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# Social Equity: Engagement and Analysis

## Introduction

“Social equity” is a shorthand term that the San Diego Association of Governments (SANDAG) uses for an overarching goal that combines the concepts of environmental justice, the federal laws in Title VI of the Civil Rights Act, and various other federal and state laws intended to promote an equitable distribution of benefits and burdens resulting from SANDAG projects and programs. Transit, freeways, and other transportation infrastructure may have a significant effect on the quality of life for a region’s residents by shaping access to jobs, education, housing, services, and recreational opportunities. Achieving social equity in the development of a comprehensive transportation system is vital to the sustainability goals for the region. It requires making investments that provide everyone – regardless of age, race, color, national origin, income, or physical ability – with opportunities to work, shop, study, be healthy, and play.

Without proper planning and development, transportation systems can degrade the quality of life in communities. The construction of roads, freeways, and rail transit systems may place health burdens on many low income and minority communities. New transportation projects may physically divide communities, resulting in long-lasting social and economic costs. It is important to understand the impacts of transportation investments on our most vulnerable communities in order to better plan for the future.

Promoting social equity in transportation planning requires involvement from a wide variety of communities and stakeholders. In the not so distant past, cities and communities with high concentrations of low income residents and minority populations in the San Diego region, as well as federally recognized tribes, were underserved and underrepresented in the planning process. SANDAG continually strives to:

- engage vulnerable and disenfranchised communities of the region in the planning and decision-making process; and
- improve methods for analyzing how the San Diego Forward: The 2019 Federal Regional Transportation Plan (2019 Federal RTP) affects those populations.

From the beginning of the development of the 2019 Federal RTP, SANDAG engaged affected communities in the planning process through an innovative collaborative effort with Community-Based Organizations (CBOs) and Collaboratives from around the San Diego region. SANDAG incorporated their issues and concerns into the design and decision-making process, including the definition of disadvantaged communities and the development of social equity project evaluation criteria and performance measures. The goal of these efforts is for low income and minority (LIM) communities to share equitably in the benefits of the transportation investments without bearing a disproportionate burden from the system when compared to non-LIM communities.

In developing the 2019 Federal RTP, SANDAG has used performance measures and other evidence to make decisions intended to ensure compliance with Title VI requirements and environmental justice principles. But as articulated by the National Cooperative Highway Research Program, “the fact that federal policy mandates consideration of environmental justice should not be the only driving force behind considering it; a more compelling argument is that it makes for good transportation planning.”<sup>1</sup>

## Legal Framework

Over the last several decades, federal law and guidance have been written to ensure that the spirit and intent of Title VI of the Civil Rights Act are incorporated into the guiding principles and missions of federal, state, and local public agencies. Title VI of the Civil Rights Act of 1964 states that:

*“no person in the United States, shall, on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving federal financial assistance.”*

In 1994, Executive Order 12898 on Environmental Justice was issued, expanding social equity principles to cover low income as well as minority groups.<sup>2</sup> More recently the focus has been extended to individuals with limited English proficiency (LEP). Federal and state agencies have created guidance and implemented procedures to protect the interests of these various disadvantaged groups.<sup>3</sup>

While Title VI prohibits discrimination, the concept of implementing environmental justice is discussed in Executive Order 12898 as the process of “identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of [a federal agency’s] programs, policies, and activities on minority populations and low income populations.”<sup>4</sup> There are many definitions available of the concept of environmental justice and methods of implementation. The U.S. Department of Transportation’s Order 5610.2, Federal Highway Administration’s (FHWA) Order 6640.23, and Federal Transit Administration (FTA) Circulars 4702.1 4703.1 expand on Title VI and Executive Order 12898 and describe the process for incorporating Environmental Justice into their respective departments’ programs, policies, and activities.

**California Government Code Section 65040.12(e)** defines environmental justice in the context of city and county general plans as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies. In addition, Government Code 11135 states that no state agency, or agency funded by the state, shall deny full and equal access to benefits of any program or activity on the basis of race, national origin, ethnic group, religion, sex, sexual orientation, or disability.

In the context of transportation planning, the California Department of Transportation (Caltrans) considers environmental justice to be activities taken by a recipient of federal funding to ensure 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.<sup>5</sup>

*Fair treatment* means that no group of people, including a racial, ethnic, or a socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or from the execution of federal, state, local, and tribal programs and policies.

*Meaningful involvement* means that:

- Potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health.
- The public’s contribution can influence the regulatory agency’s decision.
- The concerns of all participants involved will be considered in the decision-making process.
- The decision-makers seek out and facilitate the involvement of those who are potentially affected.

**SANDAG Board Policy No. 025**, which is entitled *Public Participation Plan*, incorporates concepts from federal and state laws and guidance. The policy states that social equity and environmental justice are meant to ensure the meaningful involvement of low income, minority, limited English speakers, disabled, senior, and other traditionally underrepresented communities and is a key component of SANDAG public participation activities. The Board policy also states that social equity means ensuring that all people are treated fairly and are given equal opportunity to participate in the planning and decision-making process, with an emphasis on ensuring that traditionally disadvantaged groups are not left behind.

SANDAG's objective, when complying with Title VI, Executive Order 12898 and state nondiscrimination laws, is to ensure that SANDAG plans, policies, and actions do not result in a disproportionate effect for low income populations or a disparate impact for minority populations. SANDAG has evaluated whether there are disproportionate effects or disparate impacts that will result from the 2019 Federal RTP by confirming equitable distribution of the 2019 Federal RTP's benefits and burdens such that minorities will not receive comparatively worse treatment when compared to non-minorities, and low income populations will not receive comparatively worse treatment than non-low income groups.

In addition to the federal and state laws discussed above, SANDAG ensures its programs and projects comply with the federal Americans with Disabilities Act, which prohibits discrimination and guarantees that people with disabilities have the same opportunities as everyone else to participate in the mainstream of life. Finally, although there is no law that specifically requires an equity analysis with regard to seniors in the context of transportation planning, SANDAG and the CBOs focus on seniors as another disadvantaged population group to analyze to ensure social equity principles were applied.

## **Process/Outreach**

Everyone should be involved in the future of their region. For most of us it's difficult to get involved in regional planning because of our busy lives. For some of us it is particularly hard because of additional barriers to involvement that include language, not understanding our rights, not being familiar with the process, and in some cases being afraid to get involved.

SANDAG is committed to robust public participation and involvement in decision-making regarding regional planning and transportation infrastructure. The SANDAG agency-wide Public Participation Plan (PPP) describes the process for communicating with, and obtaining input from, the public concerning agency programs, projects, and program funding. The guidelines and principles outlined in the PPP guide the agency's public outreach and involvement efforts for regional transportation projects; transit fare changes; smart growth, environmental, and other planning efforts; growth forecasts; RTP; Regional Transportation Improvement Program (RTIP); Regional Comprehensive Plan (RCP); Overall Work Program (OWP); tribal consultation; and other mandated or Board initiatives. The current PPP was adopted by the SANDAG Board of Directors on February 2018. (The PPP and Language Assistance Plan are available at [sandag.org/ppp](http://sandag.org/ppp).)

The PPP reflects the SANDAG commitment to public participation and involvement that includes all community members and stakeholders in the regional planning process. The PPP was developed in accordance with guidelines established by the FHWA for metropolitan transportation planning (23 CFR §450.316), addresses nondiscrimination requirements related to Title VI of the Civil Rights Act, and reflects the principles of social equity and environmental justice. Included in the PPP are procedures, strategies, and outcomes associated with the ten requirements listed in 23 CFR §450.316. The PPP also incorporates FTA's guidance on Public Involvement Techniques for Transportation Decision-Making.

To support the development of the 2019 Federal RTP, portions of the specific Public Involvement Plan (PIP) created for San Diego Forward: The 2021 Regional Plan, were used. The PIP outlines tactics and strategies to coordinate outreach, input, and communications efforts. Applicable portions of the PIP establish a process and outline specific activities for communicating with the public throughout the 2019 Federal RTP development process, per 23 CFR 450.316. The PIP was intended to create a variety of opportunities for individuals, organizations, agencies, and other stakeholders to provide meaningful input. SANDAG's overall PPP provides guidelines for drafting the PIP (for complete details of the PIP see Appendix F).

The PIP provided a menu of options for SANDAG to gather input on the various anticipated components of the 2019 Federal RTP, including sustainability and land use goals; priorities for transportation projects, programs, and services; transportation networks; infrastructure recommendations; funding alternatives; policies and programs; performance measures; techniques for meeting greenhouse gas emission targets; and other related issues. A tribal consultation work plan also was developed in parallel (see Appendix G).

This PIP included the establishment of a network of CBOs to support outreach and encourage the involvement of vulnerable communities around the region.

### **Partnering with Community-Based Organizations**

To help ensure that all communities were meaningfully involved in the development of the 2019 Federal RTP, including LEP portions of the population, SANDAG developed an innovative partnership program with community collaboratives as well as CBOs in vulnerable areas around the region, drawing on their leadership and knowledge of their communities, and providing resources to them to support their collaboration.

**Collaboratives** are made up of a variety of social institutions, including social service providers, ethnic associations, schools, churches, chambers of commerce, and other CBOs within an identified low income/minority community.

**Community-Based Organizations** are often non-profit service providers who work with the target populations in their community and are part of the community fabric, advocating for their needs.

These groups, acting as forums for local institutions of all kinds, provide a culturally relevant structure for developing local protocols, crossing language barriers, and structuring meetings according to the needs of their communities. If their stakeholders make connections between their local concerns and regional planning efforts, they can begin to understand regional planning in a way that is relevant and meaningful to their communities.

SANDAG believes that trust-building is a crucial component in ensuring meaningful public involvement and that can only be established when stakeholders have been engaged early and consistently in the process. The CBO Partners already have this leverage with their constituents, and therefore can be highly instrumental in bridging the gap between SANDAG decision-makers and traditionally underrepresented communities.

From the very beginning, thirteen<sup>6</sup> CBOs and Collaboratives from around the San Diego region were selected to partner with SANDAG to create a community-based network. As stated above, the partners facilitated the timely and meaningful involvement of traditionally underrepresented communities in the process to develop the 2019 Federal RTP (Table H.1: List of CBO Partners). The CBO Partners selected share several important qualities, including: (a) a well-established and trusted role in their respective communities with a reputation for consistency and excellence in service; (b) institutional capacity – the resources, staff, and time – to handle various outreach tasks such as survey distribution, community workshops, and others activities, in addition to their regular services; (c) a capacity to convene large groups of community members, especially low income, minority, newcomers with limited fluency in English, youth, and senior populations, and catalyze significant public involvement from these groups; and (d) representation of the different geographic areas in the region in order to maximize the amount and variety of people reached.

**Table H.1**

## **List of Community-Based Organization Partners**

- Alliance for Regional Solutions
- Barrio Logan College Institute<sup>7</sup>
- Casa Familiar
- City Heights Community Development Corporation
- Chula Vista Community Collaborative
- El Cajon Collaborative
- Linda Vista Collaborative (Bayside Community Center)
- National Latino Research Center (CSUSM)
- Nile Sisters Development Initiative
- Olivewood Gardens
- Samahan Health
- Urban Collaborative Project
- Vista Community Clinic

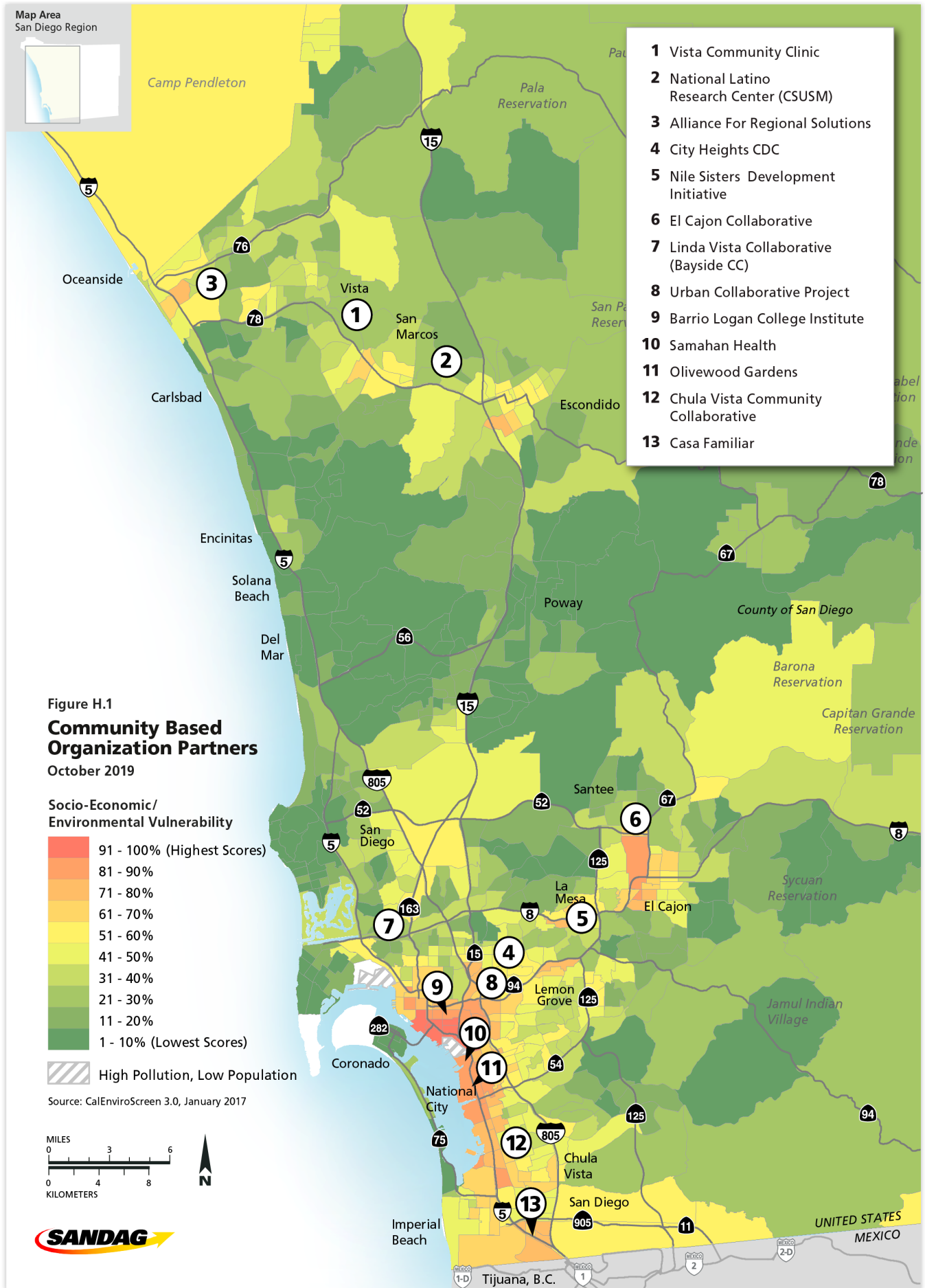
Figure H.1 shows the geographic distribution of the selected CBO Partners and their areas of outreach focus. For a more detailed description of each CBO Partner and the communities they serve, see Attachment 1.

### **Role of CBO Outreach Network**

The CBO Partners began their work in the fall of 2017. This network of organizations from the region’s most vulnerable communities formed the CBO Outreach Network and worked closely with SANDAG staff throughout the process, meeting on a regular basis (at least monthly) to learn about the process and the steps in the planning process, share their insights as the planning process evolved, develop outreach strategies for engaging their communities, contribute to the social equity analysis, coordinate outreach in their communities, and bring their respective community’s input into the process at key decision-making milestones. Their role in this process was twofold:

**Community-Based Organizations Working Group:** Executive level staff from each CBO Partner formed a public working group. They provided feedback and input at each step in the process, providing a social equity perspective on key elements of the 2019 Federal RTP as well as contributing to the Social Equity Analysis.

*Education of CBO Outreach Network:* Throughout the planning process, SANDAG staff worked with the CBO Partner project managers to explain and educate them on each step of the planning process so that they could in turn educate their community members. Regional transportation planning is complex, so a significant amount of time and effort was dedicated to the CBO Partner project managers understanding what is involved in the development of a Regional Transportation Plan (RTP).



**Community Outreach/Engagement/Education:** To engage their respective communities in the planning process from the very beginning, each CBO Partner utilized their community network and organizational structure to craft an outreach strategy appropriate to the needs and character of their community. In this way the CBO Partners provided an ongoing forum for discussion on the development of the 2019 Federal RTP at each key milestone and were also able to educate their constituents on more general issues of the scales of planning and what relates to community/city/region issues. Several CBOs were also able to connect their collaboration with the County’s ‘Live Well San Diego’ efforts to create Resident Leadership Academies engaging the same residents to make the connection between their community quality of life issues and the larger regional system. In particular, these groups have focused on understanding the connections between public health and the built environment, including access to transportation. This capacity building effort is empowering residents to advocate for their issues in their community and to the larger region.

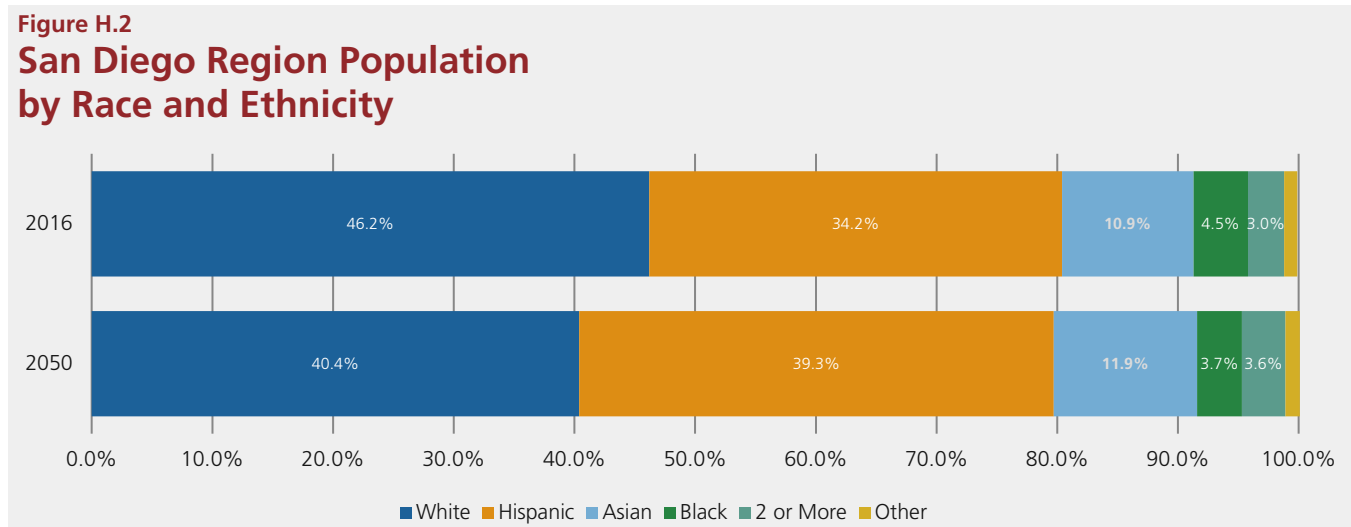


*Methodologies for Community Outreach:* A key component of outreach was to develop context-specific methodologies that would help community members understand the elements of the RTP and provide meaningful input. CBO staff, SANDAG staff, and communications consultants worked together to try and turn the technical/jargon-laden information being shared into meaningful concepts that the community members could understand. Many CBO Partners absorbed the information and created innovative ideas for how to share it with their community members to make the dialogue meaningful. This included translation into multiple languages, interactive games, and activities.

## Demographics: Current and Future Conditions

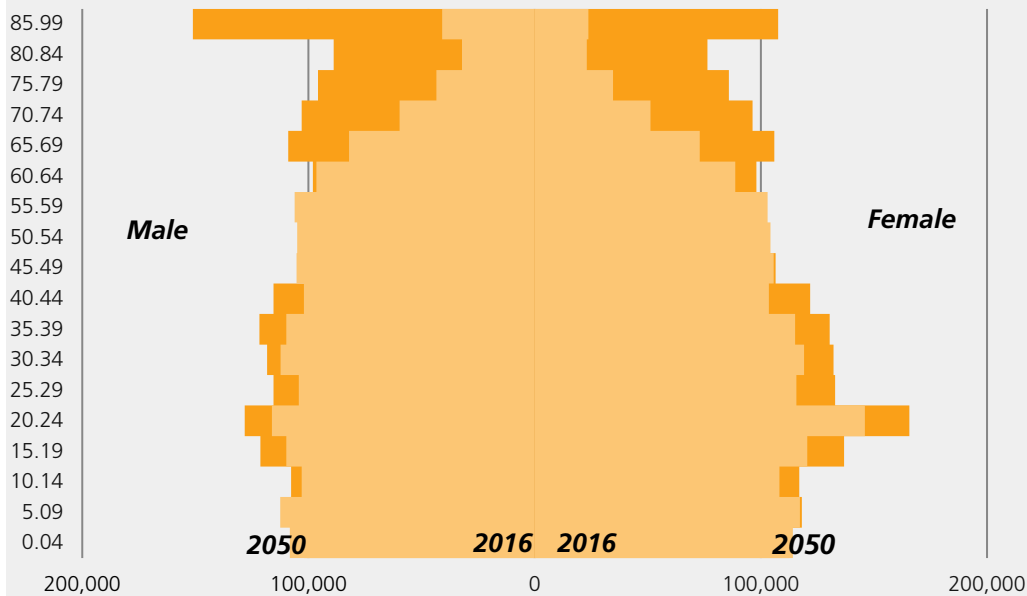
The 2010 Census confirmed that the region has become a “majority minority” county. This means that no single race or ethnic group comprises more than 50 percent of the region’s total population. As the region continues to grow, its ethnic composition will continue to change. Figure H.2 displays the projected regionwide changes in population from 2016 to 2050 for six racial/ethnic groups: (1) Hispanic, (2) non-Hispanic White, (3) Black, (4) Asian, (5) Two or More Races, and (6) Other.<sup>8</sup> By 2050 the Hispanic population is expected to increase by more than 5 percent, while the number of non-Hispanic Whites is expected to decline by less than 6 percent.

By 2050, Hispanics are predicted to account for more than 40 percent of the total population. The percentage of non-Hispanic Whites is expected to decline, from 46 percent in 2016 to about 40 percent in 2050. It is estimated that there will be virtually no change between 2016 and 2050 in the percentage of the following non-Hispanic race groups: Black, Hawaiian/Pacific Islander, Asian, Other, American Indian, and Two or More Races.



In addition to racial and ethnic changes, the region’s population is forecast to age considerably by 2050 (See Figure H.3). During the 34-year forecast period, the region’s median age is expected to increase by more than 3 years, from 36.1 to 40.8, as the Baby Boomer and Generation X generations live longer than previous generations. During the forecast period, the number of residents between 65 and 84 years old is expected to nearly double, and the number of residents 85 years old and above is expected to quadruple. Twenty-eight percent of the region’s population growth between 2016 and 2050 is expected to be in the oldest age group (85 and older). By 2050 over 25 percent of the region’s population will be 65 and older – a higher percentage than is seen today in the retirement-oriented state of Florida. Paying attention to their unique needs for transportation is critical. As the region continues to grow and evolve, transportation plans must adapt to support the needs of the region’s changing population.

**Figure H.3**  
**San Diego Region Population by Age and Gender**



### Identifying the San Diego region’s disadvantaged populations

The first step in the SANDAG social equity analysis was to identify the population groups who are vulnerable or disadvantaged. Pursuant to Title VI, Executive Order 12898, and the 1999 Department of Transportation Memorandum “Implementing Title VI Requirements in Metropolitan and State Planning,” SANDAG must provide information on the effects of the 2019 Federal RTP on Low income and Minority (LIM) populations. SANDAG went beyond this minimum, however, by asking the public what other disadvantaged groups should be analyzed in addition to LIM populations.

A major shift in how to analyze impacts to disadvantaged communities for the RTP was the incorporation of the Activity-Based Model (ABM), which analyzes traveler behavior at the household level instead of by generalizing travel at the Traffic Analysis Zone (TAZ) level as was done with the Travel Demand Model used in previous RTP cycles. With the Travel Demand Model, it was possible for a sparsely populated area in East County that covered a large geography to show the entire geography as low income even if only three of the six households in it were low income. Conversely, there could be a cluster of low income households in Vista, but if they represented less than 50 percent of the households in the geographic unit, the tract would not be counted as low income at all. With the ABM model, traveler characteristics (such as age, ethnicity, and income) are modeled at the household level so the information is more detailed.

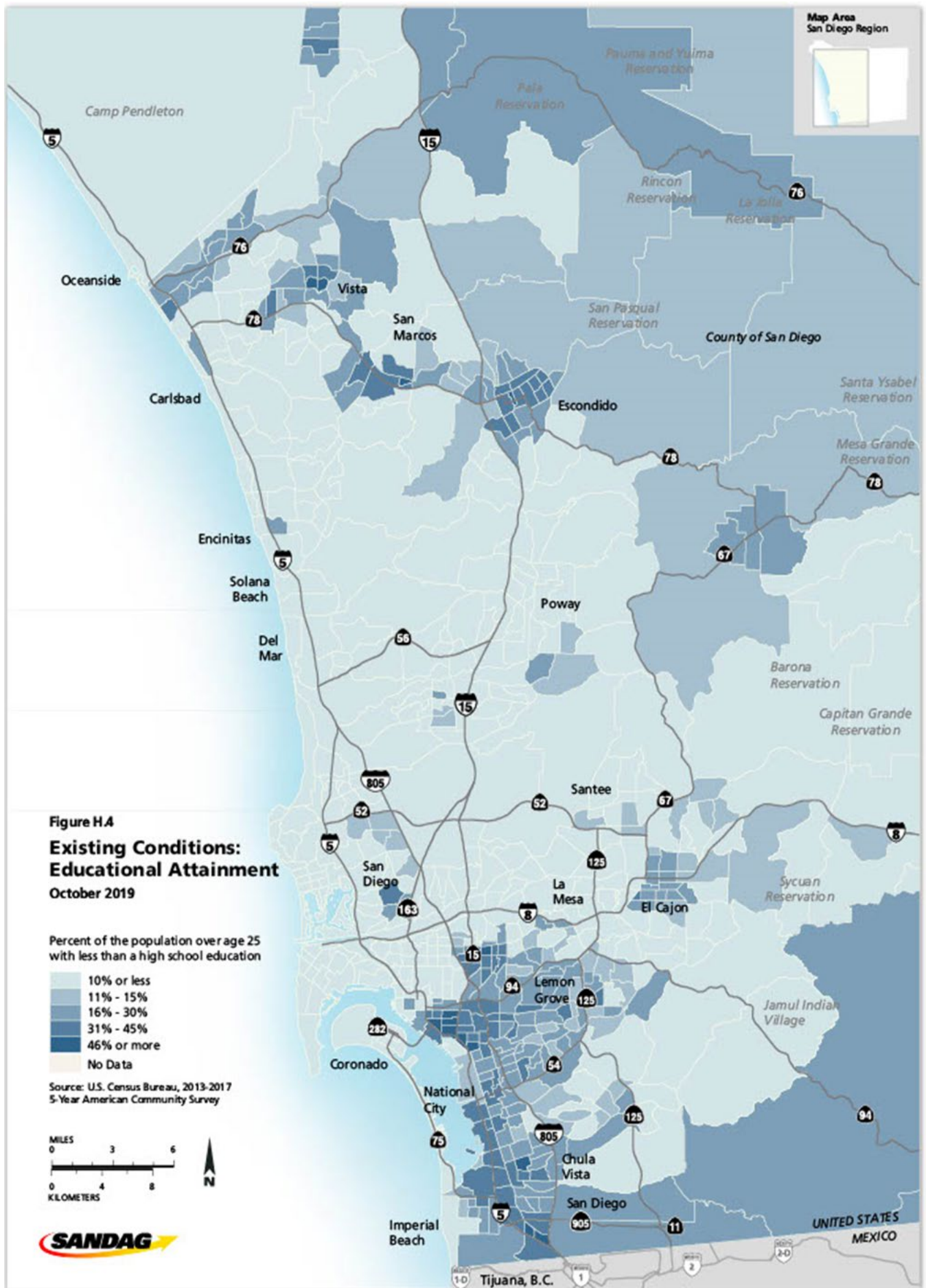
After examining mapped data using both the previous indicators and various populations proposed for a social equity analysis, and with input from the social equity stakeholders, SANDAG selected three population groups that represent the disadvantaged communities that are analyzed in the RTP: (1) minorities, (2) low income populations, and (3) seniors. Since the ABM model looks at all travelers (instead of groups of travelers) within geographic areas, there is no longer a need to have a threshold percentage for determining if a certain geographic area should be counted as a disadvantaged community as was done in previous RTP cycles. It was, however, still necessary to select demographic thresholds for low income and seniors that were appropriate for the San Diego region. The threshold for seniors selected was 75 and older. This threshold came from a dialogue with stakeholders regarding mobility and age, with the conclusion that at that age seniors may become transit dependent, but still mobile.

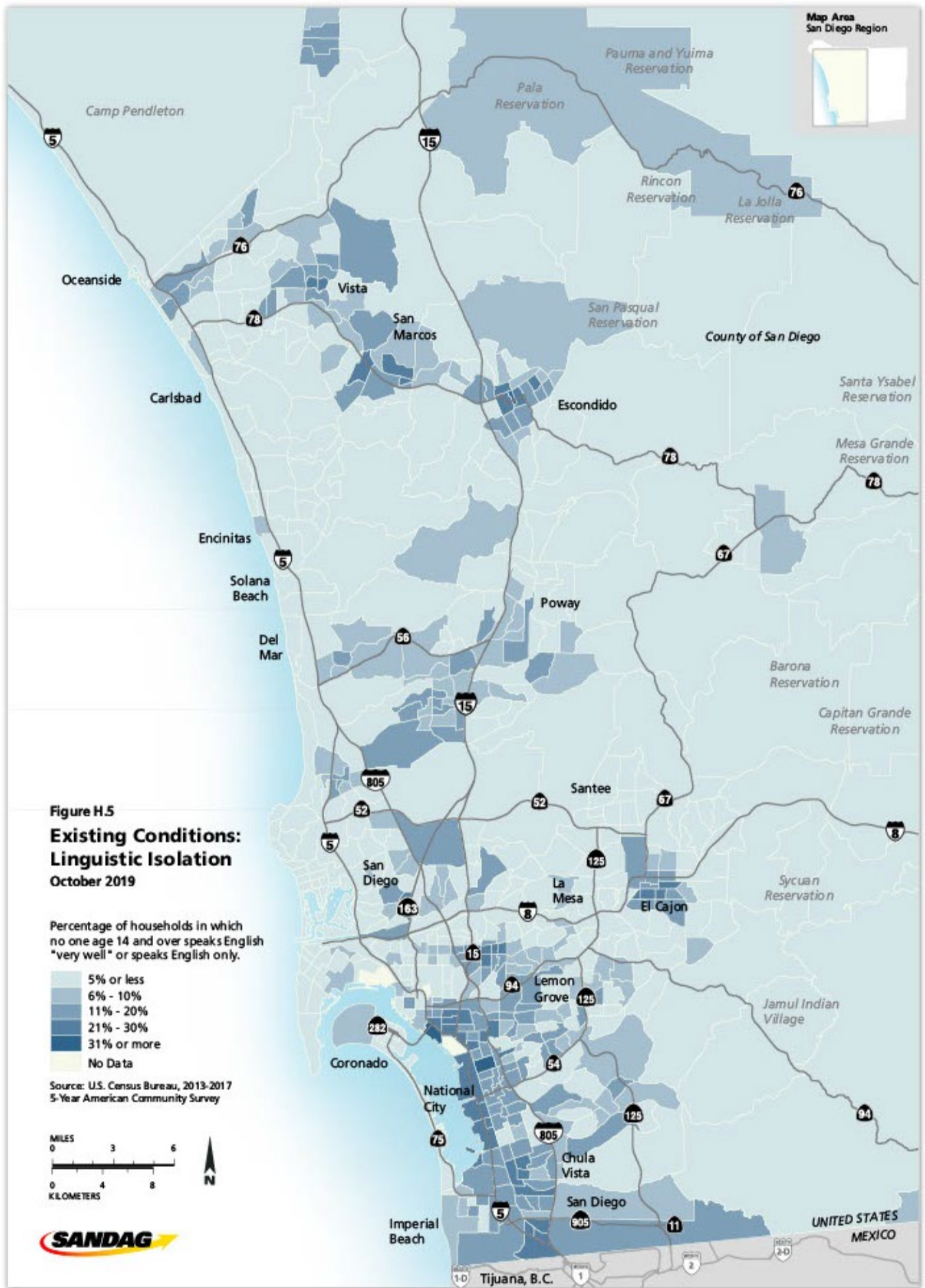
For low income, the threshold selected was 200 percent of the 2012 federal poverty level. The rationale to use 200 percent of the federal poverty level was twofold. First, 200 percent of the poverty level reflects the higher cost of living in the San Diego region as compared to other areas of the state and nation. Second, this indicator can be forecasted and serves as a good replacement for the indicators used in the previous cycles that were not able to be forecasted into the future (educational attainment, linguistic isolation, and disability status).

### **Existing Conditions in Disadvantaged Communities in the Region**

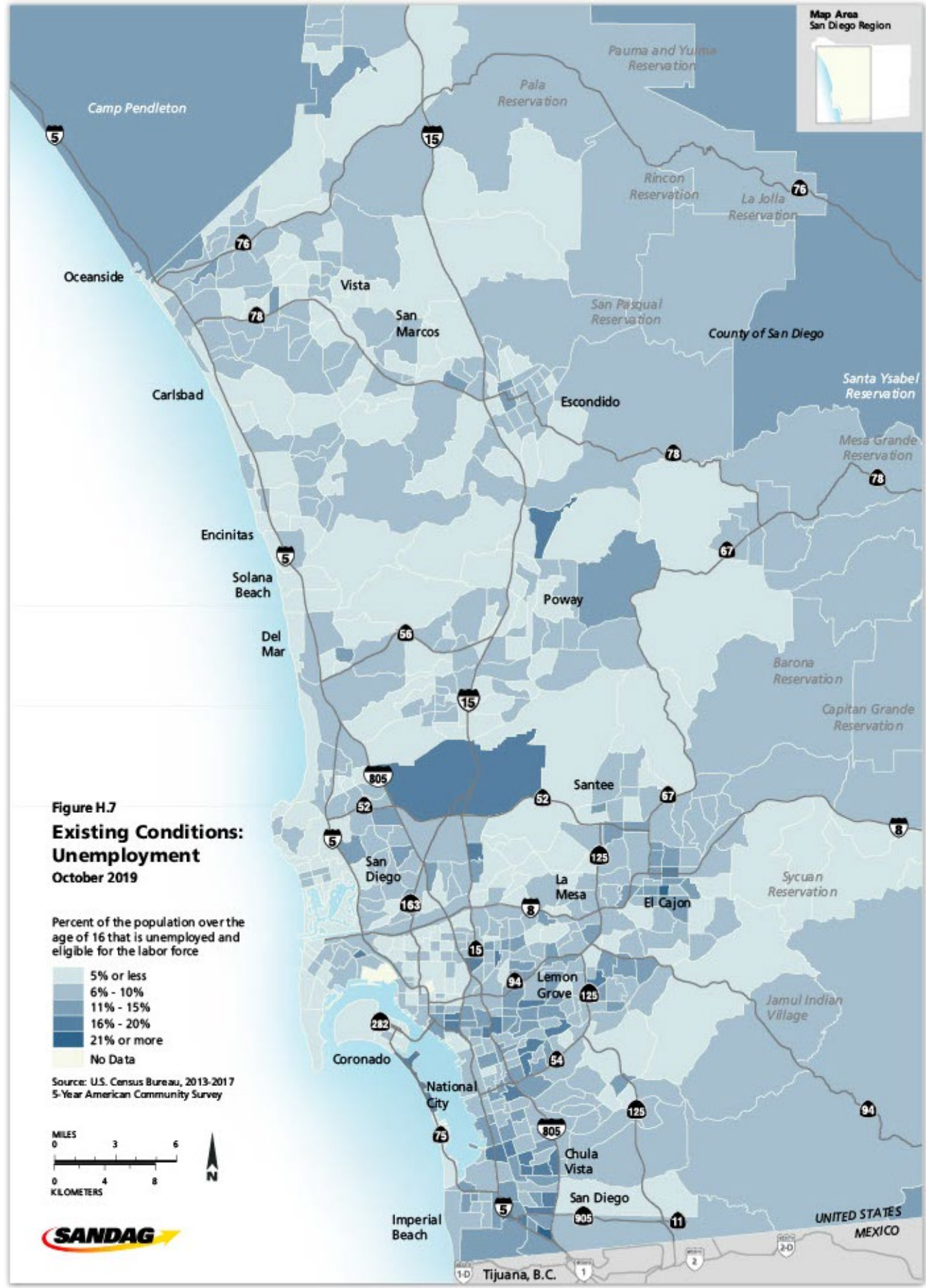
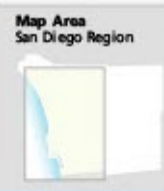
The definitions of disadvantaged communities (for the purpose of analyzing the impact of the transportation investments) used indicators that were possible to forecast to 2050, but it is also important to understand vulnerable communities in the region in terms of existing conditions. In workshops, to define the disadvantaged communities for the 2019 Federal RTP, the participants were concerned that some of the indicators of vulnerability that were not used for the purposes of the travel model and performance measures still be documented in order to provide a current snapshot of cumulative socio-economic and population characteristics that make some communities more vulnerable than others.<sup>9</sup> Maps showing the western two-thirds of the region illustrate each of these indicators, and profiles for each of the communities identified, are described below with the following population characteristics:

- *Figure H.4 Educational Attainment:* Percent of the population over age 25 with less than a high school education (American Community Survey 5-year estimate, 2013-2017).
- *Figure H.5 Linguistic Isolation:* Percentage of households in which no one age 14 and over speaks English very well or speaks English only (American Community Survey 5-year estimate, 2013-2017).
- *Figure H.6 Poverty:* Percent of the population living below two times the federal poverty level (American Community Survey 5-year estimate, 2013-2017).
- *Figure H.7 Unemployment:* Percent of the population over the age of 16 that is unemployed and eligible for the labor force. Excludes retirees, students, homemakers, institutionalized persons (except prisoners), those not looking for work, and military personnel on active duty (5-year estimate, 2013-2017).









**Figure H.7**  
**Existing Conditions:**  
**Unemployment**  
**October 2019**

Percent of the population over the age of 16 that is unemployed and eligible for the labor force

- 5% or less
- 6% - 10%
- 11% - 15%
- 16% - 20%
- 21% or more
- No Data

Source: U.S. Census Bureau, 2013-2017 5-Year American Community Survey



What follows is a snapshot of the key socio-economic characteristics for the most disadvantaged communities in the region.<sup>10</sup> These were the communities that were the focus of our most intense outreach through our partnership with CBOs in those communities.

**City of San Diego:** The City of San Diego is the most populous city in the region in terms of population, with 1.3 million according to the 2010 Census. There are several neighborhoods within the city that have significant percentages of disadvantaged populations. These communities are extremely diverse in terms of cultures and languages, and often are underserved in terms of infrastructure and economic opportunities. Descriptions of these communities from the 2010 Census and 2013–2017 American Community Survey 5-Year Estimates are described below.

*Barrio Logan:* Seventy-four percent of the population in this neighborhood is Hispanic, 15 percent White, 6.4 percent Black, 2.5 percent Asian, and the remainder other races. Sixty-nine percent of the residents live in poverty with an unemployment rate of 14.4 percent. Approximately 42 percent of the adult population did not graduate from high school and 34.6 percent of the residents do not speak English well.

*City Heights:* Fifty-nine percent of the population in this neighborhood is Hispanic, 16.8 percent Asian, 11 percent Black, 10.4 percent White, and the remainder other races. Almost 62 percent of the residents live in poverty with an unemployment rate of 9.7 percent. Approximately 35 percent of the adult population did not graduate from high school and 18 percent of the residents do not speak English well.

*Encanto:* Fifty-three percent of the population in this neighborhood is Hispanic while 20.5 percent are Black, followed by almost 17 percent Asian and 6.6 percent White. Approximately 48 percent live in poverty with a 11.8 percent unemployment rate. Twenty-eight percent of the adults did not finish high school and 12.8 percent do not speak English.

*Linda Vista:* Thirty-seven percent of the population in this neighborhood is White while 33 percent is Hispanic and 20.5 percent is Asian. Five percent are Black, and the remainder are other races. Almost 41 percent live in poverty while unemployment is 7.7 percent. Almost 17 percent of the adult population did not finish high school and 9.2 percent of households are isolated linguistically.

*San Ysidro:* Almost 94 percent of the population in this neighborhood (directly on the border with Mexico) is Hispanic. The remainder of the population is 2.4 percent White, 2.2 percent Asian, and 0.9 percent Black or other race. Approximately 62 percent of the residents live in poverty with an unemployment rate of 15 percent. Almost 43 percent of those over 25 do not have a high school diploma and 26.4 percent of households are isolated linguistically.

*Skyline–Paradise Hills:* Thirty-eight percent of the population in this neighborhood is Hispanic, while 32 percent are Asian. Almost 14 percent of the population is Black while only 11 percent are White. The remainder are other races. Thirty-four percent live in poverty with an unemployment rate of 10.7 percent. About seven percent of households are isolated linguistically and 19.6 percent of residents 25 and older did not finish high school.

*Southeastern San Diego:* Eighty-four percent of the population in this neighborhood is Hispanic, while almost 8 percent are Black. Only 3.5 percent are White, 2.4 percent are Asian, and the remainder are f other races. Sixty-eight percent of the population lives in poverty, while unemployment is 12.2 percent. Almost 45 percent of the population 25 and older did not finish high school and almost 21 percent of households are linguistically isolated.

**City of Chula Vista:** Almost 60 percent of the population in this city is Hispanic. Twenty percent are White, 14.2 percent Asian, 3.5 percent are Black and the remainder are other races. Almost 30 percent of the population lives in poverty with an unemployment rate of 9.2 percent. Almost 20 percent of adults 25 and older did not finish high school while 11.4 percent of households are linguistically isolated.

**City of Escondido:** Almost 51 percent of the population of Escondido is Hispanic, while 39 percent is White. Six percent is Asian and almost 2 percent is Black. The remainder are other races. Approximately 41 percent of the population lives in poverty, while unemployment is 6.3 percent. About 24 percent of the population 25 and older does not have a high school education, while almost 10 percent of households live in linguistic isolation.

**City of El Cajon:** Fifty-six percent of the population in the City of El Cajon is White, while Hispanics make up almost 30 percent. Only 5.3 percent of the population is Black, while the next highest category is other races, which could be the Chaldean immigrant population. Almost 4 percent are Asian. Almost 46 percent of the population lives in poverty, while the unemployment rate is 10.6 percent. Almost 18 percent of the population 25 and older did not finish high school and 12.4 percent of households live in linguistic isolation.

**City of National City:** Hispanics make up almost 65 percent of the population in National City, while almost 18 percent are Asian. Eleven percent is White and 4 percent are Black. The remainder are other races. Almost 50 percent of the population lives in poverty, while unemployment is 8.4 percent. Approximately 27 percent of adults 25 and older did not graduate from high school and almost 17 percent of households live in linguistic isolation.

**City of Vista:** Almost 49 percent of the population in the City of Vista is Hispanic, while almost 41 percent are White. Approximately 5 percent are Asian, 2.4 percent are Black, and the remainder are other races. The low income Spanish-speaking population is in dense clusters in several areas of the city; mostly in the rural areas. Approximately 39 percent of the population lives in poverty while the unemployment rate is 5.1 percent. Approximately 21 percent of adults 25 and older do not have a high school diploma while 9 percent of households live in linguistic isolation.

## Social Equity Analysis

### Framework

The 2019 Federal RTP carries forward the projects, programs, and policies included in the 2015 Regional Plan to allow time for the region to continue to work on developing the 2021 Regional Plan. These projects were prioritized using project evaluation criteria approved by the SANDAG Board of Directors, which is included in Appendix M.

To evaluate the performance of the 2019 RTP network, a series of performance measures were used, which are listed in Appendix N. Through the process of developing the performance measures, a subset of measures was identified as a framework for the social equity analysis in which data would be produced comparing the three vulnerable populations against their respective 'non'-population (minority versus non-minority, low income versus non-low income, and senior versus non-senior).

Although Title VI itself prohibits only intentional discrimination, agency regulations such as those discussed above, which were adopted to implement Title VI, direct SANDAG to ensure that it does not engage in practices that have the effect of discriminating on the basis of race, color or national origin. Many times, statistics are used as a way to screen for such unintentionally caused discriminatory impacts. The threshold percentage often used to screen for disparate impact or disproportionate effect is 20 percent due to the so-called "four-fifths" or "80/20" rule because it is only presumed that a case for disparate impact or disproportionate effect is created when there is a substantially different rate of impact for a particular group.<sup>11</sup> A rate that is different by more than 20 percentage points is regarded as substantial because it is statistically unlikely to occur on a random basis. Although this relatively stringent standard is only required when checking for disparities for minorities under Title VI, SANDAG also analyzed low income and senior groups using this screening process.

During the process of evaluating 2019 Federal RTP network for each disadvantaged population and its respective non-disadvantaged population, the percent difference was calculated between the No-Build projections and each scenario for each phase (2025, 2035, and 2050) to determine how each group fared. As part of the analysis, the percentages of each disadvantaged population group were compared to its comparable non-disadvantaged population group to determine whether the percentage point difference between the groups is substantial enough to potentially qualify for further evaluation as a disparate impact or disproportionate effect. Anything above a 20-percentage point difference would be considered significant and cause for SANDAG to conduct further analysis. The results in this appendix compare the No-Build to the 2019 Federal RTP network. Additional methodological information is provided in the section below titled “Results for Social Equity Performance Measures.”

### **Defining performance measures for social equity**

As part of the social equity analysis process, CBO Partners and other interested stakeholders helped identify performance measures that could be analyzed from a social equity perspective. Input from affected communities was incorporated into the performance measures that ultimately were recommended to the SANDAG Board of Directors. Seven social equity performance measures were approved by the SANDAG Board of Directors as part of the broader set of performance measures. They are defined as follows:

**Average Travel Time:** Travel time is measured as the average time per person per trip across all modes of transportation (drive alone, carpool, transit, bike/walk) and all types of trips (commuting to work, traveling to school, etc.). Data are reported for overall travel time as well as drive alone/SOV, carpool/vanpool, and transit.

**Change in Percent of Income Consumed by Out-of-Pocket Transportation Costs:** Out-of-pocket transportation costs include: auto operating costs, cost of tolls, parking costs, and transit fares. Total percent of income consumed by out-of-pocket transportation costs is calculated by summing up these costs at the household level and then dividing this number into total household income. The change in percent of income consumed by out-of-pocket transportation costs is derived by comparing the scenario expenditures to 2016 expenditures (build scenario percent of income minus 2016 percent of income = change in percent of income).

**Percentage of population within 0.5 mile of high frequency transit stops:** The total number of persons residing within zones whose centroid is within 0.5 miles of a high frequency transit stop (defined as having headways of at least 15 minutes during the peak and midday) is divided by the total number of persons in the region. This measure is calculated separately for each set of disadvantaged population in relation to non-population (low income/minority/seniors).

**Percentage of population within 0.5 mile of a transit stop:** The total number of persons residing within zones whose centroid is within 0.5 mile of any transit stop is divided by the total number of persons in the region. This measure is calculated separately for each set of disadvantaged population in relation to non-population (low income/minority/seniors).

**Percentage of population within 0.25 mile of a bike facility:** The total number of persons residing within zones whose centroid is within 0.25 mile of a class I, class II, bike track or bike boulevard is divided by the total number of persons in the region. This measure is calculated separately for each set of disadvantaged population in relation to non-population (low income/minority/seniors).

**Access to Jobs/Higher Education:** The percentage of population within 30 minutes of employment centers/higher education institutions during peak periods by driving alone, riding in a carpool, and taking public transit.

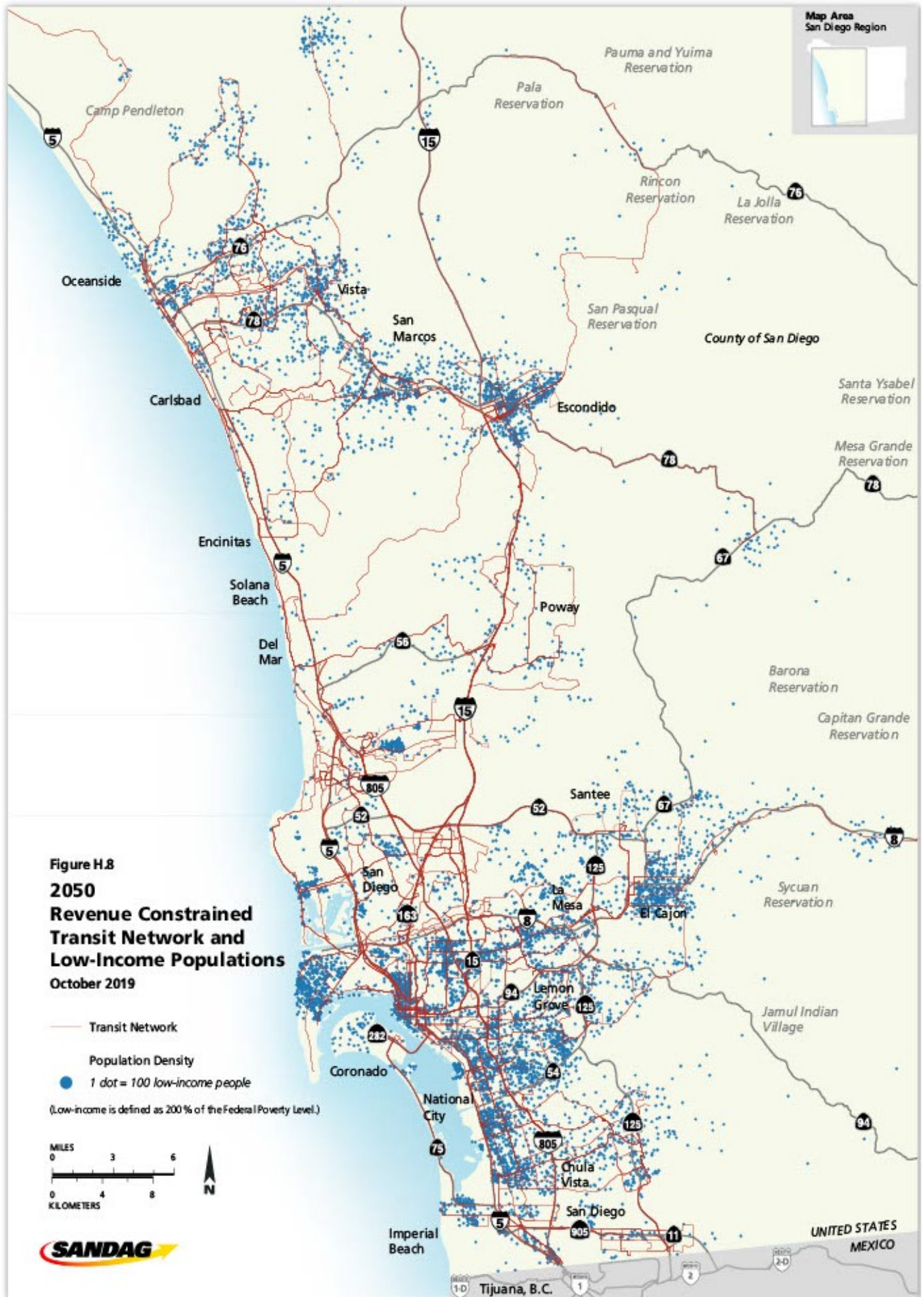
**Percentage of population within 15 minutes of goods/services (retail, medical, parks, and beaches):** The percentage of populations within 15 minutes of goods/services measures access to retail, healthcare, and active parks by driving alone, carpooling, taking public transit, and walking. The following definitions were used for goods and services falling in this category:

- *Retail includes* regional shopping centers, neighborhood shopping centers, specialty commercial, arterial commercial, automobile dealerships, other retail, and strip commercial.
- *Healthcare includes* hospitals and community clinics. This definition does not consider emergency response times, but rather it measures access to basic health services including hospitals, community clinics, and medical offices.
- *Active Parks includes* recreation areas and centers containing one or more of the following activities: tennis or basketball courts, baseball diamonds, soccer fields, or swings. Examples are Robb Field, Morley Field, Diamond Street Recreation Center, and Presidio Park. Smaller neighborhood parks with a high level of use are also included as active parks.
- *Active Beaches includes* accessible sandy areas along the coast or major water bodies (San Diego and Mission Bay) allowing swimming, picnicking, and other beach related recreational activities. Active parks usually have parking associated with them.

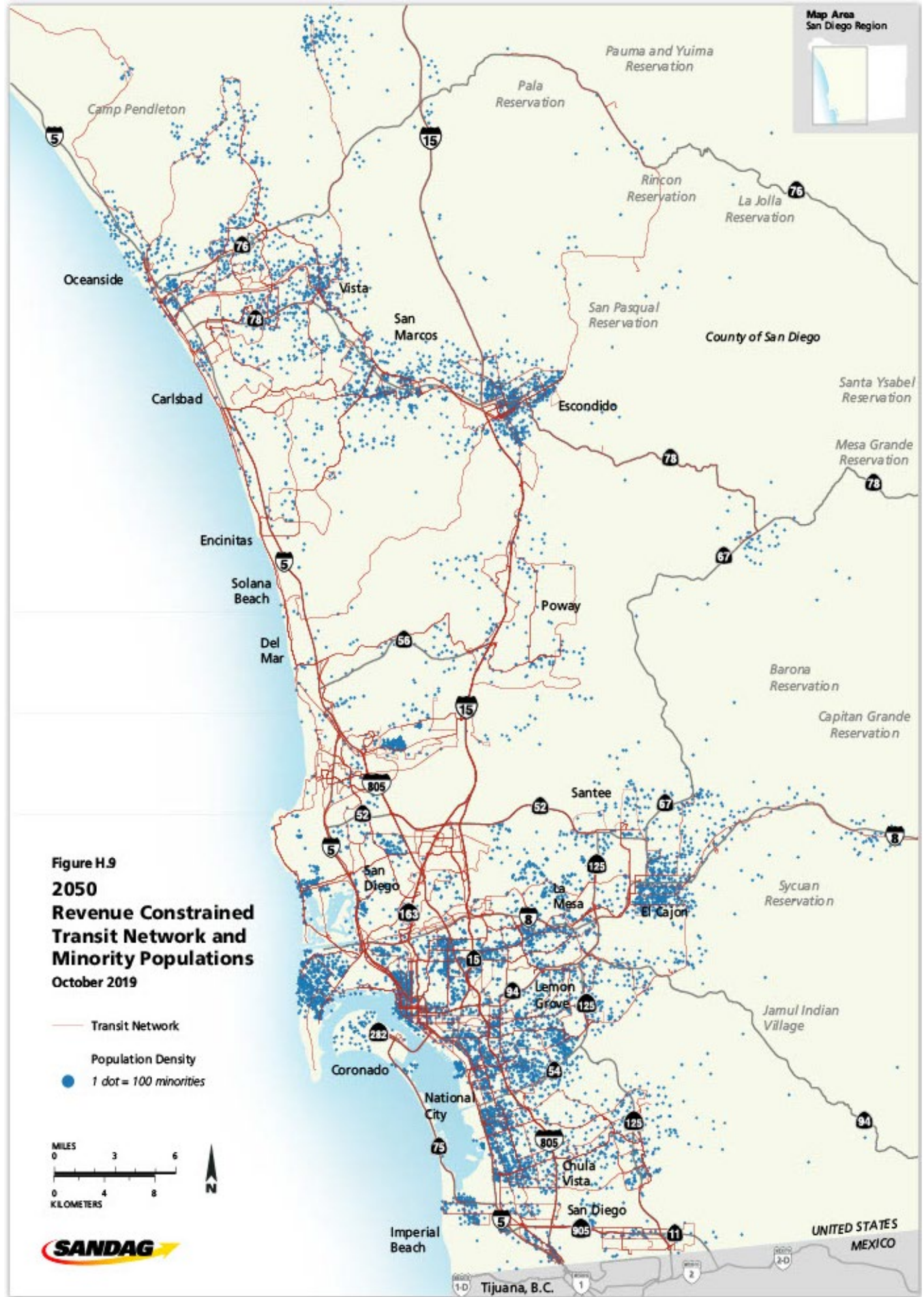
**Average Particulate Matter**<sup>12</sup> (PM<sub>10</sub>) and PM<sub>2.5</sub><sup>13</sup> (types of toxic air particulates) exposure per person were calculated. The transportation network is divided into segments called 'links' (For example State Route 76 from Melrose to Interstate I5). The CT-EMFAC emissions model was run on the scenarios at link level.<sup>14</sup> A GIS model was developed using map algebra to calculate the PM<sub>10</sub> and PM<sub>2.5</sub> spatial distribution over a buffer area and the average PM<sub>10</sub> and PM<sub>2.5</sub> exposure per person for each population group. A buffer analysis of 500 feet on either side of roadways was used to compare each population against the non-population (e.g., minority versus non-minority). The emissions model analyzed exposure to anything 10 micrometers or smaller in diameter and 2.5 micrometers or smaller, respectively.

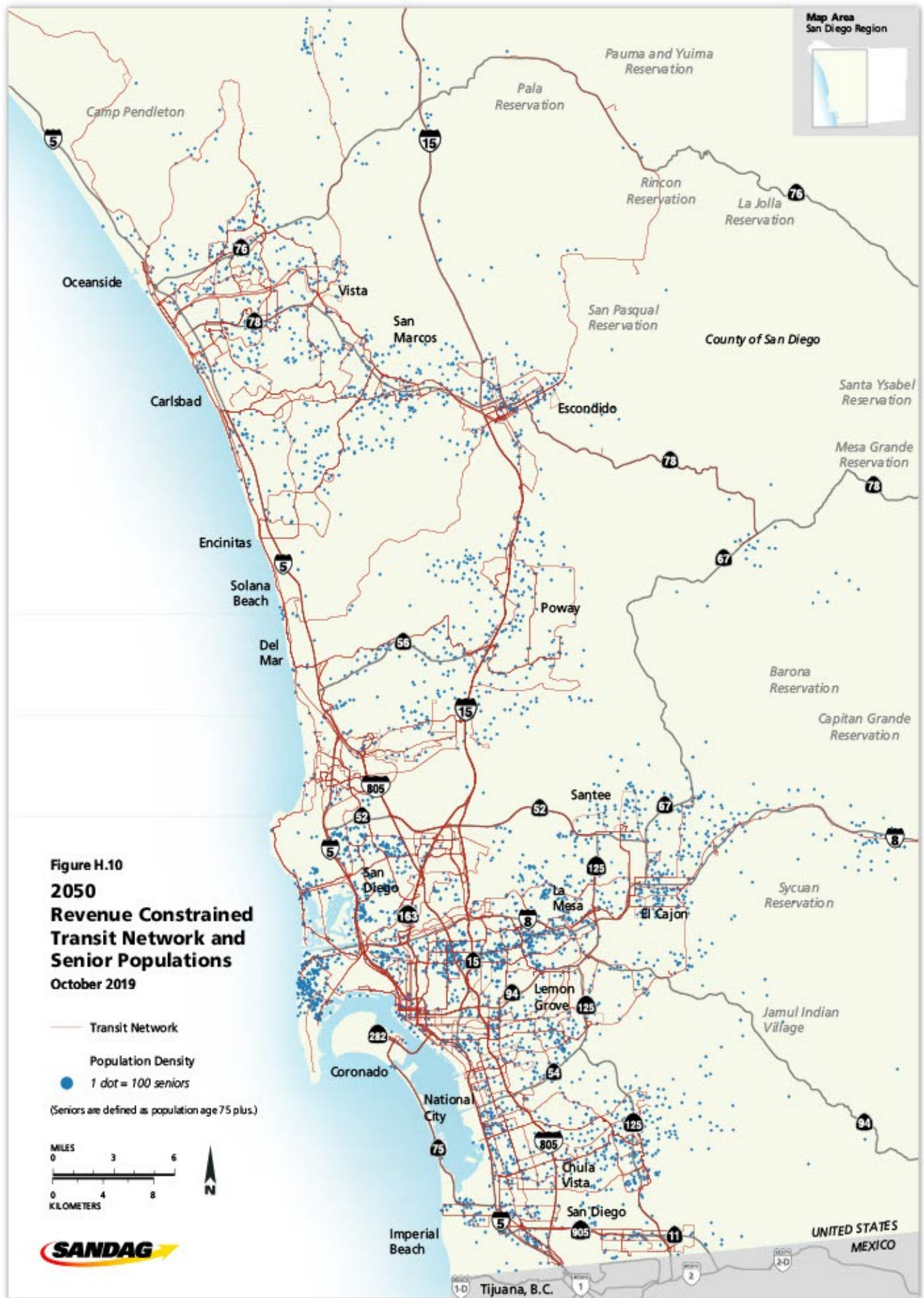
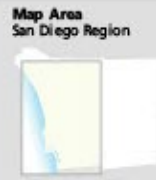
### **Baseline Mapping**

To create a point of reference for analyzing how the distribution of transportation investments detailed in the 2019 Federal RTP may affect disadvantaged populations, a set of baseline maps was created to aid stakeholder discussions. Each map shows the 2050 population with the 2050 Revenue Constrained Transit Network. Figure H.8 shows the 2050 Low Income (200% of the federal poverty level) populations. Figure H.9 shows the 2050 Minority Population. Figure H.10 shows the 2050 Senior population 75 and older.



Map Area  
San Diego Region





## Results for Social Equity Performance Measures

An analysis of the 2050 Revenue Constrained Network was conducted to determine whether the benefits and burdens of the projects in the scenario would be equitably distributed between minority and non-minority, as well as low income and non-low income populations. In addition, a similar social equity analysis was done for seniors age 75 and older and non-seniors.

The social equity analysis determined that there are no statistically significant differences between the No-Build Scenario and the 2050 Revenue Constrained Network for any of the disadvantaged populations. The summary of findings below is based on each of the social equity calculation tables shown for each performance measure. In most cases, there were some differences; however, no result approached the 20 percentage points difference that SANDAG used as a threshold for determining potential disparate impact or disproportionate effect. Most social equity calculations were within 5 percentage points and often the benefit was to the disadvantaged population rather than the non-population.

**Table H.2**  
**Summary of Findings from Social Equity Analysis<sup>15</sup>**

Performance Measure	Low Income	Minority	Seniors
Average Peak Period Travel to Work – all modes	✓	✓	✓
Change in percent of income consumed by out-of-pocket transportation costs	✓	✓	✓
Percentage of population within 0.5 mile of high frequency transit stops	✓	✓	✓
Percentage of population within 0.5 mile of transit stops	✓	✓	✓
Percentage of population within 0.25 mile of a bike facility	✓	✓	✓
Percentage of population within 30 minutes of jobs/higher education (auto/transit)	✓	✓	✓
Percentage of population within 15 minutes of goods/services (auto/transit):			
Access to Retail	✓	✓	✓
Access to Healthcare	✓	✓	✓
Access to Active Parks	✓	✓	✓
Access to Beaches	✓	✓	✓
Exposure to Particulate Matter (PM)			
Exposure to PM <sub>10</sub>	✓	✓	✓
Exposure to PM <sub>2.5</sub>	✓	✓	✓

✓ = No Disparate Impact or Disproportionate Effect

The modeling results for the social equity performance indicators referenced above show that the 2019 Federal RTP improves conditions for disadvantaged populations, compared with the 2050 No-Build alternative. SANDAG conducted separate analyses of low income, minority, and senior populations and modeled the impacts on these populations separately. The discussion in the following section highlights some of the disaggregated data that is shown for each performance measure result. Tables and the corresponding social equity calculation tables are

provided for each performance measure to facilitate understanding the results. For some of these metrics, maps provide a graphic display of the performance of the 2050 Revenue Constrained Network for transit access to key amenities.

For each performance measure, the social equity calculation was conducted as follows:

**Step 1:** For each disadvantaged population and its respective non-disadvantaged population (e.g., minority and non-minority), the percent difference was calculated between the No-Build Scenario and the 2019 Federal RTP Network for 2025, 2035 and 2050 to determine how each group fared.

**Step 2:** The percentages for the disadvantaged populations were compared to the respective non-disadvantaged populations to determine the percentage point difference between the groups. With the *exception* of travel times and the change in percent of income spent on out-of-pocket transportation costs, when the social equity calculation is a positive number such as 1.0, it indicates that the disadvantaged population is projected to receive a larger benefit relative to the non-population over the time period of the Regional Transportation Plan. When the social equity calculation is a negative number, it indicates that the disadvantaged population is projected to receive less of a benefit than the non-population over the time period of the Regional Transportation Plan. A social equity calculation of 0.0 would be parity. See the example below.

**Step 3:** Percentage differences of more than 20 points in the Step 2 social equity calculation would be considered a potential disparate impact or disproportionate effect. If a potential disparate impact or disproportionate effect had been found, SANDAG would have considered alternatives and mitigation that would reduce the impact/effect.

### Percentage of Population Within 30 Minutes of Jobs/Higher Education by Transit (Minority v. Non-Minority):

	2050 No-Build	2050 RP (Build)
Minority	84.1%	87.1%
Non-Minority	77.2%	79.8%

#### **Step 1 - Percent Difference**

Minority =  $(2050\text{ RP}-2050\text{NB})/2050\text{NB} = (87.1\%-84.1\%)/84.1\% = 3.6\%$

Non-Minority =  $(2050\text{RP}-2050\text{NB})/2050\text{NB} = (79.8\%-77.2\%)/77.2\% = 3.4\%$

#### **Step 2 - Percentage Point Difference between Pop/Non Pop**

(Minority Percentage Difference – Non-Minority Percent Difference) x 100

$(3.6\%) - (3.4\%) \times 100 = 0.2$

### **Average Peak-Period Travel Time to Work**

For all vulnerable populations, average peak travel time to work across all modes and particularly for the drive alone mode, remains constant with no disparate impact or disproportionate effect for any of the populations (low income, minority, and seniors). Travel times to work by transit do improve based on a comparison between the No-Build Alternative and the Revenue Constrained Network. For example, the low income population travel time to work by transit, improves from 59 minutes in 2025 to 53 minutes in 2050 for the Revenue Constrained Network while the No-Build Scenario improves very slightly, going from 60 minutes in 2025 to 59 minutes in 2050. Results are similar for minority populations. In terms of disparity between how each disadvantaged population fared in relation to its respective 'non'-population, the data showed no disparate impacts or disproportionate effects. For low income populations relative to non-low income, the percentage point difference was very low. The average peak-period travel time to work analysis did not include senior and non-senior population due to the small sample size of senior population travel to work.

**Table H.3****Average Peak-Period Travel Time to Work**

Minutes

Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
<i>All Modes, Combined (Minutes)</i>							
Low Income	25	24	25	25	25	25	26
Non-Low Income	27	27	28	29	27	28	28
Minority	27	27	28	28	27	28	28
Non-Minority	26	26	27	28	26	27	27
<i>Auto, Drive Alone (Minutes)</i>							
Low Income	22	21	21	22	21	21	21
Non-Low Income	26	26	26	27	26	26	26
Minority	25	25	25	26	25	25	25
Non-Minority	25	25	26	26	25	25	26
<i>Auto, Carpool 2 (Minutes)</i>							
Low Income	21	21	21	22	21	23	22
Non-Low Income	24	24	24	25	24	25	25
Minority	23	23	23	24	23	24	24
Non-Minority	23	23	23	24	23	24	24
<i>Auto, Carpool 3 (Minutes)</i>							
Low Income	22	21	22	22	21	21	21
Non-Low Income	24	24	24	25	24	23	23
Minority	23	23	24	24	23	23	23
Non-Minority	23	23	24	24	23	23	23
<i>Transit (Minutes)</i>							
Low Income	61	60	59	59	59	56	53
Non-Low Income	63	61	61	61	61	56	54
Minority	61	61	60	60	60	56	54
Non-Minority	63	62	60	61	61	56	54

**Table H.3 (continued)**

**Average Peak-Period Travel Time to Work**

Minutes

Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
<i>Bike (Minutes)</i>							
Low Income	18	18	19	19	19	19	20
Non-Low Income	24	25	25	25	26	26	27
Minority	21	23	23	23	23	24	25
Non-Minority	21	21	21	22	21	22	23
<i>Walk (Minutes)</i>							
Low Income	23	22	22	22	22	22	22
Non-Low Income	25	22	22	22	22	22	22
Minority	24	23	23	22	23	23	22
Non-Minority	22	20	21	21	21	21	21

**Table H.3.1**

**Social Equity Calculation for Average Peak-Period Travel Time to Work**

Percentage Point Difference – Build vs. No-Build

	2025	2035	2050
<i>Low Income vs. Non-Low Income</i>			
All Modes	0.8	1.6	2.6
Drive Alone	0.1	-0.3	-0.3
Carpool	-0.6	1.6	1.9
Transit	0.0	0.6	0.8
Bike	1.0	-3.7	-3.4
Walk	-0.2	0.8	0.0
<i>Minority vs. Non-Minority</i>			
All Modes	0.0	0.4	0.3
Drive Alone	-0.2	-0.3	-0.5
Carpool	-0.2	-0.7	-1.1
Transit	0.3	0.1	0.9
Bike	-0.1	-3.3	-1.2
Walk	-2.4	0.7	0.7

### Change in Percentage of Income Consumed by Out-of-Pocket Transportation Costs

The change in percent of income spent on out-of-pocket transportation costs stays relatively constant for all populations throughout the term of the RTP. There is no significant gap in the percentage point differences for any of the disadvantaged groups over all phases of the RTP. In other words, although low income populations spend a larger percent of their income on out-of-pocket transportation than non-low income populations, the percentage gap between the two groups remains low enough that no disproportionate effect results over the life of the RTP.

**Table H.4**

### Change in the Percent of Income Consumed by Out-of-Pocket Transportation Costs

Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
Low Income	N/A	2.9%	1.8%	1.6%	2.9%	1.8%	1.6%
Non-Low Income	N/A	0.6%	0.1%	0.0%	0.6%	0.1%	0.0%
Minority	N/A	1.1%	0.0%	-0.6%	1.2%	0.0%	-0.6%
Non-Minority	N/A	1.0%	0.3%	0.0%	1.0%	0.3%	0.0%
Senior	N/A	0.7%	0.0%	-0.2%	0.7%	-0.1%	-0.3%
Non-Senior	N/A	1.3%	0.5%	0.1%	1.3%	0.5%	0.1%

**Table H.4.1**

### Social Equity Calculation for Change in Percent of Income Consumed by Out-of-Pocket Transportation Costs

Percentage Point Difference - Build vs. No-Build

	2025	2035	2050
Low Income vs. Non-Low Income	1.6	2.3	1.7
Minority vs. Non-Minority	-0.7	0.1	-0.3
Senior vs. Non-Senior	-0.4	-0.6	-0.6

## Access to High Frequency Transit Stops

Access to high frequency transit stops improves significantly for all disadvantaged populations in the 2050 Revenue Constrained Network. For the low income population, access goes up from 46.4 percent to 57.0 percent in 2025 and from 49.0 percent to 63.9 percent in 2050 as compared to the No-Build Scenario. There is a difference in the improvements between low income and non-low income, but it is not considered significant. For 2025 the difference in percentage points is -7.17, -12.2 in 2035, and -12.48 in 2050. Although the trend is not going in the preferred direction, the difference is not considered significant and SANDAG will continue to monitor this trend to ensure it does not increase enough to indicate a disproportionate effect. The non-low income population begins with far less access in the base year of 2016 with 27.4 percent access, while 40.7 percent of the low income population had access in 2016. For minority populations, there is also a significant improvement in access to high frequency transit stops going from 42.2 percent to 52.6 percent in 2025 and from 44.0 percent to 60.2 percent in 2050 comparing the 2050 Revenue Constrained Network to the No-Build Scenario. Compared to the non-minority population, the minority population shows a difference of -6.9 percentage points in 2025 and -4.8 percentage point difference in 2050. This means that the improvement rate of access to high frequency transit stops for minorities is lower than non-minorities. For seniors, access to high frequency transit stops also improves significantly, going from 32.2 percent to 41.8 percent in 2025 and from 38.0 percent to 52.8 percent in 2050. There are slight differences between seniors and non-seniors over the life of the RTP. Indeed, by 2050 the percentage point difference between seniors and non-seniors is a negligible 0.4.

**Table H.5**

### Percent of Population Within 0.5 Miles of a High-Frequency Transit Stop

15 Minute or Less Peak and Midday Transit Stop

Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
Low Income	40.7%	46.4%	48.1%	49.0%	57.0%	62.0%	63.9%
Non-Low Income	27.4%	32.0%	34.0%	35.8%	41.6%	47.9%	51.1%
Minority	38.6%	42.2%	43.0%	44.0%	52.6%	58.2%	60.2%
Non-Minority	23.6%	29.2%	31.2%	32.6%	38.4%	43.5%	46.1%
Senior	28.5%	32.2%	34.8%	38.0%	41.8%	48.0%	52.8%
Non-Senior	31.9%	36.8%	38.4%	39.6%	46.8%	52.5%	54.9%

**Table H.5.1**

### Social Equity Calculation for Percentage of Population Within 0.5 Miles of a High-Frequency Transit Stop

Percentage Point Difference – Build vs. No Build

	2025	2035	2050
Low Income vs. Non-Low Income	-7.1	-12.2	-12.4
Minority vs. Non-Minority	-6.9	-4.1	-4.8
Senior vs. Non-Senior	2.5	1.3	0.4

## Access to Transit Stops

Access to transit stops for disadvantaged populations remains relatively constant. For the Revenue Constrained Network, access for low income populations increases slightly from 77.2 percent to 78.3 percent between 2025 and 2050. Compared to the No-Build Scenario, access for low income populations remained almost the same from 76.6 percent to 76.8 percent. The same pattern appears for seniors. In none of the disadvantaged populations is there a significant difference between the population and the 'non'-population comparing the No-Build Scenario to the Revenue Constrained Network for each phase (2025, 2035, 2050). Indeed, the social equity calculation for minorities versus non-minorities shows no disparate impacts in access in 2025. Furthermore, minority access improves over non-minority access in 2035 (+0.3 percentage point difference) and 2050 (+0.7 percentage point difference).

**Table H.6**  
**Percent of Population Within 0.5 Miles of a Transit Stop**

Performance Measure	2016	2025NB	2035NB	2050NB	20250RC	2035RC	2050RC
Low Income	76.7%	76.6%	76.8%	76.8%	77.2%	77.8%	78.3%
Non-Low Income	62.1%	62.0%	62.7%	63.6%	63.8%	65.4%	66.9%
Minority	72.1%	71.0%	70.6%	70.6%	72.2%	73.1%	73.8%
Non-Minority	60.6%	60.8%	61.5%	61.9%	62.4%	63.4%	64.2%
Senior	63.8%	62.6%	63.6%	65.5%	64.0%	65.7%	68.4%
Non-Senior	67.0%	66.9%	67.2%	67.4%	68.2%	69.5%	70.2%

**Table H.6.1**  
**Social Equity Calculation for Percentage of Population Within 0.5 Miles of a Transit Stop**

Percentage Point Difference – Build vs. No Build

	2025	2035	2050
Low Income vs. Non-Low Income	-2.2	-2.9	-3.2
Minority vs. Non-Minority	-0.9	0.3	0.7
Senior vs. Non-Senior	0.2	0.1	0.1

## Access to Bike Facilities

As the Regional Bike Network for the RTP is implemented, disadvantaged populations will have more access to bike facilities. The percentage of people within a quarter mile of a bike facility for all disadvantaged populations improves compared to the No-Build Scenario projections and is comparable or better than the respective 'non'-populations. For example, 64.3 percent of low income populations will have access to a bike facility within a quarter of a mile in 2025, increasing to 67.5 percent in 2035 and 69.5 percent in 2050. The No-Build Scenario access is 61.5 percent in 2025 and increases to 62.3 percent in 2050. The low income population is expected to gain more access relative to the non-low income population by 2050, therefore the difference was positive (greater benefit to low income populations) in this performance measure. The same pattern resulted for minority populations. For the Revenue Constrained Network, 66.3 percent of minorities had access to a bike facility in 2025 increasing to 68.5 percent in 2035 and 69.7 percent in 2050, with minority populations deriving greater benefit than non-minorities in 2035 and 2050.

**Table H.7**

### Percent of Population Within 0.25 Miles of a Bike Facility

Class I and II, Cycletrack, and Bike Boulevard

Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
Low Income	59.8%	61.5%	62.1%	62.3%	64.3%	67.5%	69.5%
Non-Low Income	64.4%	65.0%	63.9%	63.1%	66.3%	67.7%	68.7%
Minority	62.6%	63.7%	63.5%	62.9%	66.3%	68.5%	69.7%
Non-Minority	63.3%	64.1%	63.4%	63.0%	64.9%	66.4%	67.7%
Senior	61.6%	63.4%	63.7%	63.7%	64.8%	67.6%	69.6%
Non-Senior	63.0%	63.9%	63.4%	62.8%	65.8%	67.6%	68.8%

**Table H.7.1**

### Social Equity Calculation for Percentage of Population Within 0.25 Miles of a Bike Facility (Class I and II, Cycletrack, and Bike Boulevard)

Percentage Point Difference – Build vs. No Build

	2025	2035	2050
Low Income vs. Non-Low Income	2.4	2.9	2.7
Minority vs. Non-Minority	2.7	3.2	3.4
Senior vs. Non-Senior	-0.6	-0.7	-0.2

### **Access to Jobs and Higher Education**

Overall access to jobs and higher education for disadvantaged populations begins relatively high and remains constant or improves slightly. In the 2016 base year, almost 88 percent of low income populations already had access to jobs and higher education via transit. For the No-Build Scenario their access decreases slightly. In the 2050 Revenue Constrained Network, low income transit access is projected to remain almost the same by 2050. There is no significant difference between low income populations and the non-low income population. The percentage point difference remains virtually the same with -2.7 in 2025 and -3 in 2050. Figure H.11 demonstrates the low income population relative to the non-low income population in 2050 within 30 minutes of jobs and higher educational opportunities via transit.

For minority populations, the percentage with transit access to jobs and higher education is not quite as high as low income populations with 85.6 percent having access in 2016. The No-Build Scenario projects access decreasing to about 84.8 percent in 2025 and remaining there through 2050. The 2050 Revenue Constrained Network is projected to improve access to 86.9 percent in 2025 and 87.1 percent in 2050. In terms of a gap for minorities compared to non-minorities, the percentage point difference between minorities and non-minorities goes from -0.9 in 2025 to positive 0.2 in 2050. This means that while minorities will derive less benefit in 2025 for transit access to jobs and higher education compared to non-minorities, minorities are projected to derive greater benefit in 2050. It should be noted that, as with most other transit access measures, low income and minority populations start with significantly higher access in the 2016 base year than their respective 'non'-populations, and continue to achieve higher access rates through the phase years.

**Table H.8****Percent of Population Within 30 Minutes of Jobs and Higher Education Enrollment**

Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
<i>Auto</i>							
Low Income	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Non-Low Income	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Minority	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Non-Minority	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Senior	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Non-Senior	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<i>Transit</i>							
Low Income	87.5%	87.6%	87.4%	87.2%	88.5%	88.3%	88.4%
Non-Low Income	78.9%	78.7%	79.0%	79.3%	81.6%	82.0%	82.7%
Minority	85.6%	84.8%	84.4%	84.1%	86.9%	86.8%	87.1%
Non-Minority	77.4%	77.3%	77.2%	77.2%	79.9%	79.6%	79.8%
Senior	79.9%	78.7%	79.1%	80.3%	81.0%	81.6%	83.3%
Non-Senior	81.6%	81.6%	81.7%	81.5%	83.9%	84.1%	84.3%

**Table H.8.1****Social Equity Calculation for Percent of Population Within 30 Minutes of Jobs and Higher Education Enrollment**

Percentage Point Difference – Build vs. No-Build

	2025	2035	2050
<i>Low Income vs. Non-Low Income</i>			
Auto	0.0	0.0	0.0
Transit	-2.7	-2.7	-3.0
<i>Minority vs. Non-Minority</i>			
Auto	0.0	0.0	0.0
Transit	-0.9	-0.3	0.2
<i>Senior vs. Non-Senior</i>			
Auto	0.0	0.0	0.0
Transit	0.0	0.3	0.3



## Access to Goods and Services

Access to key amenities is critical for everyone. We need to be able to count on the transportation system to take us to the store, to the doctor, to school, to our jobs, to the park to walk the dog or get exercise or fresh air, or to the beach. The following are the results of the indicators for other key amenities that show us how the system performs for disadvantaged populations. The results for access by drive alone or transit are included in the tables below, but the narrative focuses on the results for access by transit because access by drive alone was almost 100 percent for all populations. The meaningful measure is transit access to key amenities.

**Retail:** Low income access to retail via transit in the base year 2016 is at 67.6 percent. Projected access for the No-Build Scenario improves slightly through 2050. The Revenue Constrained Network is projected to provide slightly more access at 68.9 percent in 2025 increasing to 70.4 percent in 2050. There is no significant difference in access benefits for low income populations and non-low income populations. For minority populations, transit access in the baseline year of 2016 is slightly less than for low income populations with 63.7 percent having access. For minorities, the No-Build Scenario projects access dropping to 62.8 percent in 2050. The Revenue Constrained Network causes slight improvement, going from 64.1 percent in 2025 to 65.5 percent with access to retail via transit in 2050. In terms of disparity, minorities start with slightly less benefit than non-minorities with the percentage point difference at -1.1 in 2025 and changing to a positive 1.0 (greater benefit) by 2050.

**Table H.9**  
**Percent of Population Within 15 Minutes of Retail**

Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
<i>Auto</i>							
Low Income	99.7%	99.7%	99.8%	99.8%	99.7%	99.8%	99.8%
Non-Low Income	99.8%	99.9%	99.8%	99.8%	99.9%	99.8%	99.9%
Minority	99.8%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Non-Minority	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%
Senior	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%
Non-Senior	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%
<i>Transit</i>							
Low Income	67.6%	68.2%	69.1%	69.2%	68.9%	69.7%	70.4%
Non-Low Income	53.1%	53.6%	54.9%	55.3%	54.9%	56.9%	58.1%
Minority	63.7%	63.1%	63.3%	62.8%	64.1%	65.3%	65.5%
Non-Minority	50.8%	51.7%	53.0%	53.5%	53.0%	54.3%	55.3%
Senior	54.8%	54.3%	56.0%	57.8%	55.4%	57.6%	60.2%
Non-Senior	58.0%	58.4%	59.3%	59.2%	59.5%	61.0%	61.6%

**Table H.9.1**

**Social Equity Calculation for Percent of Population Within 15 Minutes of Retail**

Percentage Point Difference – Build vs. No-Build

	2025	2035	2050
<i>Low Income vs. Non-Low Income</i>			
Auto	0.0	0.0	0.0
Transit	-1.4	-2.8	-3.4
<i>Minority vs. Non-Minority</i>			
Auto	0.0	0.0	0.0
Transit	-1.1	0.7	1.0
<i>Senior vs. Non-Senior</i>			
Auto	0.0	0.0	0.0
Transit	0.2	0.1	0.0

**Healthcare:** Transit access to healthcare is a very important indicator of social equity, especially for seniors when they lose the option of driving. For seniors, baseline access to healthcare via transit is 55.9 percent in 2016. The No-Build Scenario projects a slight increase to 58.8 percent in 2050. The Revenue Constrained Network projects improved access for seniors from 56.1 percent in 2025 to 61.1 percent in 2050 (Figure H.12 - Senior Transit Access to Healthcare) and derives slightly higher benefit relative to the non-senior population with a percentage point difference of 0.2 in 2025, reducing to -0.1 by 2050. For low income populations, 68.8 percent have transit access to healthcare facilities as a baseline. The projected access for the No-Build Scenario increases to 70 percent in 2050. The Revenue Constrained Network provides slightly more benefit than the No-Build: in 2025, 69.8 percent have access, increasing to 71.4 percent by 2050 (Figure H.13 – Low Income Transit Access to Healthcare). There is no significant difference found when compared to non-low income populations. For minority populations the 2016 baseline access via transit is 65.2 percent. The No-Build Alternative is projected to drop to 64.0 percent in 2050. The Revenue Constrained Network increases slightly from 65.3 percent in 2025 to 66.7 percent in 2050. The difference is not significant between minority populations and non-minority populations, from -0.8 percentage points in 2025 (slightly less benefit) to a positive 1.0 (slightly greater benefit) in 2050.

**Table H.10**

**Percent of Population Within 15 Minutes of Healthcare**

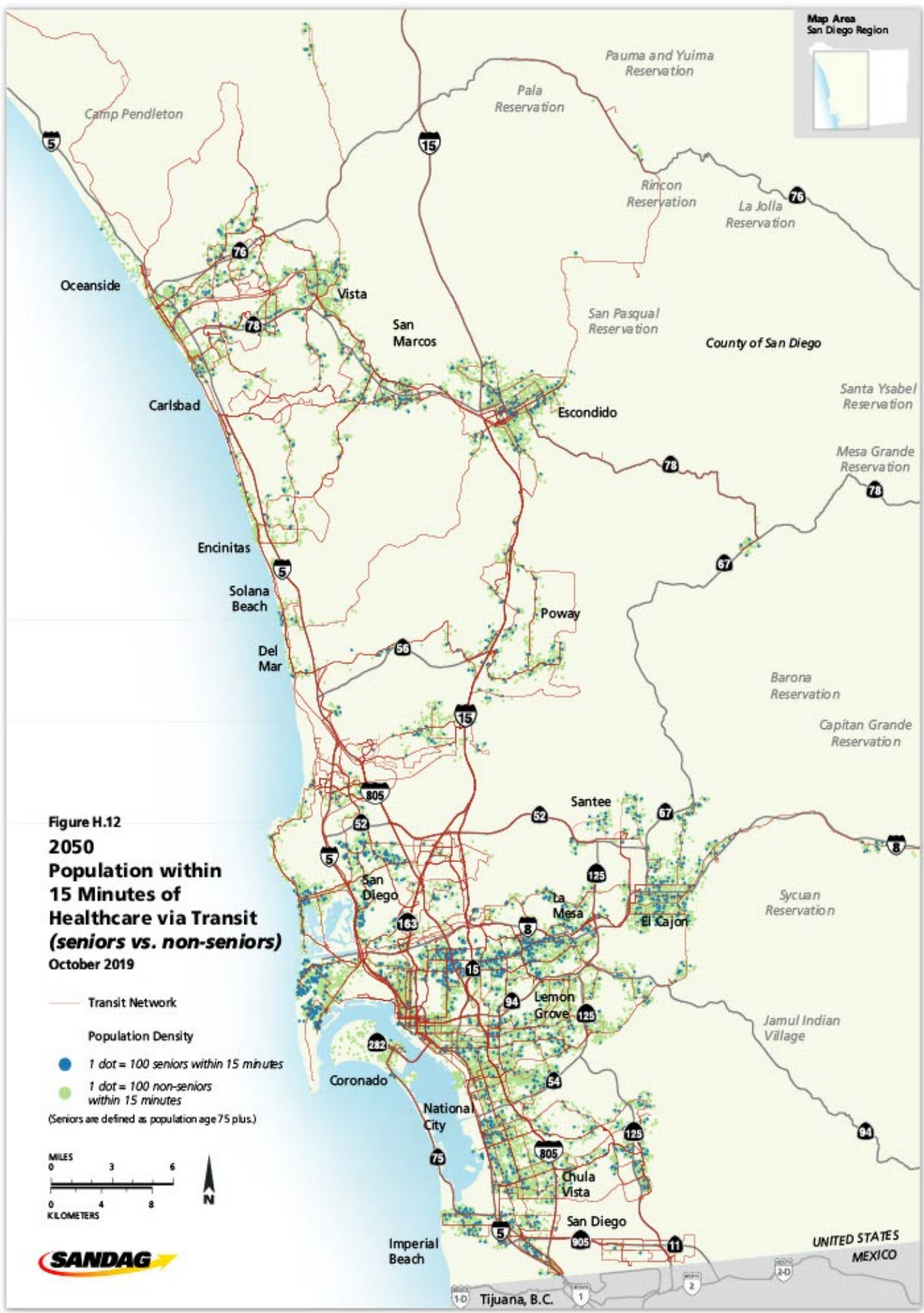
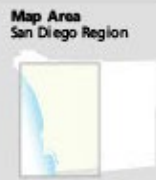
Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
<i>Auto</i>							
Low Income	99.7%	99.7%	99.8%	99.8%	99.7%	99.8%	99.8%
Non-Low Income	99.8%	99.9%	99.8%	99.8%	99.9%	99.8%	99.9%
Minority	99.8%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Non-Minority	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%
Senior	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%
Non-Senior	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%
<i>Transit</i>							
Low Income	68.8%	69.4%	70.0%	70.2%	69.8%	70.6%	71.4%
Non-Low Income	54.2%	54.6%	55.8%	56.3%	55.7%	57.8%	59.0%
Minority	65.2%	64.5%	64.5%	64.0%	65.3%	66.4%	66.7%
Non-Minority	51.4%	52.3%	53.6%	54.2%	53.4%	54.9%	55.9%
Senior	55.9%	55.1%	56.8%	58.8%	56.1%	58.4%	61.1%
Non-Senior	59.0%	59.5%	60.3%	60.3%	60.4%	61.9%	62.6%

**Table H.10.1**

**Social Equity Calculation for Percent of Population Within 15 Minutes of Healthcare**

Percentage Point Difference – Build vs. No-Build

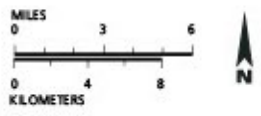
	2025	2035	2050
<i>Low Income vs. Non-Low Income</i>			
Auto	0.0	0.0	0.0
Transit	-1.6	-2.7	-3.1
<i>Minority vs. Non-Minority</i>			
Auto	0.0	0.0	0.0
Transit	-0.8	0.5	1.0
<i>Senior vs. Non-Senior</i>			
Auto	0.0	0.0	0.0
Transit	0.2	0.2	0.1





**Figure H.13**  
**2050**  
**Population within**  
**15 Minutes of**  
**Healthcare via Transit**  
*(low-income vs. non low-income)*  
 October 2019

— Transit Network  
 Population Density  
 ● 1 dot = 100 low-income people within 30 minutes  
 ● 1 dot = 100 non low-income people within 30 minutes  
 (Low-income is defined as 200% of the Federal Poverty Level.)



**Active Parks:** The percent of low income populations with transit access to active parks in the 2016 baseline year is 40.9 percent. For the No-Build Scenario this increases to 41.8 percent from 2025 to 43.6 percent in 2050. The Revenue Constrained Network projects improvement over the No-Build, with 42.3 percent having access in 2025 and 46.4 percent by 2050. There is no significant difference between the low income and non-low income populations, with percentage point differences of -1.1 in 2025 and -1.4 in 2050. For minority populations, 39.5 percent have transit access to active parks in the baseline year. The No-Build Scenario remains about the same to 2050. The Revenue Constrained Network projects a slight improvement from 40.0 percent to 42.4 percent. There are no significant differences between minority and non-minority populations with percentage point differences of -1.5 in 2025 and -2.3 in 2050. Finally, the percentage of seniors with transit access in 2016 is 32.0 percent. With the Revenue Constrained Network transit access for seniors goes from 33.2 percent in 2025 to 38.5 percent in 2050. There is no significant difference between transit access for seniors and non-seniors; the percentage point difference is 0.1 in 2025 and -1.3 in 2050.

**Table H.11**  
**Percent of Population Within 15 Minutes of Active Park**

Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
<i>Auto</i>							
Low Income	98.9%	98.9%	98.6%	98.5%	98.9%	98.7%	98.6%
Non-Low Income	99.2%	99.2%	98.9%	98.8%	99.2%	98.9%	98.9%
Minority	99.3%	99.3%	99.0%	99.0%	99.3%	99.1%	99.0%
Non-Minority	98.8%	98.8%	98.5%	98.5%	98.8%	98.5%	98.5%
Senior	98.9%	98.9%	98.7%	98.8%	98.9%	98.7%	98.8%
Non-Senior	99.1%	99.1%	98.8%	98.8%	99.1%	98.9%	98.8%
<i>Transit</i>							
Low Income	40.9%	41.8%	42.7%	43.6%	42.3%	44.0%	46.4%
Non-Low Income	31.4%	32.0%	33.2%	33.9%	32.8%	34.9%	36.6%
Minority	39.5%	39.5%	39.8%	39.8%	40.0%	41.3%	42.4%
Non-Minority	28.5%	29.4%	30.8%	31.6%	30.3%	32.4%	34.4%
Senior	32.0%	32.6%	34.3%	36.2%	33.2%	35.7%	38.5%
Non-Senior	34.6%	35.3%	36.2%	36.6%	35.9%	37.7%	39.3%

**Table H.11.1**

**Social Equity Calculation for Percent of Population Within 15 Minutes of Active Park**

Percentage Point Difference – Build vs. No-Build

	2025	2035	2050
<i>Low Income vs. Non-Low Income</i>			
Auto	0.0	0.0	0.0
Transit	-1.1	-2.1	-1.4
<i>Minority vs. Non-Minority</i>			
Auto	0.0	0.1	0.0
Transit	-1.5	-1.3	-2.3
<i>Senior vs. Non-Senior</i>			
Auto	0.0	0.0	0.0
Transit	0.1	0.0	-1.3

**Active Beaches:** Overall, access to beaches via transit or car is limited and does not significantly improve for anyone with the Revenue Constrained Network. There is no group that exceeds 6 percent transit access or 45 percent auto access to beaches in the entire population. Seniors actually have better access than the other two disadvantaged populations. The social equity calculation shows a difference of -0.4 percentage points in 2025, but trends to parity in 2035, and by 2050 the difference is 0.5, demonstrating a slightly benefit to senior transit access to active beaches. For low income and non-low income populations, the social equity calculation changes from -1.2 percentage point difference in 2025 to -2.0 in 2050. Minority transit access to active beaches relative to non-minorities has a social equity disparity calculation of 0.1 in 2025, meaning minorities derive slightly more benefit than non--minorities, and this trend changes to negative, but is very small, through 2050, with a percentage point difference of -0.9. There are no significant differences in benefits for disadvantaged populations compared to their 'non'-counterparts.

**Table H.12**  
**Percent of Population Within 15 Minutes of Active Beach**

Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
<i>Auto</i>							
Low Income	42.1%	42.8%	39.7%	37.3%	42.9%	40.6%	39.2%
Non-Low Income	37.5%	37.8%	35.5%	33.4%	38.0%	36.2%	35.0%
Minority	36.6%	36.8%	33.6%	31.4%	36.9%	34.6%	33.2%
Non-Minority	41.8%	42.7%	40.8%	39.0%	42.8%	41.5%	40.4%
Senior	38.9%	39.1%	37.7%	35.5%	39.2%	38.5%	37.1%
Non-Senior	39.0%	39.4%	36.5%	34.3%	39.5%	37.4%	35.9%
<i>Transit</i>							
Low Income	3.3%	3.4%	3.6%	3.6%	3.4%	3.6%	3.7%
Non-Low Income	4.2%	4.1%	4.3%	4.4%	4.3%	4.4%	4.6%
Minority	2.4%	2.6%	2.8%	3.0%	2.7%	2.9%	3.1%
Non-Minority	5.6%	5.6%	5.8%	6.0%	5.7%	5.9%	6.2%
Senior	4.3%	4.5%	4.7%	4.7%	4.6%	4.8%	4.9%
Non-Senior	3.9%	3.9%	4.0%	4.1%	4.0%	4.1%	4.3%

Table H.12.1

**Social Equity Calculation for Percent of Population Within 15 Minutes of Active Beach**

Percentage Point Difference – Build vs. No-Build

	2025	2035	2050
<i>Low Income vs. Non-Low Income</i>			
Auto	-0.1	0.0	0.3
Transit	-1.2	-2.0	-2.0
<i>Minority vs. Non-Minority</i>			
Auto	0.2	1.1	1.8
Transit	0.1	-0.9	-0.9
<i>Senior vs. Non-Senior</i>			
Auto	-0.1	-0.2	-0.3
Transit	-0.4	0.8	0.5

## Exposure to PM<sub>10</sub> and PM<sub>2.5</sub>

A review of the emission data for PM<sub>10</sub> and for PM<sub>2.5</sub> for each of the disadvantaged populations (low income, minority, and seniors) in comparison to their respective 'non'-populations shows no significant differences. All of the percentage point differences for each phase comparing the No-Build Scenario to the Revenue Constrained Network for low income populations in comparison to non-low income populations show a difference of less than 1 percentage point. PM<sub>10</sub> exposure for low income populations in the 2025 Revenue Constrained Network is 12.5 grams per person, in 2035 it is 13.9, and by 2050 it is 15.1. Almost the same pattern is shown for the non-low income population. The same pattern also is found for minorities. The social equity analysis did not disclose any disparate impacts or disproportionate effects for disadvantaged populations in the region for PM<sub>10</sub> exposure.<sup>16</sup>

PM<sub>2.5</sub> exposure for low income populations in the 2025 Revenue Constrained Network is 5.3 grams per person, in 2035 it is 5.7, and by 2050 it is 6.1. The average PM<sub>2.5</sub> exposure for non-low income population increases from 4.8 grams in 2025 to 5.5 grams in 2050. The same pattern is also shown in minority populations. The social equity analysis for PM<sub>2.5</sub> did not show any disparate impacts or disproportionate effects for disadvantaged populations in the region.

**Table H.13**  
**Average PM Exposure**

Grams per Person

Performance Measure	2016	2025NB	2035NB	2050NB	2025RC	2035RC	2050RC
<i>PM<sub>10</sub></i>							
Low Income	16.3	12.5	14.0	15.3	12.5	13.9	15.1
Non-Low Income	17.4	11.3	12.6	13.7	11.2	12.4	13.4
Minority	5.4	12.4	13.7	14.9	12.3	13.5	14.6
Non-Minority	4.9	10.8	12.0	13.1	10.7	11.9	12.8
Senior	10.3	11.2	12.7	14.2	11.1	12.6	13.9
Non-Senior	5.0	11.7	13.0	14.1	11.7	12.9	13.9
<i>PM<sub>2.5</sub></i>							
Low Income	15.6	5.3	5.8	6.2	5.3	5.7	6.1
Non-Low Income	15.0	4.8	5.2	5.6	4.8	5.1	5.5
Minority	5.1	5.2	5.6	6.1	5.2	5.6	5.9
Non-Minority	5.4	4.6	5.0	5.3	4.6	4.9	5.2
Senior	12.0	4.7	5.2	5.8	4.7	5.2	5.7
Non-Senior	10.9	5.0	5.4	5.8	4.9	5.3	5.7

**Table H.13.1**

**Social Equity Calculation for Average PM Exposure  
(Grams per Person)**

Percentage Point Difference – Build vs. No-Build

	2025	2035	2050
<i>PM<sub>10</sub></i>			
Low Income vs. Non-Low Income	-0.1	0.2	0.2
Minority vs. Non-Minority	-0.1	-0.1	0.1
Senior vs. Non-Senior	0.0	0.0	-0.1
<i>PM<sub>2.5</sub></i>			
Low Income vs. Non-Low Income	-0.1	0.2	0.2
Minority vs. Non-Minority	-0.1	-0.1	0.1
Senior vs. Non-Senior	0.0	0.0	-0.1

## Benefit-Cost Analysis

Vulnerable populations will have increased mobility and better accessibility to transportation alternatives with the investments proposed in the 2050 Revenue Constrained Network. The benefit-cost analysis (BCA) tool developed for the economic analysis uses the outputs from the transportation modeling to assess and monetize the benefits and costs of the 2050 Revenue Constrained Network versus a “No-Build” scenario. This tool can also estimate benefits for sub-populations – such as minorities, low income residents, and seniors – to gauge the effects of the RTP on social equity for these groups.

The results of this analysis are presented in Table H.14. Averaged over the time period analyzed (2016-2070), low-income (those earning 200 percent of the federal poverty level and below) residents make up 29.6 percent of the population but receive 35.6 percent of the benefits. That is, low income San Diegans receive a disproportionately large amount of the benefits from the proposed RTP transportation network. The same holds true for minority populations; they make up an average of 56.7 percent of the county population but receive 65.7 percent of the benefits. For seniors (75 and over), the benefits are less than proportional: seniors make up 10.3 percent of the population but receive only 9.0 percent of the benefits. This is to be expected, however, as most of the benefits accrue to travelers, and seniors travel much less than the population as a whole. For all disadvantaged populations, the average share of the population is 71.6 percent and they receive 78.7 percent of the benefits of the 2019 Federal RTP. For details on the BCA, see Chapter 4 and Appendix P.

**Table H.14**  
**Benefits to Disadvantaged Populations**

Total Benefits (million\$)*	Population	Benefits to Disadvantaged Population (million\$)	Benefits to Disadvantaged as a Percentage of Total	Benefits to non-Disadvantaged	Disadvantaged Population as Share of Total Population
\$19,741	Low Income	\$7,034	35.6%	\$12,708	29.6%
\$19,741	Minority	\$12,963	65.7%	\$6,778	56.7%
\$19,741	Seniors	\$1,779	9.0%	\$17,962	10.3%
\$19,741	TOTAL	\$15,541	78.7%	\$4,204	71.6%

\* Not all benefit categories calculated by the BCA tool can be apportioned to specific sub-populations. Time savings for commercial vehicles, emissions benefits, safety benefits, reliability benefits, and operating costs cannot be calculated by sub-populations, and are excluded from this analysis. With those categories, total benefits are \$22.1 Billion.

## Data and Sources

The information in this Appendix H relies upon a variety of sources, including the following:

- U.S. Census Bureau
- 2010 Census (foundation for base year population and housing in the Growth Forecast)
- SANDAG 2016 Current Estimates (demographic/socioeconomic)
- 2050 Regional Growth Forecast – Series 14, version 17 (demographic/socioeconomic)

Since 1972, SANDAG has produced long-range forecasts of population, housing, and employment that are used as a resource by elected official, planners, academics, and the general public. Among other applications, the Series 14 Regional Growth Forecast provides the land use pattern for the 2019 Federal RTP. In addition to population, jobs, and housing, the forecast also provides detailed information on race, ethnicity, and various socioeconomic indicators such as income. The data, together with information from the ABM, forms the foundation for social equity analysis and provides the data used to identify and analyze disadvantaged populations. For more information on the Series 14 Regional Growth Forecast, see Appendix J.

Wherever possible, SANDAG uses the smallest level of geographic detail available for analysis and mapping. As discussed above, with the ABM, social equity analysis can now be done at a more precise level – the household. With ABM’s powerful technology, it is now possible to identify every household that qualifies as “disadvantaged.” For example, ABM can tell us the number of households in the San Diego region that are low income, in addition to providing information on each household’s location, valuable socioeconomic detail, and travel behavior (for more information on the ABM, see Appendix T).

## Endnotes

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- <sup>1</sup> National Cooperative Highway Research Program (NCHRP), *Effective Methods for Environmental Justice Assessment*. Report 532. Washington, DC: Transportation Research Board. 2004. pg. 5.
- <sup>2</sup> Minority means a person who is: Black (having origins in any of the black racial groups of Africa); Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race); Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or American Indian and Alaskan Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).
- <sup>3</sup> These documents include, but are not limited to: U.S. Department of Transportation Order on Environmental Justice (1998); Federal Highway Administration/Federal Transit Administration (FHWA/FTA) Issue Memoranda on Implementing Title VI Requirements in Metropolitan and Statewide Planning (1999; 2007); Executive Order 13166 Improving Access to Services for Persons with Limited English Proficiency (2000); FTA Title VI Circular 4220.1A; and California’s Environmental Justice Strategy AB 1553 (2001).
- <sup>4</sup> Executive Order 12898, Section 1-101.
- <sup>5</sup> California Department of Transportation, [Deskguide: Environmental Justice and Transportation Planning Investments](#). January 2003.
- <sup>6</sup> The CBO Partners were selected from a competitive request for proposals with a condition of geographic coverage to have representation from each of the CalEnviroScreen Disadvantaged Communities. The contracts were developed to cover the entire RTP process with contract amendments and revised scope for each fiscal year. The awarded contracts were for \$20,000 each per Fiscal Year through the approval of the Plan.
- <sup>7</sup> Barrio Logan College Institute terminated their contract with SANDAG on November 28, 2018 due to institutional challenges.
- <sup>8</sup> For the purposes of this analysis, the racial/ethnic group Other includes American Indian and Alaskan Natives, Native Hawaiian and Pacific Islanders, and those responding their race as “Other.”
- <sup>9</sup> The California Office of Environmental Health Hazard Assessment (OEHHA) has developed a modeling tool for evaluating multiple pollutants and stressors in communities, called the California Communities Environmental Health Screening Tool (CalEnviroScreen). The purpose of CalEnviroScreen is to identify the areas of the state that historically have faced multiple pollution burdens so programs and funding can be targeted appropriately toward improving the environmental health and economic vitality of the most impacted communities. For this region, CalEnviroScreen shows that minorities disproportionately reside in highly impacted communities while whites are over-represented in the least burdened communities. The maps for the region from CalEnviroScreen provide a picture of the communities in the region that currently have the highest pollution burden (see [CalEnviroScreen 2.0 results](#)). CalEnviroScreen is intended to provide a snapshot of existing conditions based on historical data, not to predict future conditions for disadvantaged communities. ACS data was used to create existing conditions maps depicting the specific socio-economic variables important to the CBOs.
- <sup>10</sup> Community Planning Area (CPA) boundaries were approximated using Census Tracts, and the data was summed from Census Tract-level American Community Survey 20013-2017 5-year estimates.
- <sup>11</sup> The U.S. Equal Employment Opportunity Commission (EEOC), Department of Labor, and Department of Justice uses the four-fifths (or 80%) rule when enforcing disparate impact prohibitions in Title VI of the Civil Rights Act. See 29 CFR §1607.4(D) (A selection rate for any race, sex, or ethnic group which is less than four-fifths (or 80%) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.)
- <sup>12</sup> "Particulate matter," also known as particle pollution or PM, is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. [epa.gov/pm](http://epa.gov/pm)
- <sup>13</sup> The size of particles is directly linked to their potential for causing health problems. EPA is concerned about particles that are 10 micrometers in diameter or smaller because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. [epa.gov/pm](http://epa.gov/pm)
- <sup>14</sup> The CT-EMFAC model based on EMFAC 2017 was used for this performance measure.
- <sup>15</sup> Percentage point difference between each phase No-Build v. Build.
- <sup>16</sup> It should be noted that this social equity analysis is based on the overall network of projects and programs in the 2019 Federal RTP.

## Mission:

*The Mission of the Alliance for Regional Solutions is to bring stakeholders to coordinate and advocate for innovative, real solutions to existing and emerging community needs.*



## Community Served

The Alliance for Regional Solutions is a recognized leader in building community commitment and investment to create a thriving, resilient North County for all. The Alliance is a collaborative of over 60 nonprofit organizations throughout North County, eight North County cities (Carlsbad, Oceanside, Poway, San Marcos, Vista, Escondido, Encinitas, and Solana Beach), and the county. Our member organizations are very diverse, including educational entities, healthcare providers, social service agencies, government agencies, and philanthropic bodies and work with almost every community of concern, including low income, minority, disabled, senior populations, those with limited English proficiency, and other under-represented groups, serving thousands of individuals and families dependent on this network of support.

## Outreach Strategies

The Alliance convenes five monthly working committees focusing on unmet needs (Bridge to Housing, North County Food Policy Council, North County Case Managers Network, North County Works, and Senior Action Alliance) and quarterly meetings throughout the year. The Alliance holds and sponsors training and educational workshops and uses its broad public/private membership to address emerging issues. Using this ongoing capacity, we have provided continuous presentations and updates on the initiation, progress, and changes in the Regional Plan update. The Alliance also convened special community workshops at key points during the process. Using the email contacts lists for the committees and The Alliance as a whole, we provided ongoing email notices and updates. We have also established connection with a set of North County education and special needs providers, with meetings and communications/updates to their communities on the Regional Plan process and to provide their input to SANDAG.

## Issues of Highest Importance to the Community:

- Public transportation needs to be more affordable.
- Make it easier and safer for people to have accessibility to public transportation in their neighborhoods.
- Conveniences of public transportation- improve how bus, train, bike and pedestrian routes connect to each other.
- Protect the environment by reducing pollution caused by transportation and preserve parks, open spaces and beaches.
- Improvements to the SR78 need to be made sooner than later. This freeway is one of the busiest in the county and the congestion is getting worst each year.



## Barrio Logan College Institute

**Mission:** *To break the cycle of poverty by preparing underserved students to be the first in their families to go to college.*



### Community Served

The Barrio Logan College Institute serves the communities of Barrio Logan and Castle Park. Barrio Logan is primarily a Latino community near downtown San Diego of rich cultural heritage and history. However, it struggles with low educational attainment and high poverty rates. Barrio Logan College Institute primarily serves people from the third grade through college completion.

### Outreach Strategies

The Barrio Logan College Institute promotes the pursuit of higher education for students who are traditionally under-represented in college through after school programs that empower students from elementary school through college completion to develop the self-esteem, academic skills, and support systems necessary to succeed in school, and broaden their experiences to prepare them for success. BLCI also provides youth leadership development for youths to address issues impacting their community, as well as workshops for parents where they learn to access resources for their families and take an active role in their children's journey.

### Issues of Highest Importance to the Community:

- Education
- Access to Resources
- Affordability
- Frequency

**Mission:**

*To empower its diverse community to improve its quality of life through services, education, and advocacy.*



**Community Served**

For almost 90 years, Bayside Community Center has provided services, education, and advocacy efforts to immigrants, children, families, and seniors who are limited by financial, language, cultural understanding, isolation, and transportation barriers. It is located in the heart of Linda Vista – a community that lies in Districts 2 and 7 (City of San Diego) and North Central (County of San Diego). More than half of its 34,041 residents are considered low income. The population is comprised of White (41%), Hispanic (32%), Asian (19%), and Black (4%) residents, with almost an equal number of males (16,841) and females (17,200).

**Outreach Strategies**

Bayside Community Center is a well-established and trusted community asset with the ability to communicate with the often hard-to-reach Linda Vista community. The most effective ways that Bayside engages with its constituents are through word-of-mouth, one-on-one meetings, sharing at public meetings, social media, hosting public events, leveraging partnerships, and being physically present in the community at social functions. Promotion in print and person is almost always made available in English, Spanish, and Vietnamese, thus with potential to reach nearly 80% of the Linda Vista community, which identifies as 41% white, 32% Hispanic, and 18% Asian (of which 40% are Vietnamese).

**Issues of Highest Importance to the Community:**

- Reinstall bus lines that were cut in 2018 or add flexible fleets to fill the void left
- Lack of frequency and service, particularly on the weekends
- Keep fares affordable for all San Diegans, including for families, seniors, and youth
- Lack of infrastructure for active transportation, including protected bicycle paths
- Sheltered rest areas for public transit users at bus and trolley stops
- Safety and security on public transit

## Mission:

*To allow the dignity, power, and worth within individuals and families to flourish by enhancing the quality of life through education, advocacy, service programming, housing and community economic development.*



## Community Served

Casa Familiar was founded in 1968 directing its efforts to providing services to residents of South San Diego and in developing organizing strategies that would change the community's status from a stepchild to a full partner in determining its own future. San Ysidro is perhaps San Diego's most visible community, lying at the International Border and the first stop in the pathway of millions of vehicular trips and pedestrians every year. Today, San Ysidro has 29,564 residents for a total of 7,485 households. The population is 91.4% Latino 1.8% African American and 3.1% Asian. It has a median income almost 50% less than the California median income.

## Outreach Strategies

When called on, all 36 staff become the outreach mechanism to reach San Ysidro residents. Casa Familiar utilizes door-to-door outreach; advertises to its clients through its 30+ programs and services; social media followers on Facebook and twitter; and our community outreach database. The organization also publishes Bi-lingual (English-Spanish) articles and announcements in its bi-monthly newsletter *Borders/Fronteras* with a circulation of 3,000 copies.

For the past 10 years, Casa Familiar has conducted **San Ysidro Sin Limites**, community resident bi-lingual (English-Spanish) workshops, providing residents with the opportunity to design their community. Through the *Sin Limites* strategy, community residents designed a redevelopment strategy for the oldest community neighborhood which considered: transportation, density, infrastructure, commercial zone, and recommended mixed-use areas, as well as connecting schools and public services through pedestrian infrastructure. The best results come from a personal, face to face invitation through the Casa Familiar programs.

## Issues of Highest Importance to the Community:

- Public transportation fares are too high
- Lack of transit frequency and service on the weekends, especially Sundays
- Lack of connectivity to hospitals or other parts of the county
- Poor infrastructure for active transportation
- Bad air quality

## Mission:

*To enhance the quality of life in City Heights by working with the community to create and sustain quality affordable housing & livable neighborhoods & foster economic self-sufficiency.*



## Community Served

Located in the Mid-City area of San Diego, City Heights is a cluster of neighborhoods that encompasses one of the most densely-populated and underserved communities in the urban core of San Diego. Forty-five percent of households earn less than \$30,000, as compared to 19 percent region wide. Additionally, the median age of City Heights is 28 years, with a significant portion of the population being under the age of 18 (36 percent of the City Heights population). Many households are without a vehicle, making these households dependent on transit and other alternate commuting methods. Additionally, City Heights is home to a number of refugee and minority populations; more than 30 different languages are spoken in the community.

## Outreach Strategies

A crucial outreach method is the one-on-one meeting with a leader or resident to gain a deeper understanding of the person's perspective, while improving trust in the process. These meetings also build on the public workshops because they serve as a recruitment tool and a chance for individuals to enter the workshop better prepared to offer formal input. City Heights CDC collaborates with existing community groups to leverage outreach opportunities. Public workshops take place at regularly scheduled meetings hosted by our partners to reach a diverse group of residents, in a setting where they are already comfortable. Food and translation are provided to overcome barriers to participation. In addition, through ongoing outreach and advocacy work, they act as community listeners in informal conversations around the neighborhood, at community celebrations, and in advocacy projects. In 2018, the City Heights CDC launched a community outreach campaign called Transit & Tacos aimed at bringing regional transportation planning to the streets of City Heights. Several events have been conducted as part of this campaign, ranging from block parties, to community transit rides, all with recruitment efforts and research components to inform advocacy work.

## Issues of Highest Importance to the Community:

- Transit fare affordability for students and low-income riders
- Phasing of transit projects – community needs them sooner
- Long transit commutes – need for more connectivity
- Active transportation infrastructure investments
- Overburdened share of health costs related to highway expansion

## Mission:

*Enhancing community partnerships to develop and implement coordinated strategies and systems for future generations.*



## Community Served

The Chula Vista Community Collaborative (CVCC) works to ensure collaboration among partners and stakeholders in Chula Vista. CVCC draws together all sectors of the local community to develop coordinated strategies and systems that protect the health, safety, and wellness of residents. The role of CVCC is to work with partner organizations in Chula Vista and the South Bay to share information and resources that strengthen families and communities. CVCC elevates the needs and voice of the community and works to ensure seamless access to needed services. CVCC facilitates/co-facilitates various issue-based coalitions to increase awareness and address local issues and trend that impact families. CVCC operates five Family Resource Centers (FRCs), with each one providing a gateway to a full range of family-strengthening services. Services are available to all members of the community. CVCC serves as a safety net in the region, 98% of families served are low income and 92% are Latino.



## Outreach Strategies

CVCC conducts outreach and community involvement techniques through various methods. One way to conduct outreach is through the network of five Family Resource Centers (FRC). As clients come in to the FRC, they are provided with information about upcoming workshops or events and are personally invited to participate. In addition, more targeted outreach is through *Promotoras*. The use of *Promotoras* is a best practice model of peer education. *Promotoras* go out into the community and set up outreach and information tables to conduct one-on-one education and personally share information, educate the residents, and invite them to participate/engage.

Outreach is conducted based on program needs and usually around events or action items. Residents want information but also an action they can take, inviting them to community events for example. The effectiveness of the CVCC's outreach model is that it's both culturally and linguistically appropriate. Outreach is done in the community by people who reflect the community.

## Issues of Highest Importance to the Community:

- Cost of transportation
- Access to transportation
- Safety of transportation
- More access out of Chula Vista and within Chula Vista (east-west)
- Public transportation evening and weekends

**Mission:** *Through our collaboration, El Cajon's children, youth and families are safe, empowered and thriving.*



The ethnic diversity among new residents includes immigrants from Mexico, a growing population of Kurdish Muslims and the second largest Chaldean (Iraqi Christian) population in the United States. In 2012, 40.4% of housing units were multi-unit structures and 40.3% of the households spoke languages other than English with approximately 26 languages or dialects represented.

## Outreach Strategies

The El Cajon Collaborative (ECC) is one of the oldest and most well-established community collaboratives in San Diego County. For over 25 years, ECC has brought together members of the community, over 70 partner agencies, and other stakeholders to collaborate, inform, and promote programs, activities and resources. The history with SANDAG and ECC has helped build stability and guarantees that the eastern communities have a voice in the Regional Plan. At the monthly stakeholder meeting, regular updates are given on the development of the 2020 Regional Plan and the community members and stakeholders can offer suggestions, share concerns, and publicly comment on each phase of the plan development, ensuring that social equity is met. ECC works with resident groups around El Cajon who act as liaisons and advocates for community change. Some strategies have included information at public events, resident focus groups, and presentations. All sharing is both culturally and linguistically appropriate. ECC is also a partner in the East Region Collaborative Network (ERCN) with the other community collaboratives including Lemon Grove, Santee, La Mesa, Spring Valley, and Mountain Empire. This allows us the ability to share information with each diverse community.

## Community Served

The valley is home to the highest percentage of multi-family rental dwellings in East County and houses the county's highest concentration of families on public support. El Cajon has experienced rapid growth over the past two decades and now the disproportionate number of low-income, transient, immigrant and refugee families with high needs significantly impacts the community's resources.

## Issues of Highest Importance to the Community:

- Bus service routes that ensure access from the unincorporated communities of Alpine, Mountain Empire, Spring Valley and Lakeside and cities of El Cajon and Santee to regional transit centers.
- Transit services that offer access to employment centers, better-than-minimum-wage jobs, and higher education within 30 minutes of East County unincorporated communities of Spring Valley and Lakeside and cities of El Cajon and Santee.
- Affordable and linguistically appropriate transportation options with frequent scheduled routes.
- Better options for the growing population of seniors who will need public transportation that does not rely on volunteer drivers.

**Mission:** *To promote scientific and applied research, training, and the exchange of information that contribute to the knowledge and understanding of rapidly growing U.S. Latino Populations.*



## Community Served

The National Latino Research Center (NLRC) serves communities throughout the border region, including North County communities in Vista, San Marcos, Escondido, Pauma Valley, Valley Center, and Fallbrook. NLRC has been working in the heart of disadvantaged communities of North San Diego County since 2000, addressing the needs of Latino, indigenous, farm working, immigrant, Spanish-speaking individuals and families across the lifespan (children, youth, parents, and elders).

## Outreach Strategies

NLRC is unique in its ability to conduct outreach in historically hard to reach populations. NLRC has developed an inter-generational approach to outreach and education offering culturally and linguistically responsive approaches to outreach, research, and teaching. NLRC offers community-based education through an initiative called Universidad Popular (People's University) with the aim of increasing civic engagement in the local service area. In addition, Universidad Popular has created well trained community leaders who are trusted messengers and experts in civic education and engagement along with hundreds of community members who have graduated from classes and are active within their own social networks.

## Issues of Highest Importance to the Community:

- Healthy Communities
- Safe walking pathways and sidewalks
- Fair and affordable public transportation fares
- Frequent bus and train routes
- Centralized public transportation stations
- Green spaces and parks that are centrally located
- Community engagement in reviewing/drafting Climate Action Plans

## Mission:

*To educate, support, and offer training to refugee and immigrant women and their families to help them overcome barriers to social and economic self-reliance.*



## Community Served

Although Nile Sisters Development Initiative originally served African refugees, the organization currently welcomes and assists all refugees, immigrants, and special low-income residents. Special low-income residents fall outside other established social, health, or employment safety nets. This population includes asylum seekers, parolees, and refugees who have resided in the United States for longer than five years but who have not yet reached full economic self-sufficiency.

## Outreach Strategies

Nile Sisters Development Initiative designs and develops programs that acclimate, acculturate, advocate and educate resettling and relocating refugee and immigrant families. Nile Sisters also assist families that demonstrate a need for services beyond the resettlement period. Nile Sisters provides services that fall into the following three general categories: emergency relief, employment facilitation, and family advocacy and education.



## Issues of Highest Importance to the Community:

- Refugees frequently arrive with few or no belongings
- Refugees and immigrants speak little or no English
- Most refugees and immigrants lack marketable employment skills
- Most refugees and immigrants lack knowledge of United States legal, economic, social, and transportation systems
- Immigrants may have been sponsored by spouses or adult children who are not yet self-sufficient

## Mission:

*To empower students and families from diverse backgrounds to be healthy and active citizens through organic gardening, environmental stewardship, and nutrition education.*



## Community Served

Olivewood Gardens and Learning Center serves primarily National City and San Diego's South Region. The community is a highly diverse, immigrant community. The population is 59,647 with 65% Latino and 17% Filipino residents. National City has a childhood overweight/obesity rate of 50%. Additionally, 57% of preventable deaths are related to cardiovascular disease, Type 2 Diabetes, Cancer, and Respiratory disease, compared to 53% at the County level. The median household income is \$41,146. The community has an overabundance of fast food, limited access to fresh fruits and vegetables, and limited access to parks and green space. The area is sandwiched between three major highways and has higher risks of health conditions that directly impact behavior, lifestyle and environment.

## Outreach Strategies

Olivewood engages the community through a number of methods. Our community responds well to word-of-mouth, monthly meetings and flyer-based communication. They host focus groups for local residents, including Kitchenistas – graduates of one of our adult programs – families, seniors, and high school students. Olivewood Gardens has worked closely as partners with other local organizations such as Samahan Health Centers and Circulate San Diego to host informational, interactive events for community members to learn about transportation issues and developments, as well as share feedback. The outreach conducted is particularly effective when paired with incentives, such as the Kids Vision, Tostadas & Transportation, and Breakfast & Transportation events. Additionally, Olivewood Gardens uses community events such as the annual Day of Play, a free family event reaching over 500 children and adults, to share information about transportation initiatives and gather input.

Outreach is done in Spanish and English, which addresses the linguistic needs of the main population in the community. The outreach team reflects the diversity of our community, allowing residents to feel safe to connect and share with confidence about transportation and connectivity concerns.

## Issues of Highest Importance to the Community:

- Reliable access to healthy food
- Local access and connectivity in transportation
- Cost of transportation
- Vehicle and pedestrian safety
- A safe, walkable, and bike-able community
- Language barriers and education regarding transportation

**Mission:**

*To build healthier communities together through a comprehensive spectrum of integrated and preventative services with the highest quality and respect.*

**Community Served**

Samahan Health Centers serves the greater San Diego region from Rancho Peñasquitos all the way down to National City. Their emphasis lies particularly in serving the indigent, low-income, uninsured and underserved individuals and families. Two of the communities served are National City and the unincorporated rural Lincoln Acres, located in the Southern Region of San Diego County. These communities are highly diverse, consisting of new immigrants, fragmented families, persons unfamiliar with American institutions and medical procedures, marginalized, uninformed about resources and rights, non-literate, monolingual in Spanish or Tagalog, at risk youth, seniors, and low income Asian/Pacific Islander and Hispanic populations. The population in this region is roughly 413,670 where a majority of the population our organization serves are below 100% federal poverty level.



**Outreach Strategies**

Samahan Health Centers engages the community in regular meeting-workshops to talk about transportation and environmental issues. Samahan Health Centers has incorporated PowerPoints on San Diego Forward and regional planning into health classes and monthly meetings. They have also partnered with the different ethnic media/newspapers where we may be able to write about transportation concerns and challenges. The Regional Plan is presented at community tabling activities such as the Mira Mesa Senior Luau, Back to School events, and various school open houses. Within Samahan Health Centers works to inform and encourage feedback from staff and patients through webinar viewings, discussions, and a monthly newsletter.



**Issues of Highest Importance to the Community:**

- An efficient public transit system that will lower travel and wait time for users.
- A cost-effective public transit system that will lower fares for low income seniors, students, children and mothers.
- A highly reliable and accessible public transit system that will follow strictly published schedules and routes.
- A safe, walkable and “bike-able” community.
- Accessible transportation for low-income residents to get to their healthcare facilities.

## Mission:

*To make safety, civic engagement, health and beautification, a neighborhood practice, making our communities more vibrant, informed and connected.*



## Community Served

The Urban Collaborative Project (UCP) is a grassroots non-profit organization based in Southeast San Diego and aims to support the residents in the area. A major area of focus is Community Trauma and Resilience which includes Trauma informed Policies, K-12 school support, Healthy Food access, Community infrastructure/Placemaking, Family Support and enhancement, Resident Leadership Training, and inter-organizational Action Teams.

## Outreach Strategies

The Urban Collaborative Project has educated, empowered, and energized community residents through the Resident Leadership Academy to create a wide array of community improvements for lasting change in their neighborhoods. Through a continued self-healing community model, the UCP has begun to work with the community to identify indicators, prioritize them, and collaboratively reach solutions.

The UCP has effectively brought residents, neighborhoods, town councils, faith-based groups, law enforcement, engineering, public works, community organizations, and County agencies together to address walkability, bicycle safety, and urban development.

## Issues of Highest Importance to the Community:

- Safety
- Civic Engagement
- Health Awareness
- Neighborhood Leadership
- Beautification
- Youth
- Community Outreach

## Mission:

*To advance community health and hope by providing access to premier health services and education to those who need it most.*



## Community Served

Vista community Clinic (VCC) serves the communities of Vista, Oceanside, and portions of Fallbrook, Carlsbad, Bonsall, San Marcos, and surrounding unincorporated areas. VCC is a Federally Qualified Health Center with five locations in Vista and Oceanside, as well as sites in Lake Elsinore and La Habra. Founded in 1972, VCC offers one of the largest community clinic education and outreach programs in San Diego County, helping over 100,000 individuals each year to “choose health.”

VCC knows that making healthy choices isn't only a matter of educating our community members. We work as a committed and collaborative partner to impact public health policies at regional, state and national levels.

The community served for SANDAG outreach for the regional plan has been concentrated in low-income, minority communities with limited English proficiency, including the Crown Heights neighborhood of Oceanside.

## Outreach Strategies

A variety of approaches have been used to conduct outreach, including one-on-one conversations with stakeholders and community leaders; presentations to existing community groups in both English and Spanish; and community workshops with residents conducted in Spanish.

## Issues of Highest Importance to the Community:

- Affordability
- Frequency
- Access
- Safety
- Social equity