

**7.1 INTRODUCTION**

This chapter analyzes the Hudson Tunnel Project's potential impacts on socioeconomic conditions in New Jersey and New York. Socioeconomic conditions include the social and economic characteristics of the people who live and work within the study areas, and the trade and economic characteristics of businesses located within the study areas. The Preferred Alternative has the potential to affect socioeconomic conditions if it affects neighborhood character or cohesion as a result of new land uses or adverse environmental impacts; restricts access to businesses or community facilities; or impedes emergency services.

Operation of the Preferred Alternative would not increase rail service on the Northeast Corridor (NEC) and would have no potential to change travel patterns in the region. Therefore, operation of the Preferred Alternative has no potential to influence real estate trends or employment in the region or cause demographic shifts. This chapter describes relevant socioeconomic conditions in the study area and describes the potential effects of the Preferred Alternative on socioeconomic conditions.

A separate analysis of environmental justice and the potential for disproportionate and adverse impacts from the No Action Alternative or Preferred Alternative on low-income and minority populations is provided in Chapter 22, "Environmental Justice."

This chapter contains the following sections:

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- 7.2 Analysis Methodology
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**7.2 ANALYSIS METHODOLOGY**

During development of this Environmental Impact Statement (EIS), the Federal Railroad Administration (FRA) and NJ TRANSIT developed methodologies for evaluating the potential



effects of the Hudson Tunnel Project in coordination with the Project's Cooperating and Participating Agencies (i.e., agencies with a permitting or review role for the Project). The methodologies used for analysis of socioeconomic conditions are summarized in this chapter.

### 7.2.1 REGULATORY CONTEXT

FRA's *Procedures for Considering Environmental Impacts*<sup>1</sup> calls for analysis of a proposed project's potential effects on the socioeconomic environment, including the number and kinds of available jobs likely to be affected by each alternative, the potential for community disruption and cohesion, the possibility of demographic shifts, the need for and availability of relocation housing, the potential impacts on commerce, and the impacts on local government services and revenues.

### 7.2.2 ANALYSIS TECHNIQUES

For socioeconomic conditions, FRA and NJ TRANSIT consulted the following data sources to gather useful information in understanding existing conditions: 2000 U.S. Census Bureau data and 2010 Census and American Community Survey (ACS) data; New Jersey Department of Labor and Workforce Development and New York State Department of Labor job data; and Esri Business Analyst, a private online data provider. Geographic Information Systems (GIS) mapping layers, site visits, and municipal property search databases were also used to determine property information.

The potential effects of the Preferred Alternative's construction and operation on socioeconomic conditions were assessed. The assessment considers direct and indirect socioeconomic impacts resulting from potential displacements and changes in neighborhood or community cohesion for social groups. Changes stemming from direct or indirect displacement may constitute an adverse impact if the displacement substantially changes the socioeconomic profile or housing character of the study area, or if potentially displaced businesses provide essential products or services to the local economy that would no longer be available in its trade area to local residents or businesses due to the difficulty of either relocating the businesses or establishing new, comparable businesses. The relative loss of municipal tax revenue was also evaluated to address the potential for impacts to a municipality's ability to provide services.

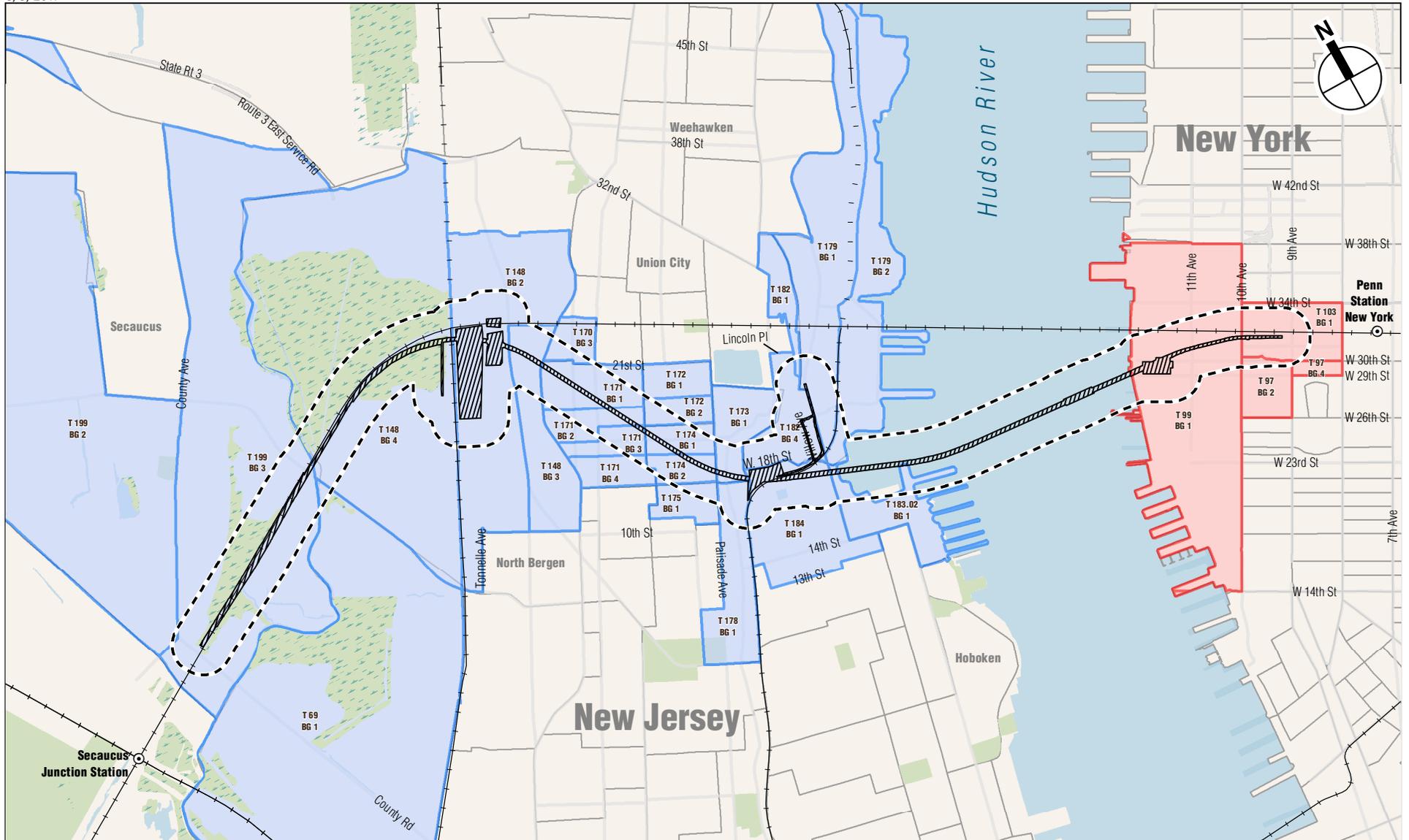
### 7.2.3 STUDY AREAS

The study area for this assessment considers all areas in which the Preferred Alternative could alter socioeconomic conditions, either directly or indirectly. The size of the study area is based on a consideration of potential impacts of the Preferred Alternative during construction, including the location of active construction in combination with the potential construction access routes, and operational conditions. In general, the study area for consideration of the localized socioeconomic conditions is the area within 500 feet from the Project site (defined as the area that would be affected by construction activities associated with the Preferred Alternative as well as the permanent elements of the Preferred Alternative—see Chapter 4, "Analysis Framework," for further definition of the Project site). The analysis also considers the larger, more regional effects of the No Action and Preferred Alternatives.

The study area is shown in **Figure 7-1**. For consideration of census data, census block groups that fall within that 500-foot perimeter were included in the study area. The study area includes 24 census block groups in New Jersey and 4 in New York, as discussed below.

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<sup>1</sup> 64 Federal Register 28545, May 26, 1999.



Project Site

New Jersey Census Tracts in Study Area

Study Area (500-foot boundary)

New York Census Tracts in Study Area

0 5,000 FEET

Information on low-income and minority populations in the study area and consideration of whether the Preferred Alternative may result in disproportionate impacts on those populations is provided in Chapter 22, “Environmental Justice.”

## **7.3 AFFECTED ENVIRONMENT: EXISTING CONDITIONS**

### **7.3.1 NEW JERSEY**

#### *7.3.1.1 OVERALL SOCIOECONOMIC CONDITIONS*

##### *7.3.1.1.1 Social Conditions*

**Table 7-1** presents the population for the New Jersey study area’s census tracts, the New Jersey study area as a whole, and Hudson County. According to the 2010-2014 ACS, the population of the study area is 48,185 (approximately 7.4 percent of the population of Hudson County).

**Table 7-2** presents average household income for the study area and reference area. The 2010-2014 average household income for the study area is an estimated \$107,243 in 2015 dollars, which is higher than the median household income in Hudson County for the same period.

Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English are categorized as Limited English Proficient (LEP) for the purpose of evaluating language access. **Table 7-3** summarizes the LEP data for the New Jersey study area. The language proficiency data for Hudson County is also shown for comparison purposes. Overall, approximately 29.9 percent of persons residing in the study area are considered to have LEP, compared to 25.8 percent in the county overall.



**Table 7-1  
2010-2014 Total Population,  
New Jersey Study Area**

<b>Geography*</b>	<b>Total Population</b>
CT 69 BG 1	24
CT 148 BG 2	1,722
CT 148 BG 3	3,045
CT 148 BG 4	0
CT 170 BG 3	1,077
CT 171 BG 1	1,498
CT 171 BG 2	1,478
CT 171 BG 3	1,077
CT 171 BG 4	1,217
CT 172 BG 1	1,368
CT 172 BG 2	1,656
CT 173 BG 1	2,585
CT 174 BG 1	1,165
CT 174 BG 2	1,560
CT 175 BG 1	2,329
CT 178 BG 1	1,301
CT 179 BG 1	765
CT 179 BG 2	1,208
CT 182 BG 1	908
CT 182 BG 4	498
CT 183.02 BG 1	3,607
CT 184 BG 1	1,351
CT 199 BG 2	3,162
CT 199 BG 3	992
<b>NJ Study Area</b>	<b>35,593</b>
<b>Hudson County</b>	<b>662,619</b>
<b>Note:</b>	* See Figure 7-1 for the study area.
<b>Source:</b>	U.S. Department of Commerce, Bureau of Census, 2011-2015 American Community Survey 5-Year Estimates.

**Table 7-2**  
**2010-2014 Average Household Income,**  
**New Jersey Study Area**

Geography	Average Household Income*
CT 69 BG 1	\$29,026
CT 148 BG 2	\$41,877
CT 148 BG 3	\$59,945
CT 148 BG 4	\$0
CT 170 BG 3	\$76,308
CT 171 BG 1	\$68,772
CT 171 BG 2	\$48,119
CT 171 BG 3	\$41,359
CT 171 BG 4	\$63,295
CT 172 BG 1	\$62,774
CT 172 BG 2	\$73,559
CT 173 BG 1	\$77,922
CT 174 BG 1	\$43,651
CT 174 BG 2	\$42,119
CT 175 BG 1	\$49,589
CT 178 BG 1	\$73,083
CT 179 BG 1	\$187,553
CT 179 BG 2	\$271,159
CT 182 BG 1	\$146,155
CT 182 BG 4	\$118,048
CT 183.02 BG 1	\$256,670
CT 184 BG 1	\$147,400
CT 199 BG 2	\$148,914
CT 199 BG 3	\$53,541
<b>NJ Study Area</b>	<b>\$112,450</b>
<b>Hudson County</b>	<b>\$84,741</b>
<b>Note:</b> *	The ACS collects data throughout the period on an on-going, monthly basis and asks for a respondent's income over the "past 12 months." The average household income is presented in 2015 inflation adjusted dollars.
<b>Source:</b>	U.S. Department of Commerce, Bureau of Census, 2011-2015 American Community Survey 5-Year Estimates.



**Table 7-3  
English Proficiency for Population 5 Years and Over,  
New Jersey Study Area**

Geography	Total Population 5 Years and Over	Population by Language Spoken at Home			Percent LEP Persons
		Speak Only English	Bilingual	LEP: Speak English Less than "Very Well"	
CT 69 BG 1	24	9	4	11	45.8%
CT 148 BG 2	1,564	237	635	692	44.2%
CT 148 BG 3	2,825	415	1,273	1,137	40.2%
CT 148 BG 4	0	0	0	0	N/A
CT 170 BG 3	991	312	450	229	23.1%
CT 171 BG 1	1,456	222	814	420	28.8%
CT 171 BG 2	1,404	175	599	630	44.9%
CT 171 BG 3	981	81	379	521	53.1%
CT 171 BG 4	1,165	90	596	479	41.1%
CT 172 BG 1	1,297	237	486	574	44.3%
CT 172 BG 2	1,535	162	603	770	50.2%
CT 173 BG 1	2,367	574	1,158	635	26.8%
CT 174 BG 1	1,067	161	444	462	43.3%
CT 174 BG 2	1,408	158	755	495	35.2%
CT 175 BG 1	2,177	414	888	875	40.2%
CT 178 BG 1	1,260	495	514	251	19.9%
CT 179 BG 1	686	405	221	60	8.7%
CT 179 BG 2	1,107	679	293	135	12.2%
CT 182 BG 1	840	463	277	100	11.9%
CT 182 BG 4	486	368	72	46	9.5%
CT 183.02 BG 1	3,167	2,424	601	142	4.5%
CT 184 BG 1	1,216	1,052	123	41	3.4%
CT 199 BG 2	3,035	1,726	1,009	300	9.9%
CT 199 BG 3	926	284	353	289	31.2%
<b>NJ Study Area</b>	<b>32,984</b>	<b>11,143</b>	<b>12,547</b>	<b>9,294</b>	<b>28.2%</b>
<b>Hudson County</b>	<b>616,507</b>	<b>251,828</b>	<b>208,249</b>	<b>156,430</b>	<b>25.4%</b>
<b>Note:</b>	Bilingual is defined as those who speak Other Language and English "Very Well."				
<b>Source:</b>	U.S. Department of Commerce, Bureau of Census, 2011-2015 American Community Survey 5-Year Estimates.				

7.3.1.1.2 *Economic Conditions*

Business Summary Reports were obtained from Esri's Business Analyst Online for the 24 census block groups in the New Jersey study area (aggregated for the study area as a whole), and for Hudson County as a whole, for comparison.<sup>2</sup>

As shown in **Table 7-4**, there are an estimated 31,944 employees in the study area. These employees represent approximately 11.6 percent of the employment in all of Hudson County. Within the study area, the finance and insurance sector accounts for the largest share of total employment (18.1 percent), which reflects the presence of large office developments along the

<sup>2</sup> Esri collects the data from the U.S. Census, including the ACS and the U.S. Bureau of Labor Statistics.

Hudson River, and Weehawken’s business district at Lincoln Harbor between the Lincoln Tunnel and Weehawken Cove, which includes UBS, a Swiss global financial services company. This sector is followed by the retail trade sector (with 14.5 percent of the study area’s employment), reflecting Weehawken’s retail district along Park Avenue (its boundary with Union City), as well as the Shops at Lincoln Harbor. Similarly, Hudson County also has its largest shares of employment in the finance and insurance and retail trade sectors, which is indicative of the county’s role as a major economic center.

As shown in the same table, the retail trade sector has the largest share of the study area’s businesses (17.2 percent), as well as the county’s businesses (15.9 percent).

**Table 7-4  
Estimated Employees and Businesses in  
New Jersey Study Area and Hudson County**

Type of Job by NAICS Category	New Jersey Study Area				Hudson County			
	Employees		Businesses		Employees		Businesses	
	No.	%	No.	%	No.	%	No.	%
Agriculture, forestry, fishing and hunting	1	0.0%	1	0.1%	57	0.0%	12	0.1%
Mining	5	0.0%	1	0.1%	20	0.0%	6	0.0%
Utilities	362	1.1%	4	0.2%	546	0.2%	24	0.1%
Construction	1,025	3.2%	102	6.0%	10,842	3.9%	1,236	5.2%
Manufacturing	1,455	4.6%	69	4.0%	10,412	3.8%	678	2.8%
Wholesale trade	3,675	11.5%	94	5.5%	12,009	4.4%	774	3.2%
Retail trade	4,635	14.5%	294	17.2%	36,737	13.3%	3,806	15.9%
Transportation and warehousing	2,726	8.5%	109	6.4%	17,555	6.4%	1,083	4.5%
Information	1,256	3.9%	60	3.5%	9,745	3.5%	634	2.7%
Finance and insurance	5,787	18.1%	107	6.2%	28,314	10.3%	1,524	6.4%
Real estate and rental and leasing	1,483	4.6%	118	6.9%	13,044	4.7%	1,572	6.6%
Professional, scientific, and technical services	1,639	5.1%	115	6.7%	26,580	9.6%	1,688	7.1%
Management of companies and enterprises	32	0.1%	2	0.1%	535	0.2%	29	0.1%
Administrative and support and waste management and remediation services	467	1.5%	73	4.3%	6,363	2.3%	834	3.5%
Educational services	759	2.4%	22	1.3%	19,771	7.2%	564	2.4%
Health care and social assistance	1,754	5.5%	80	4.7%	26,770	9.7%	1,752	7.3%
Arts, entertainment, and recreation	314	1.0%	36	2.1%	3,639	1.3%	360	1.5%
Accommodation and food services	2,059	6.4%	124	7.2%	18,770	6.8%	2,221	9.3%
Other services (except public administration)	966	3.0%	157	9.2%	15,309	5.5%	3,130	13.1%
Public administration	1,280	4.0%	37	2.2%	17,942	6.5%	683	2.9%
<b>Total</b>	<b>31,944</b>	<b>100.0%</b>	<b>1,713</b>	<b>100.0%</b>	<b>276,029</b>	<b>100.0%</b>	<b>23,924</b>	<b>100.0%</b>

**Note:** Total includes Unclassified Establishments (266 employees or 0.8 percent and 109 businesses or 6.4 percent in New Jersey Study Area and 1,069 employees or 0.4 percent and 1,314 businesses or 5.5 percent in Hudson County).

**Source:** Esri, Business Analyst Online, Business Summary Report, 2016, accessed on April 10, 2017.



### 7.3.1.2 LOCAL CONDITIONS IN THE STUDY AREA

The New Jersey study area can generally be divided into four areas, based on the geography as well as the anticipated construction activities for the Preferred Alternative:

- County Road to Tonnelle Avenue, where the Project site is adjacent or close to the existing tracks of the NEC.
- Tonnelle Avenue area, where the Project site would cross beneath this busy arterial and also includes staging sites on both side of the road.
- The Palisades, which would be above the Preferred Alternative's new tunnel alignment and are above the existing North River Tunnel alignment.
- East of the Palisades, where the Project site includes a vacant site in an industrial area that is adjacent to a residential neighborhood, which would be used for construction staging and for a permanent ventilation facility; the Project would also have temporary construction truck routes on local neighborhood streets in this area.

#### 7.3.1.2.1 County Road to Tonnelle Avenue

The western portion of the New Jersey study area consists of an area including and along the raised embankment of the NEC. This area consists predominantly of the transportation infrastructure associated with the NEC; the New Jersey Turnpike (I-95); several freight railroad rights-of-way and utility corridors; and light industrial, warehousing, and manufacturing businesses dependent on trucking or rail freight. On the south side of the NEC, the Project site includes portions of a number of light industrial properties, as outlined in Chapter 6A, "Land Use, Zoning, and Public Policy."

This portion of the study area also includes three small residences north of the NEC near Secaucus Road.

#### 7.3.1.2.2 Tonnelle Avenue Area

Tonnelle Avenue (U.S. Routes 1 and 9) is a busy arterial roadway lined with commercial uses, including restaurants, gas stations and other auto-related uses (e.g., auto wrecking), building supply and retail stores, and some light industrial and industrial uses. No residences are located along Tonnelle Avenue, but a residential area is above Tonnelle Avenue on the western slope of the Palisades on Paterson Plank Road and Grand Avenue. The Project site in the Tonnelle Avenue area includes properties on both side of the roadway. These properties were acquired by NJ TRANSIT in connection with the former Access to the Region's Core (ARC) Project. NJ TRANSIT cleared the sites in anticipation of construction for that project, which was later cancelled.

#### 7.3.1.2.3 The Palisades

The study area on the Palisades is predominantly residential, and also includes institutional, community facility, commercial, and retail uses that support residential areas.

#### 7.3.1.2.4 East of the Palisades

The study area east of the Palisades includes a light industrial area in Hoboken, with warehousing, utility uses (a PSE&G substation and the North Hudson Sewerage Authority's wastewater treatment plant), self-storage, and bus parking. The tracks of the Hudson-Bergen Light Rail (HBLR) run through this area. The Project site in this area is within the light industrial area, and consists of a vacant parcel that NJ TRANSIT acquired as part of the ARC Project. At that time, the property had industrial buildings on it that NJ TRANSIT later demolished.

This portion of the New Jersey study area also includes a small residential community just north of the Project site in Weehawken, with low-rise attached and detached residences and a recently constructed 10-story apartment building.

**7.3.2 NEW YORK**

*7.3.2.1 OVERALL SOCIOECONOMIC CONDITIONS*

*7.3.2.1.1 Social Conditions*

**Table 7-5** presents the population for the New York study area’s census block groups, the study area as a whole, and Manhattan. According to the 2011-2015 ACS, the population of the study area is 9,162 (or less than 1 percent of the population of Manhattan).

**Table 7-5  
2010-2014 Total Population,  
New York Study Area**

Geography	Total Population
CT 97 BG 2	893
CT 97 BG 4	1,490
CT 99 BG 1	4,938
CT 103 BG 1	1,841
<b>NY Study Area</b>	<b>9,162</b>
<b>Manhattan</b>	<b>1,629,507</b>
<b>Source:</b> U.S. Department of Commerce, Bureau of Census, 2011-2015 American Community Survey 5-Year Estimates.	

**Table 7-6** presents average household income for the New York study area and reference area. The 2011-2015 ACS estimates a study area average household income of \$167,634 in 2015 dollars, which is higher than the estimated median household income in Manhattan.

**Table 7-7** summarizes the language proficiency data for the census block groups that comprise the study area. The language proficiency data for Manhattan is also shown for comparison purposes. Overall, approximately 9.0 percent of persons residing in the New York study area are considered to have LEP, compared with 15.8 percent in Manhattan overall.

**Table 7-6  
2010-2014 Average Household Income,  
New York Study Area**

Geography	Average Household Income*
CT 97 BG 2	\$100,125
CT 97 BG 4	\$103,775
CT 99 BG 1	\$215,059
CT 103 BG 1	\$111,269
<b>NY Study Area</b>	<b>\$167,634</b>
<b>Manhattan</b>	<b>\$135,687</b>
<b>Note:</b> * The ACS collects data throughout the period on an ongoing, monthly basis and asks for a respondent’s income over the “past 12 months.” The average household income is presented in 2015 inflation adjusted dollars.	
<b>Source:</b> U.S. Department of Commerce, Bureau of Census, 2011-2015 American Community Survey 5-Year Estimates.	



**Table 7-7**  
**English Proficiency for Population 5 Years and Over,**  
**New York Study Area**

Geography	Total Population 5 Years and Over	Population by Language Spoken at Home			Percent LEP Persons
		Speak Only English	Bilingual: Speak Other Language and English "Very Well"	LEP: Speak English Less than "Very Well"	
CT 97 BG 2	893	401	367	125	14.0%
CT 97 BG 4	1,467	777	433	257	17.5%
CT 99 BG 1	4,859	3,491	1,001	367	7.6%
CT 103 BG 1	1,803	1,332	406	65	3.6%
<b>NY Study Area</b>	<b>9,022</b>	<b>6,001</b>	<b>2,207</b>	<b>814</b>	<b>9.0%</b>
<b>Manhattan</b>	<b>1,546,609</b>	<b>923,812</b>	<b>378,071</b>	<b>244,726</b>	<b>15.8%</b>

**Note:** Percentages may not add to 100 due to rounding.  
**Source:** U.S. Department of Commerce, Bureau of Census, 2011-2015 American Community Survey 5-Year Estimates.

7.3.2.1.2 *Economic Conditions*

Business Summary Reports were pulled from Esri’s Business Analyst Online for the four census block groups in the New York study area (aggregated for the study area as a whole), and for Manhattan as a whole, for comparison. As shown in **Table 7-8**, there were an estimated 47,265 employees in the New York study area. These employees represent approximately 1.9 percent of the employment in all of Manhattan. Within the study area, the health care and social assistance sector accounts for the largest share of total employment (18.5 percent); most of this employment is concentrated in Census Tract 103 Block Group 1—between 30th and 34th Streets and Eighth and Tenth Avenues. This sector is followed by the professional, scientific, and technical services sector (with 15.7 percent of the study area’s employment), reflecting the presence of large office developments in this area. The retail trade sector also had a significant share of the study area’s employment (11.1 percent). Similarly, three of the top four employment sectors in Manhattan include the health care and social assistance; professional, scientific, and technical services; and retail trade sectors.

As shown in **Table 7-8**, the retail trade sector has the largest share of the study area’s businesses (18.9 percent), as well as Manhattan’s businesses (15.3 percent).

7.3.2.2 *LOCAL CONDITIONS IN THE STUDY AREA*

The New York study area is located in Manhattan’s Far West Side, an area that is currently dominated with transportation uses—most notably, the urban boulevard/arterial of NYS Route 9A (also known as Twelfth Avenue in the study area), which runs parallel to the Hudson River, and the multi-block rail complex of tracks west of Penn Station New York (PSNY)—and low- and mid-rise light industrial uses. This area is undergoing dramatic transformation as a result of several public policy initiatives, and will eventually have a very different character. Numerous high-rise residential and commercial buildings are being developed, including large developments on platforms over the Metropolitan Transportation Authority (MTA) Long Island Rail Road (LIRR) John D. Caemmerer West Side Yard. The developments being constructed over the railyard are collectively referred to as Hudson Yards.

**Table 7-8**  
**Estimated Employees and Businesses in New York Study Area and Manhattan**

Type of Job by NAICS Category	New York Study Area				Manhattan			
	Employees		Businesses		Employees		Businesses	
	No.	%	No.	%	No.	%	No.	%
Agriculture, forestry, fishing hunting	6	0.0%	3	0.1%	311	0.0%	60	0.0%
Mining	1	0.0%	1	0.0%	312	0.0%	54	0.0%
Utilities	144	0.3%	5	0.2%	5,930	0.2%	89	0.1%
Construction	1,738	3.7%	101	4.1%	46,970	1.9%	4,190	2.8%
Manufacturing	730	1.5%	57	2.3%	74,679	3.0%	4,140	2.8%
Wholesale trade	587	1.2%	59	2.4%	49,046	2.0%	4,749	3.2%
Retail trade	5,230	11.1%	470	18.9%	255,322	10.3%	22,680	15.3%
Transportation and warehousing	1,111	2.4%	72	2.9%	43,746	1.8%	2,035	1.4%
Information	4,046	8.6%	136	5.5%	183,807	7.4%	6,085	4.1%
Finance and insurance	1,431	3.0%	120	4.8%	320,623	13.0%	11,100	7.5%
Real estate and rental and leasing	1,211	2.6%	161	6.5%	118,000	4.8%	10,095	6.8%
Professional, scientific, and technical services	7,400	15.7%	359	14.4%	378,985	15.3%	21,001	14.2%
Management of companies and enterprises	20	0.0%	4	0.2%	20,787	0.8%	360	0.2%
Administrative and support and waste management and remediation services	1,303	2.8%	101	4.1%	105,424	4.3%	6,531	4.4%
Educational services	952	2.0%	44	1.8%	114,706	4.6%	3,391	2.3%
Health care and social assistance	8,747	18.5%	78	3.1%	257,420	10.4%	9,334	6.3%
Arts, entertainment, and recreation	2,862	6.1%	98	3.9%	66,039	2.7%	3,707	2.5%
Accommodation and food services	2,503	5.3%	138	5.5%	222,057	9.0%	11,999	8.1%
Other services (except public administration)	3,305	7.0%	224	9.0%	127,535	5.2%	13,757	9.3%
Public administration	3,596	7.6%	23	0.9%	67,769	2.7%	1,388	0.9%
<b>Total</b>	<b>47,265</b>	<b>100.0%</b>	<b>2,492</b>	<b>100.0%</b>	<b>2,468,985</b>	<b>100.0%</b>	<b>147,998</b>	<b>100.0%</b>
<b>Note:</b> Total includes Unclassified Establishments (342 employees or 0.7 percent and 238 businesses or 9.6 percent in New York study area and 9,517 employees or 0.4 percent and 11,253 businesses or 7.6 percent in Manhattan).								
<b>Source:</b> Esri, Business Analyst Online, Business Summary Report, 2016, accessed on April 10, 2017.								

The study area also includes Hudson River Park, a linear waterfront park that is being developed along Manhattan's western edge as funding becomes available. Over time, this park has transformed a formerly inaccessible industrial waterfront into a publicly accessible walkway and bikeway with landscaped areas and activity zones. Within the study area, however, a portion of Hudson River Park is currently occupied by the West 30th Street Heliport, a private heliport with 10 helipads that provides commercial, general aviation, and air taxi services. No tourist flights are operated from this location. In the summer approximately 72 flights operate each day from the heliport; in the winter, this number decreases to about 36 daily flights.

The New York study area currently includes limited residential population.

The Project site includes a partially vacant, underutilized site along Twelfth Avenue where the Preferred Alternative proposes a vent shaft and construction staging site be located, on a block between West 29th and West 30th Streets where three high-rise developments are planned or likely in the near future.

## 7.4 AFFECTED ENVIRONMENT: FUTURE CONDITIONS

Some new development is occurring near the Project site in the New Jersey study area, including new residential development in Weehawken and the flood protection infrastructure Rebuild By Design project in Hoboken and Weehawken. Chapter 6A, “Land Use, Zoning, and Public Policy,” describes the anticipated development (see Section 6A.4.1.1).

The New York study area will see extensive redevelopment in the future, also discussed in Chapter 6A, “Land Use, Zoning, and Public Policy.” This includes a number of large-scale mixed-use (commercial and residential) developments, commercial developments, as well as several public transportation infrastructure and open space improvement projects (see Chapter 6A, Section 6A.4.3.1). The addition of a large amount of new commercial office space and retail space, new hotels, and thousands of new apartments will change the economic profile and residential characteristics of the New York study area by the analysis year of 2030.

This condition is the baseline against which the impacts of both the No Action and Preferred Alternatives are compared.

## 7.5 IMPACTS OF NO ACTION ALTERNATIVE

No new passenger rail tunnel across the Hudson River would be constructed in the No Action Alternative and the North River Tunnel would not be fully rehabilitated. The No Action Alternative assumes that the existing North River Tunnel remains in service, with continued maintenance as necessary to address ongoing deterioration to the extent possible. However, without a full rehabilitation of the North River Tunnel, damage to the tunnel caused by Superstorm Sandy will continue to degrade systems in the tunnel. This deterioration combined with the tunnel’s age and intensity of use will likely lead to increasing instability of rail operations in the tunnel, and may lead to its eventual closure.

The No Action Alternative would result in adverse effects on socioeconomic conditions in New Jersey, New York, and the cities in the Northeast that currently benefit from Amtrak’s intercity rail service. Without proper maintenance of the transportation infrastructure, delays on Amtrak and NJ TRANSIT service for unplanned maintenance and repairs would continue to worsen. As trans-Hudson travel demand continues to grow, more and more people would be affected as access to work, home, and areas of commerce would be more difficult in New Jersey, New York, and throughout the NEC.

Without full rehabilitation of the North River Tunnel, the increased instability of rail operations and the potential for eventual closure of the tunnel would have wide-ranging impacts on travel in the region and on the regional economy. Extreme overcrowding and delays in public transportation service would likely occur, and a shift from train to auto travel would result, which would exacerbate already congested conditions on the Hudson River crossings and major roads on both sides of the river and in the region.

Increasing travel time required for work commutes and the movement of goods and services in the region would increase the cost of doing business and ultimately make the region a less desirable location to live and work. Under the No Action Alternative, the projected growth in population and employment would not be sustainable and the deterioration in travel conditions would adversely impact the local tax base and economic activity in the Northeast.

## **7.6 CONSTRUCTION IMPACTS OF THE PREFERRED ALTERNATIVE**

### **7.6.1 OVERVIEW**

Construction of the Preferred Alternative would generate economic benefits for New Jersey and New York from the creation of construction jobs, wages and salaries paid to construction workers, and indirect economic activity from those expenditures throughout the regional economy (i.e., the multiplier effect).

Construction of the Preferred Alternative would generate construction jobs over the 11-year construction period. In addition to jobs directly attributable to the Project's construction, indirect employment would occur from the construction expenditure, including manufacturing jobs for the construction materials used for the Preferred Alternative and jobs in business establishments providing goods and services to the construction workers in New Jersey and New York.

Construction activities for the Preferred Alternative also have the potential to cause temporary, localized adverse effects on socioeconomic conditions. Construction of the Preferred Alternative would result in disruptions and inconveniences in areas adjacent to the proposed construction sites, as described below. The localized adverse effects described in this section would not result in the potential for community disruption, possibility of demographic shifts, need for or availability of relocation housing, adverse effects on commerce, or adverse impacts to local government services and revenues.

### **7.6.2 ECONOMIC AND FISCAL BENEFITS OF CONSTRUCTION EXPENDITURES**

The construction of the Preferred Alternative would result in the investment of significant capital into the local and regional economy. This investment would result in direct and indirect economic and fiscal benefits to New Jersey and New York State in terms of employment (in jobs per year); employee compensation; total economic output (the total demand for goods and services created by construction of the Preferred Alternative); and tax revenues generated over the approximately 11-year construction period. This analysis considers the benefits to New Jersey and New York from construction activity for the Preferred Alternative; other benefits would also accrue to areas elsewhere in the U.S. where construction materials for the Preferred Alternative are manufactured.

FRA and NJ TRANSIT estimated these benefits to New York and New Jersey using the preliminary construction cost information for the Preferred Alternative based on conceptual engineering (10 percent design) and the IMPLAN (i.e., IMpact Analysis for PLANning) input-output modeling system.<sup>3</sup> Chapter 2, "Project Alternatives and Description of the Preferred Alternative," Section 2.5.8, provides information on the cost of the Preferred Alternative. Benefits were assumed to accrue to New Jersey or New York based on where construction spending would occur; construction spending was assumed to occur in the state where the construction activities would occur. Economic benefits associated with the manufacture of tunnel boring machines (TBMs) for the Project were excluded from this analysis because FRA and

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<sup>3</sup> Minnesota IMPLAN Group, IMPLAN (IMpacts for PLANning), Version 3.1.1001.12, 2013 and 2015 IMPLAN State Packages for New York and New Jersey. This model was developed by the U.S. Department of Transportation and subsequently privatized by the Minnesota IMPLAN Group.



NJ TRANSIT do not anticipate that the TBMs would be manufactured in New Jersey or New York, and therefore the benefit of that production would not occur in New Jersey or New York.<sup>4</sup>

IMPLAN is an economic input–output modeling system that uses the most recent economic data from sources such as the U.S. Bureau of Economic Analysis, the U.S. Bureau of Labor Statistics, and the U.S. Census Bureau to predict effects on the local economy from direct changes in spending. The model contains data on 536 economic sectors, showing how each sector affects every other sector as a result of a change in the quantity of its product or service.

The public expenditure required to complete the Preferred Alternative would translate directly into jobs for construction labor itself and for the production of necessary services and materials. In addition to these jobs, the Project’s construction would also result in indirect or secondary economic activity generated from the direct expenditures throughout the regional economy (often referred to as the “ripple” or “multiplier” effect). In addition to employment directly attributable to construction of the Preferred Alternative, construction expenditures would generate indirect employment, including jobs in business establishments providing goods and services to the contractors, as well as in businesses that would provide goods and services to construction workers.

Overall, the economic benefits associated with construction of the Preferred Alternative would include (1) **employment**, or the number of jobs created as a result of construction (presented in full-time equivalents, or FTEs, which convert full- and part-time employment into the equivalent of one employee working full-time); (2) the associated **employee compensation** (total cost of labor, including wages and benefits); (3) **economic output**, which is the economic activity that would result (or the sum of the costs of goods and services used to produce a product and the associated payments to workers, taxes, and profits); and (4) **tax revenues** to local jurisdictions generated as part of the economic output.

Each of these economic benefits would include **direct benefits**, which are the benefits directly associated with the construction expenditure; indirect benefits, which are the benefits generated by construction expenditures in other economic sectors;<sup>5</sup> and **induced benefits**, which are the impacts caused by increased income in a region (e.g., direct and indirect effects generate more worker income by increasing employment and/or salaries in certain industries, and households spend some of this additional income on local goods and services, such as food and drink, recreation, and medical services; benefits generated by these household expenditures are induced effects).

**Table 7-9** summarizes the results of the IMPLAN analysis; all economic and fiscal benefits are reported in 2017 dollars.<sup>6</sup> As shown in the table, the construction activities associated with the Preferred Alternative would create an estimated rounded total of 72,150 jobs (FTE). This would include 39,080 direct construction jobs, 12,780 indirect jobs, and 20,290 induced jobs in New Jersey and New York over the full 11-year construction period. On an annual basis (i.e., jobs per

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<sup>4</sup> The total cost for the Preferred Alternative provided in Chapter 2, “Project Alternatives and Description of the Preferred Alternative,” does include the cost of the TBMs.

<sup>5</sup> Indirect effects occur as construction expenditures will result in purchases from other businesses, such as wholesale traders. These businesses in turn purchase goods and services from other businesses, causing a ripple effect through the economy. The ripple effect continues until leakages from the region (caused, for example, by imported goods) stop the cycle. The sum of these iterative inter-industry purchases is called the indirect effect.

<sup>6</sup> Construction costs provided in Chapter 2 are provided in dollars escalated to the midpoint year of construction for the new Hudson River Tunnel and the midpoint year of rehabilitation for the North River Tunnel. The analysis in this chapter conservatively provides benefits in current dollars. All estimates presented are rounded; totals may not sum because of rounding.

year over the construction's 11 years of construction), the construction activities associated with the Preferred Alternative would create an estimated total of 6,560 jobs, including 3,550 direct construction jobs (FTE), 1,160 indirect jobs, and 1,850 induced jobs in New Jersey and New York.

**Table 7-9  
Economic and Fiscal Benefits  
Associated with Construction of the Preferred Alternative**

Region	Direct	Indirect	Induced	Total
<b>Employment (Jobs/Year)<sup>1</sup></b>				
New Jersey	1,930	630	1,070	3,630
New York	1,630	530	780	2,930
Total	3,550	1,160	1,850	6,560
<b>Employment (Total Jobs over the Full Construction Period)<sup>1</sup></b>				
New Jersey	21,190	6,980	11,730	39,900
New York	17,880	5,800	8,560	32,250
Total	39,080	12,780	20,290	72,150
<b>Employee Compensation (Millions of 2017 Dollars)<sup>2</sup></b>				
New Jersey	\$1,905.1	\$619.0	\$880.1	\$3,404.1
New York	\$1,747.5	\$545.3	\$690.9	\$2,983.7
Total	\$3,652.6	\$1,164.3	\$1,570.9	\$6,387.8
<b>Output (Millions of 2017 Dollars)<sup>3</sup></b>				
New Jersey	\$5,729.2	\$1,871.5	\$2,861.8	\$10,462.4
New York	\$4,496.8	\$1,568.6	\$2,147.4	\$8,212.8
Total	\$10,226.0	\$3,440.1	\$5,009.1	\$18,675.2
<b>Tax Revenues (Millions of 2017 Dollars)<sup>4</sup></b>				
New Jersey	\$86.0	\$29.5	\$45.9	\$161.3
New York	\$116.6	\$42.7	\$59.2	\$218.5
Total	\$202.6	\$72.2	\$105.0	\$379.8
<b>Notes:</b>				
<sup>1</sup> Jobs are presented in full time equivalents (FTE). An FTE is equivalent to one employee working full-time. Jobs per year are the total jobs divided over the 11 years of the construction period; total jobs are all jobs over the entire 11-year construction period.				
<sup>2</sup> The total cost of labor including wages and benefits over the entire 11-year construction period..				
<sup>3</sup> The total effect on the local economy over the entire 11-year construction period, including the sum of the cost of goods and services used to produce a product and the associated payments to workers, taxes, and profits.				
<sup>4</sup> Figures include personal income tax, corporate and business taxes, and numerous other taxes on direct, indirect, and induced activity over the entire 11-year construction period. It is conservatively assumed that the Project Sponsor would be exempt from sales tax on construction materials.				
Detailed amounts may not add to totals because of rounding.				
<b>Source:</b> AKRF, Inc., June 2017, the IMPLAN economic modeling system, 2015.				

**7.6.2.1 NEW JERSEY**

Construction of the Preferred Alternative would create an estimated 1,930 direct construction jobs (FTE) per year in New Jersey. In addition to direct employment, construction of the Preferred Alternative would create additional jobs off-site in the rest of the state (630 indirect and 1,070 induced jobs per year). In total, employment from construction of the Preferred Alternative would be 3,630 jobs per year in New Jersey. Over the full 11-year construction period, the Preferred Alternative would create an estimated 21,190 direct construction jobs, 6,980 indirect jobs, and 11,730 induced jobs.

Direct wages and salaries from constructing the Preferred Alternative are estimated at about \$1,905.1 million (\$1.9 billion) in New Jersey. In the broader state economy, total direct, indirect,



and induced wages and salaries from Preferred Alternative construction would be even greater (approximately \$3,404.1 million (\$3.4 billion), including \$619.0 million in indirect employee compensation and \$880.1 million in induced employee compensation).

The total effect on the New Jersey state economy, expressed as economic output or demand for local industries, is estimated at approximately \$10,462.4 million (\$10.5 billion). In addition to direct expenditures, this output includes indirect and induced employee compensation, taxes, profits, and intermediate goods.

Construction of the Preferred Alternative would also create tax revenues for New Jersey and local taxing jurisdictions. These taxes include personal income tax, corporate and business taxes, and numerous miscellaneous taxes. Construction of the Preferred Alternative would create approximately \$161.3 million in state and local taxes in New Jersey, including \$86 million in direct revenues and \$75.4 million in indirect and induced revenues (this analysis conservatively assumes that the Project Sponsor would be exempt from paying sales tax on construction materials).

#### *7.6.2.2 NEW YORK*

In New York State, construction of the Preferred Alternative would create an estimated 1,630 direct construction jobs (FTE) per year. In addition to direct employment, construction of the Preferred Alternative would create additional jobs off-site in the rest of the state (530 indirect and 780 induced jobs per year). In total, employment from construction of the Preferred Alternative would be 2,930 jobs per year in New York. Over the full 11-year construction period, the Preferred Alternative would create an estimated 17,880 direct construction jobs, 5,800 indirect jobs, and 8,560 induced jobs in New York.

Direct wages and salaries from construction of the Preferred Alternative are estimated at about \$1,747.5 million (\$1.7 billion) in New York. In the broader state economy, total direct, indirect, and induced wages and salaries from Preferred Alternative construction activities would be even greater (approximately \$2,983.7 million (\$3 billion), including \$545.3 million in indirect employee compensation and \$690.9 million in induced employee compensation).

The total effect on the New York State economy, expressed as economic output or demand for local industries, is estimated at approximately \$8,212.8 million (\$8.2 billion). In addition to direct expenditures, this output includes indirect and induced employee compensation, taxes, profits, and intermediate goods.

Construction of the Preferred Alternative would also create tax revenues for New York State and local taxing jurisdictions. These taxes include personal income tax, corporate and business taxes, and numerous miscellaneous taxes. Construction of the Preferred Alternative would create approximately \$218.5 million in non-property-related state and local taxes in New York, including \$116.6 million in direct revenues and \$101.9 million in indirect and induced revenues (this analysis conservatively assumes that the Project Sponsor would be exempt from paying sales tax on construction materials).

### **7.6.3 CONSTRUCTION EFFECTS ON BUSINESS ACTIVITIES**

#### *7.6.3.1 NEW JERSEY*

Construction activities for the Preferred Alternative would involve some temporary disruption to the nearby businesses and residents related to construction traffic, noise at construction staging sites, and in certain locations, the need for the temporary use of private property for construction activities. No residential property would be affected. The potential effects of construction on business activities are outlined below.

7.6.3.1.1 *County Road to Tonnelle Avenue*

The installation of tracks and associated infrastructure in the Preferred Alternative's surface alignment through the Meadowlands would require partial acquisitions of abutting industrial properties. Temporary easements would be required to accommodate installation of below-grade drainage infrastructure and to allow construction access for workers installing the railroad embankment and structures. Some permanent property acquisitions would also be required in this area. Property acquisitions are discussed in Chapter 6B, "Property Acquisition."

In most instances, access to commercial establishments adjacent to construction sites would be maintained at all times and temporary and permanent fee acquisition and easements would be limited to partial takings of vacant land. However, construction activities for the surface tracks through the Meadowlands may have the following adverse effects:

- Access to the loading docks of the warehouse at 801/901 Penhorn Avenue (Block 44, Lot 5.04) in Secaucus would be obstructed while crews install a retaining wall, an overhead platform for communications equipment, and an underground storm sewer. Over a period of five years, there would be intermittent periods totaling approximately 12 months when occupants of this building would not have use of some of the loading bays on that side of the building. Six parking spaces on the east side of the building would also need to be removed. Work would be staged so that access to some loading docks would be available while others were closed. Specific access requirements would be coordinated with the property owner and building tenants to minimize the disruption that would occur to business activities, where possible.

This construction would adversely affect tenants in the building, which currently include the following tenants: Caligor Rx, Paperback Shop, Windy City Wire, Tylie Jones Vault Office, A.J. Worldwide Services Inc., Bhasin Enterprises Inc., Bhasin Properties DDMG Inc., European Fishing Equipment, Japna Inc., Nationwide Wholesale Video and Us Crystals. The Project Sponsor would fully restore the property once construction is complete.

- About 12 of 32 parking spaces at 401 Penhorn Avenue (Block 47, Lot 4.08) in Secaucus would be required for the installation of the retaining wall and drainage system for a period of up to five months over a five-year period. Tenants affected include: Art Resources Rug Store; The Creative Touch Inc.; Rug Store; JAS Forwarding USA Freight Forwarding Service; and Uoriki Fresh Seafood Wholesaler. Based on the large amount of parking and storage space nearby, replacement parking would likely be available and no tenants would need to be relocated. The Project Sponsor would fully restore the property once construction is complete.
- Approximately 30 parking spaces (about half) at 301 Penhorn Avenue (Block 47 Lot 3.01) in Secaucus would be required for the installation of the retaining wall and drainage system for a total of approximately five months intermittently over a five-year period. Tenants include: Pump it Up Kids Play Party and Play Space; Samsun Direct Plus; Dagia's Inc. (fashion warehouse); India's Heritage Inc.; Mega Shipping and Forwarding; Meridian Lines and Titans Industries. Based on the large amount of parking and storage space nearby, replacement parking would likely be available and no tenants would need to be relocated. The Project Sponsor would fully restore the property once construction is complete.
- Up to approximately 50 parking spaces used to store tractor trailers, containers, and equipment would be acquired permanently at 2820 16th Street (Block 449, Lot 1) in North Bergen to accommodate new railroad structures, including a viaduct to support the new tracks. This property is used by National Retail Systems Inc. as part of a larger trucking and logistics operation. Work on this property may occur for approximately three years. Based on the large amount of parking and storage space nearby, replacement parking would likely be

available and no tenants would need to be relocated. The Project Sponsor would fully restore the property once construction is complete.

- The Preferred Alternative would use a portion of New York, Susquehanna & Western Railway's (NYSW) lumber reload facility at the terminus of 16th Street (Block 442, Lot 1.09) in North Bergen as an access road to allow trucks and equipment to reach the construction site. At the reload facility, freight is unloaded from rail cars and transferred to customers' trucks. The reload facility is active on weekdays from 6 AM to 3 PM. At other times, it is locked and secured.<sup>7</sup> The Preferred Alternative would use operate a temporary access road for construction vehicles headed to and from the embankment construction site a period of approximately 4.5 years, which would temporarily reduce the amount of space available at the reload facility. NYSW has a large adjacent property and may be able to shift some of the reload function to that property. Coordination related to the use of the reload facility for construction access is ongoing and will continue as the Project design advances. The Project Sponsor would fully restore the property once construction is complete.

#### *7.6.3.1.2 Tonnelle Avenue Area*

The Tonnelle Avenue construction site is located in North Bergen in an industrial/commercial corridor. The nearest residential uses are on the slope of the Palisades above the construction site on Paterson Plank Road, approximately 250 feet away (and 70 feet above) the construction area.

Construction activities at the Tonnelle Avenue construction site would occur over an 11-year period, including utility relocation and construction of a new roadway bridge over the railroad alignment, staging for the surface track construction, staging for the Palisades tunnel, and staging for rehabilitation of the North River Tunnel. During this time there would be heavy truck activity and the use of noisy construction equipment (see Chapter 12, "Noise and Vibration," Sections 12.6.2.1.2 and 12.6.2.1.4). As with any construction project, construction activities would at times be disruptive to nearby activities. The surface-level construction activities would cause disruptions to local vehicular traffic on Tonnelle Avenue due to the movement of heavy equipment and construction materials and the temporary lane closures on Tonnelle Avenue required during for installation of a new roadway overpass over the rail alignment. Traffic delays could impede vehicular access to surrounding businesses and those businesses relying on access to and from Tonnelle Avenue, and could result in an overall reduction in business patronage. Traffic conditions would be managed through the use of a Maintenance and Protection of Traffic (MPT) plan developed in consultation with the local municipality.

#### *7.6.3.1.3 The Palisades*

Construction of the new Hudson River Tunnel beneath the Palisades would occur underground, between 60 feet and 250 feet beneath areas on top of the Palisades in North Bergen and Union City, which would not be noticeable to the residential or business communities in New Jersey, except for some possible ground-borne noise related to the TBM operations, which would be non-intrusive and of short duration (see Chapter 12, "Noise and Vibration," Section 12.6.2.2.4).

#### *7.6.3.1.4 East of the Palisades*

Construction activities at the Hoboken staging site would occur over a seven-year period, during which time there would be heavy truck activity and the use of noisy construction equipment (see Chapter 12, "Noise and Vibration," Section 12.6.2.1.3). Traffic on major north-south routes, such as Willow Avenue, Park Avenue, and JFK Boulevard East, would experience delays caused by

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<sup>7</sup> Based on information provided in a phone call with representatives of NYSW on May 19, 2017.

the introduction of haul trucks or material delivery trucks. An MPT plan would be developed in consultation with the local municipality to minimize traffic disruptions.

A temporary access road (i.e., haul route) to the Hoboken staging site would shift truck traffic away from the nearby residential neighborhood, but even with this haul route, truck traffic on the local streets would still affect access to the businesses along Willow Avenue and Park Avenue.

One option for the haul route for trucks headed to the Hoboken shaft site would be the use of the southbound service road along Willow Avenue to shift southbound trucks away from a residential building located between Willow and Park Avenues. If this route is selected, it would require acquisition of a vacant warehouse structure at the southern end of the Willow Avenue access road to create a wide enough roadway to accommodate turning trucks. Business activity would not be affected since this building is currently not occupied; if the building becomes occupied before construction occurs, the occupant would be reimbursed in accordance with Federal relocation policies (see Chapter 6B, "Property Acquisition"). More information on the haul routes is provided in Chapter 3, "Construction Methods and Activities," Section 3.3.3.

#### 7.6.3.2 NEW YORK

As described in Chapter 3, "Construction Methods and Activities," construction activities for the Preferred Alternative would include staging and other work centered on the western third of the block between West 29th and West 30th Streets, Twelfth Avenue, and Eleventh Avenue (Manhattan Block 675, Lots 1 and 12), as well as related work within the streetbed of West 30th Street. This work would last approximately seven years, during which time there would be lane closures, traffic diversions, heavy truck activity, and the use of noisy construction equipment. As with any construction project, construction activities would at times be disruptive to nearby activities.

The staging site on Block 675 would include a portion of the property where the new development at 601 West 29th Street will be built. The Hudson Tunnel Project team is coordinating with the site's developer to accommodate the tunnel staging while minimizing delays to construction of 601 West 29th Street. However, based on conceptual design information developed to date, construction of the Preferred Alternative would require the western 205 feet of the development site (a portion of Block 675 Lot 12) for use as part of the tunnel construction area. This portion of Lot 12 is proposed for a one-story parking garage and a potential station for EMS as part of the development project. These components of the development project may therefore be delayed by construction of the Preferred Alternative, potentially up to seven years—from the proposed completion date of 2021 to a date of approximately 2028. In addition, construction activities on Lot 1 of Block 675 would likely delay development on that lot with a high-rise development that is being planned by a private developer.

Construction activities related to ground freezing and tunneling would also affect the West 30th Street Heliport (Block 665, Lots 6 and 68). The installation of freeze pipes within the southern portion of the heliport would affect heliport operations and would require the relocation of helicopter fueling facilities, as well as rendering one or more of the landing pads inaccessible during the ground freezing activities, estimated at approximately 18 months. In addition to the two helipads directly affected, there could be the need to reroute helicopters headed to and from the West 30th Street Heliport to avoid conflicts between aircraft and tall construction equipment during ground freezing and during the in-water construction activities. The Project Sponsor will coordinate with the heliport operator and Hudson River Park Trust, where the heliport is located, to minimize disruption to the heliport operation to the extent practicable.

Cut-and-cover excavation would be required for the portion of the tunnel that traverses Tenth Avenue. This work would necessitate temporary sidewalk and lane closures. An MPT plan would



be developed in consultation with the New York City Department of Transportation (NYCDOT) and would be designed to ensure that traffic continues to operate on Tenth Avenue and other streets affected by the Project's construction traffic.

Underpinning work and construction of the Tenth Avenue fan plant would require construction activity beneath and near the building at 450 West 33rd Street (also referred to as the Lerner Building). This work would result in noticeable ground-borne noise and vibration but would be of limited duration and would not adversely affect the commercial tenants in the building.

## **7.7 PERMANENT IMPACTS OF THE PREFERRED ALTERNATIVE**

### **7.7.1 OVERVIEW**

The Preferred Alternative would ensure continued Amtrak and NJ TRANSIT rail service on the NEC, which is critical to the economies of New Jersey and New York. With the Preferred Alternative, there would not be deterioration in rail transit service acting as a deterrent to regional growth.

Operation of the Preferred Alternative would not increase rail service on the NEC, create permanent jobs, or change travel patterns in the region. Therefore, operation of the Preferred Alternative has no potential to influence real estate trends or employment in the region or cause demographic shifts. As a result, there would be no direct or indirect adverse impacts on local government or community services or revenue, or community or emergency services. By increasing the resiliency, redundancy, and reliability of the NEC Hudson River rail crossing, the Preferred Alternative would result in positive economic effects as compared with the adverse economic consequences of the disinvestment that would occur under the No Action Alternative (described above in Section 7.5). The Preferred Alternative would thus help the region retain available jobs, would avoid the potential for community disruption and demographic shifts, and would avoid potential adverse impacts on commerce and local government services and revenues that could occur under the No Action Alternative. The Preferred Alternative would not affect the general mobility of the elderly or handicapped.

### **7.7.2 NEW JERSEY**

In New Jersey, operation of the Preferred Alternative would not directly or indirectly affect population, housing stock, or result in substantial new development that is markedly different from existing uses, development, or activities within the area. The Preferred Alternative would not require acquisition of residential property or relocation housing. It would not result in indirect residential or business displacement, or adverse effects on a specific industry. If business tenants must be relocated from the warehouse at 801/901 Penhorn Avenue during construction, the business tenants that would be relocated are not of critical social or economic value, nor are they unique to the area. Temporary construction easements would be fully restored once construction is complete. The Preferred Alternative would require the permanent acquisition of some easements or fee acquisitions along the northern edge of properties in the Meadowlands portion of the study area (County Road to Tonnelle Avenue), as described in Chapter 6B, "Property Acquisition." The permanent easements acquired through the industrial properties in the Meadowlands would be to provide access to adjacent tracks or to allow underground utilities beneath parking areas, and no parking spaces or loading or laydown spaces would be permanently affected. Therefore, the Preferred Alternative would not result in direct or indirect adverse impacts on the social or economic patterns of neighborhoods in New Jersey.

### 7.7.3 NEW YORK

In New York, the Preferred Alternative would not result in any direct or indirect residential or business displacements. It would not affect population, housing stock, or economic activities in an area. The Preferred Alternative would not result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood. Therefore, the Preferred Alternative would not result in direct or indirect adverse impacts on the social or economic patterns of neighborhoods in New York.

The Project Sponsor would acquire the site of the Twelfth Avenue fan plant, as well as the tunnel alignment across the block, through an easement or fee acquisition. This may be an acquisition of a portion of the property (Block 675 Lot 1) or potentially all of the property. This property (Block 675 Lot 1) is currently paved and used by the Port Authority of New York & New Jersey under an easement held on the property. Depending on the specific type of acquisition, the acquisition of this parcel for the Preferred Alternative may result in loss of property tax revenues to the City of New York.

## 7.8 MEASURES TO AVOID, MINIMIZE, AND MITIGATE IMPACTS

The following mitigation measures will be used to avoid or minimize adverse effects on socioeconomic conditions from the Preferred Alternative's construction and operation:

- In the Meadowlands area where temporary construction access is required in connection with the Preferred Alternative's surface tracks, agreements will be made with private property owners and affected businesses regarding how this access would occur, so as to minimize adverse impacts on business activities. Specific access requirements will be coordinated with the property owners and building tenants to minimize the disruption that would occur to business activities, where possible.
- In all locations where disruptions to roadways is required, including at Secaucus Road at the NEC, at Tonnelle Avenue, at local roadways in Hoboken and Weehawken, and in Manhattan near the construction site, MPT plans will be implemented to manage traffic disruptions (see Chapter 5A, "Traffic and Pedestrians," Section 5A.8).
- The Project Sponsor will coordinate with the West 30th Street Heliport operator and HRPT, which receives revenues from the heliport, to minimize disruption to the heliport operation during construction of the Preferred Alternative to the extent practicable.
- In areas where sidewalks or street lanes would be closed for extended periods of time, standard practices for maintaining access would be followed, including providing alternative routes of entry into buildings for employees, residents, and deliveries; providing appropriate signage to direct people to these alternative entrances; establishing a traffic management plan to ensure vehicular access to affected properties and to minimize traffic impacts on local streets; and implementing an outreach program to share construction schedules, potential impacts, and mitigation measures for local businesses. \*