

Chapter 4

Benefits of the Plan

4 Benefits of the Plan

Fostering economic vitality



How We Can All Benefit

Making our transportation system more efficient will help generate tens of thousands of jobs, billions of dollars in economic output, and ultimately create economic opportunity for people across the financial spectrum. In other words, a healthy transportation system makes a robust regional economy possible.

San Diego Forward: The 2019 Federal Regional Transportation Plan (2019 Federal RTP) does more than just outline a construction effort to build transportation choices. It makes connections that will fuel the continued success of the economy: it connects businesses with customers, future employees with education and training, suppliers and manufacturers with retailers and services industries. The more freely these connections flow, the more economic benefits will be realized.

When we think about our region's economic health, it's important to recognize that the transportation system:

- **Moves goods and services** through our binational megaregion.
- **Provides access and connects people and neighborhoods** of all income levels to jobs, education, recreational opportunities, and key destinations throughout the region.
- **Promotes health** through a variety of transportation choices that encourage active living.
- **Creates jobs** by efficiently connecting workers with jobs through construction and operation of the transportation network.

While the 2019 Federal RTP helps drive economic growth, it also will achieve environmental sustainability by guiding the region toward more choices for mobility, smarter growth, protected open spaces, healthier communities with more active people and less air pollution, more efficient water use, and reduced greenhouse gas emissions – benefits we've talked about in previous chapters.

A healthy transportation system makes a robust regional economy possible.



Planning for Economic Prosperity

With long-range planning, our region can capitalize on, improve upon, and protect the qualities that make it a great place to live and drive a successful local economy. These qualities include an educated workforce, energetic centers of employment, a spectacular natural environment, proximity to the international border, and an abundance of recreational activities – to name just a few of our best attributes.

Smart growth, as we’ve discussed, can help us retain many of these attributes and make them better. Many American metropolitan areas are being reinvigorated with mixed-use, “walkable” developments that are served by a variety of transportation choices, including more frequent and farther-reaching networks of public transit. These developments are especially attractive to younger people entering the workforce.¹ They also serve the needs of an increasing number of older individuals in our region who have varied transportation needs and may rely on transit and/or specialized transportation services.

Our Circulatory System

The transportation system acts as an economic circulatory system, allowing businesses to access raw materials, ship finished goods, and reach customers. To function at its best, it must efficiently connect workers with jobs, future employees with education and training, and industries with one another, as well as with points outside San Diego County. The region's current transportation network relies on an efficient network of freeways and arterials, multiple airports, a seaport, expanding bike routes and other options for active transportation, a growing transit system, and fast-developing shared mobility services. With the population and job growth projected in our future, keeping this system running well and adding layers of transportation choices in an environmentally-conscious way will be critical to our region's economic future. Put simply, an efficient and healthy transportation system *reduces costs* for businesses and people, and it does this sustainably.

A high-quality transportation system that serves a growing region not only fuels its economy, it also determines *how* that economy grows. The price of housing and where it's situated, how much tax revenue municipalities take in to serve the region, and where businesses decide to locate all are influenced by the quality of local and regional transportation. Meanwhile, development patterns impact the kinds of transportation options we have. And those transportation options, in turn, influence our access to jobs and residential areas, our traffic congestion and commute times, the state of our natural environment, how healthy we are, and how and where business develops.

Connecting with Public Investments

We know that the physical "clustering" of similar types of businesses can stimulate the growth of an industry, innovation, and entrepreneurship.^{2, 3} The biotech and brewing industries in San Diego are great examples. Retail, manufacturing, shipping, and construction businesses need transportation infrastructure and particular patterns of land use to thrive. Businesses depend on roadways, rails, and ports, but they also depend on sidewalks and parks to attract customers and employees. Supporting emerging technologies, such as wireless communications that help maximize the efficiency of transit and highways, helps stimulate an area's business climate as well. The economics of public investments must be properly considered in order for policy-makers to make effective decisions that help promote the growth of industries and entrepreneurial areas vital to the region.

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Promoting Both Economic Vitality and Equity: The Big Picture

Improving our economy is critical for everyone. Our goal is a balance between economic sectors - characterized by many different types of industries, a healthy middle class, a strong labor force, and high paying jobs. San Diego is blessed with a diverse economy, with no sector representing more than 16 percent of employment in the region, and nearly two-thirds of that employment is in sectors that have proven resistant to recession. However, the San Diego region today has an “hourglass economy” – with many high-paying jobs and many low-paying jobs, and relatively few in between. This phenomenon of a shrinking middle class has been seen nationwide and it presents serious challenges.

One alarming trend is that the percentage of people in poverty in the San Diego region has grown, from roughly 11 percent in 2007 to more than 13 percent in 2017. This comes partly as a severe housing shortage has driven up the cost of houses and apartments to peak levels, and burdens lower-income families. It’s clear that not everyone shares in the region’s growing economic prosperity.

Poverty, housing insecurity, and persistent inequality undermine our regional economy. Joblessness is at near-record lows, but wage growth has not kept pace. Higher home prices relative to lower wages results in less potential for taxable retail sales growth and sales tax revenues. For our region’s economy to truly thrive, everyone must have the opportunity to prosper.

The Need for Widespread Access to Quality Transportation

One of the biggest challenges for low-income communities, and one that can prolong poverty, is limited access to transportation. Low-income individuals in areas without adequate public transit often have to spend disproportionate amounts of time and money to access education, jobs, and recreation. These practical, transportation-related barriers make it difficult for people in poverty to access education and training, cutting into our region’s potential for producing skilled workers. Improving transportation options for low-income neighborhoods can help people lift themselves up the economic ladder. Widespread access to quality transportation is equally important to employers, who need to draw from a broad pool of potential employees of varying skill levels.

It’s difficult to overstate the importance of transportation options for people who are economically disadvantaged. Without access to transportation, it’s extremely difficult for poor people to improve their economic prospects. For many low-income individuals, the costs of owning and operating a car are prohibitive. As a result, investing in more transportation options regionally can increase economic opportunities for people who most need it.



Our 2019 Federal RTP will make transportation investments in low-income communities, increasing access to high-frequency public transit by 23 percent^{4, 5}.

One key to better connecting low-income communities with the rest of the economy will be the changing land-use patterns reflected in the 2019 Federal RTP. Many low-income communities in the region are close to city centers. And like other metropolitan areas around the country, the San Diego region has seen a resurgence of development in downtown areas and in surrounding neighborhoods. It's a trend that our 2019 Federal RTP supports with investments in public transit projects and incentives for smart growth, biking and walking, and other projects that will encourage people to travel without a car.

Achieving Social Equity

Social equity and environmental justice aren't just obscure academic terms. They are embedded in the cherished right to equal opportunity that we value so much as Americans. By making investments in lower-income and minority communities, the 2019 Federal RTP gives everyone an opportunity to participate in the economy, which benefits all our communities. In transportation planning, striving for social equity and environmental justice requires involving a wide variety of communities and stakeholders so all people can help shape their futures. We should all have the opportunity to participate in planning the future of our region. For most of us, it's difficult to get involved in regional planning due to our busy lives. For some of us, it is particularly hard because of additional barriers to involvement that include language, not understanding our rights, a lack of familiarity with the planning process, and in some cases a fear of getting involved. Communities with high concentrations of low-income individuals and minorities, as well as members of federally recognized tribes, are often underrepresented in the planning process so SANDAG carries out extensive outreach to ensure that these groups have a meaningful voice in the regional planning process.⁶

Defining Social Equity:

SANDAG uses the term **social equity** as shorthand for an overarching goal that combines the concept of environmental justice, the federal laws in Title VI, the Americans With Disabilities Act, and National Environmental Policy Act, and various other federal and state laws intended to promote an equitable distribution of benefits and burdens from SANDAG projects and programs.

As SANDAG developed the 2019 Federal RTP, we partnered with a network of Community-Based Organizations (CBOs) from a wide range of disadvantaged communities from all across the region. Right from the beginning, these organizations helped to ensure that the needs and issues of their communities were heard and considered in a timely manner throughout each step of the planning process. They also helped to shape how we measured whether the 2019 Federal RTP improves people’s access to transportation choices equitably.⁷ Access to key amenities is critical for everyone. We need to be able to count on the transportation system to get us to our jobs or to school or to the doctor, as well as to the store, or the park, regardless of our income or background. In addition, through our government-to-government relationship, SANDAG and the tribal nations in the region worked together throughout the planning process to make sure that tribal needs and concerns were heard and considered.⁸ The San Diego Regional Tribal Summit, held in April 2018, allowed tribal nations and the SANDAG Board of Directors to develop coordinated strategies to pursue.



San Diego Forward: For An Equitable Future

Working with CBOs, SANDAG identified specific populations that would need special attention in the planning process. These included minorities, people with low income (200 percent of the Federal Poverty Rate), and seniors who are 75 years and older. We performed a social equity analysis using several performance measures to determine how the 2019 Federal RTP would benefit or burden disadvantaged populations in comparison to the rest of the region. The key is that no one group or population should get the short end of the stick; the benefits and the burdens of the 2019 Federal RTP should be equitably distributed.

While conducting its social equity analysis for minority, low-income, and senior populations,⁹ SANDAG used a threshold of significance of 20 percentage points. The analysis indicates, however, that implementation of the 2019 Federal RTP will not cause any disproportionate effects or disparate impacts for the low-income, minority, or senior populations in our region.¹⁰ Here are some key findings from our social equity analysis:

- In 2016, 41 percent of low-income people in our region had access to high-frequency transit; in 2050, with the 2019 Federal RTP's projects in place, 64 percent will have access. When compared to groups who are not low-income, the low-income populations will benefit equally in their access to high-frequency transit.
- Access to bike facilities improves for everyone substantially, and equitably. In 2016, 63 percent of minorities had access to those facilities, but with the 2019 Federal RTP, 70 percent will be within a quarter of a mile from a bike facility by 2050.
- Overall, disadvantaged populations will share proportionately in having better access to more transportation options.
- No population group will experience heavier burdens of toxic air emissions than any other group as a result of the 2019 Federal RTP.

Recognizing the Value of Tribal Nations in the Region

Our region is enriched by the presence of 18 tribal nations. The tribal members of today's bands represent four Indian cultural/linguistic groups (the Luiseño, the Cahuilla, the Cupeño, and the Kumeyaay), who have populated this entire region for more than 10,000 years, taking advantage of its abundant natural resources and diverse ecological system for their livelihoods. Today these nations support the regional economy through their economic activities such as gaming, energy production and hospitality.

Defining Environmental

Justice: Environmental justice is defined as the **fair treatment** and **meaningful involvement** of all people regardless of race, color, national origin, or income. **Fair treatment** means no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies.

Meaningful involvement

means a) potentially affected community members have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; b) the public's contribution can influence the regulatory agency's decision; c) the concerns of all participants involved will be considered in the decision-making process; and d) the decision makers seek out and facilitate the involvement of those potentially affected.

Gaming is a traditional social activity among many tribal nations; San Diego County now has ten tribal gaming facilities, which is the greatest number of Indian gaming facilities in any county in the United States. Gaming-related and other types of development have led to rapid economic growth for a number of tribes, while also providing jobs and stimulating the regional economy. In the San Diego region, statistics show that the Indian gaming industry as a whole has created more than 10,000 jobs in the region, resulting in a \$1 billion industry with about \$263 million in goods and services purchased annually and \$500 million in payroll. It should be noted, however, that the median income among the Native American population remains below the national average, and some gaming enterprises have been much more successful than others.¹¹

For more than fifteen years, SANDAG and the Southern California Tribal Chairmen's Association (SCTCA) have had a government-to-government framework to engage in planning dialogue and action at the regional level. Collaboration with our tribal counterparts has focused on transportation, cultural resources, conservation, energy and economic development. In 2018 SCTCA and SANDAG collaborated on the development of an Intraregional Tribal Transportation Strategy to assess the multimodal needs of the tribes in a regional context (see Appendix U3).

Realizing the Benefits of Living on An International Border

The San Diego region and northern Baja California are linked socially and economically. Think about the amount of goods and the number of people flowing everyday across our borders. The ports of entry along the border, as we discussed in Chapter 2, are among the busiest in the world. The San Diego region imports over 85 percent of its energy and about 75 percent of its water each year, and it shares delivery systems for these resources with Mexico.¹² Consequently, roadways, ports of entry, energy transmission lines, and water delivery systems are all issues of common concern for the San Diego region and our neighbors to the south. Collaboration with our Mexican counterparts has focused on transportation and housing, energy and water supply, the environment, and economic development. More recently collaborative efforts also have included active transportation, public health, and climate change (see Appendix U14).



Our region's economy is binational in character, especially when considering the industry clusters that thrive here. Our geographic location means there is some reliance on Mexico's large labor force. The economy of Tijuana and the greater Baja California region have benefited from employment opportunities across the border in the San Diego region, and our region has benefited from employment opportunities in Baja California. Mexico has taken several steps to bolster economic development along its northern border, such as recent cuts in value-added and income taxes for northern border municipalities, and the earlier creation of the maquiladora program. The maquiladora industry is a big source of employment opportunities in Baja California and in the San Diego region; you only have to look at the large number of transnational corporations with sister facilities north of the border.

Employment in the maquiladora industry in Baja California doubled between 1991 and 2004. In Tijuana, employment in the sector reached its peak in 2008, with more than 200,000 people employed. There are now about 195,000 people employed by 590 maquiladora companies in Tijuana. That number represents 11.5 percent of Mexico's total number of manufacturing plants in 2018.¹³

By taking advantage of research and development hubs in San Diego, and advanced manufacturing capabilities in Baja California, goods are jointly produced in the United States and Mexico. They often cross the border many times before becoming finished products. This phenomenon of joint production is illustrated by the fact that Mexican exports to the United States contain 40 percent U.S. content, which greatly exceeds the U.S. value-added of any other foreign imports.¹⁴ This manufacturing interdependence has huge implications for the local, regional, and national economy, given the enormous scale of U.S.-Mexico trade.

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Bilateral Trade

The ports of entry between the United States and Mexico in our region are the main conduits for our economic relationship. The massive number of people and goods that cross the international border, and the intense economic activity at the border, are testaments to the close economic ties between the San Diego region and Baja California. In 2018, the dollar value of bilateral trade that passed through the ports of entry connecting San Diego County and Baja California was more than \$47.6 billion.

In addition to trade, crossborder tourism, commerce, and commuting also are important players in the regional economy. Similarly, tourism in Baja California is a key source of revenue for that region, and anecdotal evidence suggests that northern Baja California is making up for a shortfall in affordable housing in San Diego. These trends mean that people who live on one side of the border but work on the other are subject to significant commuting delays at the ports of entry every day – damaging both economies and highlighting an important transportation-related problem that is addressed in this 2019 Federal RTP through the development of the State Route 11 project and new Otay Mesa East Port of Entry (POE). State Route 11, much of which has already been constructed, will connect the future POE with the rest of the region’s freeway system via State Route 905 and the South Bay Expressway. It will offer an alternative to the highly congested border crossings at Otay Mesa and San Ysidro, benefitting the regional economy and the environment by reducing border-crossing wait times.



Megaregions

Residents of San Diego County live in two overlapping megaregions – interdependent groups of metropolitan areas in a single geographic area bound by interdependent relationships on several levels: environmental, economic, shared border infrastructure, a linked transportation system, related land use policies, history, and culture. Our binational community, like other megaregions around the world, has an opportunity to leverage its crossborder economic relationships to become more globally competitive.

The San Diego region actually is considered part of two megaregions – the greater California megaregion and the greater binational megaregion. The greater California megaregion includes five important metropolitan areas in terms of freight movement (Los Angeles/Long Beach, Sacramento, San Diego, San Francisco/San Jose, and Las Vegas, Nevada). The four metropolitan centers in California are located on or nearby the Interstate 5 (I-5) corridor.¹⁵

Our binational megaregion is part of the “Cali Baja Binational Megaregion Initiative,” which promotes the entire border region between California and Baja California, Mexico as a globally unique, binational location for business investments.¹⁶ The San Diego-Northern Baja California region is becoming an increasingly important, interdependent trade and commuting corridor with a distinct global competitive advantage. It’s important for us to do all we can to understand the diverse landscapes, politics, economics, languages, and cultures of our geographic international neighbor as we plan for this unique and promising binational megaregion.

The Economic Analysis of our Regional Transportation Plan

To measure the potential impacts of our 2019 Federal RTP on the local economy, SANDAG conducted a benefit-cost analysis. The Benefit-Cost Analysis (BCA) uses the outputs of the SANDAG activity-based travel model to determine if the benefits measured in the model outweigh the costs. This analysis tells us things such as how much time and money drivers and transit riders will save, and how much safer, healthier, and cleaner our system becomes as the 2019 Federal RTP is implemented. We can then compare those monetized benefits to the cost of the Regional Plan to get a “benefit-cost (B-C) ratio.” The results indicate that the benefits of the 2019 Federal RTP, are somewhat less than the costs, with a B-C ratio of 0.61. But benefit-cost analysis cannot capture the entirety of the economic benefit from transportation improvements, as BCA captures only those metrics that can be modeled. The economic value of expanding access to jobs, education, and recreation for residents is not fully captured, nor is the economic value to businesses of expanded access to customers, suppliers, and employees. The economic development potential of an expanded system is not captured, as the land-use and economic forecast used is static. A B-C ratio below one suggests that these investments are not worth making, but that would be an oversimplification. The primary driver of these benefits is time savings, which represent 80 percent of the benefits, followed by reduced operating costs, and the rest of the benefits categories. Detailed results and methodology are available in Appendix P: Benefit Cost Analysis, which spells out the methods and results of the BCA in detail.

Taking Action

Developing our Regional Transportation Plan is one thing. Taking action is another. In the next and final chapter, we’ll discuss key actions we’ll take to implement the 2019 Federal RTP. We’ll also review how we’ll check our progress over time, to ensure that we realize our ambitious vision for the future.



Endnotes

- ¹ “How Smaller Cities Can Attract (And Keep) Millennials”; *Governing*, December 11, 2017; <https://www.governing.com/commentary/col-how-smaller-cities-attract-keep-millennials.html>
- ² “6 Rules For Better, More Inclusive Economic Development in Cities”; *Citylab*, February 26, 2019; <https://www.citylab.com/perspective/2019/02/amazon-hq2-new-york-incentives-economic-development-cities/583540/>
- ³ Harvard Business School Institute for Strategies and Competitiveness; <http://www.isc.hbs.edu/econ-clusters.htm>
- ⁴ See Appendix H: Social Equity: Engagement and Analysis for more information on the Social Equity Analysis.
- ⁵ See Appendix H, Figure H.6 on page 17.
- ⁶ Tribal consultation and Tribal transportation plans are included in Appendix G: Tribal Consultation Process for San Diego Forward: Communication, Cooperation, and Coordination. An overview of the Tribal Consultation plan is discussed in Appendix F: Public Involvement Program.
- ⁷ The SANDAG Public Involvement Program is included in Appendix F and specifics about the CBO Outreach Network are included in Appendix H.
- ⁸ The Tribal Consultation process is included in Appendix G.
- ⁹ Discussed further in Appendix H.
- ¹⁰ The complete social equity analysis is included in Appendix H.
- ¹¹ Santa Ysabel and La Posta both opened gaming facilities only to go bankrupt within a couple of years. La Jolla just opened a Casino Outpost in 2019.
- ¹² <https://www.sdcwa.org/annualreport/2018/diversification-conservation.php>
- ¹³ Mexico’s National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía (or INEGI, in Spanish), Programa de la Industria Manufacturera, Maquiladora y de Servicios de Exportación IMMEX. (retrieved May 2019)
- ¹⁴ Robert Koopman, William Powers, Zhi Wang and Shang-Jin Wei, “Give Credit Where Credit is Due: Tracing Value Added in Global Supply Chains,” National Bureau of Economic Research Working Paper No. 16426, Cambridge, Massachusetts: September 2010
- ¹⁵ Federal Highway Administration, Literature Review of Organizational Structures and Finance of Multi-jurisdictional Initiatives and the Implications for Megaregion Transportation Planning in the U.S., submitted by Georgia Tech Research Corporation, October 2011.
- ¹⁶ Calibaja Mega-Region Initiative <http://www.calibaja.net/cbdb/p/>, (accessed October 2014).