Appendix VI: Environmental Justice Analysis
Report on Environmental Justice

June 2019

Southwestern Pennsylvania Commission
Two Chatham Center – Suite 500
112 Washington Place
Pittsburgh, PA 15219
Voice 412.391.5590
Fax 412.391.9160
comments@spcregion.org
www.spcregion.org
Southwestern Pennsylvania Commission

2019

Officers
Chairman: Larry Maggi
Vice Chairman: Rich Fitzgerald
Secretary-Treasurer: Tony Amadio
Executive Director: James R. Hassinger

Allegheny County
Rich Fitzgerald
Lynn Heckman
Clifford Levine
Robert J. Macey
David Miller

Armstrong County
Darin Alviano
Pat Fabian
Richard Pailla
Jason L. Renshaw
George J. Skamai

Beaver County
Tony Amadio
Daniel Camp
Sandie Egley
Kelly Gray
Charles Jones

Butler County
Kevin Boozel
Kim Geyer
Mark Gordon
Richard Hadley
Leslie A. Osche

Fayette County
Joe Grata
Fred Junko
Dave Lohr
Vincent A. Vicites
Angela Zimmerlink

Greene County
Dave Coder
Jeff Marshall
Robbie Matesic
Archie Trader
Blair Zimmerman

Indiana County
Michael Baker
Sherene Hess
Mark Hilliard
Rodney D. Ruddock
Byron G. Stauffer, Jr.

Lawrence County
Steve Craig
Robert Del Signore
James Gagliano
Amy McKinney
Daniel J. Vogler

Washington County
Larry Maggi
Scott Putnam
Harlan Shober
Diana Irey-Vaughan
Christopher Wheat

Westmoreland County
Charles W. Anderson
Robert J. Brooks
Tom Ceraso
Gina Cerilli
Ted Kopas

City of Pittsburgh
Scott Bricker
Rev. Ricky Burgess
William Peduto
Mavis Rainey
Aurora Sharrard

Pennsylvania Department of Transportation (2 Votes)
Joseph Dubovi
Kevin McCullough
Cheryl Moon-Sirianni
James Ritzman
Joe Szczur

Governor’s Office
Jessica Walls-Lavelle

Pennsylvania Department of Community & Economic Development
Johnna Pro

Port Authority of Allegheny County (1 Vote)
Katharine Kelleman
Ed Typanski

Transit Operators Committee
Alan Blahovec

Federal Highway Administration*

Federal Transit Administration*
Theresa Garcia-Crews

U.S. Environmental Protection Agency*
Laura Mohollen

Federal Aviation Administration*

U. S. Economic Development Administration*

*Nonvoting Members

The preparation of this publication was financed in part through grants from the United States Department of Transportation’s Federal Highway Administration and Federal Transit Administration; the U.S. Department of Commerce; the Appalachian Regional Commission; the Commonwealth of Pennsylvania; the Department of Transportation of the Commonwealth of Pennsylvania; and, the counties of Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington, Westmoreland, and the City of Pittsburgh. The views and opinions of the authors or agency expressed herein do not necessarily state or reflect those of these agencies.
This document is available in alternate formats upon request. SPC will provide translation and interpretation services upon request at no charge. Please call SPC at (412) 391-5590 for more information.

Italiano
Questo documento è disponibile in formati alternativi su richiesta. SPC fornirà servizi di traduzione e interpretazione su richiesta senza alcun costo. Per piacere, chiami SPC al numero (412) 391-5590 per maggiori informazioni.

Español
El presente documento está disponible en formatos alternativos bajo solicitud. SPC ofrece servicios de traducción e interpretación gratis bajo solicitud. Comuníquese con SPC al (412) 391-5590 para obtener más información.

中文
本文件可根据要求以其他格式提供。SPC将根据要求提供免费笔译和口译服务。详情请致电 (412) 391-5590与SPC联系。

Nepali:
यो फाराम अनुरोध गरिएको वैकल्पिक ढाँचाहरूमा उपलब्ध हुनेछ। अनुरोध गरेको बिनावुन स्पीसीले अनुवाद र दोभाषी सेवा उपलब्ध गराउँछ। यहाँ जानकारीको लागि SPC (391) 391-5590 मा फोन गर्नुहोस्।

Gujarati:
આ સરકારી વિભાગે વેકલ્પીક ફોર્મેટમાં ઉપલબ્ધ છે. સ્પીસીએ શુભ્ર વીધા વિના વિભાગે પ્રતિભાબત અને અધીન સેવાઓ પૂરી પાડી શકે છે. પાછું માહિતી માટે કોણ કરી (412) 391-5590 સેવાને કોણ કરો?

Oriya:
ଏହି ଇରାଦିକର ନିପଦଧାରକ ସେବାରେ ସେବା ସଂବଂଧର ଉପଲବ୍ଧ ହେଉଛ। ସେବା ନିପଦଧାରର ଲକେ ଅନୁଭବ ହେଉଛ ଓ ଅଧୀନ ସେବା ଉପଲବ୍ଧ ହେଉଁଛ। ଏହି ମାହିତି ସେବା କରିବ (SPC) (412) 391-5590 କରିବ।

Punjabi:
ਇਹ ਸਰਕਾਰੀ ਹਵਾਲੀ ਵਾਲ਼ੇ ਉਦੀਪਾਸ਼ ਦਲ ਦੇ ਹਵਾਲੇ ਨੂੰ ਹਵਾਲੇ ਦੀ ਹਵਾਲੇ ਹੈ। SPC ਵਿਚ ਇਦੀ ਨਾਮ ਵੱਲ ਇੱਥੇ ਹਵਾਲੀ ਉਦੀਪਾਸ਼ ਦੇ ਹਵਾਲੇ ਨੂੰ ਪੁਣਾਤ ਹੋਰ ਸਿਖਾ ਲਿਆ ਜਾਂਦਾ ਹੈ।

Urdu
دروخواست جو صورت میں ہی دسٹاوار متبادل بولی میں دستیاب ہے۔
درخواست جو صورت میں ترجمہ میں ترجمانی جون نفت خدمتون کرا اہم سنندی
مہربانی حضری و ذیلی معلومات لی - 391 (412) 391-5590 تی کے خال مقروی۔

Sindhi:
درخواست جی صورت میں ہی دسٹاوار متبادل بولی میں دستیاب ہے۔
درخواست جو صورت میں ترجمہ میں ترجمانی جون نفت خدمتون کرا اہم سنندی
مہربانی حضری و ذیلی معلومات لی - 391 (412) 391-5590 تی کے خال مقروی۔

English
SPC will provide translation and interpretation services upon request at no charge. Please call SPC at (412) 391-5590 for more information.
The Southwestern Pennsylvania Commission (SPC) hereby gives public notice that it is the policy of the Commission to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, Executive Order 12898 on Environmental Justice, and related statutes and regulations in all programs and activities. Title VI and other related statutes require that no person in the United States of America shall, on the grounds of race, color, sex, national origin, age, or disability, be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which SPC receives federal financial assistance. Any person who believes they have been aggrieved by an unlawful discriminatory practice by SPC under Title VI has a right to file a formal complaint with the Commission. Any such complaint must be in writing and filed with SPC’s Title VI Coordinator within one hundred eighty (180) days following the date of the alleged discriminatory occurrence. For more information, or to obtain a Title VI Discrimination Complaint Form, please see our website at: www.spcregion.org or call 412-391-5590.
Background

As the regional Metropolitan Planning Organization, the Southwestern Pennsylvania Commission (SPC) works consistently to ensure that all Southwestern PA residents have the opportunity to be involved and invested in the regional transportation planning process. A large part of this mission involves adhering to the principles of Environmental Justice (EJ). The US Environmental Protection Agency’s Office of Environmental Justice defines EJ as:

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

The federal definition of Environmental Justice is shaped by both Title VI of the Civil Rights Act of 1964 and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations. Title VI prohibits discrimination in federal programs on the basis of race, color, and national origin. Subsequent laws\(^1\) include sex, disability (physical and mental), and age in Title VI protections. Executive Order 12898 directs these protections by requiring federal agencies to conduct EJ analyses of their policies, programs, and activities to ensure that no adverse human health and/or environmental impacts would be disproportionately borne by minority and low-income populations. Executive Order 13166 mandates that federal agencies provide meaningful access to federally-funded programs for persons with Limited English Proficiency (LEP).

In the context of transportation, effective and equitable decision-making depends on understanding and properly addressing the unique needs of different socioeconomic groups. U.S. Department of Transportation (USDOT) Order 5610.2(a), Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, identifies three fundamental principles of EJ that guide USDOT actions:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations;
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

\(^1\) Title IX of the Education Amendments, 1972; Section 504 of the Rehabilitation Act of 1973; The Americans with Disabilities Act (ADA) of 1990; The Age Discrimination Act of 1975
Although the nondiscrimination principles of Executive Order 12989 and the Title VI statute intersect, they are two separate mandates and each has unique requirements. The Federal Title VI program is broader than the Title VI statute, and encompasses other nondiscrimination statutes and authorities under its umbrella, including Executive Order 12898 on EJ. These distinctions are illustrated below:

Approach

Environmental Justice Directives mandate that EJ programs have both a participatory and a data-driven analysis component. This report summarizes multiple activities and analyses that have been conducted in accordance with EJ Directives in developing the Southwestern Pennsylvania Region’s Long-Range Transportation Plan (LRTP).

As part of the LRTP development process, SPC re-identified EJ populations through updating regional demographic profiles, and engaged these populations through public participation initiatives throughout the entire planning process. After assessing the condition of regional infrastructure and working with planning partners and the public to identify needs, SPC developed the draft LRTP. The projects were evaluated for burdens and benefits to EJ populations, which included an analysis of financial investment, access to transportation infrastructure, and pavement and bridge conditions. No potential disproportionate and/or adverse impacts were identified.

Sources

SPC uses the most recent data from the Census and/or the American Community Survey (ACS) to identify and locate Environmental Justice (EJ) populations within the Southwestern Pennsylvania region. The equity analysis (Demographics and Burdens and Benefits) component of this report utilizes the 2013 – 2017 ACS 5-Year Estimates, the most recent as of 2019. Data is
used to analyze any changes in the region’s demographic profile, map EJ populations, and study the potential benefits or burdens of LRTP projects for the region’s residents. An analysis of roadway and bridge asset condition and financial investments relative to EJ populations is also used to mitigate any potentially disproportionately negative effects of the LRTP on minority populations.

The Public Participation Process

SPC ensures that EJ Populations are correctly identified and subsequently engaged in each step of the transportation planning process. This allows SPC and its planning partners to appropriately weigh the effects of transportation investments on the populations they serve. Input from the public and relevant organizations is incorporated at each stage of the LRTP development process, from the assessment of regional needs and the creation of the long range vision, goals and strategies to the production of the final plan report.

To foster community engagement in a region as large as Southwestern Pennsylvania, SPC develops and maintains an outreach program designed to bring information to the community, rather than expecting residents to come to SPC. Public meetings for project-level improvements are always held in the county affected by the proposed action. Public meetings for regional planning and programming efforts, such as the Long Range Transportation Plan (LRTP) and the Transportation Improvement Program (TIP) are held in the region’s Central Business District, and also in each of the member counties.

Public Participation Panels

To encourage public participation, SPC has established working groups in each county, called Public Participation Panels (PPP). Panel membership is designed to be reflective of the social and economic character of the county population. Community leaders, representatives of social service agencies, and area residents are represented on each PPP in order to help promote broad public awareness of participation opportunities.

To communicate with as many of the region’s residents as possible, SPC has cultivated relationships with regional planning partners, local service organizations, faith-based groups, cultural groups, and other relevant persons and organizations. These relationships permit SPC to continually expand its outreach and to strive to enable all area residents to actively participate in the transportation planning process.
Public Meetings

Public Participation Panel meetings and the public meetings that immediately follow each PPP meeting typically include an interactive workshop in which area residents are encouraged to discuss transportation plans and programs with SPC staff, county representatives, local transit service providers and PennDOT District staff. They also include an informational session on transportation planning and provide an opportunity for the public to submit their formal comments.

SPC’s outreach program ensures that meetings are held in diverse neighborhoods and communities, from urban centers to rural areas. During the development of SmartMoves, SPC conducted a series of public meetings in each of the ten counties of the region. All public meetings are held in centralized locations which are ADA accessible and, whenever possible, are served by fixed route public transportation. Information on public transportation options is included in meeting announcements.

SPC’s meeting notification database is updated regularly to ensure that all relevant service providers, community groups, and others have the opportunity to be involved in the public outreach process. Involving these groups increases interest in public meetings, gathers feedback for future meeting location sites, and promotes collaboration and information sharing at other community events. Meeting notices are also published in regional newspapers and minority media.

To make public documents readily available, SPC maintains a document review network that includes dozens of regional libraries, SPC’s offices in downtown Pittsburgh, ten county planning offices, and the office of the City of Pittsburgh Department of City Planning.

Providing Accessible Information

SPC’s Public Participation Plan provides guidance on SPC’s use of web-based technology to enhance the public involvement process.

In addition to information distributed via mailers or public meetings, SPC maintains a Public Participation Portal on its website. The Portal’s purpose is to create an easy-to-access tool for the public to review information regarding regional projects and programs. It also provides a forum for open dialogue between the public and SPC staff and planning partners, where parties can submit comments and ideas, ask questions, and provide feedback on the public participation process.

SPC’s website is continually expanding to enhance our ability to disseminate information and collect public input efficiently. The public can review documents and utilize direct links to submit input. For non-native English speakers, illustrative graphics and information on obtaining translated documents and interpretation services are available. SPC also uses social media channels such as Facebook and Twitter to reach a wider audience.
Reaching Traditionally Underserved Populations

Environmental Justice Populations are federally defined as being minority and/or low-income, however other Title VI demographic groups may be underserved in the transportation planning process. Older adults, the disabled, households with no vehicle access, and non-English speakers also face challenges when attempting to engage with and receive equitable benefits from transportation systems. Because the FHWA Order on Environmental Justice encourages MPOs to identify and address the transportation needs of any groups who have been traditionally underserved by the transportation planning process, SPC included mapping for all of the groups denoted above in the LRTP equity analysis.

Efforts to engage these populations occur throughout the planning process. SPC asks the chairpersons of each of the ten PPPs to help identify ways in which public information sharing, public meeting attendance, and participant diversity could be enhanced in their counties. Furthermore, SPC continues to work with the Allegheny County Task Force on Disabilities, regional health and human service providers, and community service agencies to inform their clients on opportunities to participate and provide input.

To serve all residents equitably, SPC publishes essential information in the region’s most spoken languages, including English, Spanish, Italian, Traditional Chinese, as well as Indic languages upon request. Materials are available in other languages and formats upon request.

Conducting the Equity Analysis

While the public participation component of Environmental Justice is continuous, the Environmental Justice (equity) analysis of the LRTP is conducted prior to the approval of the fiscally-constrained project list in order to ensure that the implementation of the LRTP will not have any “disproportionately high and adverse” effects on minority and low-income populations.

FHWA and USDOT EJ Orders state that:

A disproportionately adverse effect is one that (1) is predominately borne by a minority population and/or a low-income population; or (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

Figure 1, found in the Appendix – Report on Environmental Justice Mapping, illustrates the spatial distribution of Environmental Justice Census Block Groups in Southwestern Pennsylvania.

The equity analysis conducted by SPC also maps the locations of other traditionally underserved populations that are defined in the Title VI of the Civil Rights Act and subsequent nondiscrimination laws, as referenced on page 1 – the elderly, the disabled, and those with Limited English Proficiency. Areas that have high concentrations of households with no access
to a vehicle are mapped to determine where non-roadway related improvements, programs and strategies might be of benefit.

To identify how the burdens and benefits of transportation investments are distributed, an updated demographic profile of the SPC region was updated, and a series of analyses were completed using GIS. The section which follows summarizes the steps used to complete these analyses.

**Demographic Profile**

American Community Survey (ACS) 2013-2017 Five-Year Estimates were used to update the demographic profile of the SPC region. All analyses use USDOT definitions of minority and low-income populations, which can be found in Appendix B of this document.

**Minority and Low Income Populations**

According to the 2013-2017 ACS, 12.4% of residents in the SPC region are minorities and 12.5% of household incomes are below the poverty level (low-income).

Figure 1 highlights block groups wherein the percent of minority residents and/or households below the poverty level exceeds the regional average. These are considered EJ populations.

Figures 1.1 and 1.2 illustrate a gradient scale of minority populations and low-income households respectively, which provides additional perspective on the levels of need across the region.

In the SPC region, minority populations are found most frequently in older urban communities, sometimes overlapping with low-income populations. However, there is also a significant distribution of low-income populations across the periphery of the region, specifically in rural communities. Understanding the multifaceted nature of these populations is important in developing a meaningful transportation investment plan.

**Other Traditionally Underserved Populations**

The FHWA Order on Environmental Justice encourages MPOs to identify and address the transportation needs of any individuals or groups who have been traditionally underserved by the transportation planning process. SPC included mapping for three additional population groups in its equity analysis: older adults, people with disabilities, and persons with Limited

---

2 For the purposes of this report, Total Minority Population is the difference between the Total Population and the Majority Population, where the Majority Population is “white persons of one race only, not Hispanic or Latino”

3 As per USDOT definitions; Source: 2013-2017 American Community Survey 5-Year Estimates
English Proficiency (LEP). These are groups assured fair and equitable consideration in the transportation planning and programming process under Title VI assurances, policies, and program objectives. SPC also identified populations without vehicles as part of its benefits and burdens analysis.\(^4\)

Older adults are defined by the ACS as persons aged 65 and older. As of the most recent ACS, there are 478,770 older adults in the SPC region, representing 18.7% of the region’s total population. As illustrated in Figure 2, older adults were found to be widely distributed throughout the region, with concentrations in both the region’s older urban centers and its peripheral rural communities.

The ACS uses six basic disability types in their definition of a person with a disability. These include visual, hearing, cognitive, ambulatory, self-care, and independent living disability types. According to the 2017 ACS, 14.4% of the region’s adult, non-institutionalized population has a disability. As depicted in Figure 3, this population is spread throughout the region.

The ACS measures populations with Limited English Proficiency by whether a person who speaks English as their second language can speak it “less than very well”. The large majority of persons in the SPC region speak English as their first language. According to the 2017 ACS, about 5.1% of the regional population speaks a language other than English at home, and about 1.58% identified themselves as speaking English “less than very well”. As illustrated in Figure 5, this population is widely spread throughout the region.

Finally, according to the ACS, 10.4% of the regional population has no vehicle available. As depicted in Figure 6, this population is also widely spread throughout the region.

**Population Change**

According to the 2013 – 2017 ACS estimates, the SPC region’s total population has decreased by 14,696 since the 2010 Decennial Census. All of the counties in the region have lost residents, with the exception of Allegheny County, which gained 6,257 residents, and Butler County, which gained 2,122. While the majority population has declined, the minority population has slightly increased. As of the 2017 ACS, the minority population has grown by 1,341. Table 1 summarizes estimates of the population change in the region since the 2010 Census.

\(^4\) Population definitions are drawn from the ACS; Source: American Community Survey 2017 Subject Definitions
Table 1

<table>
<thead>
<tr>
<th>County</th>
<th>2010 Census</th>
<th></th>
<th></th>
<th>2013 - 2017 ACS 5 Year Estimates</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Majority</td>
<td>Minority</td>
<td>Percent</td>
<td>Total</td>
<td>Majority</td>
</tr>
<tr>
<td>Allegheny</td>
<td>1,223,348</td>
<td>986,212</td>
<td>237,136</td>
<td>19.38%</td>
<td>1,229,605</td>
<td>987,932</td>
</tr>
<tr>
<td>Armstrong</td>
<td>68,941</td>
<td>67,326</td>
<td>1,615</td>
<td>2.34%</td>
<td>66,737</td>
<td>65,307</td>
</tr>
<tr>
<td>Beaver</td>
<td>170,539</td>
<td>154,196</td>
<td>16,343</td>
<td>9.58%</td>
<td>168,161</td>
<td>152,373</td>
</tr>
<tr>
<td>Butler</td>
<td>183,862</td>
<td>176,259</td>
<td>7,603</td>
<td>4.14%</td>
<td>185,984</td>
<td>178,768</td>
</tr>
<tr>
<td>Fayette</td>
<td>136,606</td>
<td>126,888</td>
<td>9,718</td>
<td>7.11%</td>
<td>133,160</td>
<td>123,482</td>
</tr>
<tr>
<td>Greene</td>
<td>38,686</td>
<td>36,409</td>
<td>2,277</td>
<td>5.89%</td>
<td>37,338</td>
<td>35,186</td>
</tr>
<tr>
<td>Indiana</td>
<td>88,880</td>
<td>83,864</td>
<td>5,016</td>
<td>5.64%</td>
<td>86,551</td>
<td>81,886</td>
</tr>
<tr>
<td>Lawrence</td>
<td>91,108</td>
<td>84,872</td>
<td>6,236</td>
<td>6.84%</td>
<td>88,231</td>
<td>82,074</td>
</tr>
<tr>
<td>Washington</td>
<td>207,820</td>
<td>194,171</td>
<td>13,649</td>
<td>6.57%</td>
<td>207,661</td>
<td>194,604</td>
</tr>
<tr>
<td>Westmoreland</td>
<td>365,169</td>
<td>346,111</td>
<td>19,058</td>
<td>5.22%</td>
<td>356,835</td>
<td>338,659</td>
</tr>
<tr>
<td>SPC Region</td>
<td>2,574,959</td>
<td>2,256,308</td>
<td>318,651</td>
<td>12.37%</td>
<td>2,560,263</td>
<td>2,240,271</td>
</tr>
</tbody>
</table>

Table 2 displays the number of households below the poverty level as of the most recent ACS estimates. This data supports regional observations that there have been only small changes in regional population and composition over the past several years, with the number of households in poverty decreasing by nearly 2,000 even as the number of households in the region grows. SPC’s planning process will continue to monitor population change and conduct public outreach to ensure that all of the region’s populations have equal access to resources.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>2010 Census</th>
<th>2013 - 2017 ACS 5 Year Estimates</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Households in Region</td>
<td>1,075,052</td>
<td>1,085,749</td>
<td>10,697</td>
</tr>
<tr>
<td>Households in Poverty</td>
<td>136,769</td>
<td>134,818</td>
<td>-1951</td>
</tr>
<tr>
<td>% of Total Households</td>
<td>12.70%</td>
<td>12.42%</td>
<td>-0.3%</td>
</tr>
</tbody>
</table>

Benefits and Burdens

To conduct equitable transportation programming and planning, an assessment of the potential benefits or burdens to different populations is undertaken. Transportation projects can produce benefits by increasing access to resources, improving mobility, and enhancing safety. However, if applied unfairly, they can burden communities who are not afforded the same level of investment. For example, mid-century projects that increased mobility in one community often cut other communities off from central business districts. Increased investment in one part
of a region could result in other areas being neglected. A benefits and burdens analysis is conducted to make sure that the benefits of SPC’s transportation plan will be shared equally across the region, and that the burdens created by new projects are not borne by one population over any other.

**Current Conditions**

A conditions analysis was completed to understand the impact of transportation programming on EJ communities, and to ensure that areas of need were being appropriately targeted. Using GIS, bridge conditions and road conditions were compared to low-income and minority population intervals. An overview of public transit stop locations relative to low-income and minority populations was also conducted. Census Block Groups wherein the percent of minorities and/or households below the poverty level exceeds the regional average percentage are classified as EJ Block Groups (see Figure 1).

Table 3 outlines bridge conditions in relation to EJ communities:

<table>
<thead>
<tr>
<th>Asset Condition</th>
<th>Total in Region</th>
<th>Total in EJ Minority Block Groups</th>
<th>% in EJ Minority Block Groups</th>
<th>Total in EJ Low Income Block Groups</th>
<th>% in EJ Low Income Block Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Owned All Bridges</td>
<td>6973</td>
<td>850</td>
<td>12.2%</td>
<td>2115</td>
<td>30.3%</td>
</tr>
<tr>
<td>State Owned “Poor” Bridges</td>
<td>1164</td>
<td>94</td>
<td>8.1%</td>
<td>391</td>
<td>33.6%</td>
</tr>
<tr>
<td>Local Owned All Bridges</td>
<td>5878</td>
<td>739</td>
<td>12.6%</td>
<td>1799</td>
<td>30.6%</td>
</tr>
<tr>
<td>Local “Poor” Bridges</td>
<td>566</td>
<td>90</td>
<td>15.9%</td>
<td>213</td>
<td>37.6%</td>
</tr>
<tr>
<td>Region Total Bridges</td>
<td>12851</td>
<td>1589</td>
<td>12.4%</td>
<td>3914</td>
<td>30.5%</td>
</tr>
<tr>
<td>Region “Poor” Bridges</td>
<td>1730</td>
<td>184</td>
<td>10.6%</td>
<td>604</td>
<td>34.9%</td>
</tr>
</tbody>
</table>

The analysis shows that 12.4% of total regional bridges are located in census blocks with greater than the regional average of minority population, and that 10.6% of the total poor bridges in the region are in these census blocks.

It also shows that 30.5% of all state- and locally-owned bridges are located in census blocks with greater than the regional average of low-income households, and that 34.9% of total structurally deficient or “poor” bridges in the region are in these census blocks.
Table 4 depicts road conditions in relation to EJ communities:

<table>
<thead>
<tr>
<th>Road Condition (IRI Quality Rating)</th>
<th>Total Mileage</th>
<th>Total in EJ Minority Block Groups</th>
<th>% in EJ Minority Block Groups</th>
<th>Total in EJ Low Income Block Groups</th>
<th>% in EJ Low Income Block Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>1742</td>
<td>528</td>
<td>30.3%</td>
<td>628</td>
<td>36.0%</td>
</tr>
<tr>
<td>Good</td>
<td>2438</td>
<td>356</td>
<td>14.6%</td>
<td>869</td>
<td>35.6%</td>
</tr>
<tr>
<td>Fair</td>
<td>1886</td>
<td>300</td>
<td>15.9%</td>
<td>68</td>
<td>36.3%</td>
</tr>
<tr>
<td>Poor</td>
<td>2688</td>
<td>217</td>
<td>8.1%</td>
<td>1013</td>
<td>37.7%</td>
</tr>
<tr>
<td>Other</td>
<td>1663</td>
<td>528</td>
<td>31.7%</td>
<td>647</td>
<td>38.9%</td>
</tr>
<tr>
<td>Total</td>
<td>10417</td>
<td>1928</td>
<td>18.5%</td>
<td>3841</td>
<td>36.9%</td>
</tr>
</tbody>
</table>

The analysis shows that 18.5% of the region’s roads are located within census blocks with greater than the regional average of minority population and 8.1% of the region’s poor roadway is located in these census blocks.

Similarly, 36.9% of the region’s roads are located within census blocks with greater than the regional average of low-income households, and that 37.7% of the region’s “poor” roadway is located in these census blocks.

Table 5 outlines public transit stops relative to EJ communities:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Port Authority of Allegheny County (PAAC) Stops</th>
<th>Non PAAC Stops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Stops in Region</td>
<td>6961</td>
<td>1336</td>
</tr>
<tr>
<td>Stops in EJ Minority Block Groups</td>
<td>4432</td>
<td>396</td>
</tr>
<tr>
<td>% in EJ Minority Block Groups</td>
<td>63.7%</td>
<td>29.6%</td>
</tr>
<tr>
<td>Stops in EJ Low Income Block Groups</td>
<td>3461</td>
<td>743</td>
</tr>
<tr>
<td>% in EJ Low Income Block Groups</td>
<td>49.7%</td>
<td>55.6%</td>
</tr>
<tr>
<td>Stops in High Disability Tracts</td>
<td>3871</td>
<td>801</td>
</tr>
<tr>
<td>% in High Disability Tracts</td>
<td>55.6%</td>
<td>60.0%</td>
</tr>
<tr>
<td>Stops in Zero Vehicle Tracts</td>
<td>3970</td>
<td>684</td>
</tr>
<tr>
<td>% in Zero Vehicle Tracts</td>
<td>57.0%</td>
<td>51.2%</td>
</tr>
</tbody>
</table>
The analysis shows that a significant number of public transit stops are located in census blocks or tracts with greater than the regional average of minority and disabled populations and low-income and zero vehicle households. This is highly correlated with the high density of both transit stops and the aforementioned populations.

In the following equity analysis, Table 6 outlines the LRTP total investment amount and the percent that is directed towards low-income and minority populations. This investment aligns with the needs assessment above based on condition data in the region. SPC and its planning partners consistently monitor condition data when making decisions about where best to apply transportation programming and investment in the region.

**Equity Analysis**

The equity analysis portion of SPC’s Environmental Justice plan assesses the potential benefits and burdens that projects programmed on the LRTP will have on EJ and other traditionally disadvantaged populations. The primary analysis, illustrated in Figure 6, compares all of the 211 mappable transportation projects on the LRTP to locations of minority and low-income populations in the region. These investments are grouped based on their federal investment categories: bridge preservation and reconstruction projects, roadway preservation and reconstruction projects, safety and operations projects, and new capacity projects. Figures 6.1, 6.2, 6.3 and 6.4 break down transportation investments in greater detail.

In addition to location-specific improvements, the LRTP contains a significant number of non-mappable projects, most notably the purchase of public transportation vehicles and capital maintenance to transit facilities. Also included in the LRTP are bridge and roadway repair line items in which projects are defined at a later date. These line items act as contingencies for situations such as emergency repairs due to flooding, landslides or other unforeseen circumstances that may arise. These investments are not included in the EJ analysis because their locations are currently unspecified. Projects such as bus replacements and Interstate highway improvements benefit the region as a whole and are expected to provide improved access and mobility to and within key employment centers including downtown Pittsburgh, as well as communities throughout the region.

As noted in Table 6, approximately 319,992 of the region’s residents are classified as a minority; 77.4% of those persons reside in a Census Block Group that exceeds the regional average percentage (12.5%) of minority population. Similarly, there are 134,818 households in the region that are classified as being below the poverty level; 69.8% of which are within Census Block Groups that exceed the regional average percentage (12.42%) for households below the poverty level.
Table 6
Southwestern Pennsylvania 2019-2045 Long Range Transportation Plan
Investments in Relation to EJ Communities

<table>
<thead>
<tr>
<th>Community Type</th>
<th>Regional Total</th>
<th>*EJ Census Block Group Total</th>
<th>% Represented in EJ Block Groups</th>
<th>**# of Projects</th>
<th>% of Projects</th>
<th>***Total Investment ($4,042,111,880)</th>
<th>% of Total Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Income Households</td>
<td>134,818</td>
<td>94,074</td>
<td>69.8%</td>
<td>137</td>
<td>64.9%</td>
<td>$2,897,741,630</td>
<td>71.7%</td>
</tr>
<tr>
<td>Minority Populations</td>
<td>319,992</td>
<td>247,771</td>
<td>77.4%</td>
<td>104</td>
<td>49.3%</td>
<td>$2,280,423,050</td>
<td>56.4%</td>
</tr>
</tbody>
</table>

* The EJ Census Block totals represent 8.7% of the total households in the region and 9.7% of the total regional population (all races)

**211 mappable projects found in the 2019 - 2045 LRTP

***Total Investment is all mappable highway and bridge projects, not total amount invested in the Long Range Plan

The vision of SPC’s Long Range Transportation Plan, SmartMoves for a Changing Region, is to provide a “world-class, safe and well maintained, integrated transportation system that provides mobility for all, enables resilient communities, and supports a globally competitive economy.” Investment in the maintenance and repair of the region’s existing transportation system is crucial to achieving the goal of a world class, safe, and well maintained system. Furthermore, an emphasis on transit and the availability of public transportation underscores the LRTP’s focus on supporting a globally competitive economy, connecting communities, and providing mobility for all. The analysis of public transit in Table 5 was conducted to understand and improve access to transportation for underserved populations.

Supporting mobility for all includes “the integration of multiple forms of public/private transportation to provide increased mobility equitably for all areas, including those in underserved rural areas and disadvantaged populations.” Keeping this goal in mind, the LRTP prioritizes investment in areas with greater than average minority and low-income populations. As outlined in Table 6, 71% of the LRTP’s total mappable investment is in areas with greater than the regional average of low-income households and 56% of total mappable investment is in areas with greater than the regional average of minority populations. Other non-mappable investments, which support projects like emergency repairs, bus replacements, or highway improvements, should also benefit underserved populations and help connect the region’s communities.

Summary

Throughout the LRTP development process, SPC conducted outreach to area residents of all backgrounds and across diverse communities. All members of the public were invited to participate in the planning and development process, through submitting ideas and concerns, and providing feedback on the existing TIP, LRTP, and the future of the region and its
transportation network. Outreach to traditionally underserved populations, including those populations mapped in this report, was conducted. Vital documents associated with the LRTP planning process were made available in the predominant non-English languages of the region. Translations to additional language and alternate format documents were also available upon request.

An analysis of the impacts of the projects identified in SmartMoves demonstrates that benefits of the programmed LRTP projects and total investment of resources are equitable to populations who are traditionally disadvantaged in the planning process. Furthermore, no population groups were found to be disproportionately or adversely affected by the implementation of SmartMoves. The Environmental Justice process is ongoing, and SPC continues to conduct outreach, coordinate with relevant planning partners, and garner public input to have a growing level of public involvement in the transportation planning and development process.

All materials contained in this report are available in electronic format on SPC’s website: www.spcregion.org, as is an extensive library of maps and data.
APPENDIX

Report on Environmental Justice
List of Figures

Figure 1, Low-Income and Minority Population

Figure 1.1, Low-Income Population

Figure 1.2, Minority Population

Figure 2, Population Age 65 Years and Older

Figure 3, Population with Disabilities

Figure 4, Population Speaking English “Less Than Very Well”

Figure 5, Households with No Available Vehicle

Figure 6, Low-Income and Minority Population with SmartMoves Projects

Figure 6.1, Low-Income and Minority Population with SmartMoves Bridge and Road Projects

Figure 6.2, Low-Income and Minority Population with SmartMoves New Capacity and Operations & Safety Projects

Figure 6.3, Low-Income Population with SmartMoves Projects

Figure 6.4, Minority Population with SmartMoves Projects

Figure 7, Low-Income and Minority Population with 2019-2022 TIP Projects
Low-Income and Minority Population
By Block Group

Figure 1

Legend

**Low-Income Population**
Where the percentage of households below the poverty level exceeds the regional average of 12.4%

**Minority Population**
Where the minority population exceeds the regional average of 12.5%

**Low-Income and Minority Population**

**No Factor**

Source: 2013-2017 American Community Survey (ACS) 5-Year Estimates by Census Block Group
Low-Income Population
By Block Group

Figure 1.1

The percentage of households in poverty in each census block group, with a regional average of 12.4%.

Minority Population
By Block Group

Figure 1.2

The percentage of minority population in each census block group, with a regional average of 12.5%

Source: 2013-2017 American Community Survey (ACS) 5-Year Estimates by Census Block Group
Population Age 65 and Older
By Block Group

The percentage of the population age 65 and older in each census block group, with a regional average of 18.7%

- 0.00% - 11.57%
- 11.57% - 18.70%
- 18.70% - 25.62%
- 25.62% - 37.29%
- 37.29% - 100.0%

Source: 2013-2017 American Community Survey (ACS) 5-Year Estimates by Census Block Group
Population with Disabilities
By Census Tract

Figure 3

The percentage of the population with disabilities in each census tract, with a regional average of 14.4%

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00% - 7.74%</td>
<td></td>
</tr>
<tr>
<td>7.74% - 14.38%</td>
<td></td>
</tr>
<tr>
<td>14.38% - 22.10%</td>
<td></td>
</tr>
<tr>
<td>22.10% - 49.12%</td>
<td></td>
</tr>
<tr>
<td>49.12% - 100.00%</td>
<td></td>
</tr>
</tbody>
</table>

Source: 2013-2017 American Community Survey (ACS) 5-Year Estimates by Census Tract
The percentage of the population speaking English less than very well in each census tract, with a regional average of 1.58%.

Source: 2013-2017 American Community Survey (ACS) 5-Year Estimates by Census Tract
Households With No Available Vehicle

The percentage of the population with no available vehicle, with a regional average of 10.4%

- 0.00% - 4.69%
- 4.69% - 10.40%
- 10.40% - 27.78%
- 27.78% - 46.61%
- 46.61% - 93.05%

Source: 2013-2017 American Community Survey (ACS) 5-Year Estimates by Census Block Group
Low-Income and Minority Population with 2019 - 2045 LRTP Projects

Figure 6

- **Low-Income Population**: Where the percentage of households below the poverty level exceeds the regional average of 12.4%
- **Minority Population**: Where the minority population exceeds the regional average of 12.5%
- **Low-Income and Minority Population**
- **No Factor**
- **Bridge Projects**
- **New Capacity**
- **Operations & Safety**
- **Road Projects**
Low-Income and Minority Population
with 2019 - 2045 LRTP Bridge and Road Projects

Figure 6.1

Where the percentage of households below the poverty level exceeds the regional average of 12.4%
Where the minority population exceeds the regional average of 12.5%

Low-Income Population
Where the percentage of households below the poverty level exceeds the regional average of 12.4%
Minority Population
Where the minority population exceeds the regional average of 12.5%
Low-Income and Minority Population
No Factor

Bridge Projects
Road Projects
Low-Income and Minority Population

Low-Income Population
Where the percentage of households below the poverty level exceeds the regional average of 12.4%

Minority Population
Where the minority population exceeds the regional average of 12.5%

Low-Income and Minority Population

No Factor

New Capacity

Operations & Safety
Low-Income Population
The percentage of households in poverty in each census block group, with a regional average of 12.4%

0.00% - 0.06%
0.06% - 12.4%
12.4% - 26.4%
26.4% - 43.5%
43.5% - 97.0%

Bridge Projects
New Capacity
Operations & Safety
Road Projects

Source: 2013-2017 American Community Survey (ACS) 5-Year Estimates by Census Block Group
Minority Population
with 2019 - 2045 LRTP Projects

Figure 6.4

The percentage of minority population in each census block group, with a regional average of 12.5%

0.00% - 6.45%
6.45% - 12.50%
12.50% - 42.79%
42.79% - 71.88%
71.88% - 100%

Bridge Projects
New Capacity
Operations & Safety
Road Projects

Source: 2013-2017 American Community Survey (ACS) 5-Year Estimates by Census Block Group
Low-Income and Minority Population

with 2019 - 2022 TIP Projects

Figure 7

- **Low-Income Population**: Where the percentage of households below the poverty level exceeds the regional average of 12.4%
- **Minority Population**: Where the minority population exceeds the regional average of 12.5%
- **Low-Income and Minority Population**
- **No Factor**