

Chapter 5: Socioeconomic Conditions and Environmental Justice

A. INTRODUCTION

This chapter describes existing socioeconomic conditions within the study area for the Proposed Project and discusses potential environmental impacts that could result from the implementation of the Proposed Project as compared with the No Action Alternative. This chapter also includes an environmental justice analysis to identify and address any disproportionate and adverse impacts on minority or low-income populations that could result from the Proposed Project. As discussed in Chapter 2, “Project Alternatives,” this Environmental Assessment (EA) evaluates two Build Alternatives: Alternative 9A and Alternative 9B. FRA selected Alternative 9A as the Preferred Alternative.

B. REGULATORY CONTEXT AND METHODOLOGY

SOCIOECONOMIC CONDITIONS

REGULATORY CONTEXT

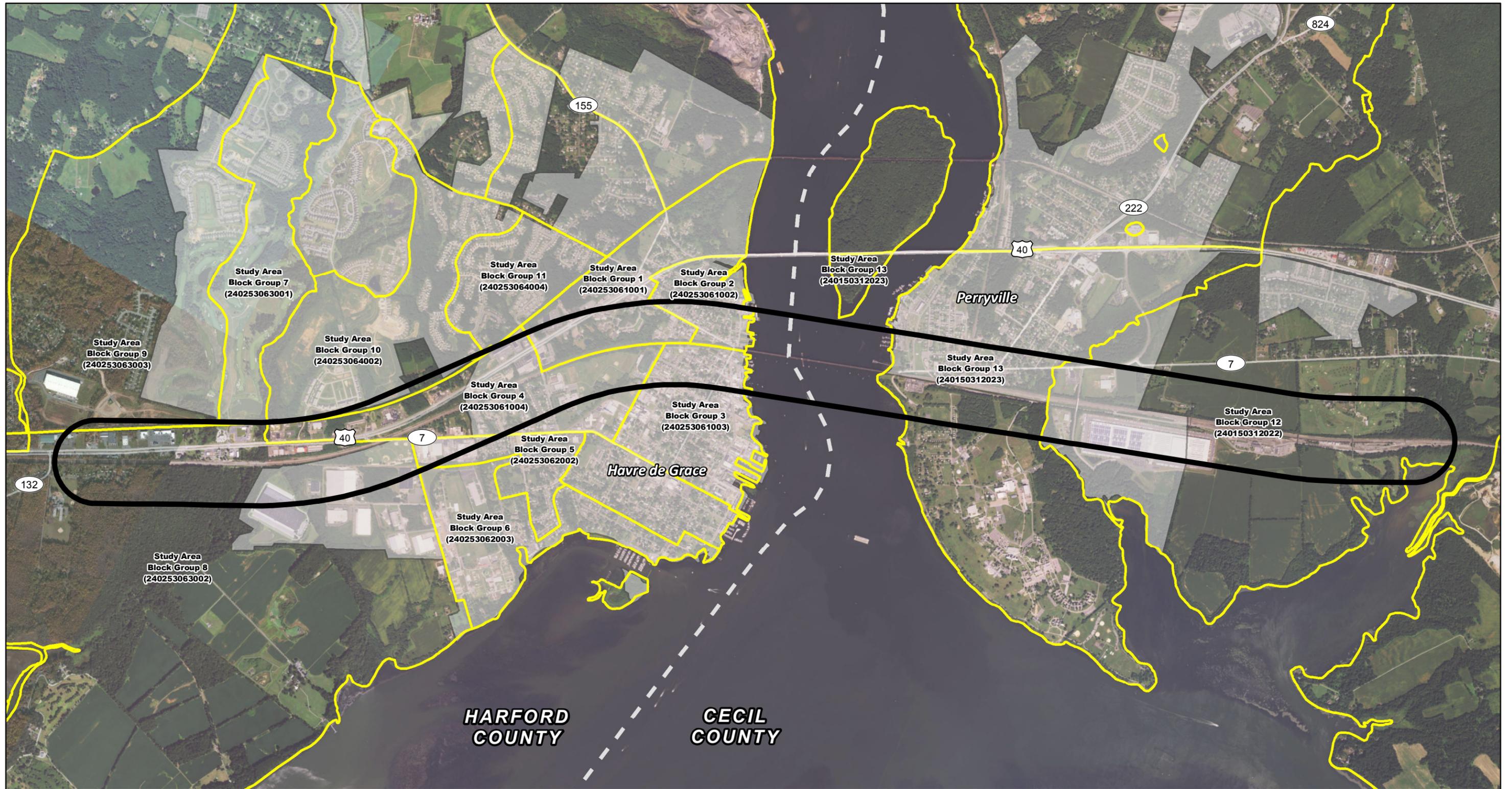
Following the Federal Railroad Administration’s (FRA) procedures,¹ environmental reviews consider a proposed project’s potential to impact the socioeconomic environment—including available jobs, community disruption or cohesion, demographic shifts, and the need for and availability of relocation housing. An environmental review also considers the potential impacts on existing businesses and local government services and revenues.

METHODOLOGY

This analysis uses the guidance set forth in the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 CFR §§ 1500-1508). The Project Team collected socioeconomic data for Harford and Cecil counties as a whole, as well as within the City of Havre de Grace and Town of Perryville limits. More specific data for the analysis were collected within the project study area and census block group boundaries (see **Figure 5-1**). In addition to the master plans and comprehensive plans referenced in Chapter 4, “Land Use and Community Facilities,” the following data sources provided useful information in understanding existing conditions and likely trends: U.S. Census Bureau; American Community Survey (ACS) Data; Maryland Department of Labor, Licensing and Regulation; and site visits.

U.S. Census block group data (2010) were used. As outlined in **Table 5-1**, census block groups within or intersecting the 1,000 foot boundary on either side of the current rail right-of-way were included in this analysis. The census block groups that encompass the study area are listed in

¹ FRA’s Procedures for Considering Environmental Impacts (64 Federal Register [FR] 28545 [May 26, 1999]). <http://www.fra.dot.gov/eLib/details/L02561>, accessed September 2014.



<p>Legend</p> <ul style="list-style-type: none"> 1,000 ft Study Area Census Block Groups City/Town Boundaries County Boundary 	<p>Data Sources</p> <p>Census Block Groups: U.S. Census Bureau, TIGER Line Shapefiles, 2010</p> <p>Town Boundaries: Maryland Department of Planning, 2006</p>	<p></p> <p>0 0.25 0.5 Miles</p>	<p>Susquehanna River Rail Bridge Project</p> <p>Figure 5-1 Census Block Groups</p>
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Table 5-1 and depicted on Figure 5-1. These census block groups have been renamed with “Block Group” and a number for easier reference.

Table 5-1
Study Area Census Block Groups

2010 Census Block Group Designation	Study Area Reference Name
Harford County Census Block Groups	
240253061001	Block Group 1
240253061002	Block Group 2
240253061003	Block Group 3
240253061004	Block Group 4
240253062002	Block Group 5
240253062003	Block Group 6
240253063001	Block Group 7
240253063002	Block Group 8
240253063003	Block Group 9
240253064002	Block Group 10
240253064004	Block Group 11
Cecil County Census Block Groups	
240150312022	Block Group 12
240150312023	Block Group 13

ENVIRONMENTAL JUSTICE

REGULATORY CONTEXT

In accordance with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994), this environmental justice analysis identifies and addresses any disproportionate and adverse impacts on minority or low-income populations that lie within the study area for the Proposed Project. Executive Order 12898 also requires federal agencies to work to ensure greater public participation in the decision-making process.

The environmental justice analysis for the Proposed Project follows the guidance and methodologies recommended in the U.S. Department of Transportation’s Final Order on Environmental Justice (updated May 2, 2012), Federal Transit Administration’s (FTA) Circular 4703.1 *Environmental Justice Policy Guidance For Federal Transit Administration Recipients*, and principles set forth in Title VI of the Civil Rights Act of 1964 (Title VI). For context, CEQ’s *Environmental Justice Guidance under the National Environmental Policy Act* (December 1997) is described below. However, because FTA is a cooperating agency for the Proposed Project and FTA’s circular is more inclusive, this analysis of environmental justice has been prepared in accordance with FTA’s Circular 4703.1.

USDOT’S Final Order on Environmental Justice

USDOT Order 5610.2(a) Final Order on Environmental Justice (May 2, 2012) establishes the procedures for USDOT to use in complying with Executive Order 12898. The order applies to

all of USDOT's operating administrations, including FRA. Following the procedures set forth in Executive Order 12898, the consideration of environmental justice begins with a determination of whether the project will have an adverse impact on minority and low-income populations and whether that adverse impact will be disproportionately high. Disproportionately high and adverse effects on minority and low-income populations are adverse effects that are predominantly borne by a minority population and/or low-income population or that are appreciably more severe or greater in magnitude than the adverse effects that will be suffered by the non-minority or non-low-income population. In making determinations regarding disproportionately high and adverse effects, the federal agency may take into account the mitigation and enhancement measures that it will implement and all offsetting benefits to the affected minority and low-income populations, as well as the design, comparative impacts, and relevant number of similar existing system elements in non-minority and non-low-income areas.

Federal agencies must ensure that they only carry out a project having a disproportionately high and adverse effect on minority populations or low-income populations if (1) further mitigation measures or alternatives that will avoid or reduce the disproportionate effect are not practicable; and (2) a substantial need for the program, policy, or activity exists, based on the overall public interest, and alternatives that will have fewer adverse effects will either have other impacts that will be more severe, or will involve increased costs of extraordinary magnitude.

CEQ Guidance

CEQ, which has oversight of the federal government's compliance with Executive Order 12898 and the National Environmental Policy Act (NEPA), developed guidance to assist federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed. Federal agencies are permitted to supplement this guidance with more specific procedures tailored to their particular programs or activities, as USDOT has done.

CEQ guidance establishes the following thresholds in identifying low-income and minority populations. Low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census' Current Population Reports, Series P-60 on Income and Poverty. Minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. Therefore, CEQ guidance limits the analysis of environmental justice to census blocks that exceed these thresholds.

FTA Circular 4703.1

On August 15, 2012, FTA released guidance in compliance with Executive 12898 and USDOT Order 5610.2(a) on how to fully engage environmental justice populations in the public transportation decision-making process; how to determine whether environmental justice populations would be subjected to disproportionately high and adverse human health or environmental effects as a result of a transportation plan, project, or activity; and how to avoid, minimize, or mitigate these effects.

Following FTA guidance, the consideration of environmental justice begins with obtaining an understanding of the socioeconomic conditions of the surrounding community and developing a public engagement plan that promotes meaningful public involvement with environmental justice populations throughout the NEPA process. Determinations of disproportionately high and

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adverse effects include taking into consideration mitigation and enhancement measures that will be incorporated into the project.

FTA guidance does not set thresholds to limit the analysis to populations that exceed a certain proportion. Instead, this guidance states, “Disproportionately high and adverse effects, not population size, are the bases for environmental justice. A very small minority or low-income population in the project, study, or planning area does not eliminate the possibility of a disproportionately high and adverse effect on these populations.” Overall, under NEPA, the potential for disproportionately high and adverse effects on minority and/or low-income populations should be one of the factors the federal agency considers in making its finding on a project and issuing a Finding of No Significant Impact (FONSI) or a Record of Decision (ROD).

METHODOLOGY

As discussed above and shown in **Table 5-1**, the environmental justice analysis used the same study area as the socioeconomic analysis. Therefore, U.S. Census block groups within or intersecting the 1,000 feet boundary on either side of the current rail right-of-way were included in the environmental justice analysis. Using U.S. Census Bureau and ACS data, minority and low-income populations were identified for each census block group within the study area.

The FTA guidance defines minority population as persons who are American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, and Native Hawaiian and other Pacific Islander.

FTA guidance defines “low income” as a person (of any race) whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services (USDHHS) poverty guidelines. The 2016 USDHHS poverty threshold is \$24,300 for a family of four. FTA also encourages the use of local poverty threshold or a percentage of median income for the area, provided that the threshold is at least as inclusive as the USDHHS poverty guidelines. Because USDHHS data is not available below the state level, this analysis uses instead the information on individuals in households below the poverty level as defined by the U.S. Census. The Project Team used the poverty rate in each census block group, as estimated in the 2011-2015 American Community Survey 5-Year Estimates, to identify low-income populations.

The Project Team examined the demographic information to determine how potential impacts and benefits to the total population would affect the environmental justice populations. Finally, the Project Team made a determination whether or not the project would have disproportionately high and adverse impacts on these populations in the study area. Based on FTA guidance, questions to consider when determining if disproportionately high and adverse impacts would occur include whether:

- Adverse effects on environmental justice populations exceed those borne by non-environmental justice populations.
- Cumulative or indirect effects would adversely affect an environmental justice population.
- Mitigation and enhancement measures will be taken for environmental justice and non-environmental justice populations.
- Off-setting benefits exist for environmental justice populations compared to non-environmental justice populations.

C. AFFECTED ENVIRONMENT

POPULATION

The Project Team analyzed population statistics for Harford County, Cecil County, the City of Havre de Grace, and the Town of Perryville. **Table 5-2** shows current and projected population statistics. All four localities experienced an increase in population from 2000 to 2010. Based on U.S. Census data from 2000 and 2010, the populations of Harford County and Cecil County increased by 12 percent and 17.6 percent, respectively. In the same period, the population of the City of Havre de Grace and the Town of Perryville increased by 14.3 percent and 18.8 percent, respectively. The Maryland Department of Planning (MDP) anticipates that these localities will increase in population from 2010 through 2020. As of January 2015, MDP predicts that between 2010 and 2020, the population of Harford County will increase by 5.6 percent and the population of Cecil County will increase 7.4 percent.²

**Table 5-2
Population Trends**

Location	Population in 2000	Population in 2010	Change from 2000 to 2010 (in percent)	Projected Population in 2020	Predicted change from 2010 to 2020 (in percent)
Harford County	218,590	244,826	12.0	258,650	5.6
Cecil County	85,951	101,108	17.6	108,600	7.4
City of Havre de Grace	11,331	12,952	14.3	*N/A	*N/A
Town of Perryville	3,672	4,361	18.8	*N/A	*N/A

Sources: 2000 Census Profile; 2010 Census Profile; MDP Maryland State Data Center.
*N/A = data not available

Table 5-3 shows the data gathered for households and housing units in Harford County, Cecil County, the City of Havre de Grace and the Town of Perryville. The number of total households increased between 2000 to 2010 by 13.2 percent in Harford County, 18.1 percent in Cecil County, 15.4 percent in the City of Havre de Grace and 22.1 percent in the Town of Perryville. Housing units also increased between 2000 to 2010, at a rate of 14.9 percent in Harford County, 19.3 percent in Cecil County, 19.8 percent in the City of Havre de Grace and 30.0 percent in the Town of Perryville.

² MDP Maryland State Data Center, <http://www.mdp.state.md.us/msdc/>, accessed October 2016.

Table 5-3
Household & Housing Unit Trends

Location	Households in 2000	Households in 2010	Percent Change from 2000 to 2010	Housing Units in 2000	Housing Units in 2010	Percent Change from 2000 to 2010
Harford County	79,667	90,218	13.2	83,146	95,554	14.9
Cecil County	31,223	36,867	18.1	34,461	41,103	19.3
City of Havre de Grace	4,557	5,258	15.4	4,904	5,875	19.8
Town of Perryville	1,443	1,762	22.1	1,507	1,959	30.0

Sources: 2000 Census Profile; 2010 Census Profile.

EMPLOYMENT CHARACTERISTICS

According to 2011-2015 American Community Survey 5-Year Estimates, the national unemployment rate is 8.3 percent, while the State of Maryland is 7.4 percent. The unemployment rate for Harford County is below the national and State unemployment rates at 6.4 percent. The unemployment rate in Cecil County (7.5 percent) is higher than the State unemployment rate, but lower than the national unemployment rate. The unemployment rate in Havre de Grace (9.8 percent) is above the national and State unemployment rates. The Town of Perryville, at 13.0 percent, has the highest unemployment rate of the four localities and is also above the national and State unemployment rates.

Based on 2011-2015 American Community Survey 5-Year Estimates, primary occupations of residents in Harford County, Cecil County, City of Havre de Grace, and Perryville include educational services, healthcare and social assistance; retail trade; professional, scientific, management, and administrative and waste management services; manufacturing, construction; arts, entertainment, and recreation, and accommodation and food services; and public administration. Educational services, health care and social assistance have the highest percentage of employees in the four localities. Major employers for Harford County and Cecil County are listed in **Table 5-4**.

AGE AND GENDER DISTRIBUTION

According to the 2010 U.S. Census, the percentage of the population over the age of 65 is 12.5 percent in Harford County, 11.7 percent in Cecil County, 13.9 percent in the City of Havre de Grace, and 12.5 percent in the Town of Perryville. The study area totals for the 0 to 19, 20 to 44, and 45 to 64 age groups are very similar to the totals for the localities, however, the percentage for persons over the age of 65 (14.5 percent) is higher in the study area than in the four localities. According to 2010 U.S. Census data, the largest age group for Harford County and Cecil County is 20 to 44, while the largest age group for both the City of Havre de Grace and the Town of Perryville is 45 to 64. Males and females are fairly evenly distributed throughout the localities (Harford County, Cecil County, City of Havre de Grace and the Town of Perryville) and the study area.

**Table 5-4
Major Employers**

Harford County	Cecil County
Kohl's	Union Hospital
Rite Aid	W.L. Gore and Associates
Upper Chesapeake Health Systems	Walmart
Jacob's Technology	Ikea Distribution Services
Shoprite – Klein's Tower Plaza	Terumo Medical Corporation
Sources: Maryland Department of Labor, Licensing and Regulation (DLLR); Harford County Office of Business and Economic Development; Maryland Department of Business and Economic Development.	

RACIAL AND ETHNIC CHARACTERISTICS

According to the 2010 U.S. Census, and outlined in **Table 5-5**, the predominant race within Harford County, Cecil County, the City of Havre de Grace, the Town of Perryville, and the study area is White. Harford County is 81.2 percent White and 18.8 percent minority. Of the minorities in Harford County, the largest portion of the population is Black or African American (12.7 percent). Cecil County is 89.2 percent White, and 10.8 percent minority. Of the minorities in Cecil County, the largest portion of the population is Black or African American (6.2 percent). The City of Havre de Grace is 75.7 percent White, and 24.4 percent minority. Of the minorities within the City of Havre de Grace, the largest portion is Black or African American (16.8 percent). The Town of Perryville is 84.6 percent White, and 15.4 percent minority. Of the minorities in the Town of Perryville, the largest portion is Black or African American (9.6 percent). The study area is 75.3 percent White, and 24.8 percent minority, of which the largest portion is Black or African American (17.4 percent).

Populations of Hispanic origin are outlined in **Table 5-5**. Harford County has a population of Hispanic origin of 8,613 persons or 3.5 percent. Cecil County has a population of Hispanic origin of 3,407 persons or 3.4 percent. The City of Havre de Grace has a population of Hispanic origin of 608 persons or 4.7 percent. The Town of Perryville has a population of Hispanic origin of 181 persons or 4.2 percent. The study area has a population of 608 persons of Hispanic Origin or 4.5 percent.

Table 5-5 also outlines racial and ethnic characteristics for the census block groups. Most census block groups follow the same trend and racial distribution as the localities listed above. Two census block groups have a total minority population greater than 50 percent. Block Group 1 in Harford County has a total minority population of 55.6 percent and Block Group 4, also in Harford County, has a total minority population of 55.3 percent. Of the minorities in these two census block groups, Black or African American populations are the largest at 45.5 percent for Block Group 1 and 43.2 percent for Block Group 4. Block Group 4 is predominately contained within the study area boundaries, whereas Block Group 1 only has a small portion of population located within the boundaries, as highlighted on **Figure 5-1**.

**Table 5-5
Population, Race, and Ethnicity**

Location/ Census Block Groups	Total	White Alone*	Black or African American Alone*	American Indian and Alaska Native Alone*	Asian Alone*	Native Hawaiian and Other Pacific Islander Alone*	Some Other Race Alone*	Two or More Races*	Total Minority *	Population of Hispanic Origin
State of Maryland	5,773,552	3,359,284 58.2%	1,700,298 29.4%	20,420 0.4%	318,853 5.5%	3,157 0.1%	206,832 3.6%	164,708 2.9%	2,414,268 41.8%	470,632 8.2%
Harford County Maryland	244,826	198,763 81.2%	31,058 12.7%	614 0.3%	5,826 2.4%	199 0.1%	2,318 0.9%	6,048 2.5%	46,063 18.8%	8,613 3.5%
Cecil County Maryland	101,108	90,189 89.2%	6,284 6.2%	294 0.3%	1,097 1.1%	48 0.0%	1,019 1.0%	2,177 2.2%	10,919 10.8%	3,407 3.4%
City of Havre de Grace Maryland	12,952	9,809 75.7%	2,170 16.8%	36 0.3%	310 2.4%	14 0.1%	137 1.1%	476 3.7%	3,143 24.4%	608 4.7%
Town of Perryville Maryland	4,361	3,689 84.6%	420 9.6%	19 0.4%	57 1.3%	6 0.1%	43 1.0%	127 2.9%	672 15.4%	181 4.2%
Block Group 1 Harford County	640	284 44.4%	291 45.5%	3 0.5%	11 1.7%	0 0.0%	5 0.8%	46 7.2%	356 55.6%	20 3.1%
Block Group 2 Harford County	749	568 75.8%	135 18.0%	0 0.0%	11 1.5%	0 0.0%	8 1.1%	27 3.6%	181 24.2%	40 5.3%
Block Group 3 Harford County	2,046	1,625 79.4%	290 14.2%	2 0.1%	22 1.1%	2 0.1%	28 1.4%	77 3.8%	421 20.6%	105 5.1%
Block Group 4 Harford County	590	264 44.7%	255 43.2%	0 0.0%	1 0.2%	0 0.0%	24 4.1%	46 7.8%	326 55.3%	60 10.2%
Block Group 5 Harford County	638	533 83.5%	65 10.2%	0 0.0%	7 1.1%	0 0.0%	8 1.3%	25 3.9%	105 16.5%	49 7.7%
Block Group 6 Harford County	550	467 84.9%	49 8.9%	3 0.5%	7 1.3%	0 0.0%	6 1.1%	18 3.3%	83 15.1%	19 3.5%
Block Group 7 Harford County	650	516 79.4%	70 10.8%	1 0.2%	28 4.3%	0 0.0%	10 1.5%	25 3.8%	134 20.6%	38 5.8%

Table 5-5 (Cont'd)
Population, Race, and Ethnicity

Location/ Census Block Groups	Total	White Alone*	Black or African American Alone*	American Indian and Alaska Native Alone*	Asian Alone*	Native Hawaiian and Other Pacific Islander Alone*	Some Other Race Alone*	Two or More Races*	Total Minority *	Population of Hispanic Origin
Block Group 8 Harford County	400	300	66	10	4	0	0	20	100	8
		75.0%	16.5%	2.5%	1.0%	0.0%	0.0%	5.0%	25.0%	2.0%
Block Group 9 Harford County	1323	965	249	0	51	2	13	43	358	33
		72.9%	18.8%	0.0%	3.9%	0.2%	1.0%	3.3%	27.1%	2.5%
Block Group 10 Harford County	1,065	781	198	3	34	3	11	35	284	64
		73.3%	18.6%	0.3%	3.2%	0.3%	1.0%	3.3%	26.7%	6.0%
Block Group 11 Harford County	1,608	1,229	257	5	46	5	7	59	379	55
		76.4%	16.0%	0.3%	2.9%	0.3%	0.4%	3.7%	23.6%	3.4%
Block Group 12 Cecil County	1154	962	112	7	26	5	9	33	192	31
		83.4%	9.7%	0.6%	2.3%	0.4%	0.8%	2.9%	16.6%	2.7%
Block Group 13 Cecil County	2,232	1,768	338	17	17	4	31	57	464	86
		79.2%	15.1%	0.8%	0.8%	0.2%	1.4%	2.6%	20.8%	3.9%
STUDY AREA TOTALS	13,645	10,272	2,377	51	265	21	160	512	3,386	608
		75.3%	17.4%	0.4%	1.9%	0.2%	1.2%	3.7%	24.8%	4.5%

Notes: *Racial categories were defined in accordance with the U.S. Census Bureau. Data includes Hispanic and non-Hispanic populations.

Sources: 2010 Census Profile.

INCOME

Based on 2011-2015 American Community Survey 5-Year Estimates, the median household income of Harford County is greater than the State of Maryland’s median household income of \$74,551, while Cecil County, the City of Havre de Grace and the Town of Perryville had lower median household incomes than the State (see **Table 5-6**). The study area median household income is \$64,919, which is similar to the median household income of Cecil County, the City of Havre de Grace, and the Town of Perryville, but lower than the State of Maryland and Harford County. The study area census block groups have high and low outliers for median household income. Block Groups 7, 9, and 10 have median household incomes higher than \$90,000, while Block Groups 3, 5, 8, and 12 all have median household incomes lower than \$50,000.

Table 5-6
Median Household Income and Individuals Below Poverty Level

Location/Census Block Group	Median Household Income	Individuals Below Poverty Level (%)
State of Maryland	\$74,551	10.0%
Harford County	\$80,456	8.0%
Cecil County	\$66,396	10.1%
City of Havre de Grace	\$67,813	11.1%
Town of Perryville	\$62,963	7.3%
Block Group 1, Harford County	\$65,208 ¹	36.3%
Block Group 2, Harford County	\$52,452	21.7%
Block Group 3, Harford County	\$45,197	20.2%
Block Group 4, Harford County	\$68,696	29.1%
Block Group 5, Harford County	\$34,183	14.6%
Block Group 6, Harford County	\$75,625	13.4%
Block Group 7, Harford County	\$101,000	0.0%
Block Group 8, Harford County	\$34,500	16.6%
Block Group 9, Harford County	\$114,750	0.9%
Block Group 10, Harford County	\$92,273	0.0%
Block Group 11, Harford County	\$61,797	0.0%
Block Group 12, Cecil County	\$43,892	9.4%
Block Group 13, Cecil County	\$54,375	12.3%
Study Area	\$64,919	13.4%
<p>Notes: ¹ All information presented in this table is from the 2011-2015 American Community Survey 5-Year Estimates; however, the median household income for Block Group 1 was not available in this dataset and instead the 2010-2014 American Community 5-Year Estimates was used.</p> <p>Sources: 2011-2015 American Community Survey 5-Year Estimates; 2010-2014 American Community Survey 5-Year Estimates</p>		

Based on 2011-2015 American Community Survey 5-Year Estimates, the poverty rate for each census block group has been identified (see **Table 5-6**). Harford County and the Town of Perryville have a lower poverty rate compared to the State of Maryland, while Cecil County, the City of Havre de Grace have higher poverty rates than the State. All census block groups have a poverty rate below 50 percent. Block Groups 7, 10, and 11 do not have individuals below the poverty rate. Block Groups 1, 2, 3, and 4 have the highest poverty rates at 36.3 percent, 21.7 percent, 20.2 percent, and 29.1 percent, respectively. The Lafayette Senior Housing Facility is located at 515 Warren Street in Block Group 3. The Lafayette Senior Housing Facility contains 15 units of affordable housing to the elderly and accepts Section 8 vouchers, which are part of a federal government program to assist very low-income families, the elderly, and the disabled to afford decent, safe, and sanitary housing.

D. NO ACTION ALTERNATIVE

The No Action Alternative assumes the Susquehanna River Rail Bridge would remain in service as in existing conditions, with no intervention besides minimal repairs and continuation of the current maintenance regime. The No Action Alternative will not include any changes to the existing track configuration. Service over the bridge would be already speed-restricted to 90 mph due to the age and deteriorated condition of the bridge, and would continue to worsen in the future and the bridge would continue to age, potentially requiring stricter speed and weight restrictions that will further impact the movement of passengers and freight. Cost associated with bridge maintenance would continue to increase over time. Maintenance problems would occur more frequently, and the bridge would remain as a bottleneck; it would eventually need to be taken out of service. Without the bridge, local, regional and national rail networks would be disrupted with resultant detrimental effects on the economic activity, including those in Havre de Grace and Perryville to some extent. Developments expected to be completed regardless of the Proposed Project, as described in Chapter 4, “Land Use and Community Facilities,” could possibly affect population, economic characteristics, age and gender distribution, racial and ethnic characteristics, and income of the surrounding area.

E. POTENTIAL IMPACTS OF THE BUILD ALTERNATIVES

The Proposed Project would ensure continued rail connectivity along the NEC, and would provide benefits to local and regional commuter and freight operations in terms of improved operational mobility and safety.

SOCIOECONOMIC CONDITIONS

Alternative 9A would require the full acquisition of one commercial use associated with the National Tire & Glass Sales Inc., in Havre de Grace. The owners of this property would be fully compensated and the business would be provided relocation assistance to facilitate their reestablishment in another appropriate location. Since the business would be relocated, it is not expected that any jobs would be lost as a result of Alternative 9A. The Project Team will obtain additional information about this business as the project proceeds. Acquisition of any properties for the Build Alternatives would remove these property taxes from the tax roll. These acquisitions could affect the property taxes paid at each parcel, although since the amount of acquisition necessary would be small, this effect would not be substantial.

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No other commercial or residential properties would be fully displaced within the study area by either Alternative 9A or Alternative 9B. Alternative 9B would require the acquisition of a portion of the private commercial driveway and of the commercial use associated with the National Tire & Glass Sales Inc. in Havre de Grace; however, the private commercial driveway would be maintained and full acquisition of the property is not required. The Build Alternatives would not affect the population or housing supply of the area and would not spur rapid population growth or development. There is no anticipated project-related effect on long-term population or workforce characteristics in Harford or Cecil County. Thus, the Proposed Project would not alter the demographic profile described above. Overall, the Proposed Project would improve conditions in the surrounding communities by ensuring improved mobility across the Susquehanna River Rail Bridge for freight rail, passenger rail, and marine users. Therefore, the Proposed Project would not adversely affect socioeconomic conditions, employment, or community cohesion.

MINORITY AND LOW-INCOME POPULATIONS

As described in each respective chapter, no adverse impact would result from the Proposed Project with regards to transportation; parks, trails, and recreational resources; air quality; greenhouse gases; noise and vibration; public health; indirect and cumulative effects; and commitment of resources, and therefore would not have the potential to result in disproportionately high and adverse effects on environmental justice populations. The remaining areas have the potential to result in an adverse effect and therefore have the potential to result in disproportionately high and adverse effects on environmental justice populations within the study area. These technical areas have been described in more detail below.

As described in Chapter 4, “Land Use and Community Facilities,” while the Proposed Project would not result in significant adverse impacts to land use, zoning and public policy, the Proposed Project would require property acquisitions associated with up to nine properties. The parks and public street right-of-ways that would be acquired by the Proposed Project are utilized by a broad spectrum of the study area population, regardless of race, ethnicity, or socioeconomic status and therefore these acquisitions would not disproportionately impact low-income and minority populations. As described above, Alternative 9A would require the full acquisition of one commercial use associated with the National Tire & Glass Sales Inc., in Havre de Grace. The owners of this property would be fully compensated and the business would be provided relocation assistance to facilitate their reestablishment in another appropriate location. Alternative 9B would require the acquisition of a portion of the private commercial driveway and of the commercial use associated with the National Tire & Glass Sales Inc. in Havre de Grace; the private commercial driveway would be maintained and full acquisition of the property is not required. Alternative 9A and Alternative 9B would require the acquisition of a narrow strip of private residential property. All property acquisitions and displacements will adhere with the Uniform Act and all applicable Maryland State laws. Where full property acquisition is required, Amtrak and MDOT will fairly compensate the owners of properties for the land acquired and will provide relocation assistance to businesses to facilitate their reestablishment elsewhere, should this be necessary. As part of the project sponsors’ efforts to minimize impacts, the Project Team eliminated those alternatives that would require acquisition of the Lafayette Senior Housing Facility. Overall, property acquisitions associated with the Proposed Project would not disproportionately impact low-income and minority populations.

As described in Chapter 7, “Visual Resources,” there is the potential for effects on the overall visual and aesthetic qualities of the study area depending on the viewer’s location. In addition,

the Project Team identified site specific visual effects for views from waterfront open space areas, the Havre de Grace Historic District, Rodgers Tavern, views of the Perryville Railroad Complex for rail passengers, and the undergrade bridges. However, the chapter describes several ways to avoid or minimize these effects. Since the potential for visual adverse effects are dispersed throughout the study area and some minimization or mitigation measures are possible, the visual effects associated with the Proposed Project would not disproportionately impact low-income and minority population.

The Proposed Project has the potential to result in an adverse effect on four historic architectural resources—the Susquehanna River Rail Bridge and Overpasses, the Havre de Grace Historic District, Rodgers Tavern, and Perryville Railroad Station; however, as detailed in Chapter 8, “Historic Resources,” there are ways to avoid or minimize some of these effects. Because certain adverse effects cannot be totally avoided, FRA/MDOT has sought suggestions from the consulting parties and the public on potential ways to mitigate the adverse effects and these mitigation measures are detailed in the chapter. Overall, in addition to the consideration of possible minimization or mitigation measures, since these historic architectural resources do not primarily serve environmental justice populations (nor are they concentrated in low-income or minority neighborhoods), the historic effects associated with the Proposed Project would not disproportionately impact low-income and minority population.

As described in Chapter 9, “Section 4(f) Resources,” the Proposed Project would result in the use of several Section 4(f) resources. Considering the measures to minimize harm and that these resources are utilized by a broad spectrum of the study area population, regardless of race, ethnicity, or socioeconomic status, the use of these Section 4(f) resources would not disproportionately impact low-income and minority populations.

Similarly, as described in Chapter 10, “Section 6(f) Resources,” the Proposed Project would result in the use of a Section 6(f) resource—the Havre de Grace High School and Middle School Athletic Fields. Taking into account the measures to minimize harm and that this resource is utilized by a broad spectrum of the study area population, regardless of race, ethnicity, or socioeconomic status, the use of this Section 6(f) resource would not disproportionately impact low-income and minority populations.

As described in more detail in Chapter 11, “Natural Resources,” the Proposed Project has the potential to result in impacts to floodplains, wetlands, streams, forest resources, Chesapeake Bay Critical Area, aquatic biota, and submerged aquatic vegetation. Overall, impacts to these natural resources are dispersed throughout the study area and Amtrak and MDOT will undertake appropriate mitigation and minimization measures. Therefore, the natural resource impacts associated with the Proposed Project would not disproportionately impact low-income and minority population.

As described in Chapter 15, “Contaminated and Hazardous Materials,” construction of the Proposed Project would involve demolition, relocation or other disturbance of existing structures and excavation, relocation and potentially off-site disposal of some existing soil. The presence of contaminated materials only presents a threat to human health if exposure to these materials occurs. To prevent such exposure pathways and doses during construction, the Proposed Project would include appropriate health and safety and investigative/remedial measures. With the implementation of these measures, no significant adverse impacts related to hazardous materials would result either during the demolition and construction activities associated with the Proposed Project or during operation of the Proposed Project and therefore the Proposed Project would not disproportionately impact low-income and minority population.

As described in Chapter 17, “Construction,” construction of the Proposed Project may have effects on bus service, mariners, adjacent historic resources, and air quality. However, the effects on bus service and mariners would be temporary. In addition, efforts would be made to undertake a large portion of the required construction activities outside of the recreational boating season, during the winter months, which would further reduce impacts to navigation. In order to avoid accidental damage to adjacent historic resources as a result of construction activities associated with the Proposed Project, a Construction Protection Plan (CPP) would be developed in consultation with SHPO for all historic properties that may be subject to inadvertent damage resulting from construction activities. The potential for adverse air quality impacts during construction of the Build Alternatives would be reduced to the extent practicable using the strategies listed in the chapter that would be specified in construction contracts. Therefore, construction effects would be temporary and have been minimized to the extent practicable. In addition, construction would occur along the entire study area corridor and the adverse effects on environmental justice populations would not exceed those borne by non-environmental justice populations.

Overall, the Proposed Project would not result in any disproportionately high and adverse effects on minority or low-income populations.

F. MINIMIZATION AND MITIGATION OF IMPACTS

SOCIOECONOMIC CONDITIONS

The Project Team has worked diligently to avoid and minimize property acquisition and displacement throughout the environmental review process. The Project Team eliminated conceptual alternatives requiring greater property acquisitions during the alternatives screening process, as discussed in **Appendix A**, “Alternatives Screening Report and Bridge Types.”

MINORITY AND LOW-INCOME POPULATIONS

As explained above, the Proposed Project would not result in any disproportionately high and adverse effects on minority and low-income populations. Therefore, no mitigation for environmental justice impacts is required.

G. PUBLIC PARTICIPATION

Executive Order 12898 requires federal agencies to work to ensure greater public participation in the decision-making process. FTA guidance suggests that public engagement should be designed to eliminate barriers to meaningful participation by all members of the community. Similarly, the USDOT’s Final Order on Environmental Justice indicates that project sponsors should seek public involvement opportunities, including soliciting input from affected minority and low-income populations in considering alternatives.

The Project Team has engaged in a robust public and community outreach effort as part of the Proposed Project. As described in Chapter 20, “Coordination and Consultation,” FRA and MDOT prepared an Agency Coordination and Public Involvement Plan during the early phases of the Proposed Project. Numerous public meetings have been held throughout the environmental process at project milestones. Throughout the alternatives decision-making process and environmental review process, the Project Team encouraged environmental justice communities to attend and participate in public outreach information sessions. The Project Team

made concerted efforts to engage potential minority and low-income populations, including performing targeted outreach and posting of information regarding public meetings in local businesses and community centers. To solicit participation from minority populations, the Project Team posted extra invitations to these public meetings in community facilities within census blocks of concern (in addition to direct mailings and email blasts). Public meeting invitations were partially translated into Spanish and translation services were offered. *