticut attract and retain business expansions.

5. Applying Workshop Findings to Economic Effects Assessment

Collectively, the workshop discussions highlighted some of the major factors that will influence station-area development, agglomeration, and labor market outcomes. Based on these, a series of 14 evaluation factors is proposed for use in analyzing and qualitatively ranking the Alternatives in terms of economic effects. The economic effects will be determined at the metropolitan level and summed to a corridor total where appropriate, as it is possible that the importance of factors may vary throughout the corridor. For example, participants in the northern part of the corridor placed more importance on trip time than those in southern part of the corridor. Also, because of how some metrics are calculated, it may not be appropriate to add them together into a single summary value—direct trips to New York City is one example.

Table 1 summarizes the proposed factors. The shaded areas in the table will be completed as part of the economic assessment once the service plans and travel modeling is available for the No Action and Action Alternatives. Reliability of rail service is not included among the factors, despite having been identified as important for sparking development, since all Action Alternatives are assumed to offer equally reliable service.

Table 1: Candidate Evaluation Factors for Assessing Station Area, Agglomeration, and Labor Market Development Potential

Evaluation Metric	Rationale for Application	How Measured/How Does It Support the Evaluation	Geographic Scale	No Action	Alt. 1	Alt. 2	Alt. 3
Station-Area Development Potential							
Number of Stations of Each Category in the NEC FUTURE Station Typology	Stations serve different markets and roles within the network—downtown station vs. suburban commuter station, for example. These differences influence development outcomes.	<p>Measurement: Numerical count of stations by category</p> <p>Evaluation: Different routes will have different mixes of station types and associated propensities for development. Potential station-area development is impacted by the characteristics of the local sites as well as the Alternatives. Identifies where Alternatives are likely to have greatest impact.</p>	By metropolitan area, summed by category and aggregated to North, Central, South, and Total Corridor				
Are Station Areas Anticipated to be Market Ready?	Although they varied in the factors identified, every workshop noted the need for a “development package” to be in place—elements such as connecting transportation, available land, willing partners, etc.	<p>Measurement: Existing development conditions/ infrastructure near stations; plans or policies preparing for future station-area development.</p> <p>Evaluation: Potential station-area development is impacted by the characteristics of the local sites as well as the Alternatives. Metric identifies where Alternatives are likely to have greatest impact. This metric classifies those station areas as either those that have taken steps to prepare for development and understand how to make this work (those that are actively working to be market ready for rail by having partnerships and plans in place), or those that face some real challenges. For those station areas that are not ready, it identifies places where additional planning for implementation would be necessary to yield station-area development.</p>	By metropolitan area				

Table 1: Candidate Evaluation Factors for Assessing Station Area, Agglomeration, and Labor Market Development Potential (continued)

Evaluation Metric	Rationale for Application	How Measured/How Does It Support the Evaluation	Geographic Scale	No Action	Alt. 1	Alt. 2	Alt. 3
Station-Area Development Potential (continued)							
Range of Pricing/Service Type Options Serving Metro Area	Pricing determines who uses the service; developers build for the market utilizing the service.	Measurement: Numerical count of daily trains by service type—describes the range of prices and proportionate mix available Evaluation: Distinguishes among Alternatives	By metropolitan area, aggregated to North, Central, South, and Total Corridor				
Number of Other Modes Connecting at Metro Area's Dominant Station	The value of clustering modes in one place was noted in several workshops; hubs support greater development intensity than stations with just rail service.	Measurement: Proxied by the station typology ⁵ that sorts stations by local, hub and major hub Evaluation: Metric identifies where Alternatives are likely to have greatest impact.	By metropolitan area, no aggregation of individual stations				
Agglomeration Potential							
Additional Daily Trains Serving Metro Area	Accessibility is a function of mobility and connectivity. Numerous workshops expressed a desire for greater frequency of service. This metric addresses the mobility side—more frequent train service makes it easier to make trips along the corridor.	Measurement: Numerical count of additional trains Evaluation: Metric distinguishes among Alternatives	By metropolitan area, aggregated to North, Central, South, and Total Corridor Where workshops identified a second preferred location after NYC, identify the capacity change to that secondary market—example Baltimore was seeking greater frequencies North to Philadelphia/Wilmington.				

⁵ Station typology lists stations as a local, hub, or major hub, allowing for variance by Alternative. These typologies give a relative degree of station size and ridership, and thereby development potential and transportation connectivity. The major hubs, such as Penn Station in New York, are more likely to have other transportation choices available than the local stations.

Table 1: Candidate Evaluation Factors for Assessing Station Area, Agglomeration, and Labor Market Development Potential (continued)

Evaluation Metric	Rationale for Application	How Measured/How Does It Support the Evaluation	Geographic Scale	No Action	Alt. 1	Alt. 2	Alt. 3
Agglomeration Potential (continued)							
Number of New Locations Accessible Via Direct Rail Connections	Accessibility is a function of mobility and connectivity. This metric addresses the connectivity side—the value of direct rail connections in particular was stressed in several workshops.	Measurement: Numerical count of additional station locations via direct connections Evaluation: Metric distinguishes among Alternatives	By metropolitan area, aggregated to North, Central, South, and Total Corridor				
Frequency of Direct Connections	Accessibility is a function of mobility and connectivity. This metric addresses the connectivity side—the value of direct connections in particular was stressed in several workshops.	Measurement: Numerical count of daily trains to new directly accessible locations Evaluation: Metric distinguishes among Alternatives	By metropolitan area, aggregated to North, Central, South, and Total Corridor				
Number of New Trains Traversing Broad New York Region	The idea of a “regional urban user” came up in a number of workshops in the New York region—the desire to better traverse the New York region itself.	Measurement: Numerical count of additional Origin-Destination pairs served by direct intercity—this metric assumes regional service patterns remain as they are today for the purposes of making the comparison Evaluation: Metric distinguishes among Alternatives	By metropolitan area, Connecticut, New Jersey, and Long Island only				

Table 1: Candidate Evaluation Factors for Assessing Station Area, Agglomeration, and Labor Market Development Potential (continued)

Evaluation Metric	Rationale for Application	How Measured/How Does It Support the Evaluation	Geographic Scale	No Action	Alt. 1	Alt. 2	Alt. 3
Agglomeration Potential (continued)							
Shortest Travel Time to New York	For destinations outside of the New York area, NYC was the leading destination. Participants in the northern regional workshops sought faster service than that available today. Also, the idea that there was a threshold effect concerning trip time came up in a variety of workshops—that once you had service speeds that permitted a day trip for business, frequency, pricing, and reliability became more important.	Measurement: Shortest travel time to NYC in minutes Evaluation: Metric distinguishes among Alternatives	By metropolitan area, North and South regions only				
Longest Travel Time to New York	For destinations outside of the New York area, NYC was the leading destination. Participants in the northern regional workshops sought faster service than is available today. Also, the idea that there was a threshold effect concerning trip time came up in a variety of workshops—that once you had service speeds that permitted a day trip for business, frequency, pricing, and reliability became more important.	Measurement: Longest travel time to NYC in minutes Evaluation: Metric distinguishes among Alternatives—because some markets have a range of service options and associated speeds, a market might be able to make a day trip to NY by Express, but not by the less costly services due to their slower speeds.	By metropolitan area, North and South regions only				

Table 1: Candidate Evaluation Factors for Assessing Station Area, Agglomeration, and Labor Market Development Potential (continued)

Evaluation Metric	Rationale for Application	How Measured/How Does It Support the Evaluation	Geographic Scale	No Action	Alt. 1	Alt. 2	Alt. 3
Agglomeration Potential (continued)							
Number of Trains to New York	Across all workshops—additional rail capacity to New York was identified as important.	Measurement: Numerical count of daily trains Evaluation: Metric distinguishes among Alternatives	By metro, North and South regions only				
Number of Airports Served by Rail Link	Several workshops—Baltimore, Stamford, and New York in particular—noted the value of air-rail linkages for their markets.	Measurement: Numerical count of airports with daily direct rail service Evaluation: Metric distinguishes among Alternatives	Reported for corridor as a whole; no metropolitan or regional variation				
Labor Market Effect							
Number, Total Combined Employment and Total Combined Population of Markets Newly Reachable Within 30 ⁶ Minute Travel (rail/exclude walk time)	While greater accessibility to and through New York was noted in a variety of workshops—a number of workshops also valued connectivity to adjacent metro areas—the Connecticut, Philadelphia/Wilmington, and Baltimore workshops talked about the labor market advantages for their metro areas.	Measurement: Number of new metro areas accessible by rail in time buffer, total employment and population of newly aggregated labor market making the new connection Evaluation: Metric distinguishes among Alternatives—respondents generally felt that a trip time under 1 hour was required for commuting.	For all station locations from the dominant hub station in a metropolitan area, aggregated to North, Central, South, and Total Corridor				

⁶ 30 minutes used to represent a reasonable commute time and to test the sensitivity of 15 fewer minutes for market accessibility (see next metric)

Table 1: Candidate Evaluation Factors for Assessing Station Area, Agglomeration, and Labor Market Development Potential (continued)

Evaluation Metric	Rationale for Application	How Measured/How Does It Support the Evaluation	Geographic Scale	No Action	Alt. 1	Alt. 2	Alt. 3
Labor Market Effect (continued)							
Number, Total Combined Employment and Total Combined Population of Markets Newly Reachable Within 45 ⁷ Minute Travel (rail/exclude walk time)	While greater accessibility to and through New York was noted in a variety of workshops—a number of workshops also valued connectivity to adjacent metro areas—the Connecticut, Philadelphia/Wilmington, and Baltimore workshops talked about the labor market advantages for their metro areas.	Measurement: Number of new metro areas accessible by rail in time buffer, total employment and population of newly aggregated labor market making the new connection Evaluation: Metric distinguishes among Alternatives—respondents generally felt that a trip time under 1 hour was required for commuting.	For all station locations from the dominant hub station in a metropolitan area, aggregated to North, Central, South, and Total Corridor				

⁷ 45 minutes used to represent a reasonable commute time and to test the sensitivity of 15 additional minutes for market accessibility (see prior metric).

6. Highlights from Individual Workshops

The following sections summarize the major themes of the individual market discussions. At times, the workshop participants introduced additional ideas and observations beyond the three major questions. These are noted as well.

6.1 WASHINGTON, D.C.

The Washington, D.C., market is the southern terminus of the NEC, but several participants recognized that it was the juncture between the developing Southeast High Speed Rail Corridor and the NEC. Some felt that the NEC discussion should extend farther south to include Richmond.

6.1.1 STATION-AREA DEVELOPMENT

Respondents felt that Alternative 1 was valuable to the degree that it delivered reliability, frequency, and connectivity to new markets.

Trip time was not a significant concern in this market where travel times and frequencies already permit easy day trips to New York City—the corridor location rated as the most important among participants. This suggests that there may be a threshold effect—that once travel times are sufficient to permit a day trip, other factors become more important in triggering development. These included:

- ▶ Connectivity is more important than travel time—a developer will not undertake a new project based on shaving 30 minutes off the existing Washington, D.C., to New York City trip, but would undertake extensive development that served a whole new market connected by rail to New York—south of the Potomac River, for example. Respondents felt that such an investment could accelerate development in these markets.
- ▶ Direct connections are the most valuable—as one participant put it, “more transfers create more questions about reliability and the economic value decreases.” Locations with a direct connection to a hub are the “money” locations.

Washington, D.C., Key Takeaways

- Pricing is a critical element in determining development outcomes; pricing determines the type of market--developers build for the market.
- The Northeast region's growth lags behind the U.S. average pace and it has the highest cost of doing business among the four major U.S. regions (Northeast, Midwest, South, and West). Investments that support the integration of its highly skilled labor market are necessary to maintain its competitiveness.
- New York City is the prime destination for Washington, D.C. travelers, in terms of expanded rail service.
- Direct connections and the clustering of transit modes at one location increase the economic value of a site.
- Connecting new markets to the corridor's anchors was expected to accelerate development in the smaller markets.
- Trip time was less important than reliability and frequency. Some participants felt that these were substitutes in that trip time to NYC was less important if the train was reliable and had frequent departures to accommodate travelers' schedules.

- ▶ Price of the service—the pricing of the service determines who uses it—business travelers or a mix of business and personal travelers for example. Because developers build to the market, the pricing has an important impact on the type of development that is built.
- ▶ Presence of multiple modes—as the transportation network is “strengthened” by the presence of multiple modes in one location—Union Station in Washington, D.C., for example—the opportunity to increase densities and build to a greater scale is created, provided zoning permits this greater scale.
- ▶ Tertiary locations (those not on the lines) were expected to gain a lot by being connected to something other than a highway. Examples offered included Columbia and Laurel, MD.

6.1.2 AGGLOMERATION/PRODUCTIVITY

In comparing Alternative 1 and 2, respondents felt that speed was less important than improved service with Alternative 2.

- ▶ The group’s expectation for Alternative 2 was that cities would become more functionally integrated with one another (gain productivity through agglomeration) and that development around stations was secondary.
- ▶ Respondents felt that reliability was the most important improvement, followed by frequency of a variety of service types and access to new markets. Trip time followed these other attributes.
- ▶ The presence of reliable, frequent service to a variety of locations at different prices was seen as necessary to foster greater economic interaction with other locations along the corridor.
- ▶ New York City was seen as the prime destination.

Alternative 3 was perceived as a continuation of the improvements provided in Alternative 2, but the group’s focus was primarily on Alternatives 1 and 2. The group’s emphasis on price and the value of a variety of services was one of the greatest along the corridor.

6.1.3 LABOR MARKET EFFECTS

Labor market impacts were not a major focus for the group’s conversation beyond strong support for a variety of services that would allow for a greater diversity of uses and markets.

6.1.4 OTHER CONSIDERATIONS

Evolving future conditions were a major part of the conversation in Washington, D.C. The role of autonomous vehicles, the potential that younger adults (roughly those under the age of 35, often referred to as “Millennials,” and subsequent generations) who currently show a preference for downtown locations might change their location preferences as they move into new stages in life, and evolving work habits and usage of offices were all discussed as market trends that would influence the economic outcome associated with the rail investment. The group felt that connectivity would have high value regardless of how these trends unfolded in the coming decades.

6.2 BALTIMORE

Participants in the Baltimore workshop began by stressing the existing strong linkages to the Washington, D.C., market. Participants felt that Washington, D.C., and Baltimore were a unique urban pairing among the NEC markets.

6.2.1 STATION-AREA DEVELOPMENT

Participants in the Baltimore workshop agreed with other workshop groups that a range of factors needed to be in place for station-area development to occur. Of the factors noted, access to the station and station amenities were areas of particular concern relative to other workshop discussions.

Circulation within Baltimore and the ability to access Baltimore's station were identified as key concerns. Respondents noted that some companies had even threatened to leave the city if the transportation network (not just rail, but road and rail) were not fixed. This issue is important, participants noted, because unless you live near the station, it is difficult to access the station given the existing road conditions. This is a limiting factor on Baltimore's ability to capitalize on potential rail development in the NEC.

6.2.2 AGGLOMERATION/PRODUCTIVITY

Participants in the Baltimore workshop drew a distinction between connections to the Washington, D.C., market and the remaining corridor markets to the north. They felt that Baltimore was already integrated with the Washington, D.C., market, but Washington was a very difficult place to get to because of traffic conditions. They felt that trip time, pricing, and frequency were the greatest issues for Baltimore travelers going to Washington, D.C. Most regular travelers use MARC service because of the more favorable fares, but the trip times and reliability offset that advantage somewhat.

Looking in the other direction, from Washington, D.C., to Baltimore, the participants felt that if there was reliable and reasonably fast service between D.C. and BWI, the Baltimore airport would capture a greater number of the region's air travelers. BWI often has lower fares than Reagan National or Dulles, but the difficulty of getting to the airport and the cost of parking often negate this advantage. Improved rail service such as that envisioned under Alternatives 2 and 3 could change this cost calculation.

Looking north from Baltimore, the most important destination for the participants was New York City. There was little interest in points north of New York. The next most important locations were Newark, DE and

Baltimore Key Takeaways

- Major opportunities looking North in the corridor; rail connectivity in the D.C.-Baltimore corridor is adequate.
- Price points (multiple) open up the market to current non-rail users.
- Frequent (30 minute) and reliable service allows better economic integration with northern Cities.
- Most valuable links: NYC, Wilmington or Newark, and Philadelphia.
- Increasing connections to the north invites businesses to Baltimore. People can get to locations north, which provides an opportunity for existing industries to grow because they are more accessible.
- The D.C.-Baltimore corridor is reaching saturation, but to the north (Wilmington to Baltimore) there is more land available for development and jobs, and not just for commuting to Philadelphia or Baltimore but for growth actually in Wilmington.
- Difficult attracting young workers to Baltimore—technology growth in city is often in industrial sites or around BWI Cyber corridor.
- Worry that if Baltimore is the chokepoint, then the folks traveling between NYC and D.C. will want to skip over Baltimore, so the station location is important.

Wilmington, DE with evenly divided interest. In particular, participants discussed the burgeoning tech industry and the cyber corridor that would benefit from connections to tech and finance firms located between Baltimore and New York. Participants maintained that the Baltimore-Washington, D.C., market was approaching saturation, but that there was greater opportunity and more land available for growth to the north.

6.2.3 LABOR MARKET EFFECTS

As the mid-point between Washington, D.C., and the Wilmington markets, participants believed that frequent and reasonably priced service among the three markets would allow firms to locate in Baltimore and draw workers from all three markets. On the household side, participants believed that families would be attracted by the ability to locate in Baltimore and seek opportunities in all three markets, enjoying greater affordability than in Washington, D.C., and the ability to change jobs without changing residence.

There was also some concern among participants that if Baltimore is perceived as a “chokepoint” or less desirable location in terms of station qualities, travelers between and firms seeking a location between New York City and Washington, D.C., will “skip over” Baltimore and not consider it for expansions or new business.

6.2.4 OTHER CONSIDERATIONS

When asked about the cost of doing nothing, respondents reported that this would lead to continued decline, and that businesses seeking a NEC location would go to New York, Philadelphia, and Washington, D.C., instead. They felt that Baltimore had already lost its power as an economic engine for the state and that if nothing changes it will continue to decline. In this context, respondents felt that Alternative 1 did not change economic relationships enough to permit Baltimore to attract new jobs to the area and counter the downward trajectory.

6.3 PHILADELPHIA AND WILMINGTON

Representatives of the Philadelphia and Wilmington communities participated in the workshop. Linkages between the two markets were discussed, as well as connections to the broader corridor economy.

6.3.1 STATION-AREA DEVELOPMENT

The group felt that station-area development would follow labor market impacts in the Philadelphia and Wilmington economies. Developer participants emphasized that the business community reacts to what is “on the ground” and only builds for what is certain to happen. The impact of price and variety of service were emphasized as important considerations driving the character of the development put in place. Locations with direct access to the airport were identified as particular opportunity sites. As with other workshop groups, the Philadelphia and Wilmington workshop identified a range of factors that need to be in place for development to occur. School quality, supporting infrastructure, and parking were particular areas of emphasis in addition to available space for development, ability to assemble small parcels, and supportive zoning.

6.3.2 AGGLOMERATION/PRODUCTIVITY

When asked about the most important destination along the corridor, respondents looked north to New York, followed by greater frequency of service between Wilmington and Philadelphia. Wilmington also had interest in connections to Baltimore. The desire for these latter connections was driven by labor market considerations (described in the following section).

Overall, participants in the workshop did not see Alternative 1 as a game changer for them; primary interest was in Alternative 2 and 3 as it is under these alternatives that a greater variety of service types and greater frequencies are possible. Put another way, these alternatives, particularly Alternative 3, provide the greatest positive “shock” to the Northeast’s economy as a whole. One participant noted that the vitality of the Northeast region is weaker than other regions—job growth is slowing and the region’s traditional economic drivers are not expected to expand as in the past. For example, banking is now regulated and will be a slower growth industry; the pace of pharmaceutical discoveries is slowing. By contrast, the West, South, and even Midwest are going through transformations and are thriving.

Philadelphia and Wilmington Key Takeaways

- Service needs to be connected with a price scheme and what type of development could be generated.
- Participants focused on Alternative 2 as the one that made sufficiently large changes to rail service that the economy would respond. Alternative 1 was viewed as too incremental to be a game changer.
- The under-an-hour threshold is perceptual distance, which makes a significant difference and can change dynamics.
- For Wilmington, a connection to the Philadelphia airport is key and a significant factor in economic development. An increase in service will help support the local market. It is important to look at it from a labor market perspective. Additional development will not occur until job growth occurs.
- Better and swifter connections to other markets such as Philadelphia would help offset the labor shortages in Wilmington.
- Multiple price points and different forms of services are important.
- Chesapeake Connector is a critical project for Wilmington.

The introduction of significantly altered rail service in the corridor was perceived to allow the region to become much more closely economically integrated than it is currently, provide support for existing industries to operate in new ways, and for new industries to begin to take hold in the corridor. Construction of the Chesapeake Connector project and a reliable direct connection to the Philadelphia airport were important linkages for Wilmington that would help attract a greater diversity of industry to the market.

6.3.3 LABOR MARKET EFFECTS

Participants felt that the labor market effects would be the main driver of economic change in the Philadelphia and Wilmington markets, and that the needs of commuters seeking jobs and firms seeking employees would in turn shape the type of station-area development constructed. Alternatives 2 and 3 were viewed as the most favorable for supporting labor market impacts as these permitted a greater range of service frequency and pricing. Because of the short distance between the two markets, and the existing ability to make a day trip to New York, trip time was a lesser issue.

One example that was used to illustrate the point involves a major private employer in Wilmington. Although the firm is in Wilmington, good service to New York is important for it to thrive at this lower-cost Delaware location. It is, however, having trouble recruiting younger employees. Increased frequency of lower-cost rail service would allow the firm to recruit from the many universities in the Philadelphia area. Those physically located in West Philadelphia (Drexel and University of Pennsylvania) were mentioned as particular examples because of their proximity to the 30th Street Station. Recruits could maintain a residence in Philadelphia but work in Wilmington.

Over time, the group felt that this greater integration would foster a greater “sense of place” in the area around Wilmington, allowing it to begin attracting households and a larger labor pool of its own that would support greater transit-oriented development (TOD). Thus, the evolution is anticipated to occur incrementally, but the catalyst is the frequency and affordability of rail connections that permit Wilmington to draw from Philadelphia’s labor market.

6.3.4 OTHER CONSIDERATIONS

Much like the Washington, D.C., workshop, participants in the Philadelphia and Wilmington workshop considered larger macro trends, particularly those in technology, as important influences on future economic development outcomes. The impact of autonomous vehicles and demographic changes were the primary factors discussed. Of note, some in the group felt that autonomous vehicles and innovations such as Uber might eventually address the “last mile” problem and offer an alternative means of providing transit connectivity from the intercity rail station to the larger metropolitan economy.

6.4 NEW JERSEY

Participants in the New Jersey workshop generally agreed that its orientation would remain toward the New York City market.

6.4.1 STATION-AREA DEVELOPMENT

The labor connection was identified as the major economic driver for New Jersey—station-area development was considered less important. That said, there was a wide-ranging discussion on the difficulties of planning for station-area development in New Jersey. Fragmented planning across the state and along the corridor was identified as a major impediment to obtaining a full return on rail investment.

6.4.2 AGGLOMERATION/PRODUCTIVITY

Participants in the New Jersey workshop developed the idea of an “expanded center” with reinforced linkages within the center of the corridor metro area. This is akin to the “urban regional user” concept developed in the Connecticut and New York workshops. The New Jersey discussion emphasized re-envisioning the center as Manhattan, Jersey City/Newark, and Queens West. Moreover, this expansion should be larger than just the rail mode but should encompass other modes as well.

The ability of New Jersey’s health and educational institutions to connect with peers elsewhere in the Study Area was identified as an important benefit of expanded rail options, supporting the long-term competitiveness of these industries.

6.4.3 LABOR MARKET EFFECTS

The labor market effect is the major driver for New Jersey. The NY-NJ labor-jobs relationship is unchanged, but investments in the NEC could allow this linkage to flourish to a greater extent than it does now to the benefit of New Jersey. Jobs in the city center are not equivalent to jobs in the suburbs.

6.4.4 OTHER CONSIDERATIONS

The New Jersey participants also felt that the interests of the NEC would benefit from having a “champion,” someone who could articulate why the NEC is important to New Jersey and could help rally the private business community to demonstrate their support for investment and planning within the state to capitalize on the investment.

New Jersey Key Takeaways

- Inadequate rail capacity is perceived to be already taking a toll on NJ in terms of office vacancy, out-migration, and lack of multi-modalism.
- There are limitations of infrastructure and limitations of service—they are different.
- NYC-orientation will persist and should be encouraged.
- NJ has a stake in the regional assets’ health.
- Centrally located in the corridor—definition of center should be expanded to include Jersey City and Queens.
- Rail access attracts job creation.
- NJ has a deep talent pool, but it is at risk—comparative advantages are not static.
- The benefits of Alternatives 2 and 3 are not as great as the risk of not attaining Alternative 1 for New Jersey.
- Fragmented planning hinders growth in the corridor and in the state.
- Need partnership of FRA, operators, state, and localities. Need a champion to advance the importance and value of a coordinated NEC to campaign on behalf of the corridor as a whole.
- Liked idea of “urban regional user” as suggested in Stamford workshop.
- 40-minute commute is the tipping point—maximum length of a “comfortable” commute time.
- Central, lower-cost location could induce employers if other factors are addressed—hotels and life sciences are likely sectors.

6.5 NEW YORK CITY

Participants in the New York workshop see the metro area as a global capital. This is reinforced by each of the other corridor workshops, as they all identified New York as the leading destination in the corridor to which they would like to have greater service and connectivity.

6.5.1 STATION-AREA DEVELOPMENT

Station-area development was not a major focus of the New York conversation as it was in some of the other workshops. Given the density of transit stations and surrounding development, station-area development is already well underway—prompting one participant to observe that downtown New York is one large TOD.

6.5.2 AGGLOMERATION/PRODUCTIVITY

Aside from the need to attract labor to the metro area (discussed below), two additional ideas emerged from the discussion. The first was the desire among some for good connections to the region's airports. This was not a universal consensus among the group, but some participants felt that additional air-rail linkages were needed.

The second consideration was the ability to better connect within the region—which can be equivalent to a short intercity trip because of its breadth. Participants supported the idea of an “urban regional user”—someone using the rail service for a more seamless connection between disparate parts of the urban area, allowing the New York region to function more efficiently as a large economy. These are not strictly work or business trips, but include trips for shopping, personal errands, recreation, and entertainment. The improved intraregional circulation would also support resident industries that benefit from face-to-face interaction such as New York's technology industry or the large university and health complexes where joint research initiatives could be undertaken with greater accessibility.

New York Key Takeaways

- NYC is a Global Hub—fast connection to airport is important as a dividend of the program.
- Integrate the air-rail network—always have a 2-seat ride.
- Alternative 1 serves existing growth—improvements but not economic change.
- Capacity is important but depends on how it is used: commuters, connectivity, intercity.
- Strong emphasis on accessing labor—pulling more people in—enhancing the commute shed.
- NJ is more proven market than CT for office—more likely to see initial benefit of Alternative 2.
- Strong interest in connecting services to other markets—Hartford is an untapped market.
- Ridership trends in city changing—not 5 days a week anymore and the peak is spreading.
- Alternatives 1 and 2 serve existing business; Alternative 3 helps other cities such as Albany.
- Development impact of additional capacity depends on how capacity is used—transit within market, intercity, or to accommodate markets connecting from outside the spine.
- The cost of doing business in NYC would increase if congestion increases.
- The cost of inaction results in job loss to the periphery.
- 1-hour commute is the tipping point.

6.5.3 LABOR MARKET EFFECTS

As a global hub, attracting labor was a primary concern of the conversation. In this context, Alternatives 2 and 3 were preferred to Alternative 1 as they offered the ability to better connect to New Jersey, Long Island, southern Connecticut, and for some—even Albany.

6.5.4 OTHER CONSIDERATIONS

The consensus among participants was that additional capacity was important for accommodating the metro area's future growth and allowing it to thrive. That said, the use of that capacity was a critical factor in determining the economic outcome. Allocating that rail capacity to commuter uses, connecting corridors, or intercity service supports different economic outcomes over the long term. In this context, Alternatives 2 and 3 were preferred to Alternative 1 as they offered greater capacity and diversity of services. Alternative 1 was not viewed as providing enough new capacity to support future growth opportunities. Respondents felt that New York would "survive" a No Action Alternative, but that the rest of the NEC would not, as businesses skipped the Northeast Corridor locations and sought locations elsewhere in the U.S. This latter sentiment echoes comments from the Philadelphia workshop concerning the region's competitiveness over the long term.

6.6 LONG ISLAND

Long Island has strong interest in connecting to the broader NEC. A recurring theme in the workshop was that Long Islanders could control the time that they leave in the morning but not the time that they return. More frequent and reliable connections to New York and other locations along the corridor are desired for economic development. Beyond greater ease of connection within the New York metro area, improved connectivity to Boston was identified as an important destination.

6.6.1 STATION-AREA DEVELOPMENT

Participants reported that Long Island is reinventing itself around transit hubs. Local village variability in planning and expertise in managing TOD were cited as concerns in making the most of rail investment in Long Island. Resistance to growth and changing the character of Long Island were also concerns. Unique for the NEC, the importance of ferries as connections to eastern markets, such as the Port Jefferson Ferry to Bridgeport were highlighted as serving important markets. Sewage treatment is also an issue regarding development.

6.6.2 AGGLOMERATION/PRODUCTIVITY

Participants report that congestion is severe enough in some places to make people avoid travel; Port Jefferson to Boston were cited as examples. The economy is also reported to be constrained due to limits in the centralized transportation networks. Long Island has a diversified economy that includes labs/research, tourism, warehousing, agriculture, agro-tourism, the food/beverage industry, and convention/trade shows.

Respondents noted that Brookhaven National Lab was located in Long Island in part to take advantage of the proximity to other research facilities in New York, New Jersey, and Connecticut.

6.6.3 LABOR MARKET EFFECTS

Labor market effects are two-way between Long Island and the larger New York region. The elimination of transfers would support Long Island's efforts to recruit business. Improved service would also allow Long Island residents to access destinations east and north of New York.

6.6.4 OTHER CONSIDERATIONS

When asked what happens to Long Island if no investment is made, the general view of the group was that Long Island's economic growth will be constrained relative to other parts of the region.

Long Island Key Takeaways

- Reliability and connectivity are more important than trip time.
- Congestion is severe enough to change choices—travelers are going east to Port Jefferson to catch the ferry and then to Boston. LIRR was built to access Boston.
- “We can control the time we leave; no control of time coming back.”
- Limits of capacity and connectivity are imposing a penalty on the economy.
- Strong interest in connecting to Newark Airport/NJ—Boston is a game changer—and some interest in Connecticut.
- Access to job opportunities in multiple markets from one point is highly attractive.
- If access to Boston and New England is improved, it opens up tourism/agro-tourism, coliseum sports, allows Long Island to become an entertainment destination and opens up trade show opportunities with access to regional airports.
- Brookhaven National Laboratory located in Long Island to have proximity to major research centers such as MIT and Princeton. Rail investment would support this interaction.

6.7 STAMFORD, CT

Stamford participants identified the area from New Haven, CT to Newark, NJ and Long Island, NY as the key destinations for improved rail service. Participants noted that Stamford/Norwalk has captured about 80% of growth in eight municipalities since 2000.

6.7.1 STATION-AREA DEVELOPMENT

Participants indicated a need to focus on the “essentials,” reporting that there were 300 rail stations in the regional transit network and comparatively few had developable land and walkable development around the station areas. The Stamford workshop included participants who had traveled from Long Island to participate and the resulting conversation covered both Stamford and Long Island topics. Workshop participants described the perception on Long Island that density and growth bring the negatives of urban life with them, which leads to opposition to TOD in some cases. Stamford has some successful TOD experience so the focus of the conversation was on other economic opportunities associated with rail. After Grand Central Terminal on the Metro-North line, Stamford has the most ridership. Stamford also ranks first in reverse commuters.

6.7.2 AGGLOMERATION/PRODUCTIVITY

Participants noted that I-95, the other “spine” of the region, is maxed-out and congestion is spilling over to other roads. The region is also in need of more air service options and rail-air connections would help this. Stamford and Norwalk are the growth engines of this part of Connecticut. Improved rail service/capacity (not trip time) is viewed as an opportunity to redirect growth to urban centers (both residential and jobs) and allows people to access amenities, supporting growth in the region.

Participants in the Stamford workshop were strong supporters of the “urban region user” concept discussed in other workshops—where the emphasis is on better connectivity to other parts of the broader metropolitan region rather than on more distant metropolitan markets. Participants noted that Metro-North’s ridership growth is during off-peak hours and for discretionary trips. The “urban regional user” concept would allow the broader New York economy to function in a more integrated and efficient way, allowing the economy to be more productive than it would be with less fluid travel.

Stamford Key Takeaways

- I-95 is maxed out and traffic is spilling over to other roads.
- Major growth on Metro North Railroad is in off-peak trips.
- Region is in need of more air service options— rail–air connections help.
- Accessibility to jobs for those with fewer options has a multiplier effect.
- Stamford/Norwalk captured about 80% of growth of eight municipalities since 2000.
- It is the gateway to New England and NYC.
- Improved rail service/capacity is an opportunity to redirect growth to urban centers, allows people access to amenities, and supports growth.
- Key destinations in the region are New Haven to Newark, NJ and Long Island, NY.
- Idea of an “Urban Region User” ability to utilize a greater range of amenities within a region with enhanced mobility.
- Public perception that urban amenities are tied to urban problems hinders development outcomes.
- Suburban places are becoming more costly to develop as infrastructure is not in a state of good repair.

Connections to Bradley Airport were also discussed in the context of needing additional air capacity in the region. To the degree that this alleviated air congestion or added capacity to the region, this would be a boon to a variety of industries in Stamford and the broader southern Connecticut region.

6.7.3 LABOR MARKET EFFECTS

Stamford already has strong ties to the New York market. The “urban regional user” concept would permit greater access to job opportunities throughout the region, permitting households to have a better match between residential and work locations, as well as greater ease in changing jobs without changing the home location.

6.7.4 OTHER CONSIDERATIONS

Participants generally favored Alternatives 1 and 2 as a “fix first things first” policy. Both Alternatives create capacity in the New York region that allows for greater movement through the broader New York economy. To the degree that Long Island is integrated into the “urban region user” concept, Alternative 2 is more favorable than Alternative 1.

6.8 NEW HAVEN, HARTFORD, AND SPRINGFIELD

This workshop, held in Rocky Hill, CT, considered opportunities for the Hartford, New Haven, and Springfield markets. Throughout the conversation, Stamford was highlighted as a success story to be emulated.

6.8.1 STATION-AREA DEVELOPMENT

In discussing station-area development, the workshop participants felt that provision of housing options for a variety of household income levels was important. One respondent reported that property around the train station in Stamford is about 30% more valuable than suburban parks on High Ridge Road. Participants noted that in Connecticut, cities are small and do not always have the political ability to assemble land to support significant TOD. There was concern that planning was fragmented to a degree that local communities along the corridor would not have the capacity to respond and prepare to capitalize on NEC investment. There were suggestions of a TOD “czar” or a regional entity to help tie together local community responses. Beyond the required planning work, participants noted that in some cases significant utilities, zoning, and investment in supportive infrastructure will be required.

6.8.2 AGGLOMERATION/PRODUCTIVITY

Workshop participants maintained that regular and reliable rail service that connected Hartford, New Haven, and Springfield would change how the cities work together. Because of the region’s high costs, its focus has to be on knowledge-based industries where face-to-face interaction is still important. These are the anchors of the regional economy as it is transforming itself. Although the major focus of the discussion was on tying the region together and more closely to New York, there was also a desire to be able to more readily access the Washington, D.C., market. This was one of the few examples of a northern market seeking better access to a destination south of New York (or the reverse).

6.8.3 LABOR MARKET EFFECTS

The ability to link the three cities or better link them to larger markets has two types of labor market effects. The first is simply the ability of workers to access an expanded range of work opportunities. The second is the ability to demonstrate a larger pool of available labor, which supports business recruitment and retention. It also allows the region to reach for larger-sized relocations.

New Haven/Hartford/Springfield Key Takeaways

- Participants indicated that access to NYC is most important; however, they still want to be able to go to Washington, D.C. and back in a day. D.C. is becoming more and more important to the Connecticut economy, particularly for biosciences.
- Connecting Hartford-New Haven-Springfield together could change how the cities work together. Currently, only 2% of these populations work in the other cities; no daily connectivity.
- Connecticut’s smaller cities face obstacles in assembling land for transit-oriented development. Need to consider whether the cities/region have the capacity or the mechanism to respond effectively to improvements on the NEC.
- What happens without land assembly, rail investment, and other supporting infrastructure investments? People start to leave, or rather continue to leave. The area is already losing industry to Research Triangle Park.
- The New Haven-Hartford-Springfield region will struggle without reinforcing its base. There are lots of towns and smaller regions, and inter-relationships are key. Steady state is not a happy state.

The discussion also considered the following: only a sliver of the region's population is on the rail corridor—what is the economic development impact for the rest of the population? The participants maintained that basic industries need support to stay in downtown Hartford and that investments need to be made to make the region livable and desirable. It is important to maintain the “place” and the anchor of the economy as other types of businesses are sought to diversify the economy.

6.8.4 OTHER CONSIDERATIONS

Participants were also asked what happens to the region without land assembly, rail investment, and other supporting infrastructure investments—the consensus was that people would continue to leave. Participants felt that the technology industry was leaving the region for the Boston market and Raleigh (Research Triangle Park). They observed that technology and bioresearch firms used to be more evenly-spread across the Northeast, but that the industry was consolidating and becoming more clustered in fewer locations. Rail was seen as part of the solution to maintaining competitiveness, but workshop participants indicated that it was not sufficient on its own and needed to be complemented by local actions and investments to be successful.

6.9 BOSTON AND RHODE ISLAND

Boston is the northern terminus of the NEC. Unlike the southern end of the corridor, there was greater emphasis on trip time in the Boston workshop. The general consensus is that if you can drive to NYC in 3.5 hours, rail needs to be at least 3 hours to be attractive. The general consensus was that trip time and reliability of service were the most important factors and that the overall goal was to recreate the success of the existing Washington, D.C., to New York City service. Participants also stressed that links to New Haven, CT and Maine were important for the Boston market.

6.9.1 STATION-AREA DEVELOPMENT

Participants anticipated that rail-served locations would enjoy a 15% to 20% land premium. Respondents reported that proximity to a rail station was very valuable but noted that the station needed to be in the right place in order to spur development around it. Specifically, the access to and connectivity of the station is important. Critical factors mentioned include connectivity to a variety of modes at the station to get to local destinations and having amenities near the stations, including but not exclusively, retail. The group also highlighted the importance of zoning, the particular value of locations that enjoy a one-seat ride to key destinations, and the role of higher education and health institutions in being willing and engaged partners in corridor development.

6.9.2 AGGLOMERATION/PRODUCTIVITY

The discussion in Boston was largely focused on Boston proper, with the exception that participants felt that improved connectivity to New York, on the order of that available between Washington, D.C. and New York currently, could be a game changer. As with workshops in other locations, respondents identified the benefit of improved connectivity to industries that value face-to-face interaction, of which many are core to the Boston economy: technology, health, education and research, and finance. There was significant discussion about the potential benefit to Boston of new or expanded connectivity to New Haven, Hartford, and Springfield, CT, Worcester, MA, and Providence, RI. While access to the labor and potential industrial linkages were highlighted, some participants observed that the "Knowledge Corridor" could become more New York-oriented. If so, such a relationship would reinforce the Boston to New York economic connection indirectly. In this context, Alternatives 2 and 3 are the preferred alternatives as they provide faster connections to New York and greater capacity for connecting to nearby markets.

Boston and Rhode Island Key Takeaways

- A trip time under 2 hours (and reliable) from Boston to NYC is a game changer. A travel time of 3 hours is nice; Boston to anywhere in less than 3 hours, where air currently serves, should be considered.
- After trip time, then connectivity rises in importance.
- Key market is to NYC.
- After NYC connection, interest is in tapping broader labor market with connections to smaller regional cities.
- Boston is a high-cost location that competes for talent with its quality of life. Transportation and education are big parts of that.
- Direct connections (one-seat rides) are highly valuable in picking development locations.
 - They drive station premium (value of land).
 - It also depends on the length of the trip, in terms of whether frequency or one-seat ride is more important.
- Rail-air connections are important for business travelers.

6.9.3 LABOR MARKET EFFECTS

As a high-cost location, particularly for housing, investments that allow households to live in lower-cost locations and travel to Boston for health, university, financial, or technology jobs helps the region retain business and recruit talent. Current infrastructure is perceived as a negative in this regard as commute times are increasing. In this context, Alternative 1 is helpful in that it would help mitigate lengthening commutes. Alternatives 2 and 3 are more beneficial as they would offer greater connectivity to more affordable markets. Participants felt that the ability to attract labor from a larger pool would be a “big deal” for existing businesses and in recruitment efforts for new business.

6.9.4 OTHER CONSIDERATIONS

When asked whether there were consequences to Boston of not making investments to the NEC, respondents felt that it made central Boston more attractive—provided workers can afford to be in central Boston, households will choose to live there if they cannot live outside the city and travel in. Participants did not believe the technology industry would leave the area because of the rich cluster of technology research universities located in Boston.