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Ten Years Forward: An Evaluation of California's Active Transportation Program

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Report 24-21

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16. Abstract California's Active Transportation Program (ATP) is a competitive, grant-based program that serves as a major funding stream for active transportation infrastructure in California. The program has six goals based on increasing nonmotorized transportation, safety, equity, sustainability, and health. Evaluation of the ATP's administrative and scoring processes is crucial to ensure goals are met as equitably and efficiently as possible. Additionally, establishing a methodology for evaluating the safety impacts of active transportation projects is critically important. Through a series of interviews and an extensive review of the documents and rubrics of the program, this report discusses how the Active Transportation Program prioritizes and funds active transportation projects. California's Active Transportation Program can serve as a model for other states, regions, and localities to follow. Building from this approach, the research team poses questions and considerations that could lead to program improvements, including increasing funding for the program, improving data collection, facilitating the funding of a larger number of smaller projects, and expanding long-term monitoring. After evaluating the program using qualitative methods, the research team quantitatively assessed the benefits of funded and completed projects. Variables in the proposed model included social equity, safety, urban form, active transport use, automobile dependence, existing facilities, street design, and land use.			
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Executive Summary

California's Active Transportation Program (ATP) was created by Senate Bill 99 and Assembly Bill 101 to consolidate multiple transportation funding programs into one. The ATP was the nation's first statewide program dedicated solely to funding active transportation projects and continues to be the largest public-sector program dedicated solely to active transportation projects. The ATP evolved as a strategic response to the increasing safety challenges faced by pedestrians and bicyclists, traffic congestion, environmental concerns, and public health issues. Originating in 2013, the program was a groundbreaking initiative aimed at promoting walking and cycling as viable modes of transportation throughout the state of California. California recognized the importance of creating sustainable and healthier alternatives to traditional vehicular travel, aligning with broader societal shifts toward environmentally conscious and active lifestyles.

The ATP has proven to be highly competitive and popular with jurisdictions throughout California. Initial funding was set at $123 million per grant cycle from both federal and state funds. Funding has increased, with an additional $100 million annually dedicated from Senate Bill 1, known as the Road Repair and Accountability Act. Even with additional funds, the program could not meet the demand for projects. In 2022, with a large budget surplus, the ATP's budget was augmented with a one-time 1.1 billion additional dollars, bringing last year's (2023) total budget to over $1.6 billion. Even with this large influx of funds, many projects remained unfunded.

The California Transportation Commission (CTC) scores applications from 0-100 in a statewide competition. Trends have shown that proposals must score extremely well to receive funding. California faces a budget deficit in the future that could reduce funding for the program, exacerbating the highly competitive nature of the program and leaving many more proposals unfunded.

With the ATP now in existence for more than a decade, it is appropriate to conduct a formative evaluation of the program. Given the substantial demand for funds and the possibility of funding reduction due to budgetary constraints, it is imperative to ensure the program operates with maximum efficiency and achieves its goals. Trends in funding allocation show that larger projects within larger metropolitan planning organizations (MPOs) tend to be selected. This warrants further analysis and possible program refinement to ensure smaller projects that can meet goals more cost-effectively are not being underfunded.

With this context in mind, this study analyzed the program's administrative and scoring process. This included the ATP's unique and innovative scoring scheme for identifying projects most likely to meet the relevant goals while allowing local jurisdictions to have a central role in identifying their respective goals and awarding applicants. The program has a unique three-tiered competition that allocates much autonomy to MPOs of 200,000 or more residents and smaller jurisdictions. Extensive interviews were conducted with program administrators at the CTC and program

applicants to gain more holistic insight into the program. Additionally, this study established a framework for assessing and prioritizing active transportation projects based on seven key parameters. The developed framework, along with the safety analysis, can serve as a model for future evaluations concerning the effectiveness and prioritization of active transportation projects not only in California but anywhere in the country such projects are implemented. Context-sensitive issues such as roadway design, and other factors such as fiscal constraints may require a different framework which considers localized issues and needs.

Introduction

Active transportation has been associated with a range of benefits, such as improved public health outcomes, reduction of greenhouse gas (GHG) emissions, and reduced automobile dependency, leading to less traffic (Barajas et al., 2022). Decreasing vehicle usage through increased walking, cycling, and other non-motorized travel is crucial for meeting California's ambitious climate action goals—including reducing GHG emissions by 40% below 1990 Levels by 2030 (California Air Resources Board, 2022). According to the California Air Resources Board (CARB) inventory report on GHG emissions, the transportation sector remains the largest source of emissions—representing 37% of total statewide emissions (CTC, 2022). While many factors influence emissions—such as fuel policies, vehicle fuel efficiency, and the increase of electric vehicles—increasing non-motorized travel through active transportation can play a pivotal role in reducing automobile dependence and meeting emissions targets (CARB, 2022). However, despite the wide-ranging benefits, rates of active transportation remain low (McDonald & Aalborg, 2009; Pike & Handy, 2021). For example, in 2017, less than two percent of Californians biked to work, and less than three percent walked to work (Pike & Handy, 2021). Many cite safety concerns as a reason for their preference for automotive travel (Soto et al., 2022; Omura et al., 2019; Chaufan et al., 2012; & Appleyard, 2003).

Vehicle emissions negatively impact public health—most notably in neighborhoods with higher traffic—which tend to be disadvantaged communities (DACs) that have been subject to environmental racism and a disproportionate burden from environmental exposures (Commodore et al., 2021). Studies show that whiter, more affluent households drive longer distances and for leisure at higher rates (thus producing higher carbon emissions) compared to lower-income and minoritized communities (Lu, 2023; Adua, 2022). DACs are exposed to higher levels of air pollutants despite producing fewer vehicle emissions.

Pedestrians traveling near busy car thoroughfares and highways are at higher risk for vehicle injuries and health impacts associated with air pollutants such as asthma (Giongco & Janssen, 2023; Commodore et al., 2021). Improving access to walking and cycling can reduce the need for vehicle usage, and thus reduce emissions in areas with heavy traffic. Improving active transportation infrastructure in historically disadvantaged communities that face the brunt of racial planning, such as highway construction and more congested streets, is an important step toward reparative planning practices that seek to repair the legacy of past racist planning practices (Williams, 2020).

Transportation infrastructure impacts safety, physical activity, place connection, and access to jobs and social networks (Dill & Howe, 2017). A study analyzing the long-range transportation plans and active transportation plans of various state departments of transportation (DOTs) and metropolitan planning organizations (MPOs) acknowledged the need to institutionalize equitable planning in the transportation sector of California (Caltrans, 2021). Active transportation

planning rooted in equity can help to foster more vibrant, safer, and healthier communities throughout the state.

Public health outcomes have been shown to improve with increased active transportation—even when accounting for the possibility of increased injury and mortality from vehicular collisions or increased exposure to particulate matter (Magrinyà et al., 2023). Proximity to public transportation also increases active transportation, as public transit involves active modes of transport to and from the transit node (Mueller et al., 2015). Increasing street connectivity has also been shown to increase walking and cycling (Dill, 2004). Research suggests that individuals who engage in physical activity through active transportation enjoy improved determinants of health (Dill & Howe, 2017).

Active transportation has the potential to increase personal well-being through several factors including increased sensory satisfaction. According to a study by Wild and Woodward (2020, p. 4) "…cyclists come to inhabit a unique sensory profile, characterized by high levels of 'multi-sensory' activation, arising simultaneously from both inside and outside the body: combining internal sensations of muscular effort with sensory input from the landscape." Active transportation also leads to stronger place connections, a potential increase in social interactions, and improved cognitive function from moderate exercise (Wild & Woodward, 2020). Efficient, easily accessible active transportation also has cost-saving potential—including fuel costs, vehicle maintenance and fees, and parking fees. This has implications for increasing equity in lower-income communities typically lacking active transportation infrastructure (Dill & Howe, 2017).

Auto-centric infrastructure has come to be the dominating force in transportation planning. Finding ways to increase non-motorized travel can help improve public health and meet climate action goals, as automobile exhaust continues to be a leading source of GHG emissions (CTC 2021, 2023). Additionally, establishing infrastructure for non-motorized travel improves safety for pedestrians and cyclists. Ensuring active commuter safety is another critical issue. Pedestrian fatalities have increased in recent years, reaching levels not seen since the 1980s (Governors Highway Safety Association, 2023). California created the Active Transportation Program (ATP) in 2013 to streamline many programs into one funding source for active transportation infrastructure (CTC, 2023). The California Transportation Commission (CTC) and Caltrans administer this program. The program serves as the state's only funding stream dedicated solely to active transportation infrastructure—providing a source of funds for communities that wish to increase active transportation (CTC, 2023).

The California State Senate seeks to ensure the Active Transportation Program allocates resources as cost-effectively as possible. This study was tasked with evaluating the program's administrative and scoring procedures to identify ways the program can more efficiently allocate resources. Additionally, gaps in data and other program needs were identified to help guide legislative staff in ensuring the ATP continues to be at the forefront of funding active transportation projects

throughout the state. This report (1) conducts an overview of the program, (2) identifies a framework, and (3) conducts a before and after study that can serve as a model for evaluating and prioritizing future projects. Lastly, aspects of the program that warrant further examination are examined in this report.

1. Evaluation of California's Active Transportation Program

1.1 Methods

Following Tomaszewski et al. (2020) and Barbour et al. (2012), we applied qualitative methods of reviewing documents and interviewing staff to evaluate California's ATP. A detailed review was conducted of the program's scoring rubrics along with program guidelines and other relevant publications from the CTC, the California Department of Transportation, Caltrans, and MPOs such as the San Diego Association of Governments (SANDAG), which have their own scoring system for project selection.

Through this review process, a state-of-the-practice memo was created to outline the program's structure and provide questions for further consideration, along with recommendations. This memo was then shared through an iterative process with CTC staff and the California State Legislature for further refinement and feedback. The main objectives of this memo were to evaluate the trends of the program and create literature that can serve as a comprehensive model of the program for interested parties.

Multiple interviews were conducted with CTC staff, the California State Legislature, and program applicants that provided valuable insight into the program's processes, emerging trends, restraints, and further considerations. Active transportation literature was also synthesized for this study, with a focus on the benefits of active transportation and changes in active modes of travel with increased infrastructure. Literature that examined non-motorized commuter safety, place typology, cost-benefit analysis, and other pertinent topics was also reviewed.

1.2 Overview of the Program

1.2.1 History of the Active Transportation Program

California's Active Transportation Program is the state's major funding source for active transportation infrastructure to increase walking and bicycling. The program was created in 2013 by Senate Bill 99 and Senate Bill 101 to provide funding for projects that increase active modes of transportation—especially to and from school and historically within disadvantaged communities (CTC, 2023). The ATP consolidated various transportation programs into one to streamline the process of applying for funds for active transportation projects—making it easier for jurisdictions to identify and obtain funding for these projects (CTC, 2023). The program has proven to be extremely popular and oversubscribed, as applications have outpaced funding year after year (CTC, 2023).

1.2.2 Goals of the Program

The ATP is a competitive, grant-based program that uses a tiered scoring system to select active transportation projects and programs most likely to meet the program's goals. The primary goal of the ATP is to increase active transportation, with other goals aimed at increasing safety and sustainability, and providing a diverse array of active transportation infrastructure throughout California.

According to the CTC Guidelines (2022), the six goals of the program are:

1. Increase the proportion of trips accomplished by biking and walking.
2. Increase the safety and mobility of non-motorized users.
3. Advance the active transportation efforts of regional agencies to achieve greenhouse gas reduction.
4. Enhance public health, including reduction of childhood obesity through the use of programs including (but not limited to) projects eligible for Safe Routes to School Program funding.
5. Ensure that disadvantaged communities fully share in the benefits of the program.
6. Provide a broad spectrum of projects to benefit many types of active transportation users.

1.3 Program Administration

The CTC and Caltrans jointly administer the ATP. The CTC is responsible for program administration, and as such, was the agency this report focused on. California's Active Transportation Program has funded more than $3 billion in projects since its creation in 2013 (CTC Engagement Summary, 2022). It has funded over 1,000 projects since its inception—including over 400 Safe Routes to Schools projects that improve health outcomes and safety for California students (CTC Guidelines, 2022). While annual funding has increased over time, the program routinely has more applicants than available funding. For example, in the 2023 funding cycle, the program received over $3 billion in funding requests and had $1.7 billion in available funding (CTC Guidelines, 2022). In addition, individual project size and cost have increased exponentially cycle after cycle (Link-Oberstar, 2019), leading to concern that many well-qualified projects that could help meet safety and sustainability goals are not being funded.

As the program has now been in place for a decade, trends in funding allocation and analysis into the program's scoring and administrative procedures can provide insight into project effectiveness to shape similar programs in other states and ensure the program is effectively meeting its own

goals. In addition, a robust analysis of what makes a cost-effective active transportation improvement (which may vary depending on context and desired objectives) could be used by other state and local transportation entities to evaluate potential project benefits beyond just projects in the state's ATP program.

1.4 Eligible Projects

To be eligible for funding, projects must meet one or more of the program goals, and be from the following entities (CTC Guidelines, 2022):

- Local, regional, or state agencies
- Caltrans
- Transit agencies
- Natural resources or public lands agencies
- Public schools or school districts
- Private non-profit tax-exempt organizations
- Any other entity with responsibility for oversight of transportation or recreational trails that the Commission determines to be eligible.

According to the CTC guidelines (2022), eligible projects must meet one or more program goals and be of the following types:

- Infrastructure projects
- Plans
- Non-infrastructure projects
- Infrastructure projects with non-infrastructure components
- Quick-Build Project Phase II (pilot program)

The CTC encourages applications with transformative benefits for a community or region and seeks to fund at least one large infrastructure project with transformative potential in each funding cycle (CTC Guidelines, 2022). Infrastructure projects have a minimum $250,000 requirement to encourage applicants to combine smaller projects into one larger project with more transformative potential (CTC Guidelines, 2022). This funding requirement does not apply to non-infrastructure

projects, Safe Routes to School projects, Recreational Trail projects, plans, and Quick-Build Pilot projects (CTC Guidelines, 2022).

1.5 Tiered Scoring System

The ATP uses a tiered sequential system to award grants (CTC Guidelines, 2022). All submitted project proposals are first evaluated through a statewide competition. Proposed projects that are not selected in the statewide competition are then evaluated through their respective jurisdictions—Metropolitan Planning Organizations (MPOs) with populations over 200,000 or smaller urban and rural (SUR) jurisdictions (CTC Guidelines, 2022). Several MPOs allow their review panels to rescore applications based on different criteria and weighting that reflect regional priorities, while others use the same scoring criteria as the CTC's statewide competition (CTC Guidelines, 2022). For example, San Diego's metropolitan planning agency (SANDAG) places a higher emphasis on project connectivity for projects that will add to the region's existing bicycle network (SANDAG, 2023). Tailoring scoring criteria to an MPO's specific regional needs ensures ATP funding addresses local needs, priorities, and strategic goals such as connectivity, equity, and sustainability.

MPOs are able to select the projects that scored highest in their jurisdictions but did not win the statewide competition, or they can adjust the scoring criteria to be more in line with their specific goals and regional focus. The ability to tailor scoring gives MPOs and SURs greater autonomy in their selection process and the ability to promote their regionally specific goals (Link-Oberstar, 2019).

1.6 Scoring Process

The Active Transportation Program's unique tiered scoring process first evaluates all applications through a statewide competition. The statewide competition utilizes a two-person review team of volunteers from various relevant backgrounds, including planners, engineers, nonprofit organization advocates and public health experts (Matz, 2018). Evaluators must complete training, and potential conflicts of interest must be identified. Evaluators are typically chosen from opposite parts of the state (i.e., one evaluator will be chosen from northern California, and the other will be chosen from southern California) and cannot evaluate projects that are in their own region.

The two-person teams are each assigned a number of projects, and score each one independently before coming together to give a consensus score for each project (Link-Oberstar, 2019). This score is then compared to scores given by commission staff members for each of the projects (Link-Oberstar, 2019). If scores vary substantially from the evaluator teams, they are asked to justify scores, and may choose to readjust after this process, though it is not mandatory. This process is designed to create checks and balances and reduce potential discrepancies in scoring.

Projects that are not selected in the statewide competition are then scored in their respective MPO or SUR. MPOs may choose to use the same scoring process and scores from the statewide competition and award the highest-scoring projects that did not get selected in the statewide competition (CTC Guidelines, 2022). Alternatively, MPOs may design their own criteria for scoring and allow applicants in their competition who did not submit to the statewide competition, with the CTC's approval (CTC Guidelines, 2022).

1.7 Funding Allocation

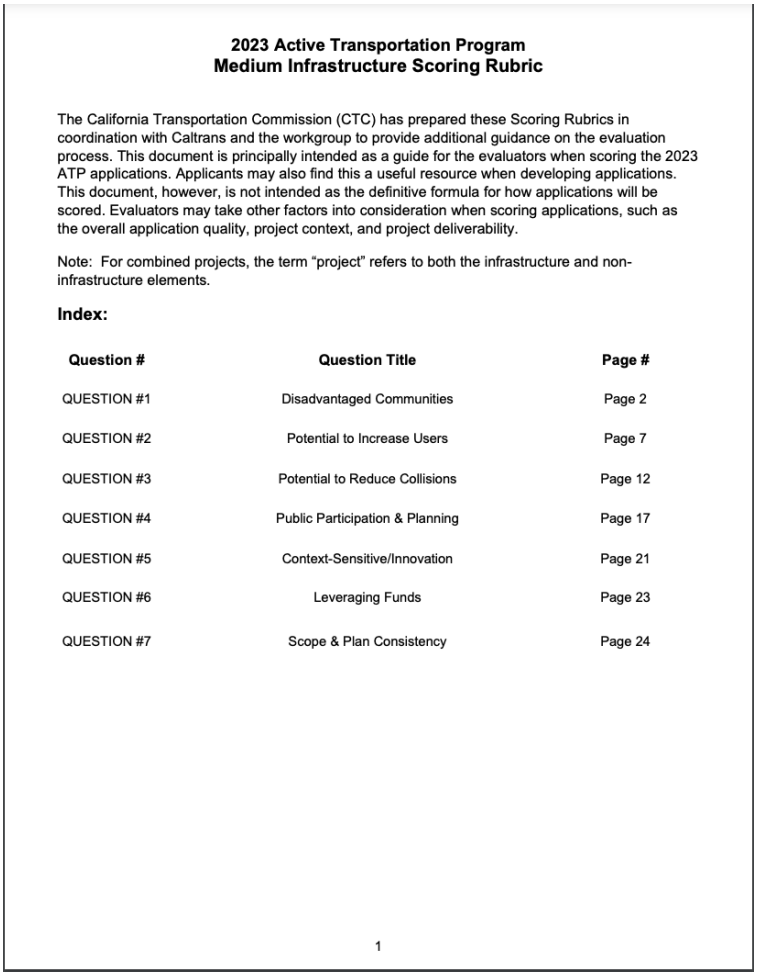
Fifty percent of total program funding is allocated to the statewide competition—the ten largest MPOs receive 40%, and the remaining ten percent is allocated to small urban and rural municipalities (CTC Guidelines, 2022). Starting with Cycle 4, the CTC decided to create five different applications to address longstanding concerns of small infrastructure projects being underrepresented (Matz, 2018).

1.8 Application & Scoring Rubric Criteria

The CTC utilizes five applications to score projects based on their estimated total cost. The applications are divided into small, medium, large, non-infrastructure, and plan development types. The infrastructure applications are divided by estimated project costs. Infrastructure applications must have a minimum funding proposal of $250,000, except Safe Routes to School Projects, Recreation Trail Projects, and Quick-Build Projects (CTC Guidelines, 2022). Additionally, applicants may include non-infrastructure components to infrastructure applications for a "combined" application (CTC Guidelines, 2022).

Applications vary based on the rubric for each project type. For example, applications under the "medium infrastructure" category include sections on project scope, impact on disadvantaged communities (DACs), demonstrated community need, public participation in the overall project, implementation plans, and plan development. Applicants must create a compelling narrative that illustrates the need for active transportation infrastructure development in their community, along with a project study report and maps of the proposed project (CTC, 2021).

Figure 1. First Page of the Scoring Rubric for Medium Infrastructure Projects



2023 Active Transportation Program
Medium Infrastructure Scoring Rubric

The California Transportation Commission (CTC) has prepared these Scoring Rubrics in coordination with Caltrans and the workgroup to provide additional guidance on the evaluation process. This document is principally intended as a guide for the evaluators when scoring the 2023 ATP applications. Applicants may also find this a useful resource when developing applications. This document, however, is not intended as the definitive formula for how applications will be scored. Evaluators may take other factors into consideration when scoring applications, such as the overall application quality, project context, and project deliverability.

Note: For combined projects, the term "project" refers to both the infrastructure and non-infrastructure elements.

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1

The ATP scores applications based on the application questions and project readiness. It is important to note that point weight differs in all five applications. All three infrastructure applications use a 100-point scale. However, since the small infrastructure application has fewer questions, its questions are weighed more heavily as compared to the medium and especially large applications. Table 1 illustrates point allocation. From Table 1, for "Need," smaller applications are issued a score of up to 52 points compared to up to 38 points for larger applications that include more scoring criteria.

Table 1. Score Distribution; ATP 2023 Guidelines

Scoring Topic	Large Inf. /I + NI	Medium Inf. /I + NI	Small Inf. /I + NI	Plan	Non-Infrastructure Only
Benefits to Disadvantaged Communities (DAC)	10	10	10	30	10
Need	38	40	52	20	40
Safety	20	25	25		10
Public Participation & Planning	10	10	10	25	15
Scope and Plan Layout Consistency and Cost Effectiveness	7				
Scope and Plan Layout Consistency		5	3		10
Context Sensitive & Innovation	5	5			5
Transformative Projects	5				
Evaluation and Sustainability					10
Leveraging	5	5			
Implementation & Plan Development				25	
Corps	(0 or -5)	(0 or -5)	(0 or -5)		(0 or -5)
Past Performance	0 to -10	0 to -10	0 to -10	0 to -10	0 to -10
Total	100	100	100	100	100

Source: Caltrans. Active Transportation Program Guidelines 2023. https://catc.ca.gov/-/media/ctc-media/documents/programs/atp/2022/adopted-2023-active-transportation-program-guidelines-a11y.pdf

1.9 Point Allocation

All applications use a 100-point scale, with funding awarded to the top-scoring projects regardless of type. Projects in the medium and large categories have context sensitivity and innovation elements. These criteria include cutting-edge and emerging technologies like multimodal integration, bicycle share technologies, art, and placemaking elements that make the community more culturally vibrant. These features are not considered in the small infrastructure proposals (SANDAG, 2021). Large infrastructure projects are also scored for cost-effectiveness and transformational impact.

1.10 Identifying Disadvantaged Communities

Through an iterative process with stakeholders, the CTC has chosen metrics to evaluate criteria for identifying disadvantaged communities (DACs). The program's focus on increasing active transportation in traditionally underserved communities makes this a central pillar. SB 99 stipulates that at least 25% of funds from the ATP must benefit DACs (CTC Guidelines, 2022). It is important to note that for the MPO and SUR components, those agencies may use their own metrics to identify DACs.

According to the 2023 Active Transportation Program Guidelines, the CTC uses the following criteria to identify the percentage of DACs within the project area: median household income,

CalEnviroScreen score, community youth enrollment in the National School Lunch Program, and the California Healthy Places Index. Any project on federally designated tribal land or submitted by tribal governments also automatically qualifies for the DAC designation (CTC Guidelines, 2022). If applicants believe other regionally specific criteria should be used to meet the DAC designation, they may submit justification with their applications.

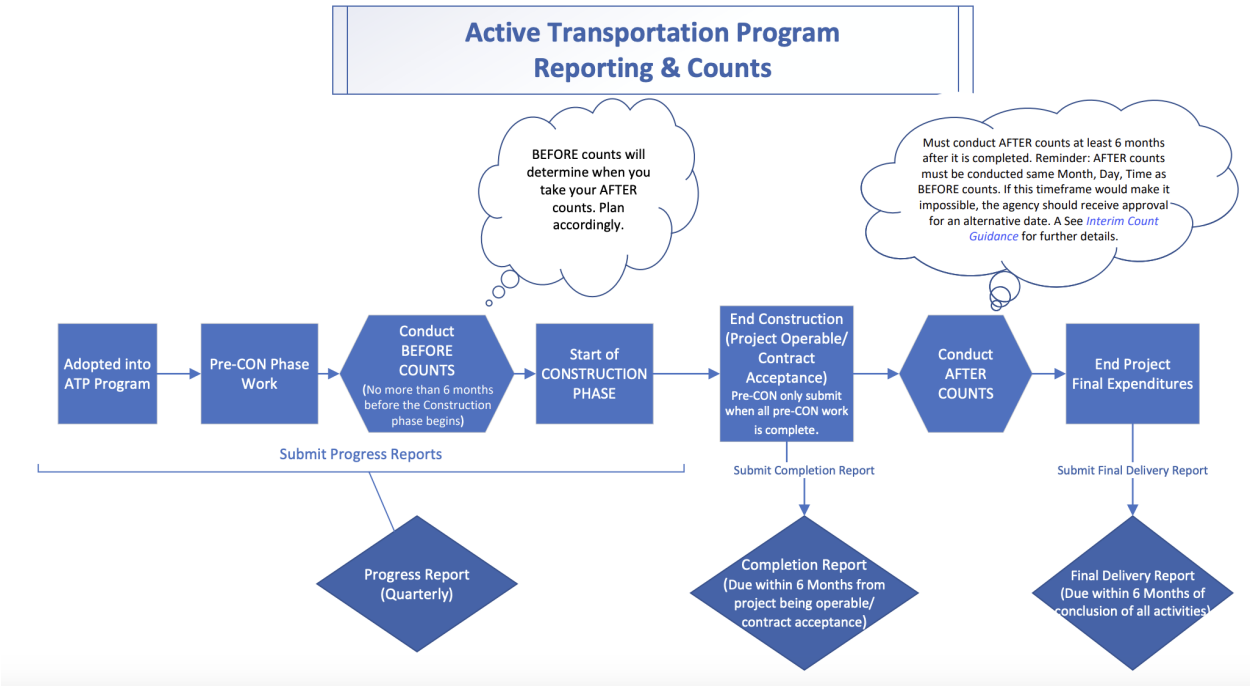
Methods for identifying DACs have evolved to include metrics that allow for more jurisdictions to qualify for the DAC designation, according to CTC staff interviewed. The highly competitive nature of the program makes qualification crucial, since more points are allocated for projects in DACs, and following Senate Bill 1, the program requires at least 25% of all projects to be in these communities.

1.11 Reporting Requirements

Projects awarded funds must submit quarterly reports, a completion report, and a final delivery report. All projects except Plan Projects must submit before and after counts (Caltrans, 2024). Caltrans is the leading agency for reporting requirements and assistance for applicants. Before-counts must be completed no more than six months before the project commences. The CTC provides guidelines for conducting counts, including ensuring they are done on the same days and times. Applicants are encouraged to video record 24-hour counts at designated corridors based on project type (Caltrans, 2024).

The ATP uses CalSMART, an online tool for publicly funded programs under Senate Bill 1. Awarded applicants are asked to create an account on CalSMART to enter reports and user counts. Before and after photographs are also required for infrastructure projects. Figure 2 was created by Caltrans to illustrate the succession of reporting requirements.

Figure 2. Flow Chart Illustration of Reporting Succession



Source: Caltrans. ATP Project Reporting. Counts-when to do them-flow. https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/atp/report/counts-when-to-do-20230811.pdf

2. Findings

2.1 Program Highlights and Successes

Based on the review of relevant literature and guidelines for the ATP, and consultation with the California Assembly, Senate, and CTC staff, it was found that the ATP has been popular and highly competitive, with jurisdictions throughout California seeking to increase active transportation in their communities. The program has partnered with communities throughout the state to create numerous projects such as bicycle paths and pedestrian infrastructure in urban and rural areas. The program's partnership with Safe Routes to School has also increased walking and cycling among students (Matz, 2018).

The CTC administers and leads a Technical Advisory Committee (TAC) responsible for providing technical guidance and expertise to applicants. Members of the TAC ideally represent the geographic and socio-economic diversity of the state—with members from the north, central, and southern portions of the state and both urban and rural constituents (Caltrans, 2023). The committee's main role is to assist, offer technical advice, and help prioritize projects based on their potential to improve active transportation options, safety, and connectivity (Caltrans, 2023). The TAC's hands-on iterative process, diverse structure, and technical expertise can serve as a model for other states designing similar programs.

The CTC detailed the hands-on approach taken by the program's administrators through multiple interviews. The CTC conducts various workshops, site visits, and virtual site visits. Though site visits are not mandatory, they occur at the discretion of the CTC and involved agencies. According to CTC staff, site visits strengthen the connection between the agency and the planning organizations. These visits can include project evaluations to gauge the feasibility of proposed projects, community engagement, safety assessments, and technical evaluations. As highlighted by CTC staff and applicants, it is evident that strong engagement between program administrators and applicants is crucial for the success of the program and should be replicated in similar programs.

The ATP benefits from an iterative process that involves amendments, recommendations, and feedback from MPOs, RPOs, and other parties vested in improving the program and ensuring it meets its goals equitably and cost-effectively. The program is continuously amended, and its scope changes as relevant information and goals change. This iterative process ensures that the ATP continues to meet relevant goals and objectives. Input from vested parties such as regional planning organizations, state agencies like Caltrans and the CTC, and organizations like Safe Routes to School is also considered when amending the program.

2.2 Gaps in Available Data

During analysis of the ATP program, several places in which data organization and collection could be improved were identified. While the CTC provided a spreadsheet of projects in Cycles 3-6 including valuable details such as a description of each project, the coordinates of each project, and the implementing agency, this data was not readily available for Cycles 1 and 2 due to lack of geospatial data collected for the first two cycles of the program. Since we were interested in conducting before and after studies on completed projects, the lack of geospatial data in earlier cycles complicated this process.

The current method that the CTC uses to geolocate projects also creates a barrier to conducting an accurate before and after analysis. The geospatial data received from the CTC only codes each project as a point location. While point data may be useful for some projects (such as those for improvements to a single intersection), most projects span much larger areas and would be better represented by lines or polygons. Conducting a before and after study using currently available data would likely greatly underestimate the safety impacts of completed projects. Additionally, the use of point data may provide inaccurate results. For example, the current method may geolocate citywide projects at a single point in the geographic center of the city, which does not accurately represent the project location. To better represent the project scope and evaluate the impact of these projects, the CTC could consider mapping each project's actual geographic location in the form of polygons and lines.

Another major limitation to conducting before and after studies is the lack of accurate and comprehensive bicycle and pedestrian count data. One of the major goals of the ATP program is to "increase the proportion of trips accomplished by biking and walking." While traffic collision data is widely available through UC Berkeley's Transportation Injury Mapping System, there is no comparable system for keeping track of statewide bicycle and pedestrian counts. A statewide system that would provide accurate pedestrian and cyclist counts would allow for more accurate studies. This would provide the CTC with valuable information on the effectiveness of projects in meeting their key goals.

3. Evaluating Active Transportation Projects

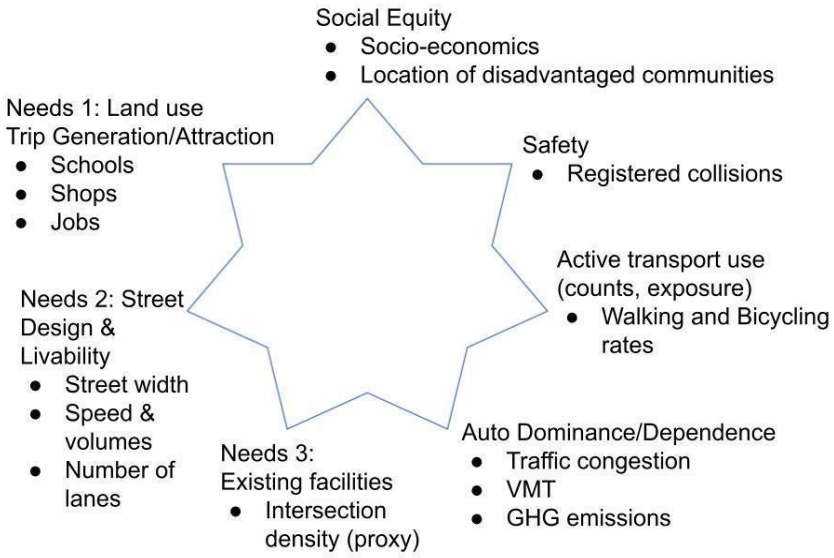
3.1 A Comprehensive Framework

Building on insights from Donald Appleyard (1981), Bruce Appleyard and Donald Appleyard (2021), and Litman (2023), this section presents a framework of the approach that was utilized in this study to evaluate and prioritize active transportation projects for funding, drawing on insights from existing literature and best practices.

3.2 Identifying Key Evaluation Parameters

To evaluate active transportation projects effectively, it is essential to identify key parameters that capture their multifaceted impacts, as shown in Figure 3. These parameters encompass both quantitative and qualitative aspects, and include:

Figure 3. A Comprehensive Framework for Evaluating Active Transportation Projects



(a) ***Active Transport Use and Mode Shift*****:** Assessing the percentage change in the number of individuals using active transportation modes pre-and post-implementation of the project (Aldred et al., 2019). Ideally, this would include counts of bicyclists and pedestrians, but sometimes data from the census, such as the Journey to Work data was required.

(b) ***Safety*****:** Analyzing the impact of the project on the safety and accessibility of active transportation routes is key (Myers et al., 2018). Therefore, registered collisions and records of injury severity and fatalities must be evaluated. In the initial analysis, UC Berkeley's Safe Transportation Research and Education Center Transportation and Injury Mapping System's (TIMS) data was utilized to track pedestrian and bicycle collisions. Collisions reported by TIMS come from the California Statewide Integrated Traffic Records System, and data are consistently maintained for the entire state, making intercity comparisons of collision rates and severity possible (UC Berkeley, 2023). Collisions were reported as point locations and mapped with ArcGIS Pro. This dataset is commonly used to evaluate traffic safety in California (Ragland et al, 2014; Mehranbod et al, 2023; Novat et al., 2023; Cheng et al., 2017). Two-year panels of TIMS collisions were created to evaluate two years before and two years after ATP project completion. Since project impacts may extend further than the treatment site, half-mile and one-mile Euclidean distance buffers were drawn around each ATP project site to join these projects and their buffers to collision data.

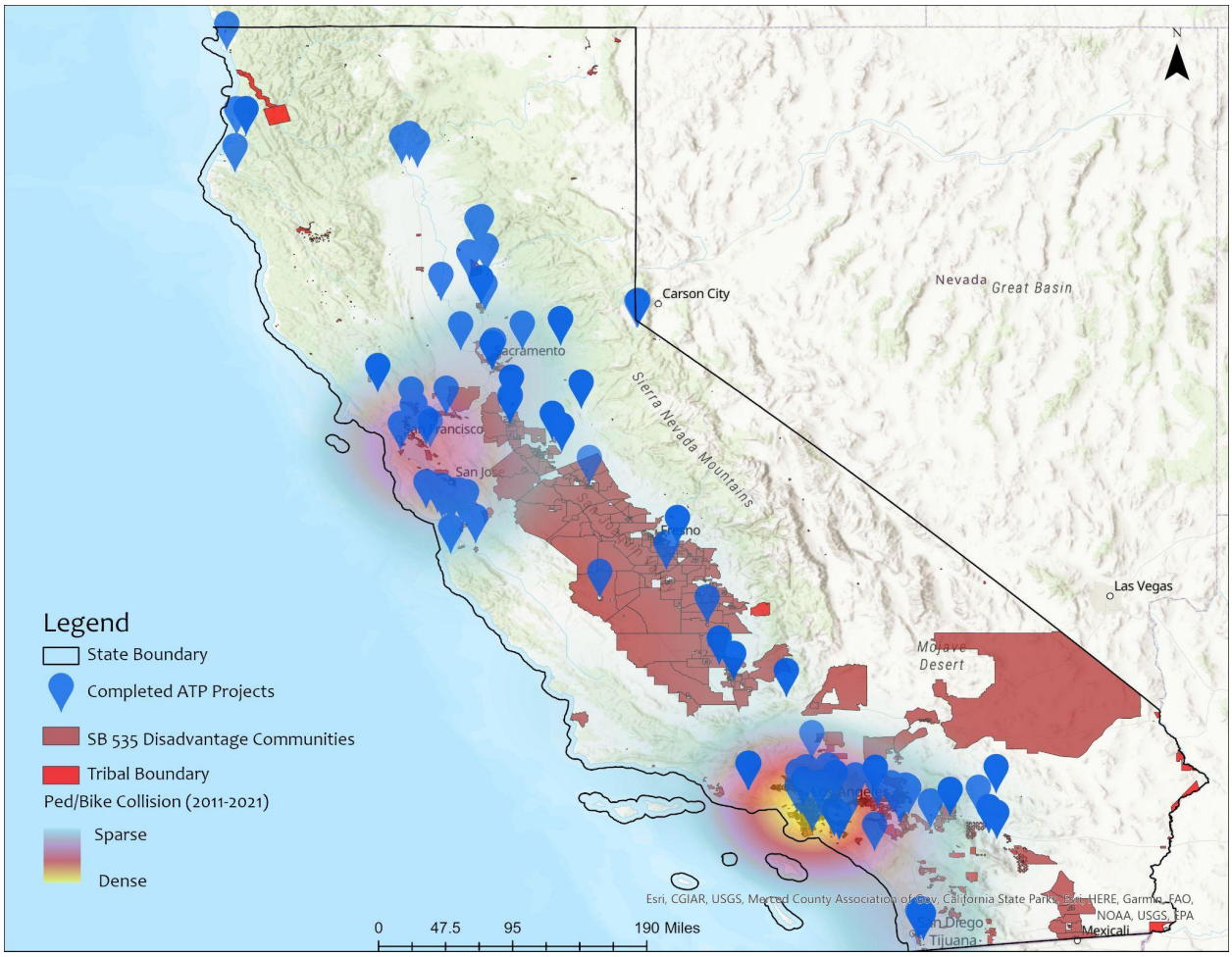
(c) ***Auto dominance/dependence*****:** While these factors were not considered in the initial study, evaluating the amount of traffic, congestion, and the reductions in greenhouse gas emissions, air pollution, and noise pollution due to decreased reliance on motorized transport will be important considerations for future research (Maizlish et al., 2019).

(d) ***Social Equity*****:** Assessing whether the project addresses the needs and interests of all socio-economic groups and promotes inclusivity (Chang et al., 2021). In California, looking specifically at whether these projects are in Disadvantaged Communities https://oehha.ca.gov/calenviroscreen/sb535#. To start evaluating the social equity impacts of the ATP program, projects listed as "completed" by the CTC as of January 2023 were mapped and overlayed with areas designated as DACs, as shown in Figure 4. Several key limitations to these maps should be noted. First, the CTC only stores project deadlines and not the exact dates that projects were completed, and projects with multiple treatment sites may have been completed at different times. This could underestimate or overestimate the number of projects that have been completed. Second, the CTC only stores project sites as points. While this may accurately geolocate project sites at single intersections, it may drastically underestimate the impacts of projects that would be better represented as polygon or line data, such as bicycle lanes and multi-site projects.

As of April 2023, California has initiated 1,047 projects that are funded under the ATP, including 485 that have been geolocated using GIS pro version 3.0.3. These projects span from Cycle 1, adopted in 2014 by the California Transportation Commission (CTC), to Cycle 6, adopted in 2022. A total of 119 projects have been completed within five years from 2018 to 2023. Figure 4 shows the geographical distribution of these projects, highlighting their impact on disadvantaged communities and tribal areas as defined by Senate Bill 535.

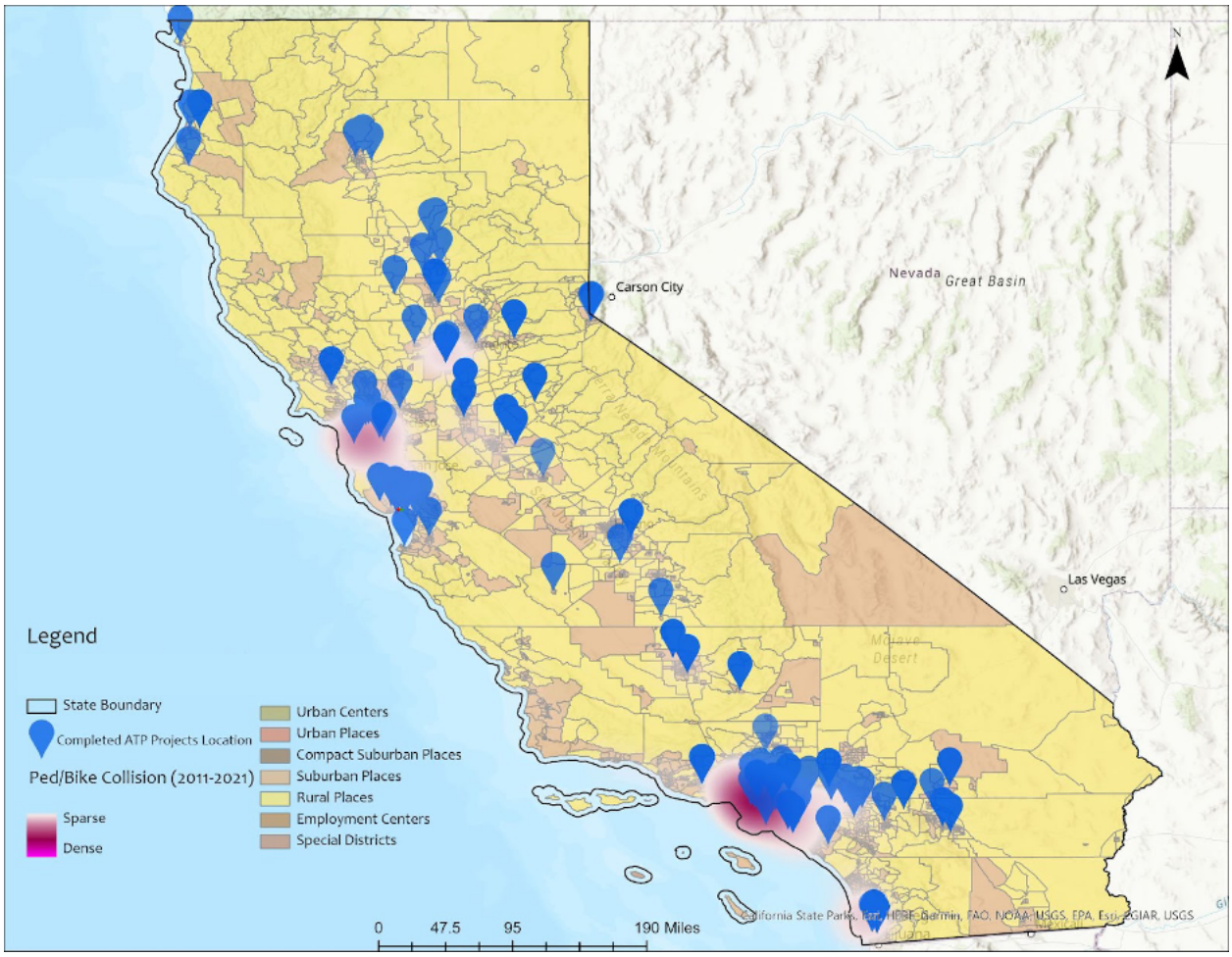
This report aims to explore the patterns and trends in pedestrian and bicycle collisions over a decade, from 2011 to 2021. Our analysis has been particularly focused on projects that include geolocation data. Additionally, Figure 4 provides insights into the correlation between completed projects and place typology, which spans seven categories ranging from urban centers to rural areas.

Figure 4. SB 535 Disadvantaged Communities, Tribal Boundaries, and Location of Completed ATP Projects



(e) ***Needs 1*****:** Land use, Trip Generation, and Attraction. It is necessary to determine if there are areas that will generate or attract walking or bicycling trips, such as schools, shops, or jobs. In this study, a place typology dataset generated by Frost et al. (2018) was utilized. This dataset was developed using inputs that included employment density, population density, existing land use, and access to transit (Frost et al., 2018). These data, reported at the 2010 census tract level, were joined to ATP project locations. A map of ATP projects overlaid with place-type data is shown in Figure 5. In Table 2 the total amount of funding awarded to each place type is analyzed.

Figure 5. Completed ATP Projects Location and California's Place Typology



The radar charts in Figure 6 compare the relation between the distribution of pedestrian and/or bicycle collisions, the count of ATP projects, and the allocation of ATP funding by place types in California from 2014 to 2021. Table 2 shows the breakdown detail of these relationships. It also includes information on Journey to Work and the National Walkability Index, which identifies the lowest to highest walkable places. The National Walkability Index measures walkability at the census block level using various criteria including population density, street connectivity, pedestrian infrastructure, and distance to transit (EPA, 2021). Looking at the charts and Table 2, suburban and urban places have the highest rate of pedestrian/bicycle collisions, accounting for 37.8% and 36% of all recorded incidents, and receiving a substantial 33% and 31% of ATP funding, respectively.

These charts suggest that locations identified as suburban places might have more resources related to the collisions they represent, while urban places may be lagging, especially in terms of the number of projects. Rural places may be receiving more from the ATP program than would be justified by collision rates alone. Furthermore, employment centers only get 0.2% of funding

despite having 8.2% walking commuters to work (ranking third highest in this category), pointing to a possible need for increased funding in this typology to improve and encourage active transportation and walkability.

Figure 6. Analysis of ATP Project Counts (%), Ped/Bike Collisions 2011-2021 (%), and Funds Distribution (%) by Place Typology

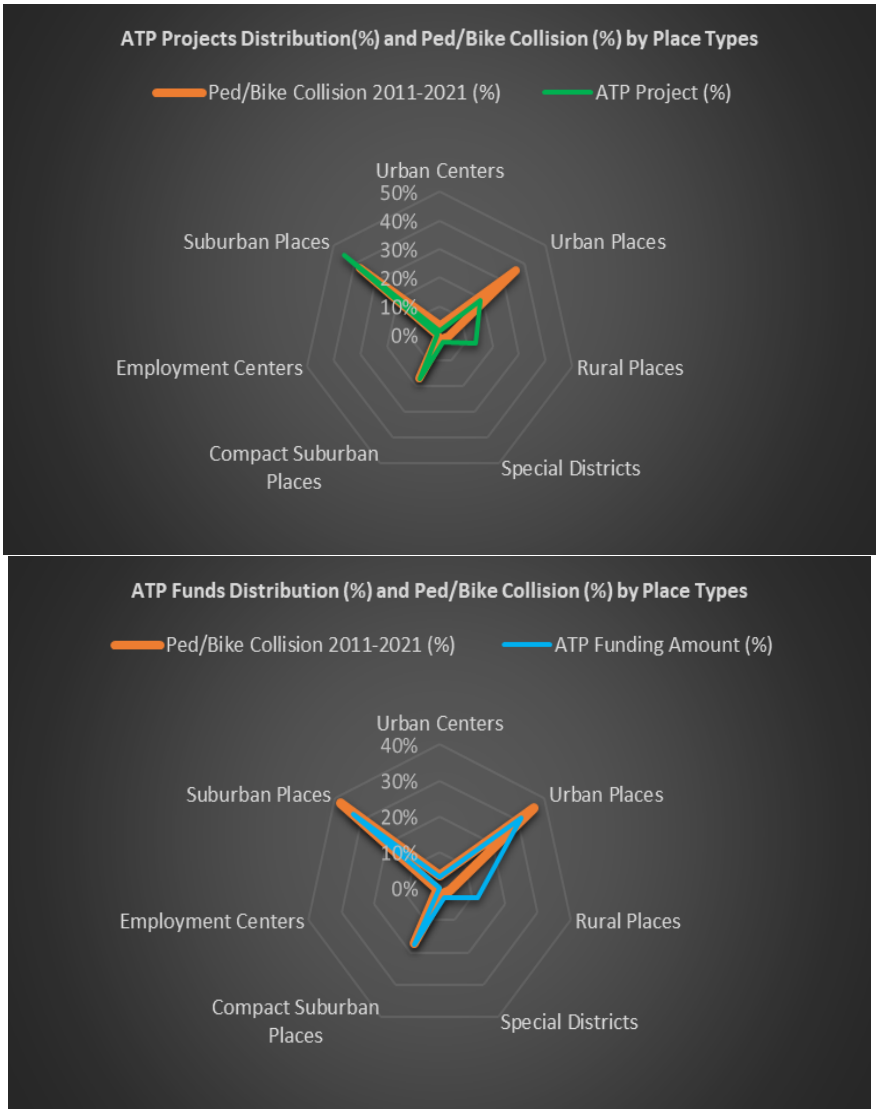


Table 2. Summary Table of Statewide Analysis of ATP Project Counts, Pedestrian/Bicycle Collisions (2011-2021), Funds Distribution and Walkability index by Place Typology

Ped/Bike Collision Count 2011-2021	Ped/Bike Collision 2011-2021 %)	ATP Project Counts	ATP Project Counts	ATP Funding Amount	ATP Funding (%)	Avg Walked to Work (%)	Avg Biked to Work (%)	Walkability Index
Urban Centers	8,811	3.4%	7	61,441,000	3.0%	19.90	2.98	16.49
Urban Places	94,038	36.0%	93	649,113,000	31.3%	4.65	1.95	14.93
Compact Suburban Places	44,503	17.0%	83	365,848,000	17.6%	2.64	1.28	13.42
Suburban Places	98,821	37.8%	218	686,507,000	33.1%	1.68	0.72	11.22
Rural Places	8,521	3.3%	66	240,492,000	11.6%	3.72	0.43	6.67
Employment Centers	2,260	0.9%	4	3,272,000	0.2%	8.21	1.30	13.56
Special Districts	4,458	1.7%	14	66,341,000	3.2%	16.61	4.05	12.16
Grand Total	261,412	100.0%	485	2,073,014,000	100%	Out of 100	Out of 100	Out of 20

Source: Smart Location Database

Table 3 illustrates a comparison of pedestrian and cyclist fatalities and injuries across different place typologies in California, highlighting the areas with the most significant safety concerns. Table 3 shows that suburban places account for 50% of pedestrian deaths and 35.3% of injuries, highlighting a critical area for safety improvements. Suburban places account for the majority of pedestrian deaths due to a myriad of complex factors including geographic patterns, demographic changes, and population shifts. Suburban places typically lack sufficient pedestrian safety infrastructure due to their traditional auto-oriented design. Demographic shifts including an influx of lower-income residents to the suburbs from increasingly gentrifying urban places, known as the suburbanization of poverty, may also play a role in the rise of pedestrian deaths in suburban places (London 1980; Smith 1979; Jargowsky 1996; Yang & Jargowsky, 2006; Sturtevant & Jung, 2011; Ehrenhalt, 2012; Hartley et al, 2016; Logan et al, 2023).

Additionally, cyclists face the most significant risk in suburban places, with 54.6% fatalities and 39.4% of injuries, suggesting the need for safety interventions for cyclists. Urban places, while having lower fatality rates, still see a high number of pedestrian and cyclist injuries, indicating that while fatalities are lower, these areas are still high-risk zones for pedestrians and cyclists.

Table 3. Summary of Statewide Analysis of Pedestrian/Bicycle Fatality and Injury Rates by Place Typology 2011-2021

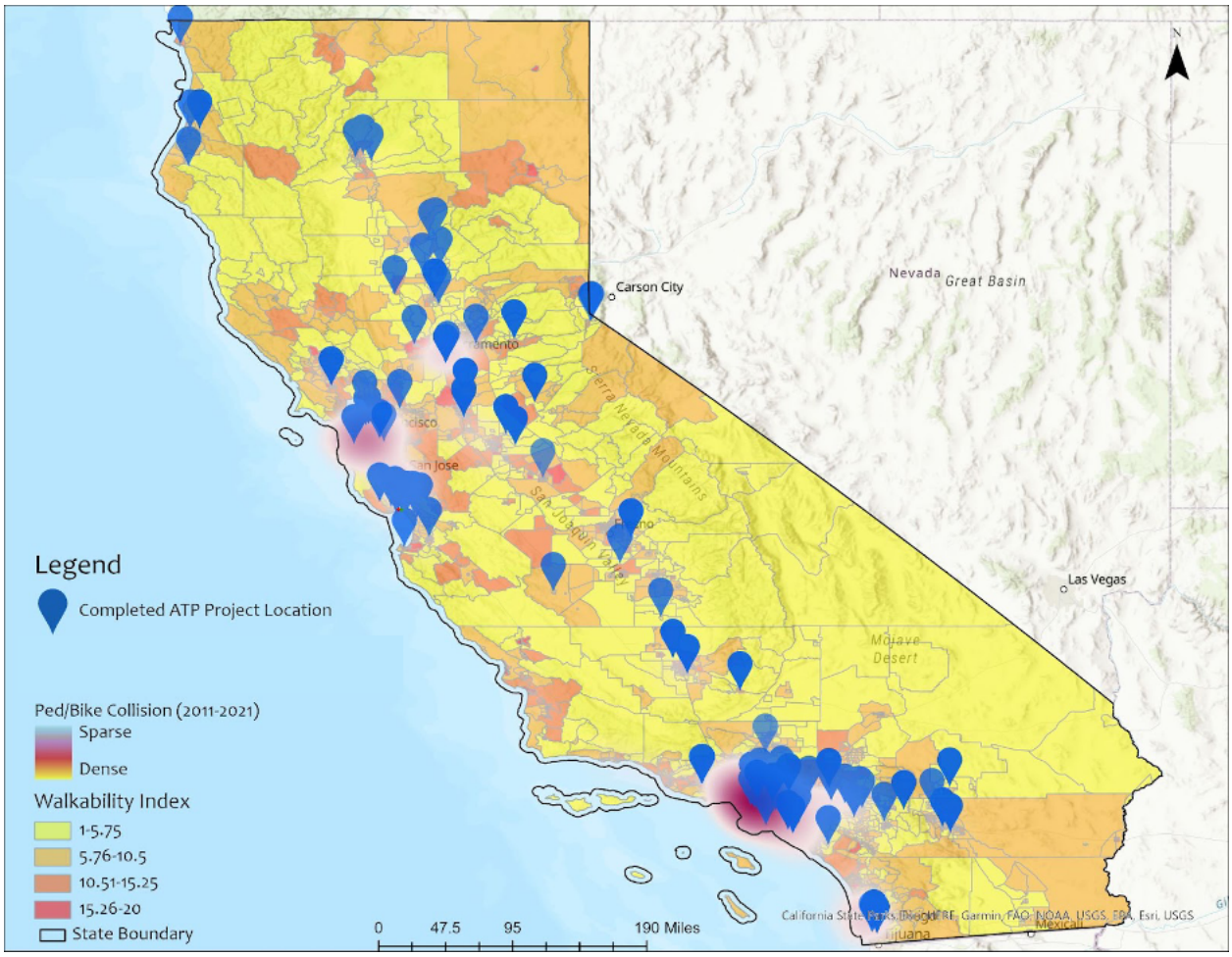
Place Typology	Ped Killed	Ped Killed (%)	Ped Injured	Ped Injured (%)	Cyclist Killed	Cyclist Killed (%)	Cyclist Injured	Cyclist Injured (%)
Urban Centers	133	1.4%	5,300	3.9%	17	1.0%	3,641	3.0%
Urban Places	2,110	22.4%	53,944	39.2%	268	16.5%	40,755	33.7%
Compact Suburban Places	1,401	14.9%	22,699	16.5%	221	13.6%	21,418	17.7%
Suburban Places	4,716	50%	48,553	35.3%	885	54.6%	47,747	39.4%
Rural Places	858	9.1%	3,725	2.7%	194	12.0%	4,209	3.5%
Employment Centers	49	0.5%	1,211	0.9%	12	0.7%	1,041	0.9%
Special Districts	164	1.7%	2,113	1.5%	24	1.5%	2,289	1.9%
Grand Total	9,431	100%	137,545	100.0%	1,621	100.00%	121,100	100%

(f) ***Needs 2***: Street Design & Livability. Even if a street has no registered collisions, it could still be a dangerous street worthy of receiving funding for infrastructure to improve safety and livability. Factors to be considered and measured include:

- Street width
- Speed and volumes
- Number of lanes

To evaluate street design and livability, data was gathered on the National Walkability Index and intersection density (intersections per square mile) from the Environmental Protection Agency's Smart Location Database (SLD) (Ramsey & Alexander, 2014). A map of completed ATP projects and their corresponding national walkability index is shown in Figure 7. Additionally, information on the number of lanes and maximum speed was collected from Open Street Map (OSM) using Python and the Google API, with a 1000-meter buffer distance around each ATP project location.

Figure 7. Completed ATP Projects Location and National Walkability Index, CA



	1 – 5.75	Least walkable
	5.76 – 10.5	Below average walkable
	10.51 – 15.25	Above average walkable
	15.26 – 20	Most walkable

Source: EPA, Smart Location Database, 2021

(g) *Needs 3*: Existing facilities. When prioritizing projects for funding, it is necessary to examine existing facilities to determine where places with deficits are located. Information about the location of sidewalks and bicycle lanes may be difficult to find, but information on intersection density may provide a good proxy for these other facilities. Gathering this data is a critical next step for this research. As with street design data, MPOs may have bicycle lane data readily available. For example, SANDAG provides a publicly available shapefile listing all existing bicycle facilities within the county of San Diego (SANDAG, 2022).

4. Questions and Considerations

After comprehensively reviewing pertinent literature, program documents and administrative processes, and conducting numerous interviews with CTC staff, applicants, and other stakeholders, the research team formulated a set of questions and considerations. The objective was to ascertain whether the program was effectively and equitably achieving its goals. It was anticipated that this effort would foster ongoing dialogue and refinement of the program, optimizing its efficiency and equitable outcomes in alignment with its objectives.

Should the program expand with additional staff support and data collection?

In terms of budget allocation, the CTC is tasked with overseeing the largest program for active transportation infrastructure in the United States (CTC Guidelines, 2022). The popularity of the program has grown tremendously since the program's inception in 2013 (CTC Guidelines, 2022). The state's budget surplus increased the ATP budget to over $1.7 billion for the 2023 application cycle (CTC, 2021). This larger budget was still insufficient to fund a vast majority of projects submitted for funding consideration. Additionally, managing such a large program requires substantial staff support and data collection. CTC staff provide high levels of engagement with applicants through site visits and the Active Transportation Resource Center.

Efficient data collection is crucial to gauge trends and gather relevant data to ensure the program is efficiently meeting its goals and can be adequately reviewed. Through this study process, it was found that data collection and methods could be improved to enable more accurate studies that assess the efficiency of the program and completed projects. Gaps in data continue to exist. For example, data locations are geocoded as points. Many projects are not in singular locations, so geocoding as polygons or lines would provide more accurate data for future studies. Expanding the program with additional staff for data collection could increase the organization, collection, analysis, and interpretation of data. This would allow for more thorough and accurate studies of project efficiency and program effectiveness. Increasing funding for both projects and increased staffing would ensure that high levels of engagement, technical support, and data collection could continue.

Should the budget for the ATP be increased?

The ATP has proven to be a popular program, with many potential projects being left unfunded due to the large applicant pool (CTC Guidelines, 2022). According to the CTC, the program has funded over 1,000 projects between its inception in 2013 and December 2022. Even with an increased budget of $1.7 billion for Cycle 6 in 2023, the program could not keep up with the demand for projects (CTC Guidelines, 2022).

The popularity of the program illustrates the increasing demand for active modes of transportation infrastructure throughout California. It is necessary for statewide and regional initiatives to reduce carbon emissions, traffic congestion, pedestrian, and cyclist fatalities, as well as to provide increased sustainability and walkability. It meets the call for increased non-motorized infrastructure and safety measures to protect active transportation users, as the ATP is the state's only funding source dedicated solely to increasing walking and bicycling (CTC Guidelines, 2022).

The growing popularity of the ATP warrants consideration for increasing the budget to meet the demand for active transportation funding. Since the program has multiple goals that target environmental, safety, traffic, and equity goals, a robust budget would ensure more projects receive funding to meet these far-reaching goals. As the state faces looming budget deficits, identifying new or novel funding streams for the program is also critical. If state funding is reduced, the ATP may seek funding from federal grant, local sales tax and bonds, or development impact fees.

Are there other dimensions to comprehensively understand the effectiveness of the ATP?

Building on insights from Donald Appleyard (1981), Bruce Appleyard (2021), and Litman (2023), this research team has presented an approach as well as a framework to evaluate and prioritize active transportation projects for funding, drawing on insights from existing literature and best practices. This framework includes considerations for land use, street design and livability, and automobile dependence. As the program is publicly funded, further analysis of the program efficiency framework is warranted.

How are we making sure that money is effectively spent to increase safety, mode shift, and GHG reduction?

The scale and complexity of project applications raises questions concerning accurately assessing the benefits of various project elements. For example, benches and street trees are complementary features but are not necessarily the most cost-effective methods to make a street safer and facilitate more bicycling and walking. However, there is evidence that these aesthetically pleasing features may encourage walkability (Cao & Duncan, 2019). Future budgetary constraints are foreseeable, making it critical to ensure the most cost-effective aspects of projects are funded.

Identifying cost-benefit analysis and tools for project review teams can ensure identification of projects that will most cost-effectively meet goals. Before and after studies can efficiently gauge success, but only if accurate data is available. The ATP could implement robust before and after analyses of projects. This may require collaboration with outside agencies and researchers. For before and after studies to be effective at illustrating project success, they require forethought and design. Objectives, methodology, control groups, longitudinal perspective, and context must all be considered. This report provides an initial model of the type of before and after studies and framework that could be used.

Is scoring criteria and point allocation effectively meeting goals?

All applications use a 100-point scoring system. The weight of questions differs depending on the application type, as shown in Table 1. Scoring topics are weighed differently for the three infrastructure applications. Demonstrating need is weighed much heavier in the small infrastructure applications at 52 points, versus the large infrastructure application at 38 points. This is intentional, as the medium and larger infrastructure applications include more questions on other aspects, such as the transformative potential of the project. The impact of point allocation warrants further analysis, as it may have unintended consequences on project scoring. Goal 6 of the program calls for a variety of projects to be funded throughout the state. Trends show that funded projects tend to be larger, leaving many small projects without funding. The trend toward larger projects being selected warrants further review of point allocation and weighting.

Should all applications include a feedback component in the scoring process?

Currently, only the non-infrastructure application/component has an "evaluation and sustainability" scoring section (CTC Guidelines, 2022). Creating a feedback/evaluation component could add an accountability measure to the infrastructure applications. Large infrastructure applications are complex and can include many components. Including evaluation and sustainability scoring topics may help ensure that the most cost-effective applications are approved. Currently, awarded projects must submit quarterly reports, a project completion report, and a final report using the online reporting tool CALSMART. If applicants do not meet reporting requirements, they face consequences up to and including reduced reimbursements and ineligibility for future funding under the program. Including an integrated feedback criteria for the infrastructure components of projects in the initial application would be a recommended, where applicants detail how they will assess the effectiveness of the project. There is also a desire to know what percentage of projects are completed on schedule or in a timely manner.

Should the disadvantaged community designation become more focused?

The disadvantaged community designation has shown to be a contentious issue according to CTC staff interviewed. The current criteria encompass a variety of metrics meant to increase qualification for DAC designation. The program prioritizes DACs as a measure to increase equity, since transportation infrastructure has historically disadvantaged vulnerable communities, with large highway projects and increased traffic congestion and vehicle exhaust in poorer and minoritized communities (Fitch et al., 2021). The variety of metrics used calls to question the efficacy of successfully identifying and funding the projects in areas most in need as opposed to ensuring most applicants qualify for the designation. Caltrans has developed the Transportation Equity Index, which identifies transportation-based equity needs throughout California. It is a publicly available tool that agencies and municipalities can use to identify underserved communities using socioeconomic indicators and transportation data. This tool may be more

effective at identifying projects that can effectively address equity concerns compared to CalEnviroScreen, which uses a broader environmental perspective (Caltrans, 2024).

The diversity in project proposals means that some will be better equipped to meet certain goals than others. Does the program's point hierarchy meet goals in the most effective possible way?

The ATP Guidelines (CTC Guidelines, 2022) explain how applications with the same score are evaluated. If applications receive the same score, they are evaluated further, using "project readiness" as a metric. This means that out of projects with the same score, the one(s) that demonstrate more preparedness (i.e., environmental documents are prepared) are selected. If this metric does not select a winner, the application with the "highest score on the highest point question" is selected until a winner is determined (CTC Guidelines, 2022). After examining trends in project selection that favor larger projects, this selection process should be further evaluated to ensure a wide range of projects throughout the state are being awarded funds as stipulated in Goal 6 of the program, "Provide a broad spectrum of projects to benefit many types of active transportation users."

Should a separate smaller infrastructure project competition be created?

Small infrastructure applications are less complex and do not require applicants to demonstrate leveraging of funds, context sensitivity, innovation, and other components required in large and medium applications. However, the burden of proving "need" and "safety" is higher for the small applications, as they are weighed much heavier. This has potential repercussions for smaller project selection, since all applications are evaluated using a 100-point scoring system under the statewide competition. Current trends demonstrate that large applications are typically favored in the statewide competition (Matz, 2018). This is important to consider, as a larger number of smaller projects could potentially provide a "more bang for your buck" cost-effectiveness that leads to greater overall active transportation benefits statewide for dollars spent. This warrants further discussion concerning point allocation, funding requirements, and other factors that may disfavor smaller applications.

The minimum $250,000 funding requirement for infrastructure applications is meant to encourage applicants to consolidate various smaller projects into larger applications (CTC Guidelines, 2022). This could have unintended consequences for smaller project applicants who may not be able to combine projects for various reasons. Additionally, smaller projects may provide certain benefits such as improved street connectivity that may be overlooked.

One applicant interviewed expressed how onerous the application process is. They stated that the length and complexity of the ATP application incentivizes larger applications. The ATP strives to fund a variety of projects, as mentioned in Goal 6 of the program, "Provide a broad spectrum of projects to benefit many types of active transportation users." Trends, funding requirements, and

scoring mechanisms may be underrepresenting worthy smaller projects. Creating a separate application for smaller projects that is more time and cost-effective and is tailored to identifying how small projects can meet program goals may help provide funding for these types of projects. Further investigation to find ways to fund smaller projects is critically important.

Should the size of review teams be increased? What other factors and incentives should be addressed when selecting project reviewers?

The ATP designates a two-person review team for each application. Applicants may not reside in or work in the municipalities they review to lessen conflicts of interest (ATP Guidelines, 2023). Increasing the size of review teams from the current two-member teams could lessen the possibility of score outliers and provide more holistic scores. Ensuring larger review teams are diverse in geographic location, profession, and demographics could further create a more equitable scoring process. It should also be noted that reviewers do not receive any form of compensation for reviewing projects. Should incentives be offered to reviewers to increase the pool of reviewers and address possible equity issues? The review process is a crucial aspect of the program. Ensuring that the review process is standardized, and reviewers can identify which projects are most effective is key to the program's success.

5. Discussion

Through a series of interviews and an extensive review of the documents and rubrics of the program, this report discusses the ways the ATP functions and how it could serve as a model for other states, regions, and municipalities. The focus is on the sheer size of the program, how the CTC staff carries out engagement and administration with vested parties, the competitiveness of the program, coordination with different interests such as the Safe Routes to Schools initiative and California Conservation Corps, and the program's emphasis on social equity. The before and after study detailed in this report provides a model for future research and highlights gaps in data that should be addressed to conduct similar studies more accurately in the future.

This research provides questions and considerations that could lead to program improvements, such as increased funding for projects, increased funding for staff when evaluating applications and conducting outreach, improved data collection and long-term monitoring, and developing a more definitive program evaluation framework to gauge success. These changes to the ATP would provide more salient data about project effectiveness and the program's ability to meet its multiple goals. Further research is needed to gauge project success effectively. The framework included in this report provides a practical model for measuring project needs and measuring success.

Increased funding would allow for improved data collection and synthesis that could be used in future studies to measure project efficacy. For example, researchers for this study found that many projects were geocoded as points when they should have been geocoded as polygons or lines to more accurately show their locations. These types of oversight impact the accuracy of studies. Additionally, ensuring baseline measurements are obtained, and coupling long-range monitoring with mode-shift analysis and user surveys would help to evaluate the program's success. New and emerging technologies and data analytics such as real-time measurements and artificial intelligence promise to improve the efficacy of the program in the future. Ensuring the ATP has sufficient funding and staffing resources to remain on the leading edge of active transportation funding and allocation will require adequate funding.

6. Conclusion

This research synthesizes how the nation's first statewide program dedicated solely to active transportation is administered and designed. California's ATP is a large, complex, and ambitious program designed to streamline the process of evaluating, prioritizing, and funding active transportation projects; with multiple goals for safety, public health, equity, road capacity, and sustainability. This report provides an evaluation of the program, offering considerations and further questions to guide improvements to the ATP.

A framework for evaluating the impacts of this statewide program has been provided through this study. By improving the processes to evaluate and prioritize which active transportation projects receive funding, it is possible to argue for more funding, in turn leading to the provision of more projects for walking and bicycling. This will place the transportation sector in a better position to meet climate action goals, lower traffic congestion, improve public health, and address social equity issues.

Improving California's active transportation infrastructure is critical to meeting climate action, public health, and safety goals. California faces possible financial constraints due to budgetary swings in the 2022-2023 cycle. This emphasizes the need to identify methods and frameworks to evaluate, prioritize, and fund the construction and installation of treatments that create a safer, more inviting environment for non-motorized users as cost-effectively as possible.

California's Active Transportation Program prioritizes funding in disadvantaged communities. This is an important step towards a more equitable future in the transportation sector and ensuring that the many positive health and well-being metrics associated with active transportation are equitably distributed while lessening the burden of air pollutants on disadvantaged communities. This is an important step in acknowledging and rectifying the historical legacy of transportation planning.

The Active Transportation Program is part of a larger vision for the state of California where active transportation options are integrated into California's multiple place types, promoting a sustainable, healthy, and equitable environment for all residents. The ATP is committed to advancing a comprehensive approach to active transportation infrastructure that prioritizes safety, equity, and sustainability.

Among the ATP's multiple goals is enhancing pedestrian and cycling infrastructure to reduce dependence on motor vehicles, thereby contributing to significant reductions in greenhouse gas emissions and improving air quality. By fostering walkable and bike-friendly communities, the ATP aims to address public health concerns and mitigate issues related to sedentary lifestyles while promoting physical well-being. The program's partnership with the Safe Routes to School initiative improves pedestrian safety and connectivity for California's students.

Large publicly funded programs like the ATP benefit from formative evaluations like the one conducted in this report, to identify strengths and weaknesses, inform decision-making, and engage vested parties. The ATP is dedicated to continuous improvement through rigorous evaluation and feedback, ensuring that its goals remain adaptive and responsive to the evolving needs of California's diverse population. The ATP strives to contribute to a more sustainable, livable, and health-conscious future through these efforts, and serve as a model and standard-bearer in the active transportation sector.

Appendix A: Interview Questions for Applicants

Introduction/Informed Consent

Hello, and thank you for taking the time to meet with me for this interview today. My name is XXXX XXXX. I am gathering information and hoping to get insight into your experience applying for the California Transportation Commission's (CTC) Active Transportation Program (ATP)—the nation's first and largest state program dedicated solely to promoting active modes of transportation like walking and cycling. Your insight will help guide future refinements for the program and provide insight to other agencies creating similar programs.

Before we begin, I must inform you that any identifying information can remain anonymous at your request. You may refuse to answer any question and end the interview at any time.

I would like to ask your permission to record this interview for accurate data collection and transcribing. I will delete the recording after transcription.

Overview of Position and Role

1. What is your job title?
2. What are your main roles and responsibilities?

Questions about the Application Process for the Active Transportation Program

1. How did you hear about the Active Transportation Program?
    a. What are your general perceptions of the program?
    b. Generally positive, negative, or neutral?
2. Does the ATP seem like a feasible grant funding stream for projects with your agency?
    a. What type of projects would you believe would be more successful in receiving ATP funding?
3. What was your experience with the application process?
4. What portion(s) of the application were the most challenging to complete?
5. What type(s) of application(s) did you submit?

6. Was your application(s) successful?

7. What are your thoughts on the tiered scoring system where applications are first evaluated through a statewide competition, and if not approved there, in their respective regional competition?

8. Were there resources for applicants in need of guidance or assistance with the application process?

    a. What are your thoughts on these resources?

    b. What other resources would you like to see, if any?

9. What would make the program more successful or easier for applicants to apply for?

10. The program has multiple goals based on equity, environment, and health. Are there any changes you would make to the program's goals or tiered scoring structure?

    a. What about changes to the applications?

    b. Funding allocation?

    c. General thoughts/concerns about the program?

    d. How does [agency/municipality] decide what grant and funding opportunities to pursue?

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Dr. Appleyard is a Professor in City and Regional Planning and Public Administration at SDSU, with expertise in geo-spatial analysis, behavioral economics, econometrics, applied transportation, land use policy analysis, and in designing and creating livable streets and facilities for pedestrians and bicyclists. Dr. Appleyard is also the SDSU Director of the National Center for Pedestrian and Bicyclist Safety (CPBS) and SDSU's Active Transportation Research Center.

Dr. Appleyard has led several research efforts examining the relationship between the built environment, transportation, land use, socioeconomics, and a variety of outcomes related to public health, sustainability, economic vitality, livability, and social behaviors. For the past three years, Dr. Appleyard has led the travel surveys and transportation elements for successive Climate Action Plans for San Diego State University. He was the Project Lead for the development of the Livability Calculator for the National Academies of Sciences. This required an extensive geospatial and econometric, mixed-method analysis of performance indicators for all transit stations and corridors throughout the US. Dr. Appleyard has also been the project lead for the development of the Smart Mobility Calculator for Caltrans. In sum, Dr. Appleyard's experience, both academically and professionally, uniquely qualifies him to lead this project.

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Mario Carbajal is a Master of City Planning student at San Diego State University. As a graduate assistant at the university, he contributes to studies on transportation and public health. His studies in planning focus on housing, accessibility, a walkable city, and land use. He completed a Bachelor of Science degree in Natural Resource Policy at Oregon State University. Mario has experience conducting research and creating technical reports.

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