

This chapter summarizes key findings from the **Environmental Justice and Equity Analysis for Fresno** Council of Governments' 2022 Regional Transportation Plan (RTP) and Sustainable **Communities Strategy** (SCS) for the Fresno County region.

Introduction

The Environmental Justice and Equity Analysis demonstrates Fresno Council of Government's compliance as a metropolitan planning organization (MPO) with federal requirements related to Title VI and environmental justice in the RTP development process. At the federal level, requirements include civil rights protections against discrimination in federally funded programs and federal-aid recipients on the basis of a person's race, color, or national origin; and federal environmental justice objectives aimed at avoiding disproportionately high and adverse effects on minority and low-income populations. At the state level, requirements include: civil rights protections against discrimination on the basis of sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation. At the regional level, Fresno COG has adopted environmental justice principles and objectives that promote equity throughout the agency's regional planning efforts. (See the detailed 2022 RTP/SCS Chapter 4.

Environmental justice means identifying and addressing disproportionately high and adverse effects, if any, as a result of the RTP/SCS programs and policies on minority populations and low-income populations to achieve an equitable distribution of benefits and burdens. This also includes the full and fair participation by all potentially affected communities in the transportation decision making process. The analysis helps policymakers, local jurisdictions and the public understand the equity-related implications of implementing the RTP in the region, especially in disadvantaged communities.

Title VI and Environmental Justice Review

Title VI establishes the basis for transportation agencies to disclose to the public the benefits and burdens of proposed projects on minority populations. Civil rights have expanded to include sex, age, and disability through the Federal-Aid Highway Act of 1973, Age Discrimination Act of 1975, the Rehabilitation Act of 1973, and Americans with Disability Act of 1990. Title VI was further amended in 1987 to extend non-discrimination requirements for federal aid recipients to all of their programs and activities, not just those funded with federal funds. At the state level, California Government Code Section 11135 prohibits discrimination on the basis of sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation by any agency receiving state funding.

Additionally, Title VI not only bars intentional discrimination, but also unjustified disparate impact discrimination. Disparate impacts result from policies and practices that are neutral on their face (i.e., there is no evidence of intentional discrimination), but have the effect of discrimination on protected groups. Title VI prohibits discrimination by recipients of federal financial assistance on the basis of race, color, and national origin, including the denial of meaningful access for limited English proficient (LEP) persons.

Furthering the principles of environmental justice (EJ), the 1994 Presidential Order (Executive Order 12898) directed every federal agency to make environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of all programs, policies, and activities on minority populations and low-income populations. Reinforcing Title VI, this presidential order ensures that every federally funded project nationwide considers the human environment when undertaking the planning and decision-making process. The Presidential memorandum accompanying E.O. 12898 underscored certain provisions of existing law that help ensure all communities and persons live in a safe and healthful environment, and identified Title VI as one of several federal laws that should be applied "to prevent minority communities and low-income communities from being subject to disproportionately high and adverse environmental effects."

To implement and ensure compliance with these statutes, federal and state agencies have issued a series of orders, regulations and guidance on environmental justice. The U.S. Department of Transportation (DOT) issued DOT Order 5610.2 in 1997 to "summarize and expand upon the requirements of Executive Order 12898 on Environmental Justice." The order is used as a framework for incorporating Environmental Justice into every DOT activity, policy, and program. Expanding on DOT Order 5610.2, in December 1998 the Federal Highway Administration (FHWA) issued FHWA Order 6640.23 that requires the FHWA to implement environmental justice practices described in both DOT Order 5610.2 and Executive Order 12898 into all FHWA activities. DOT Order 5610.2 was updated in 2012, reaffirming DOT's commitment to environmental justice and clarifying certain aspects of the original order. FHWA Order 6640.23A was issued in June 2012, updating and replacing the previous 1998 order. Fresno COG is subject to these laws and executive orders.

Title VI of the Civil Rights Act of 1964 (Title VI) states:

"No person...shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."



The overlap between the statutory obligation placed on federal agencies under Title VI to ensure nondiscrimination in federally assisted programs administered by State and local entities, and the administrative directive to federal agencies under the executive order to address disproportionate adverse impacts of federal activities on minority and low-income populations explain why Title VI and environmental justice are often paired. The clear objective of the executive order and presidential memorandum is to ensure that federal agencies promote and enforce nondiscrimination as one way of achieving the overarching objective of environmental justice.

In addition to federal requirements, Fresno COG must comply with California Government Code Section 11135, which states that, "no person in the State of California shall, on the basis of race, national origin, ethnic group identification, religion, age, sex, sexual orientation, color, or disability, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency that is funded directly by the state, or receives any financial assistance from the state." California Senate Bill 115, passed in 1999, also established the definition of "EJ" in the California Government Code as "the fair treatment of people of all races, cultures and income with respect to development, adoption and implementation of environmental laws, regulations and policies." The State of California also provides guidance for those involved in transportation decision-making to address environmental justice.

In 2003, the California Department of Transportation (Caltrans) published the Desk Guide on Environmental Justice in Transportation Planning and Investments to provide information and examples of promoting environmental justice. The desk guide identified public agency requirements, guidance on impact analyses, and recommendations for public involvement and mitigation. Under Senate Bill 375 (SB 375), Fresno COG is required to include a sustainable communities strategy (SCS) within the regional transportation plan. The Fresno COG 2022 RTP/SCS provides a framework for the future development of Fresno County's transportation system. Through SB 375, the California Air Resources Board (ARB) established per-capita SCS targets for greenhouse gas emission reductions for cars and light trucks. The Fresno County region's 2035 target is a 13% reduction from 2005 levels.

Other legislation relevant to environmental justice in recent years includes: Senate Bill 1000 (SB 1000), the Planning for Healthy Communities Act, which requires all local jurisdictions in California with disadvantaged communities, as defined by SB 535, to develop an environmental justice element as part of their general plan update or consider environmental justice goals, policies, and objectives throughout their general plan.

Assembly Bill 617 (AB 617) brings air quality monitoring to a more localized level. While Fresno COG does not have statutory requirements from this legislation, it is evident that environmental justice is becoming an increasingly significant topic in all sectors of planning. As a result of this, Fresno COG aims to provide support, as needed, to its member agencies.

Fresno COG's Role

As a federally designated MPO, Fresno COG is required to comply with the above mentioned federal and state rules and policies and therefore conducts an Environmental Justice & Equity Analysis, which assures Fresno COG conforms to federal environmental justice principles, policies and regulations, including Title VI. Fresno COG is required by law to determine whether the RTP/SCS benefits low-income and minority communities equitably and whether the Plan's transportation investments have any disproportionate negative effects on minority and/ or low-income populations in the Fresno COG region, and to minimize negative impacts where they exist. To certify compliance with Title VI and address environmental justice, Fresno COG's three main principles underlying environmental justice are:

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

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to developing, implementing and enforcing environmental laws, regulations, and policies.

Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies.

Meaningful involvement means that:

- People have an opportunity to participate in decisions about activities that may affect their environment and/or health
- The public's contribution can influence the regulatory agency's decision
- Community concerns will be considered in the decision-making process
- Decision makers seek out and encourage involvement of those potentially affected



Plan Development Process

The 2022 RTP was developed with meaningful and extensive participation from key stakeholders, including community-based advocates, labor organizations, public agencies, business groups, and individual residents. This section describes the public outreach efforts focused on specifically reaching and engaging EJ communities and EJ population groups.

Consistent with Fresno COG's 2019 Public Participation Plan and Title VI Program Plan for Engaging Individuals with Limited English Proficiency (LEP), outreach for the RTP incorporated strategies to engage LEP community members by providing interpretation, translated flyers, television and social media campaigns in Spanish and other languages, as requested. See the public engagement section for additional details.

Outreach and Public Engagement Efforts

RTP Mini Grant Program

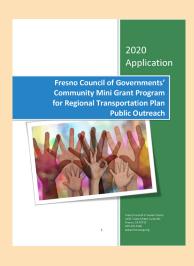
As discussed in RTP Chapter 1: About the Plan and in Chapter 5: Sustainable Communities Strategy, Fresno COG's RTP community engagement process included several strategies and tools specifically designed for engaging disadvantaged communities and EJ populations. In February 2020 Fresno COG released a RTP Mini Grants application packet online and through targeted emails, seeking assistance from community organizations, schools, agencies and businesses to solicit ongoing public input into key activities associated with the 2022 Regional Transportation Plan (RTP) and the Sustainable Communities Strategy scenarios. To ensure diverse and extensive input on the 2022 RTP from people and populations throughout the region, Fresno COG requested help to expand community outreach that would garner significant public input.

Fresno COG received three mini grant applications by the March 26, 2020 due date. Due to the COVID 19 pandemic and California's shelter-in-place order issued March 17, 2020, the number of applicants was unusually small. However, Fresno COG entered into agreements with the following organizations to conduct virtual public outreach, obtaining input regarding community transportation needs.

RTP Transportation Needs Community Engagement

In partnership with Fresno COG staff, the three mini grant organizations worked from August through October 2020 gathering transportation project suggestions from our region's residents via hard copy or online survey. This effort was conducted to assist our member agencies with community outreach prior to the RTP call for projects deadline of Dec. 1, 2020. This outreach provided an opportunity for community members to participate in the RTP planning process, addressing needs while offering input early on in the RTP development process. For this community engagement effort, Fresno COG executed an outreach plan using several communication strategies specifically designed for engaging disadvantaged communities and EJ populations (for the complete list of strategies and outreach results see Appendix E):

- Online community survey available in English, Spanish and Punjabi
- Six e-newsletters to a database of almost 4,980 email addresses in English and Spanish
- Seven social media posts in English and Spanish repeatedly posted on Facebook, Instagram, Twitter and LinkedIn
- Seven targeted English and Spanish social media "boosts" or advertisements on Facebook and LinkedIn that reached 37,871 people living in the Fresno County region.
- Flyers with QR code links to the surveys circulated through mini-grantees and member agencies in English and Spanish
- Facebook Live community presentation explaining Fresno COG's roles and responsibilities, RTPs and the Transportation Needs Survey posted to Facebook as well. Received 46 event responses and 25 comments



RTP Mini Grant Recipients

Jakara Movement Central Valley Partnership Inspiration Transportation



Three mini-grants supplied to community-based organizations that successfully engaged underrepresented communities and communities of color

The suggestions and corresponding demographic data received were downloaded from the survey website, emails and social media posts. In total, the online survey had 3,765 views with 1,673 participants submitting 1,301 project suggestions. COG staff processed all of the project suggestions, combining written descriptions for each project into one excel spreadsheet, then breaking them down by local agency or transit line. Projects referencing a specific location were depicted on a map providing visual context.

All project suggestions were forwarded to corresponding local agencies for review and consideration prior to their RTP project submittals due date. The list of projects and mapping was also available to the public on Fresno COG's PlanFresno.com website.

Spring 2021 SCS Indicators and Strategies Outreach

March/April 2021

Fresno COG's Sustainable Communities Strategy (SCS) Strategies and Indicators online, interactive survey was open from March 26-April 25, 2021. It outlined five scenario concepts, asking the public what they liked and didn't like about each one. It also asked participants to prioritize groupings of SCS indicators. The survey was available in English and Spanish -- with hard copy versions available to download in English, Spanish, and Hmong. All survey options were accessible through direct links or through the PlanFresno.com website.

Strategies specifically designed for engaging disadvantaged communities and EJ populations were as follows:

- Videos explaining the SCS strategies and indicators in English and Spanish on Fresno COG's YouTube channel, posted on social media/ websites and sent out via email
- Hard-copy surveys in three languages shared by community organizations at local community events
- Email-share requests sent from COG staff to member agencies, partnering agencies/businesses and community organizations
- Hosted a public Zoom webinar and a Facebook Live meeting, with the Facebook event recording posted on social media – available in English and Spanish
- Organic and boosted posts in English and Spanish on Fresno COG's social media channels -- Facebook, Instagram, Twitter, and LinkedIn

The survey was viewed 1,326 times receiving responses from 421 respondents. The outreach results were presented to Fresno COG's advisory committees and the Fresno COG Policy Board to assist them in selecting SCS performance indicators and to narrow five scenarios down to three. Links to the participant demographics and Strategies/Indicators Comments are available in Appendix D. Public Participation, Review, and Adoption.

SCS Five Scenario Concepts

Scenario A The Neighborly Approach



Scenario B The Vibrant Urban Approach



Scenario C **The Conservation Approach**



Scenario D The Fresnan Approach



The Smart Growth Approach



Fall 2020 Sustainable Communities Strategy Scenario Outreach



This segment of RTP/SCS outreach took the results from three modeled SCS scenarios back out to the public for review and comment. As Fresno COG was preparing the outreach presentation, staff engaged a professional focus group company to assist in fine-tuning the presentation. Due to the complex subject matter, staff felt it prudent to make the material as understandable as possible without losing important content needed to provide informed and useful responses. One focus group comprised exclusively Latino participants.

Fresno COG released the three SCS scenarios and modeling results for public review and comment on Aug. 25, 2021. Public outreach ran through Sept. 26, using a four-pronged public participation approach that included the following strategies:

- 1. A total of 14 geo-targeted, community-focused ads were purchased in English and Spanish on Google and Facebook
- 2. Online, interactive surveys, for scenario review and selection in English and Spanish, easily accessible via smart phone or computer
- 3. Eight workshops held throughout the County of Fresno in the cities of: Reedley, Coalinga, Sanger, Clovis, Kerman, Selma, Fresno and Mendota, held in the evenings with English/Spanish materials and Spanish interpreters. Fresno COG staff worked with each host city to invite community members to attend meetings.
- 4. Five additional English/Spanish presentations given to rural, unincorporated residents and community organizations.
- 5. Two virtual workshops held in English and Spanish—one in the daytime and one in the evening

See Appendix D for all the presentations and results.









Fresno County Demographic Profile

In 2019, for the second year in a row, Fresno County ranks first among counties in the nation with \$7.7 billion in agriculture production. Fresno County is the second largest county in the San Joaquin Valley by land area, encompassing 6,011 square miles, but the largest by population. The estimated population from the US Census Bureau, American Community Survey (2015-2019 5-year estimates) was 984,521, placing Fresno as the tenth most populous of the 58 counties in California. Within Fresno County, there are 15 incorporated cities. The county contains a federally recognized urbanized area, known as the Fresno-Clovis Metropolitan Area (FCMA), with a population of 699,023. The City of Fresno is now the fifth-largest city in the state, with a population of 525,010. Fresno County's population growth rate has outpaced that of California and the United States. During the 50-year period from 1969-2019, Fresno County's population increased by 145% compared to 101% and 63% for the state and nation respectively.

TABLE 7-1: FRESNO COUNTY DEMOGRAPHICS

RACE/ETHNICITY	POPULATION	PERCENT			
Hispanic or Latino	522,364	53.1%			
White Alone	289,650	29.4%			
Asian Alone	99,480	10.1%			
Black or African American Alone	44,209	4.5%			
American Indian and Alaska Native Alone	4,651	0.5%			
Native Hawaiian and Other Pacific Islander Alone	1,207	0.1%			
Some Other Race Alone	1,732	0.2%			
Two or More Races	21,228	2.2%			
2019: ACS 5-year Estimates Data Profiles, Table HOUSING ESTIMATES	DP05: ACS DEMOG	RAPHIC AND			
Income below 150% poverty level	335,832	34.7%			
Income abover 150% poverty level	632,169	65.3%			
Population for whom poverty status is determined	968,001	100%			
Course United States Consus Bureau American Community Survey 2015 2010					

Source: United States Census Bureau, American Community Survey, 2015-2019 5-year estimates, Table DP05: ACS DEMOGRAPHIC AND HOUSING ESTIMATES; Table C17002: RATIO OF INCOME TO POVERTY LEVEL IN THE PAST 12 MONTHS

Fresno County has been plaqued with high unemployment. The County's 2019 unemployment rate was 7.4% in contrast to 4.2% for the State and 3.7% for the nation. Fresno County residents' education levels lag behind those of both California and the United States. Only 21.2% of persons 25 years of age and older in Fresno County have a bachelor's degree or higher, compared with 33.9% for the state and 32.1% for the nation. Approximately 13.8% of those 25 and older have less than a ninth-grade education, in contrast to 9.2% for the state and 5.1% for the nation.

With high unemployment and low educational attainment, Fresno County is plagued with a low median household income. Fresno County's median house-



hold income of \$53,969 is far below the state and nation's incomes of \$75,235 and \$62,843, respectively.

Fresno County residents are more ethnically diverse than that of California and the United States as well. In 2019, 70% of the County's inhabitants were people of color compared to 63% for the State of California and 39% for the nation. Furthermore, historical trends and demographic projections indicate that Fresno County's Hispanic population is growing as the white population has been shrinking.

TABLE 7-2: FRESNO COUNTY DEMOGRAPHICS VERSUS CALIFORNIA AND THE NATION

COMPARISON	MINORITY POPULATION	INCOME BELOW 150% POVERTY LEVEL
Fresno County	70%	35%
California	63%	22%
United States	39%	22%

TABLE 7-3: FRESNO COUNTY DEMOGRAPHIC CHANGES

RACE/ETHNICITY	2010	2019	2046
Hispanic or Latino	50.3%	53.1%	56.1%
White Alone	32.7%	29.4%	26.3%
Asian Alone	9.3%	10.1%	9.1%
Black or African American Alone	4.8%	4.5%	5.0%
American Indian and Alaska Native Alone	0.6%	0.5%	0.6%
Native Hawaiian and Other Pacific Islander Alone	0.1%	0.1%	0.1%
Some Other Race Alone + Two or more races	2.0%	2.4%	2.7%

Source: United States Census Bureau, 2010 Decennial Census Resdistricting Data, Table P2, HISPANIC OR LATINO, AND NOT HISPANIC

2.2% 2019: ACS 5-year Estimates Data Profiles, Table DP05: ACS DEMOGRAPHIC AND **HOUSING ESTIMATES**

Environmental Justice Population Definition

The Environmental Justice & Equity Analysis is intended to measure both the benefits and burdens associated with the transportation investments included in the 2022 RTP/SCS, and to ensure that the environmental justice communities (minority and low-income) living within Fresno County share equitably in the benefits of the Plan's investments without bearing a disproportionate share of the burdens.

Defining the Environmental Justice Communities within Fresno County

Fresno COG first determined where EJ communities are located within Fresno County to better understand whether those communities are sharing both the benefits and burdens associated with projects in the plan. Demographic data from U.S. Census American Community Survey 2015-2019 Summary Tables



helped develop a database with estimated socioeconomic and travel characteristics. Staff used this database to map environmental justice communities within traffic analysis zones (TAZ). A TAZ is an area similar in size to a neighborhood or census block group. TAZs can range in size from approximately ½ mile square within a metropolitan area to much larger areas in low-density, outlying areas. There are 1,963 TAZs within Fresno County. To evaluate travel-related equity measures, Fresno COG's travel forecasting model produced estimates of travel characteristics of environmental justice communities compared to non-EJ communities across the county.

Minority

"Minority population" means "any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity." Minority populations include persons who identify as any of the following groups as defined by the Census Bureau.

Minority Persons include the following:

- Black or African-American A person having origins in any of the Black racial groups of Africa.
- Hispanic or Latino A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- American Indian or Alaska Native A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment.
- Asian A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
- Native Hawaiian or Other Pacific Islander A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

The non-EJ population includes those persons who identify as white and not Hispanic or Latino.

Low-Income

Low-income population means any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) similarly affected by a proposed DOT program, policy or activity.

The Department of Health and Human Services (HHS) issues the annual federal poverty thresholds for individuals based on a combination of an individual's household composition, size and income in Fresno County. In 2021, 100% of the federal poverty level was \$12,880 a year for a single person living alone and approximately \$26,500 a year for a family of four. As of the 2015-2019 American Community Survey, approximately 20.5% of Fresno County's population was living below the federal poverty line.







FIGURE 7-1: **CONCENTRATION OF MINORITY POPULATION**

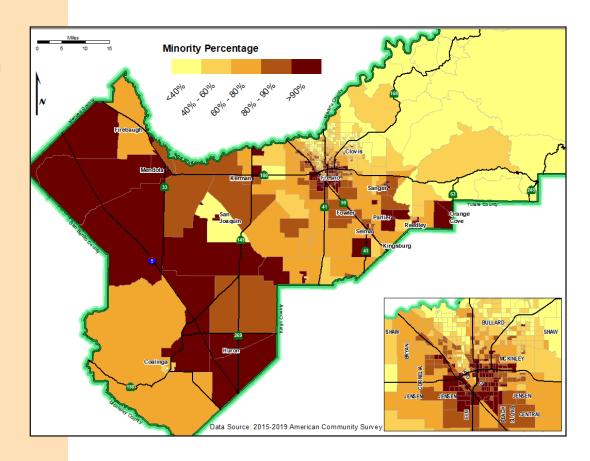
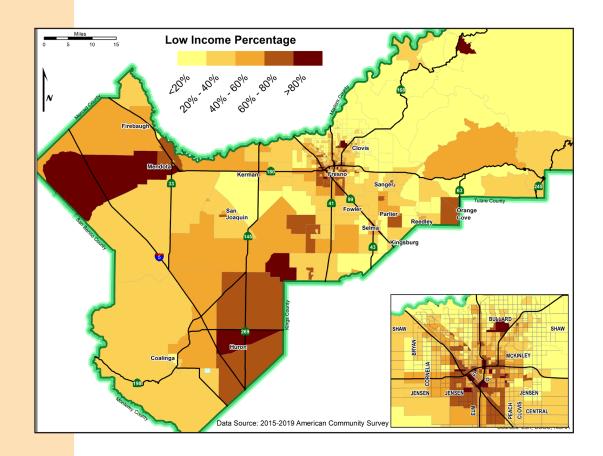


FIGURE 7-2: CONCENTRATION OF LOW INCOME



Environmental Justice Subcommittee

EJ communities must have their parameters defined and be geographically located before determining whether a population would be affected by a proposed program, project, or activity.

For help in defining Fresno County's environmental justice communities, Fresno COG called upon its Environmental Justice Subcommittee. The Environmental Justice Subcommittee serves under Fresno COG's Transportation Technical Committee (TTC), enjoying the benefits of a formalized process as it feeds into Fresno COG's structured, standard committee process. The subcommittee generally meets when Fresno COG staff, the TTC, the Policy Advisory Committee or the Fresno COG Policy Board request recommendations on issues involving EJ populations. Subcommittee members report all advisory actions to the TTC through an EJ representative. Then the TTC's recommendations are referred to the Policy Advisory Committee and Fresno COG Policy Board as needed. The subcommittee also reports to the RTP Roundtable through the Subcommittee Chair, who holds a seat on the Roundtable.

The Environmental Justice Subcommittee has 13 positions to provide full, diverse and equitable representation from designated EJ populations:

- Four Fresno COG member agencies, one from each of the following geographies:
 - o Local agency urban
 - o East side local agency rural
 - o West side local agency rural
 - o County of Fresno
- Four representatives, one from each of the following ethnicities:
 - o Hispanic
 - o African-American
 - Asian 0
 - American Indian
- Two low-income representatives
- One senior (65 or older) representative
- One disabled person representative
- One youth representative

EJ Subcommittee Accomplishments

The EJ Subcommittee helped shape the Environmental Justice & Equity Analysis. The Subcommittee met nine times to determine EJ population thresholds and EJ SCS indicator.

The following is a summary listing of the main topics discussed:

- Regional Transportation Plan Environmental Justice & Equity Analysis: purpose and goals
- Modeling equity
- Federal definition of EJ populations
- Defining the Fresno County EJ population
- Establishing a low-income threshold that is representative of the region
- Selecting the equity indicator for the SCS scenarios
- 2022 EJ populations methodology
- Fresno County demographics (focused on race & income levels)
- Draft analysis review and comment

The EJ Subcommittee defined the EJ area as the TAZs within Fresno County with a concentration of minority and/or low-Income population equal to or greater than the Fresno County average. Several other major metropolitan planning organizations in California have used this methodology in assessing equity in their regions. It is transparent and emphasizes impacts on minority and low-income communities. Fresno County averages are as follows:

- Minority Population: 70%
- Low Income (income <150% of Federal Poverty Level): 35%

Out of the 1,963 TAZs in Fresno County, 1,255 are considered EJ TAZs as defined by the EJ Subcommittee; 334 TAZs meet the Minority threshold, 151 meet the Low-Income threshold and 770 meet both thresholds. This definition of the EJ area includes 64% of Fresno County's total population.

The EJ subcommittee also recommended the equity indicator - Access to Destinations (Jobs & Services) - that was used as one of the SCS indicators by which the public and other local stakeholders ranked the three SCS scenarios.

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FIGURE 7-3: ENVIRONMENTAL JUSTICE TAZS

Fresno COG took into consideration the CalEnvrioScreen 3.0 data to further understand burdens beyond what the current modeling capacity could provide. The California Environmental Protection Agency (CalEPA) and the Office of Environmental Health Hazard Assessment (OEHHA) developed the California Communities Environmental Health Screening Tool (CalEnviroScreen). CalEnviroScreen is a data-driven mapping tool that helps identify California communities most affected by multiple sources of pollution and most vulnerable to pollution's adverse effects. CalEnviroScreen uses environmental, health, and socioeconomic information to produce a numeric score for each Census tract in the state.

CalEnviroScreen helps establish which areas have higher relative environmental burdens in an effort to increase environmental law compliance in disproportionately impacted areas. Additionally, CalEnviroScreen informs the identification of disadvantaged communities pursuant to SB 535 (De León, Chapter 830, Statutes of 2012), based on geographic, socioeconomic, public health and environmental hazard criteria.

There are 119 census tracts in Fresno County that fall within the top 25% of highest-scoring Census tracts according to CalEnviroScreen. Census tracts with the highest scores are the most burdened by air pollution, environmental and other socio-economic factors. The State of

California's Climate Change Initiative has worked to target Cap-and-Trade program expenditures and other funds to these designated Census tracts.

Figures 7-4 and 7-5 show maps of SB 353 and CalEnviroScreen that are overlaid with the EJ TAZs. Both maps illustrate that a majority of Fresno County census tracts identified in SB 535 (De Leon) Disadvantaged Communities and the CalEnviroScreen 3.0 directly overlap with the EJ TAZs. It further emphasizes that transportation investments focused in these areas are in line with the States priorities for mitigating neighborhoods that are most burdened and confirms that the designated EJ TAZs the 2022 RTP are appropriately captured.

While all of the areas identified in the methodology outlined above, and shown in the maps below, are included for purposes of this analysis, the data has limitations.



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//// EJ Areas SB 535 Disadvantaged Communities

FIGURE 7-4: **SB 535 AREA / ENVIRONMENTAL JUSTICE TAZS**

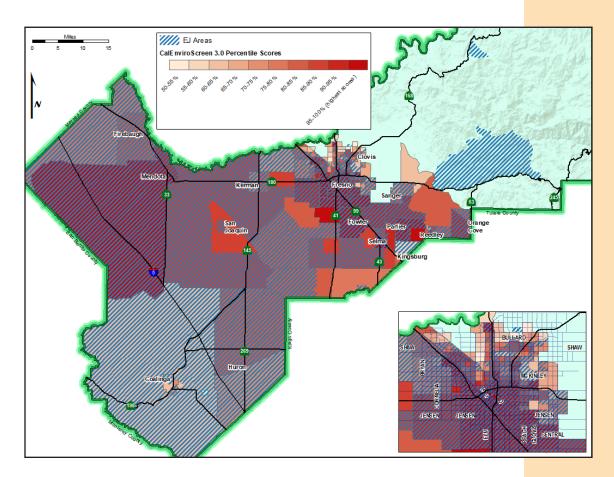


FIGURE 7-5: **CALENVIROSCREEN** 3.0 / **ENVIRONMENTAL JUSTICE TAZS**

Some of the specific limitations will be discussed throughout the analysis discussion as needed, but there are several important caveats that apply to all the analysis, including:

- Whether areas qualify as "EJ" or "Non-EJ" depends on thresholds for block groups that quantify the residents of an area, but they are not monolithic. There are residents who do not have low incomes and/or who are not from minority groups who reside in EJ Communities. There are also low-income and minority residents who live in Non-EJ Communities.
- With its current analytical tools, Fresno COG is not able to predict where people of color, or low-income populations, will locate in the future. As a result, and for purposes of this analysis, the EJ areas identified with base year data are assumed to be the same for 2046. With the continuing diversification of the Fresno region, which is reinforced by the Regional Housing Needs Allocation requirements, this assumption might or might not provide the best projection where the EJ or non-EJ communities would be in 2046.



Measuring the Benefits and Burdens

To measure the benefits and burdens of the proposed 2022 RTP projects on disadvantaged communities, the EJ subcommittee and RTP roundtable approved the following eight quantitative performance measures:

Transportation

- Access to Jobs & Services
- Travel Delay
- **Transit Productivity**

Financial Investments

- Distribution of investments by mode 0
- Distribution of road maintenance projects 0
- Targeted active transportation investments

Quality of life

- Housing Mix
- Pollution Exposure

The performance measures compare the current (2019) transportation system to the future (2046) transportation system which assumes the construction of all projects proposed in the preferred scenario including transit, capacity increasing, bike and pedestrian, and maintenance and operational improvement projects. Model assumption inputs for analyzing performance indicators are derived from the demographic forecast for households, employment and land use as detailed in Chapter 3: Fresno Today. The forecasts used for the 2022 Fresno COG Regional Transportation Plan/Sustainable Communities Strategy were from the updated Fresno County 2050 Growth Projections prepared by Applied Development Economics (ADE), October 2020 and is contained in the Sustainable Communities Strategy Appendix I. The newly developed Activity-Based Model (ABM) was applied in the EJ analysis. Documentation of the ABM is available on Fresno COG website at Fresno Activity-Based Model Update. The land use and roadway projects assumptions are consistent with Scenario B, which was selected by the Fresno COG Policy Board as the preferred SCS scenario.

Transportation Performance Measures

Access to Jobs and Services

Description:

Access to Jobs and Services is defined as the ability to move throughout the region. It is measured by the time it takes to reach desired destinations from one's home during the morning commute hours. Jobs and services were defined as major job centers, medical facilities, parks and schools.

Methodology:

This indicator measures the ease of reaching defined areas of interest during the morning rush hour. Average auto and transit travel times are measured using the Activity Based Model.

Goal or Purpose:

For the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Discussion of results:

The analysis in general shows that in the future accessibility will hold steady for vehicle drivers and passengers, but that transit times will reduce significantly across all categories. This is especially good for the EJ communities since the majority of transit riders are low-income. A 2022 Fresno Area Express (FAX) Passenger Satisfaction Survey reports on-board interviews showed that 76% of respondents earn an annual household income of less than \$19,999. Under all conditions, EJ TAZs have average travel times to areas of interest equal to or shorter than the travel times from non-EJ TAZs for all modes of travel (drive alone, carpool and transit). The results of this performance measure demonstrate that the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

AM Peak Travel Time (minutes)		2019		2046	
		EJ	Non-EJ	EJ	Non-EJ
	Drive alone	10	10	9	10
FCMA	Shared Drive	7	8	7	7
	Transit	41	46	35	37
Remainder of County	Drive alone	15	22	14	20
	Shared Drive	9	16	9	15
	Transit	42	47	38	39
	Drive alone	11	12	11	12
Countywide	Shared Drive	8	9	7	8
	Transit	41	46	35	37

Travel Delay

Description:

Travel Delay is defined as the ability to move throughout the region during the afternoon rush hour.

Methodology:

This indicator determines a ratio of the average travel times for trips throughout the county during the afternoon rush hour to the average travel times for those same trips when there is no delay and traffic is free flow. Travel Time Index of 1 indicates no travel delay.

Goal or Purpose:

For the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Discussion of results:

Generally countywide and in the Fresno/Clovis Metropolitan Area, travel conditions in the PM peak hours will improve for the EJ areas as a result of the investment

PM Peak Travel Time Index	2019		2019 2046		46
	EJ	Non-EJ	EJ	Non-EJ	
FCMA	1.24	1. 07	1.18	1.07	
Remainder of County	1.00	1. 00	1.01	1.01	
Countywide	1.13	1.04	1.10	1.04	

from the 2022 RTP, whereas the afternoon commute time for the non-EJ areas will remain constant or become slightly longer over time. The rural areas do not have congestion now as the travel index is close to 1. The same

is true in 2046. The results of this performance measure demonstrate that the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Transit Productivity

Description:

Transit productivity measures the increase in transit ridership due to the transit projects in the 2022 RTP/SCS.

Methodology:

This indicator compares the number of miles transit passengers traveled in 2019 to the number of miles transit passengers are forecasted to travel in 2046.

Goal or Purpose:

For the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Discussion of results:

This data demonstrates that the projects in the 2022 RTP/ SCS will dramatically increase the number and length of transit trips countywide in a balanced fashion as transit ridership essentially doubles in both the EJ and Non-EJ TAZs. By 2046, all transit fleets will be zero emission, there will be many new transit centers, shorter wait times and expanded routes and schedules. The results of this performance measure demonstrate that the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Passenger Miles Traveled	2019				2046	
(PMT)	Total	EJ	Non-EJ	Total	EJ	Non-EJ
PMT	115,251	77,975	37,276	193,509	129,062	64,447



Financial Investments Performance Measures

Distribution of investments by mode

Description:

This indicator shows the 2022 RTP/SCS funding invested in EJ and Non-EJ areas for the following project types: Bicycle & Pedestrian, Transit, Streets & Roads -Maintenance, Capacity Increasing and Operations.

Methodology:

This indicator calculates the total funding for the program of projects in the preferred 2022 RTP/SCS scenario for each project type in EJ and Non-EJ areas.

Goal or Purpose:

For the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Discussion of results:

EJ areas have 64% of the population but will receive 68% of the total transportation investments and over \$1,000 more per capita than the Non-EJ areas. The results of this performance measure demonstrate that the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Mode	EJ	Non-EJ
Bicycle & Pedestrian	590,682,698	450,912,652
Transit	954,707,160	71,129,673
Streets & Roads - Maintenance	1,306,061,297	393,788,036
Streets & Roads - Capacity Increasing	777,690,436	851,957,314
Streets & Roads - Operations	473,997,013	153,629,820
Total	4,103,138,604	1,921,417,495
Total funding per capita	\$6,512	\$5,421

Distribution of Road Maintenance Projects

Description:

This indicator compares the miles of roadway maintenance projects in the 2022 RTP/SCS in the EJ and Non-EJ areas.

Goal or Purpose:

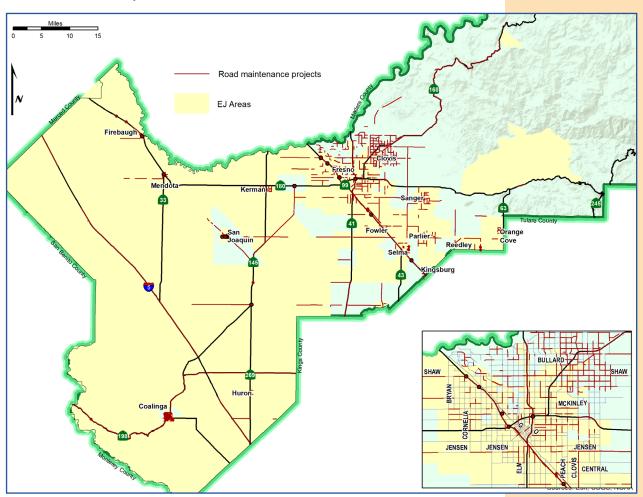
For the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Discussion:

EJ areas will have considerably more roadway maintenance project miles compared to the Non-EJ areas. There are also 30 maintenance projects located at intersections. 90% of these projects are in EJ areas. The results of this performance measure demonstrate that the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Road maintenance projects	EJ	Non-EJ
Length of road maintenance projects (miles)	489.25	289.62
Length of road maintenance projects (% of total)	62.8%	37.2%
Road maintenance projects at intersections	27	3
Road maintenance projects at intersections (% of total)	90.0%	10.0%

Figure 7-6: Road Maintenance Projects / Environmental Justice TAZs







Targeted Active Transportation Projects

Description:

This indicator compares the lane miles constructed for bicycle and pedestrian projects in the 2022 RTP in the health burdened EJ and Non-EJ areas.

Methodology:

Data from the Fresno County Department of Public Health - Health Priority Index (HPI) is used to map the most health burdened areas. The HPI compiles data from national, state, and local sources to visualize the level of health burden within each census tract in Fresno County. HPI is based on guidance from U.S. Centers for Disease Control and Prevention (CDC), Community Health Assessment for Population Health Improvement (2013), through the Fresno Community Health Improvement Partnership. Four health indicators are in this composite data. They include the 25% poorest performing on CalEnviroScreen Pollution Burden, Composite Mortality Index, Years of Potential Life Lost (set at 75) and Pre-term Births. The HPI scale has 4 levels with 4 as the most health burdened

area. Areas with levels 3 and 4 are considered the most health burdened areas for this performance measure.

Goal or Purpose:

For the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Discussion of results:

The results show that the EJ areas in the most health burdened sections of Fresno County contain over six times the number of miles of bicycle and pedestrian projects than the health burdened Non-EJ areas. This in part can be attributed to the State of California favoring grant applications for bicycle and pedestrian projects in extremely disadvantaged communities. The results of this performance measure demonstrate that the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Targeted Active Transportation Project miles	EJ & HPI >= 3	Non-EJ & HPI >= 3
Project length (miles)	147.8	21.4

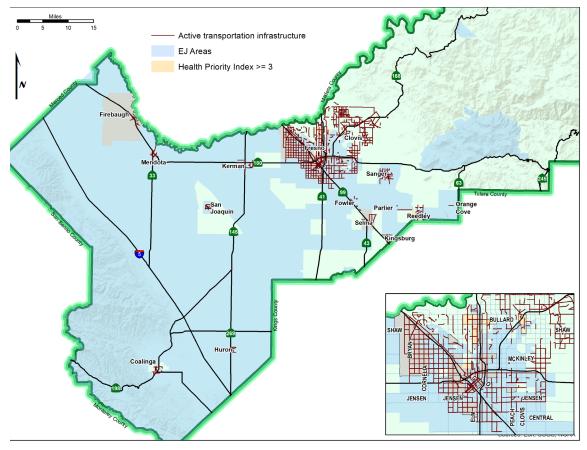


FIGURE 7-7: HEALTH PRIORITY INDEX AREAS ≥3 / ACTIVE **TRANSPORTATION** PROJECTS / **ENVIRONMENTAL JUSTICE TAZS**

Quality of Life Performance Measures

Housing Mix

Description:

This indicator calculates and compares the number & type of housing units in both the EJ and non-EJ areas.

Methodology:

This indicator demonstrates future year new housing estimates based on the proposed land use designation from the General Plans of all 15 cities and the County along with the Land Use Strategies within the preferred 2022 RTP/SCS scenario.

Goal or Purpose:

No unaddressed disproportionately high adverse effects for Environmental Justice communities.

Discussion of results:

Overall, the EJ areas are expected to have a higher housing growth rate compared to Non-EJ areas. The State sets ambitious policies and goals to reduce vehicle miles traveled (VMT) and greenhouse gases (GHG) and directs future housing development towards urban areas where residents are closer to jobs and services. Such urban areas in Fresno region are mostly located within the EJ areas. The City of Fresno General Plan calls for 50% of

the city's new development through 2035 in infill development areas. Much of this new development is planned in and around Downtown, the neighborhoods immediately surrounding Downtown, and along the bus rapid transit corridors running north and east from the Downtown area. All these infill development areas are in EJ areas. Furthermore, state housing legislation requires that through the Regional Housing Need Allocation (RHNA) process the region will increase the housing supply and mix of housing types in an equitable manner across the region and address disparities in housing need and access to opportunity and replace segregated living patterns. RHNA, which looks at the first 8 years of the RTP planning timeframe, seeks to provide a more equitable distribution of housing types and affordability across the region. The 2022 RTP provides a general direction that is consistent with the State's housing policies. As shown in the above table multifamily housing development is increasing in the Non-EJ areas at a higher rate than in the EJ areas. The rate of single-family housing development is projected to grow faster in the EJ areas than the non-EJ areas.

Housing Mix	2019		2046			wth between -2046
	EJ	Non-EJ	EJ	Non-EJ	EJ	Non-EJ
Single Family	121,636	113,579	143,579	126,401	18%	11%
Multifamily	63,083	21,794	84,074	30,183	33%	38%
Total	184,719	135,373	227,653	156,584	23%	16%



Pollution Exposure

Description:

Traffic-related air pollution is a main contributor to unhealthy ambient air quality, particularly in urban areas with high traffic volume. Studies suggest that health risks are associated with locating housing near freeways as populations in areas surrounding freeways may have an increased risk of asthma, non-asthma respiratory symptoms, impaired lung function, and cardiovascular mortality. The Center for Disease Control (CDC) states that traffic emissions are highest at the point of release and typically diminish to near background levels within 150 to 300 meters of the roadway; however, the potential exposure zone around roads can vary considerably depending on the pollutant, traffic volume, ambient pollution concentrations, weather, topography, and land use. In terms of traffic density, adverse health effects associated with residential proximity to roads with average daily traffic volume (ADT) as low as 10,000 vehicles per day. In contrast, the California Air Resource Board (ARB) published in 2005 the Air Quality And Land Use Handbook: A Community Health Perspective which recommends siting new sensitive land uses such as residence and schools at a distance of greater than 500 feet of a freeway or from with urban roads of 100,000 ADT, or rural roads with 50,000 ADT. However, there are very few roads in Fresno County that meet the ARB threshold of urban roads with 100,000 ADT, or rural roads with 50,000 ADT. Therefore, Fresno COG has adopted and slightly modified the CDC's methodology for measuring Air Contaminant Exposure to better reflect the traffic in the county. The CDC used roadways with a functional classification of 1 & 2. Fresno COG used roadways with a functional classification of 1, 2 and 3. The EJ Subcommittee requested that other large facility polluters and Superfund/brownfield sites be included with roadways in this performance measure. Therefore, this indicator will measure the percentage of Housing Units within 500 Feet of a major polluter as defined below.

Methodology:

Major polluters were defined as:

- Road functional classifications 1-3, which includes Interstates, freeways or expressways and principal arterials (CDC used Road functional classifications 1-2)
- large facility polluters, as defined by California Air Resources Board Pollution Mapping Tool
- EPA superfund & brownfield sites

These roadways and sites were mapped and distance to current and future housing stock was determined.

Goal or Purpose: For the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Discussion of results: There is now and plans that show that in the future there will be a slightly higher percentage of new housing units built within 500' of a major polluter in the EJ areas compared to the Non-EJ areas. This is partially due to the State of California's policies and goals to reduce sprawl, greenhouse gas emissions and vehicle miles traveled by encouraging and incentivizing more housing closer to major transit lines, downtown, and urban core areas where many EJ communities are located and there are more major roadways. However, projections show the share of electric vehicles on Fresno County roads rising steadily. Additionally, executive order N-79-20 by California Governor Gavin Newsom, not only mandates that all new passenger car and truck sales in the state will have to be electric by 2035, but it also directs state agencies to develop strategies to improve air quality in other ways. As a result, emissions will steadily decrease. This will take away much of the pollution burden within 500' of roadways. The results of this performance measure demonstrate that the Environmental Justice communities obtain an equitable share of the benefits without receiving disproportionately high and adverse effects.

Percentage of Housing Units within 500 Feet of a Major Polluter					
20	19	20	46		
EJ	Non-EJ	EJ	Non-EJ		
8%	6%	9%	6%		

Road FC 1-3 Industrial facilities Cleanup sites EJ Areas

FIGURE 7-8: MAJOR POLLUTERS/ ENVIRONMENTAL JUSTICE TAZS

Conclusions

This Environmental Justice & Equity Analysis is a tool to help determine proposed 2022 RTP/SCS projects' equitable distribution of benefits and burdens, as well as their overall cost/benefit to our inhabitants, especially those living in disadvantaged neighborhoods. The performance indicators demonstrate that in terms of overall equity, the 2022 RTP/SCS projects appear to distribute benefits and impacts equitably between the EJ and non-EJ areas of Fresno County. Overall, the proposed projects will generally improve conditions for the EJ communities in most performance areas.

Although this Environmental Justice & Equity Analysis focuses on racial minorities and low-income populations, Fresno COG is also very involved with programs for elderly and disabled populations. Some of these programs include the Senior Taxi Scrip program, FTA Section 5310 grants (Transportation for Elderly Persons and Persons with Disabilities) and consulting the Social Services Transportation Advisory Council (SSTAC). The SSTAC serves as a Fresno COG advisory body regarding transit-dependent and transit-disadvantaged population needs, including the elderly, handicapped, and persons of limited means.

Based on the results of the Environmental Justice & Equity Analysis, Fresno COG can conclude that EJ communities are not disproportionately burdened by high and adverse effects and do share equitably in the benefits from the 2022 RTP/ SCS.