Title

Transform Fresno: 2024 Progress Report on Implementation of the Transformative Climate Communities Program Grant

Authors

Karpman, Jason
Hernández, Elena
Astudillo, Samantha
et al.

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TRANSFORM FRESNO

2024 PROGRESS REPORT ON IMPLEMENTATION OF THE TRANSFORMATIVE CLIMATE COMMUNITIES PROGRAM GRANT

UCLA Luskin Center for Innovation

Prepared by the UCLA Luskin Center for Innovation

Principal Investigator: Jason Karpman
Researchers and Authors: Jason Karpman, Elena Hernández, Samantha Astudillo, Lauren Dunlap, and Linda Mitchell
Editors: Colleen Callahan and Mara Elana Burstein

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Disclaimer

The UCLA Luskin Center for Innovation appreciates the contributions of the aforementioned agencies. This report, however, does not necessarily reflect their views nor does it serve as an endorsement of findings. Any errors are those of the authors.

For More Information

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Cover image: Mural painting event in at the TCC-funded Yosemite Village Commuinity Garden (Photo credit: Transform Fresno).

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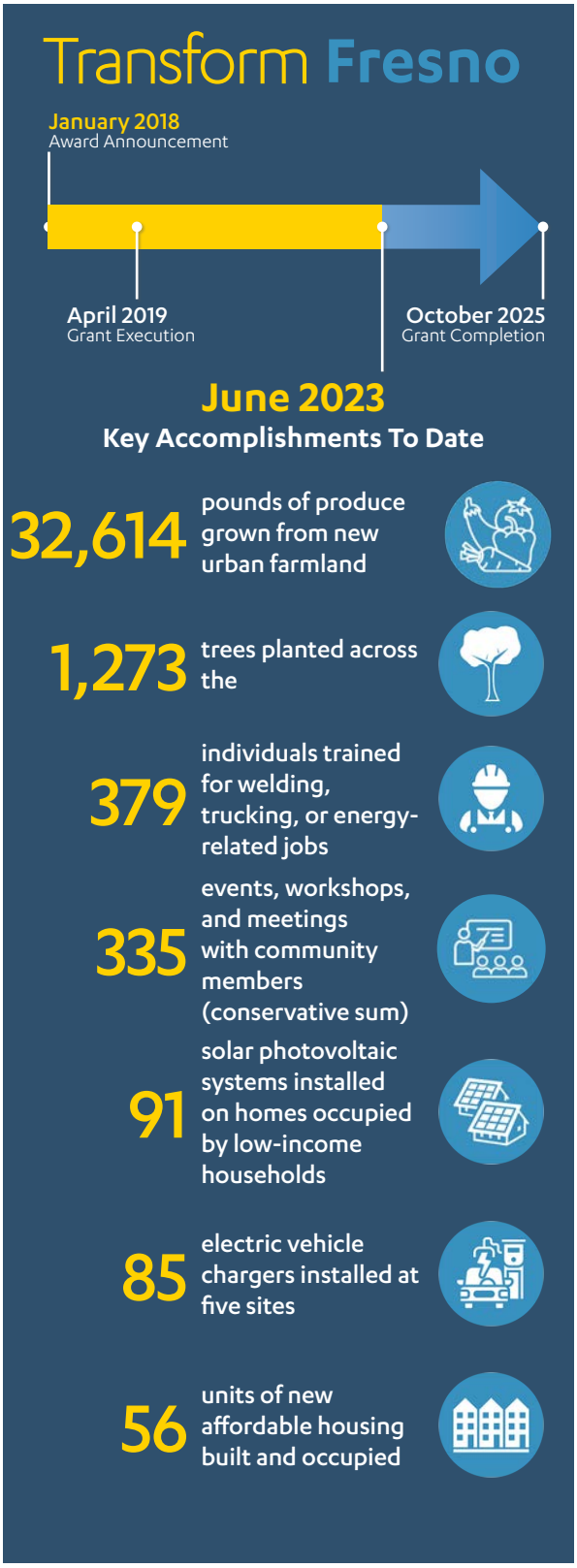
EXECUTIVE SUMMARY

THE TRANSFORMATIVE CLIMATE COMMUNITIES PROGRAM (TCC) is an innovative investment in community-scale climate action, with potentially broad implications. Launched in 2017 by the California State Legislature, TCC funds the implementation of neighborhood-level transformative plans that include multiple coordinated projects to reduce greenhouse gas (GHG) emissions. The program is also designed to provide an array of local economic, environmental, and health benefits to disadvantaged communities, while minimizing the risk of displacement. TCC empowers the communities most impacted by pollution to choose their own goals, strategies, and projects to enact transformational change — all with data-driven milestones and measurable outcomes.

The California Strategic Growth Council (SGC) serves as the lead administrator of TCC. At the time of this report, SGC has awarded 15 TCC Implementation Grants across five rounds of funding to 15 communities throughout the state (ranging from $9.1 million to $66.5 million per site). The state legislature has allocated funding to distribute one additional round of TCC grants.[1]

The UCLA Luskin Center for Innovation (LCI) serves as the lead evaluator for six communities that have received TCC Implementation Grants across the following funding rounds: all three Round 1 sites (Fresno, Ontario, and Watts), one Round 2 site (Northeast San Fernando Valley), one Round 3 site (Stockton), and two Round 4 sites (South Los Angeles and Stockton). LCI researchers are working with these communities to document their progress and evaluate the impacts of TCC investments.

This progress report is the final in a series of five that will provide an overview of the key accomplishments and estimated benefits of TCC-funded activities in the City of Fresno, collectively referred to as Transform Fresno.[2] This report documents progress through the end of fiscal year (FY) 2022-2023, which overlaps with about 15 months of post-award planning (January 2018 to April 2019), and 51 months of grant implementation (April 2019 through June 2023). Even though this report is the final progress report authored by LCI, Transform Fresno carries on, with implementation milestones that are expected to continue through October 2025.



[1] For the most current information about TCC rounds, both current and future, visit: https://sgc.ca.gov/programs/tcc/

[2] For annual reports that LCI has produced for other TCC sites, visit: https://innovation.luskin.ucla.edu/tracking-groundbreaking-climate-action/

93706 ArtFest in June of 2023, a community engagement event intended to showcase work by artists and musicians who live, work, or go to school in the Transform Fresno project area. Photo credit: Transform Fresno

Fresno Today

The City of Fresno is California's fifth-largest city and the largest inland city. Downtown Fresno is the main employment center in the region, with nearly 35,000 workers commuting into the area daily. Fresno has a culturally and ethnically diverse population and is home to many diaspora, immigrant, and refugee communities. The city has long struggled with environmental, health, and economic disparities, including high concentrations of poverty, air pollution, toxin and pesticide exposure, and health conditions such as diabetes, asthma, and cardiovascular disease.

Located near the geographic center of California and in the San Joaquin Valley, Fresno will increasingly experience the effects of extreme heat as the climate continues to warm. The community continues to need improved access to parks, tree cover, affordable housing, transportation options, and job training and opportunities. To address these and other community needs and goals, residents and other stakeholders from Downtown, Chinatown, and Southwest Fresno came together to form the Fresno Transformative Climate Communities Collaborative.[3]

Transform Fresno

The Collaborative employed a participatory process to identify projects with significant environmental, economic, public health, and social equity benefits for Downtown, Chinatown, and Southwest Fresno (the project area). Anyone who lived, worked, or owned property in these neighborhoods was encouraged to participate. The Collaborative met regularly in 2017 and resulted in an active and engaged 164-member Community Steering Committee. During these meetings, participants were encouraged to propose projects, and eligible projects were then gathered into five packages that were presented for a community vote. At the final Community Steering Committee public meeting, voting members overwhelming approved a project package designed by residents of Southwest Fresno.

These engagement efforts resulted in Transform Fresno, a community-driven initiative to transform the 4.9-square-mile project area through a suite of projects and plans that will reduce GHG emissions while also providing local environmental, health, and economic and social equity benefits. In early 2018, SGC awarded Transform Fresno a TCC grant of $66.5 million to bring its vision to fruition. Transform Fresno will also leverage $117.3 million in other funding toward this vision. Along with the City of Ontario and the Watts neighborhood of Los Angeles – two other sites were awarded Round 1 TCC funding – Fresno is one of the first communities in the country to pilot a community-led, multi-benefit, and place-based climate change mitigation program that specifically targets the needs of low-income households.

[3] **Stakeholders as used in this report carries multiple meanings, including but not limited to: residents within the project area who have benefited or stand to benefit from grant-related activities, individuals who work or do business in the project area, project partners who are directly involved in grant-related work, and any other individuals who participated in grant-related activities.**

Projects

Transform Fresno includes 21 projects, 17 of which are funded by TCC dollars and four of which are funded solely by leveraged dollars. The TCC-funded and leveraged projects work synergistically to achieve the broad goals of TCC. The projects are consolidated into 11 distinct project types below and are mapped in Figure 1 (where applicable):

TCC-funded Projects

Active Transportation — Funds the installation of more than 1,154 linear feet of new sidewalk, nearly 1,200 linear feet of Class II bicycle lanes, and signage for more than 1,000 linear feet of Class III bicycle lanes. This project aims to reduce car travel by making alternative mobility options safer and more convenient.

Affordable Housing and Sustainable Communities — Funds the construction of a 57-unit affordable housing development with ground floor retail space, free transit passes for residents, and pedestrian improvements (e.g., improving 0.5 miles of sidewalk, installing LED street lighting, planting 26 trees, constructing a permeable green alley, and installing traffic-calming measures). Together these investments are aimed at improving transit ridership and active transportation, reducing vehicle miles traveled, and lower housing and travel costs for Fresno residents.

Food Waste Prevention and Rescue — Funds the rescue, processing, and distribution of edible food waste and food donations to pantries, kitchens, and community organizations to improve access to local fresh and healthy foods. The edible food rescue process will help reduce the amount of organic material sent to landfills, where it decomposes in the absence of oxygen and releases methane, a potent GHG.

Low-carbon Transportation — Funds an electric vehicle (EV) and electric bicycle sharing mobility network of 34 cars, eight vans, 200 bicycles, along with vehicle charging infrastructure. The low-carbon transportation project fills a critical mobility gap and will increase residents' access to services and amenities without producing GHG emissions from tailpipes.

Rooftop Solar and Energy Efficiency — Funds three projects aimed at installing no-cost rooftop solar systems and energy efficiency measures on residential properties. Together, the projects will install rooftop solar photovoltaic systems on nearly 200 low-income single-family and five multi-family homes, and install energy efficiency measures in 170 single-family homes. These three projects will enhance local generation of renewable energy and lower electricity and utility costs for property owners.

Urban and Community Forestry — Funds the planting of over 500 trees to increase the urban tree canopy and the building of three new community gardens and orchards to increase access to fresh and healthy produce. As the trees mature, they will sequester carbon and shade nearby buildings, which should reduce the demand for electricity for cooling purposes. The additional tree coverage will also reduce the urban heat island effect on hot days and absorb stormwater on rainy days.

Urban Greening — Funds the planting of over 950 trees to increase the urban tree canopy, the installation of two miles of bicycle lanes, and the construction of a new 9.5-acre public park. Similar to the urban and community forestry projects, the trees will sequester carbon, cut electricity demand, and reduce the urban heat island effect as they mature. The bicycle lanes will encourage more active forms of travel, thereby reducing vehicle miles traveled.

Leveraged Projects

Chinatown Property-Based Improvement District (PBID) — Leverages the local and small business community in Chinatown to develop a PBID with the main goal of retaining, growing, and attracting businesses to the neighborhood. The PBID will support local job creation and economic growth.

Enhanced Fleet Modernization Program (EFMP) Plus-Up Vehicle Replacement and Incentives — Leverages relationships between project partners and nonprofit organizations to target individuals who receive TCC-funded rooftop solar and energy efficiency upgrades for additional rebates and incentives. These will help residents purchase or install an electric or hybrid vehicle, a home charging station, or electric service panel upgrades through the EFMP Plus-Up.

Southwest Off-site Improvements — Funds new trails, sidewalks, and Class II and III bicycle lanes on and around the new West Fresno Satellite Campus. The improvements will support multi-modal travel in the neighborhood and access to the new community college campus, thereby reducing vehicle miles traveled.

TCC Connector — Expands the frequency of bus service along a central corridor through the project area and couples this service expansion with the purchase of an electric bus and installation of electric charging stations. Similar to the affordable housing project, the TCC Connector will improve transit ridership and reduce vehicle miles traveled.

Project partners planting trees at the Yosemite Village Community Orchard, a TCC-funded urban and community forestry project. Photo credit: Transform Fresno

Transformative Plans

TCC is unique from other state-funded GHG reduction programs because it requires grantees to develop three transformative plans to maximize the benefits of the previously described projects and to minimize unintended harms. Specifically, grantees were required to develop a community engagement plan (CEP), workforce development plan (WDP), and displacement avoidance plan (DAP). Respectively, these three plans are designed to ensure that TCC investments reflect the community's vision and goals, bring economic opportunities to low-income households, and minimize the risk of gentrification and displacement of existing residents and businesses. In the case of Transform Fresno, these three plans have been adapted in the following ways:

Community Engagement Plan

» **Formalize** community participation in TCC grant governance through the establishment of a collaborative stakeholder structure that includes:
- City of Fresno (lead TCC grantee)
- 12 project and plan partners
- 16 members of the Outreach and Oversight (O&O) Committee, an advisory body of local residents and business owners

» **Communicate** ways for the community of Southwest Fresno to benefit from and participate in the implementation of TCC investments, through the following means:
- Central website
- Social media
- Newsletters
- Text messages
- Door-to-door canvassing
- Flyers and meeting notices

» **Create** opportunities for active community participation in the implementation process, including:
- Public meetings of the O&O Committee
- Annual Transform Fresno Summits
- Project-specific charrettes or workshops
- Youth leadership development programming
- Neighborhood project update meetings
- Preference and opinion surveys
- Arts and cultural events (e.g., mural paintings)

» **Document** the outcomes, successes, and lessons learned through Transform Fresno via:
- Video history
- Community narrative documentation
- Online participation dashboard
- Annual and final engagement reports

Workforce Development Plan

» **Connect** residents with training and employment opportunities that provide them with new skills in the following sectors:
- Construction
- Welding
- Solar photovoltaic system installation and maintenance
- Home weatherization
- Advanced-technology trucking
- Agriculture
- Waste management

» **Establish** an electronic database to track economic data pertaining to the workforce ecosystem

Displacement Avoidance Plan

» **Protect** the tenure of existing residents by adopting anti-harassment policies, establishing rent controls, and providing legal services

» **Incentivize** affordable housing development through density bonus ordinances and funding; and by allowing the development of accessory dwelling units

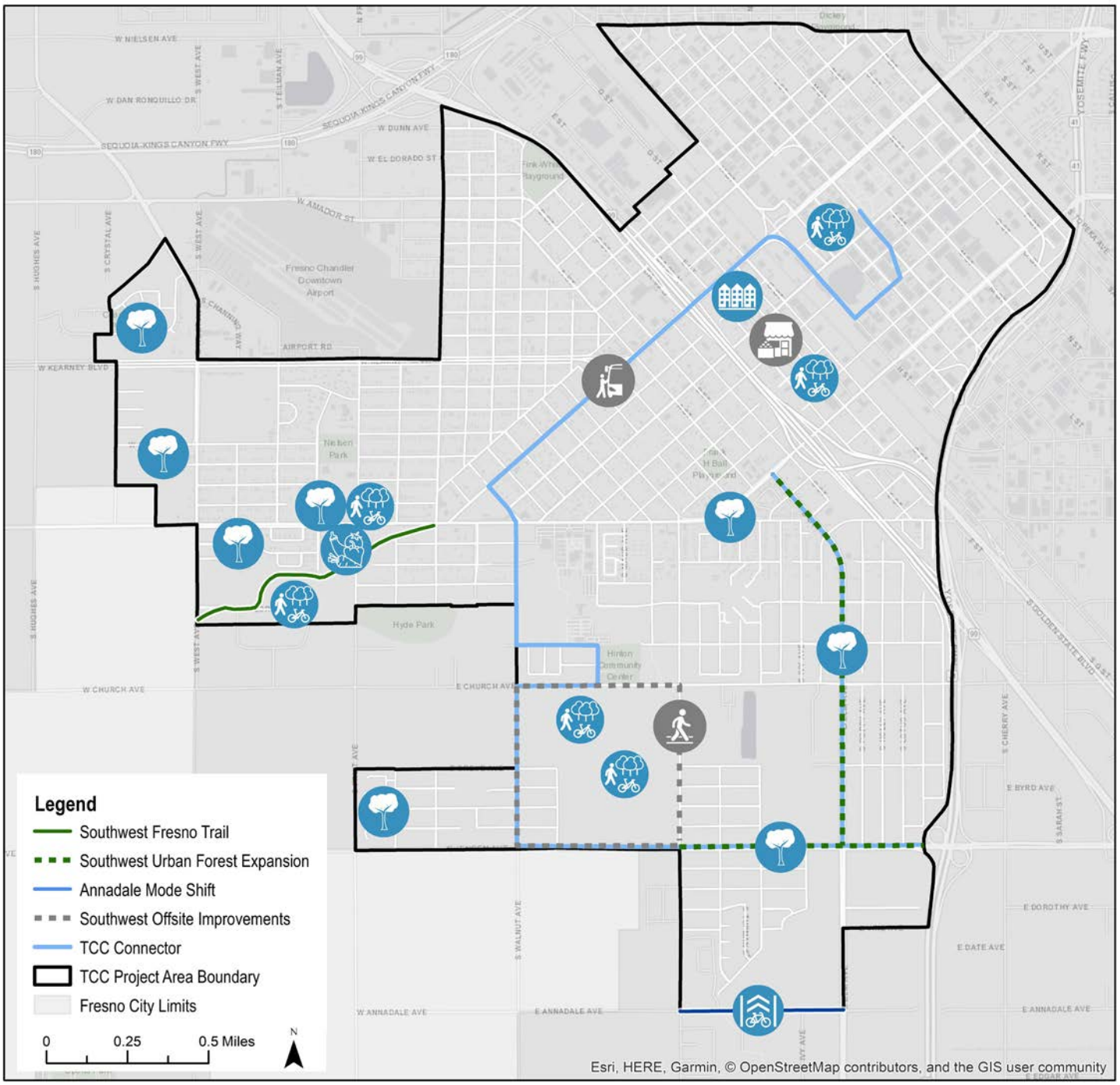
» **Retain** the local small business community by creating a Small Business Alliance, requiring local purchasing, and providing low- and no-cost technical assistance

» **Empower** residents and businesses to take advantage of local economic opportunities by offering:
- Home-buyer and financial literacy education summits
- Coaching sessions and technical assistance opportunities about small business development

Project Area

The Transform Fresno project area was configured to bring investment to some of the state's most disadvantaged neighborhoods. All census tracts within the project area boundary are defined as disadvantaged according to CalEnviroScreen 3.0 (100% of the project area ranks within the top 5%). The project area boundary was also drawn to connect key assets, bus routes, and cultural centers within those census tracts. **Figure 1** shows where TCC-funded and leveraged projects are located.

Figure 1. Project Area Map With Locations of Projects*



*See pages 6-7 for information about what each project icon represents. This map does not include projects or plans that are site wide (e.g., community engagement) or projects for which locations have not been determined (e.g., rooftop solar installations). Figure credit: UCLA Luskin Center for Innovation

Anticipated Benefits

Transform Fresno is slated to bring a number of benefits to residents of the TCC project area. The infographic below highlights a non-exhaustive list of these benefits, grouped by indicator type. This list includes outputs, outcomes, and impacts from TCC-funded projects and does not include those from leveraged projects. Project outputs refer to the tangible goods and services that Transform Fresno will deliver by the end of project implementation. These outputs are expected to result in many positive outcomes and impacts. Outcomes refer to changes in stakeholder knowledge, attitudes, skills, behaviors, practices, or decisions. Impacts refer to changes within the environmental or human condition that align with the objectives and goals of TCC.

Project Outputs*

- **1,458** new trees to shade buildings and sidewalks
- **57** new housing units (56 affordable)
- **17** acres minimum of parks, parklets, community gardens, and orchards
- **784** kW of solar power on affordable multi-and single-family homes
- **42** new battery-EV for a car-sharing network
- **2.5** miles of Class I, II, and II bike lanes
- **200** locals trained for residential solar installation projects
- **31** tons of organic material diverted from landfills
- **1** mile of sidewalk and construction improvements

Outcomes and Impacts*

- **14,832,662** miles of averted vehicle miles traveled annually
- **$4,826,413** in energy cost savings for solar photovoltaic and street tree beneficiaries
- **20,816** metric tons of avoided GHG emissions**
- **6,887,661** gallons in avoided stormwater runoff
- **$4,710,150** in travel cost savings for residents who shift their travel modes
- **337** direct jobs, **112** indirect jobs, and **190** induced jobs***

* **Project outputs presented here may reflect scope modifications to individual projects during the course of grant implementation. However, estimated outcomes and impacts have not been updated during the course of grant implementation and are still tied to the original anticipated project outputs.**

** **All GHG emissions are reported as metric tons carbon dioxide equivalent.**

*** **All jobs are reported as full-time equivalent (FTE) and represent only jobs supported by TCC funding.**

Harder to quantify, but nevertheless important, is the leadership and collaboration capacity that will be created in Fresno over the course of the TCC implementation process. This capacity could lay the foundation for other funding and action-oriented opportunities that leverage the TCC projects and plans to bring additional environmental, health, and economic benefits. Moreover, the best practices and lessons learned from Transform Fresno could inform local climate action and investments well beyond the project area.

Cumulative Accomplishments

Opening ceremony at The Monarch @ Chinatown, a TCC-funded affordable housing development. Photo credit: Fresno Housing

Much has happened since SGC's announcement of Fresno's TCC award in January 2018. From then through the close of the 2022-2023 fiscal year (June 30, 2023), a period of five and a half years, project partners have made considerable progress toward implementing an ambitious, unprecedented climate action initiative.

Key accomplishments of Transform Fresno project partners are described in this section according to the period in which they occurred. Specifically, accomplishments are divided between: (a) post-award consultation, a period of planning and preparation between the award announcement and grant execution; and (b) grant implementation, which formally began in April 2019, when the City of Fresno executed its grant agreement with SGC. In light of the challenges of the pandemic, SGC extended the grant implementation period for Round 1 grantees (from June 2023 to October 2025 in Fresno).

Post-Award Consultation (January 2018 – March 2019)

Formalized Partnerships and Governance Structure

During the post-award consultation phase, Transform Fresno partners participated in a comprehensive review of all projects and transformative plans to ensure that they complied with TCC guidelines and that requisite partnerships were in place for successful implementation. Key deliverables from this process included: an executed grant agreement with clearly defined work plans and roles for each project partner; an evaluation plan to measure the effects of TCC investment in collaboration with LCI; and the establishment of a collaborative stakeholder structure for coordinating grant governance (see **Appendix 3, page 105,** for a list of members).

Grant Implementation (April 2019 – June 2023)

Strengthened Community Capacity

Community capacity is broadly defined as the ability of local communities to develop, implement, and sustain their own solutions to societal challenges, including but not limited to climate change. Through investment in both physical and social capital, TCC has strengthened community capacity in Fresno, as evidenced by several case studies found later in this report. For example, TCC funding for community engagement has helped local project partners build broader networks, gain more leadership experience, and better understand the needs of Southwest Fresnans (See **pages 34, 40, 42,** and **46** for case studies on project partners at the forefront of engaging residents and pushing for positive change). Moreover, TCC funding for food waste diversion has allowed two anchor institutions, Saint Rest Baptist Church and Fresno Metro Ministry, to scale up their work in the community and attract an additional $4.8 million in investment. (See **page 38** for a case study on the project partners facilitating that catalytic growth, and who have gained new fundraising skills in the process).

Moved Families to New Affordable Housing Units

In December 2022, construction of Fresno's affordable housing and sustainable communities project (The Monarch @ Chinatown) was completed. As of January 2023, all units were successfully leased to qualifying households. This means that 56 low-income households now have secure and affordable housing located near transit and within walking distance of a grocery store. Residents also have access to an on-site service coordinator, who organizes community building activities and provides referrals to public resources.

Brought Solar Power to Low-income Households

Through the end of FY 2021-2023, project partners had installed 90 solar photovoltaic (PV) systems, thereby reducing local reliance on fossil fuels and energy costs. Of these systems, 89 were installed at no-cost at single-family properties, benefiting low-income homeowners who make less than 80% of the area median income. The other two PV systems were installed at two multi-family, affordable housing developments in the TCC project area: (1) Bridges at Florence, affordable senior living apartments; and (2) and Sequoia Courts, a public housing complex.

Retrofitted Homes to Use Less Energy

Since TCC funds were awarded, 75 low-income homes have been retrofitted with weatherization and energy efficiency measures. All retrofits are done at no cost for low-income households that make less than 80% of the area median income. Project partners have also been hosting workshops and community outreach events (19 and 15, respectively) to promote energy efficiency and consumer behaviors that save money on electricity bills.

Installed Electric Vehicle Charging Infrastructure

To help make electric vehicles a more accessible transportation option, 85 chargers have been installed across 11 charging sites throughout the project area. These charging stations will eventually support 34 shared battery-electric vehicles (Tesla Model 3 or Chevy Bolt), which can be rented by the hour or by the day, with below-market rates for

Key Accomplishments Through June 2023

Affordable Housing Development

- **56** units of transit-oriented housing built and leased to low-income households
- **1** on-site service coordinator hired to organize community building activities and provide referrals to public resources

Renewable Energy Access

- **89** solar PV systems installed on single-family properties owned by low-income households, totaling 346 kW in capacity
- **2** solar PV systems installed at multi-family, affordable housing sites, totaling 30 kW in capacity

Energy Efficiency

- **75** homes retrofitted with weatherization measures that save energy for heating and cooling
- **19** energy efficiency workshops held (56 unique stakeholder engaged across workshops)

Project partners at Fresno Economic Opportunities Commission, the organization leading energy efficiency installations in the project area, as well as some of the solar installations. Photo credit: Fresno EOC

Newly planted trees at Fresno City College's satellite campus, the West Fresno Center. Photo credit: State Center Community College District

low-income members. Thus far, the charging stations have supported 19,770 kilowatt-hours (kWh) of charging activity, displacing about 51,402 miles traveled in a conventional vehicle fueled by gasoline. The investments in electric vehicle infrastructure are complemented by investments in robust community engagement, particularly with residents who have limited transportation options, so that they are empowered to use the new infrastructure to meet their transportation needs. (See **page 36** for a case study on how the engagement process has helped build buy-in for the car-sharing program).

Increased Urban Tree Cover

With respect to urban forestry, program partners have planted 1,273 trees throughout the project area. In addition to planting native and drought-tolerant trees for shade, partners have also planted citrus, stone fruit, and nut trees to give residents the opportunity to harvest their own food, thereby increasing healthy and nutritious food access. TCC funding for urban forestation has covered the cost of supporting infrastructure where trees are planted, such as a community garden and farmer incubator program, both co-located at the Yosemite Village housing complex. (See **page 40** for a case study on two Fresnans who have leveraged the incubator program to grow their farming skill set).

Greened Fresno's Built Environment

Fresno's six urban greening projects complement other efforts to increase tree coverage, vegetative cover, and active transportation infrastructure. During the reporting period, partners planted a total of 386,533 square feet (8.9 acres), most of which has occurred at the community garden at Yosemite Village (84%). With respect to active transportation infrastructure, 1.8 miles of bike lanes and 1.1 miles of pedestrian pathways have been added in the project area (split between the satellite west campus of the Fresno City College and a section of East Annadale Avenue).

Key Accomplishments Through June 2023

Low-carbon Mobility

- **19,770** kilowatt-hours (kWh) of energy consumed at EV charging infrastructure, displacing about 51,402 miles traveled in a conventional vehicle fueled by gasoline
- **85** EV chargers installed across 11 sites

Urban Forestry, Greening, and Farming

- **386,533** square feet (8.9 acres) of vegetation planted across the project area
- **32,614** pounds of produce grown (at least 286 pounds were given away for free to residents)
- **9,681** linear feet (1.8 miles) of bike lanes added
- **5,854** linear feet (1.1 miles) of pedestrian pathways added
- **1,273** trees planted across the project area
- **94** new community garden plots at the Yosemite Village housing complex
- **4** farmers expanding their operations through the farmer incubator program

Engaged Residents Around Climate Action

Fresno's Community Engagement Plan offers residents multiple channels to participate in TCC grant governance, planning, leadership development, and opportunities to reflect on (and celebrate) TCC implementation milestones. With respect to grant governance and planning, Transform Fresno's resident-inclusive Outreach and Oversight (O&O) Committee met 23 times, during which they discussed project developments and pending implementation decisions. As to leadership development, project partners have trained 40 youth ambassadors to support engagement efforts, with education on the following topics: community organizing, meeting facilitation, public speaking, and local government procedures. And with respect to reflection and celebration, there have been three Transform Fresno Summits (all-day conferences about various TCC happenings) and one resource fair to showcase pedestrian and bicyclist infrastructure along East Annadale Avenue.

A number of additional project-specific community engagement and outreach events are detailed later in the report (e.g., bicycle education workshops, cooking demonstrations, etc.). In total, there have been at least 335 documented events, workshops, and meetings to engage the community in some capacity (a total that includes the aforementioned O&O Committee meetings and summits).

Key Accomplishments Through June 2023

Community Engagement

- **335** documented events, workshops, and meetings to engage the community in some capacity (inclusive of the two event-related accomplishments called out below) .
- **120** videos uploaded to the Transform Fresno YouTube channel and posted on social media
- **40** youth ambassadors trained to support engagement efforts
- **23** meetings of the Outreach and Oversight Committee, a resident-inclusive grant governance body
- **3** Transform Fresno Summit events (all day conferences about TC C progress and learnings)
- Launched a dedicated website for the Transform Fresno Initiative, which includes project and plan descriptions, a calendar of events, and links to meeting minutes and recordings

Pastor B.T Lewis speaking at the Yosemite Village Community Garden and Farm as part of the 2023 Transform Fresno Annual Summit event. **Photo credit: Transform Fresno**

Workers from Fresno EOC install new solar panels on a residence. Photo credit: Transform Fresno

Coordinated Efforts to Mitigate Displacement

Fresno's Displacement Avoidance Plan is unique from the other transformative plans in that it is not directly funded by Fresno's TCC Implementation Grant. However, the City of Fresno did receive a separate $133,333 Technical Assistance Grant from SGC to bring together a variety of stakeholders to inform the operationalization of policies proposed within the Displacement Avoidance Plan. With these funds, the City hired a consultant, Thrivance Group, to gather and analyze data related to displacement vulnerability within the project area, conduct informational workshops about preliminary findings, and make displacement avoidance policy recommendations. Those recommendations were released to the public on June 9, 2021 in a draft report entitled, *Here to Stay*. The report offered 48 policy recommendations, 15 of which were later included as priorities in Fresno's 2022 citywide housing plan, titled: *One Fresno Housing Strategy*.

One major strategy within Fresno's Displacement Avoidance Plan is mitigating displacement measures by economically empowering residents and businesses to build wealth and financial stability. In service of this strategy, Transform Fresno partners have accomplished the following: (1) executed a project labor agreement with local hiring provisions for construction projects that are at least 75% funded by TCC and have a bid amount greater than $133,000; (2) offered home-buyer education workshops that covered the home-buying process, necessary qualifications for buyers, and strategies for improving one's access to credit; and (3) offered business development workshops.

Key Accomplishments Through June 2023

Displacement Avoidance

- **3** business development webinar held
- **2** home-buyer education webinars held
- Executed a project labor agreement with local hiring provisions for construction projects that are at least 75% funded by TCC and have a bid amount greater than $133,000

Workforce Development

- **9,681** hours of employment in the construction sector supported by TCC-funded projects within the aforementioned project labor agreement
- **191** individuals received on-the-job training from GRID Alternatives in the rooftop solar sector
- **85** individuals enrolled in the VOICE Welding Gladiator Program (58 completed all 500 hours of free training and 50 placed in related jobs)
- **54** individuals received paid training from Fresno Economic Opportunities Commission on energy efficiency measures and solar PV installation
- **49** individuals enrolled in advanced transportation training to learn how to drive low- to zero-emission commercial trucks (46 completed all 160 hours of free training and 15 placed in related jobs)

Expanded the Skills of Fresno's Labor Force

Guided by Transform Fresno's Workforce Development Plan, project partners are offering a wide range of training and employment opportunities in fields that are needed for climate change mitigation and resilience. Those fields include, but are not limited to: solar PV system installation and maintenance, home weatherization, welding, construction, waste management, and goods movement. Across those sectors, 379 individuals have received free job training in a structured program partly funded by TCC. (See **pages 32, 34**, and **44** for case studies on six Fresnans who leveraged the training to gain new skills and pivot toward new careers). Additionally, 9,681 hours of employment in the construction sector were supported by TCC-funded projects that fell under the aforementioned project labor agreement.

Responded to the COVID-19 Pandemic

After the COVID-19 pandemic hit, many of Transform Fresno's various projects and transformative plans halted implementation to mitigate community spread of the virus. Partners quickly regrouped and identified which project components should be postponed and which could be modified to employ physical distancing protocols. Notable implementation pivots include: moving community engagement programming to a virtual environment (Zoom), much of which was recorded for wider dissemination; modifying site visit procedures for solar installations to minimize client contact; and employing social distancing and masking practices so that construction, gardening, and tree planting activities could continue.

Key Accomplishments Through June 2023

Pandemic Responses

- Outreach and Oversight Committee and displacement planning meetings moved to a virtual environment (Zoom) and recorded for wider dissemination.
- GRID Alternatives and Fresno EOC received applications for rooftop solar virtually or via phone, modified site visit procedures to minimize client contact, and continued solar installations with physical distancing and masking.
- Construction, volunteer days, and resident planting and gardening continued at the Yosemite Village Permaculture Community Garden & Urban Farm Incubator at limited capacity, with social distancing and masks.

A VOICE Gladiator training program participant works on their welding skills. Photo credit: Gladiator Welding

BACKGROUND

Former Governor Jerry Brown in Fresno signs a package of climate change bills in September of 2016, including Assembly Bill 2722, which was authored by Assemblymember Autumn R. Burke (at right) and established the Transformative Climate Communities (TCC) Program. Photo credit: The Fresno Bee

The Vision Behind TCC

THE TRANSFORMATIVE CLIMATE COMMUNITIES PROGRAM (TCC) was authorized in 2016 by Assembly Bill 2722 (authored by Assemblymember Autumn R. Burke). The bill's intent is to fund the development and implementation of neighborhood-level transformative climate community plans that include multiple coordinated greenhouse gas (GHG) emissions-reduction projects that provide local economic, environmental, and health benefits to disadvantaged communities.[8] The program is part of California's broader suite of programs, referred to as California Climate Investments, that use revenues from the state's Cap-and-Trade Program to fund projects that reduce GHG emissions. TCC is novel because of three signature elements: (1) a place-based and community-driven approach toward transformation; (2) robust, holistic programming via the integration of diverse strategies, and (3) cross-sector partnerships. The authors of this report are not aware of such a comprehensive, community-driven, and place-based climate action program anywhere else in the world.

[8] AB 2722, Transformative Climate Communities. 2016. Web. February 2017. Retrieved from: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB2722

As a place-based program, TCC requires that all grant applicants identify a project area that will be the focus of their respective proposal. Proposals must be borne out of a robust community engagement process that brings together residents and stakeholders toward the development of a shared vision of how to invest TCC funds. The program's emphasis on comprehensive community engagement helps ensure that proposals are based on a deep understanding of a community's needs and assets, thereby maximizing the benefits that TCC dollars bring to existing residents in a selected site.

As a holistic program, TCC integrates a wide variety of GHG-reduction strategies, such as sustainable land use, low-carbon transportation, renewable energy generation, urban greening, and waste diversion. With these strategies in mind, TCC grantees develop site-specific projects, such as transit-oriented affordable housing, expanded bus service, rooftop solar installations, tree plantings, and food waste recovery. These GHG-reduction projects are modeled after existing California Climate Investment (CCI) project types, but TCC is novel in that it unifies them into a single, place-based initiative. In addition to integrating various CCI project types, TCC also requires TCC sites to incorporate crosscutting transformative plans, ensuring that TCC investment is underpinned by meaningful community engagement, provides direct economic benefits to existing residents and businesses, and enables these stakeholders to remain in their neighborhoods. Moreover, grant recipients are expected to use TCC dollars in concert with other funding sources to achieve the community's vision for the grant.

Lastly, the program emphasizes cross-sector partnerships by requiring applicants to form a coalition of organizations that would carry out the implementation of the community vision. To ensure that the implementation will deliver on the community's vision, all applicants are required to have an oversight committee that consists of project partners, community members, and local community-based organizations. The diverse partnerships, robust governance structure, and aforementioned transformative plans help ensure transparency and accountability for the TCC investments, all while building community capacity in neighborhoods with long histories of disinvestment, thereby helping to reverse that trend.

Program Administration

SGC awards TCC grants and administers the program in partnership with the Department of Conservation (DOC), with collaboration by other state agencies. SGC staff coordinates efforts with partnering state agencies and works with the California Air Resources Board (CARB) and DOC on program guidelines, evaluating applications, preparing agreements, monitoring agreement implementation, and program reporting.

Program Awards

There are three types of grants administered through TCC: (1) Implementation Grants; (2) Planning Grants; and (3) Project Development Grants. SGC awards Implementation Grants to sites that have demonstrated a clear, community-led vision for how they can use TCC dollars to achieve program objectives in their communities. SGC also awards Planning Grants to fund planning activities in disadvantaged communities that may be eligible for future TCC Implementation Grants and other California Climate Investment programs. Project Development Grants are a new pilot grant program developed by SGC in response to the gap between Planning and Implementation Grant funding identified by prospective applicants, and fund communities' climate and community resilience goals.

Each TCC grant cycle is funded slightly differently. Rounds 1, 2, and 3 were funded through California's Cap-and-Trade auction proceeds via the California Climate Investment's Greenhouse Gas Reduction Fund, whereas funding for Rounds 4 and 5 was allocated through the State General Fund's Climate Budget.

Since the launch of the program in 2016, there have been five rounds of awards. Each round of awards is tied to a different fiscal year (FY) of state funding and comprises a unique mix of grant awards by number and amount. **Table 1** provides an overview of all five rounds of TCC awards that have been distributed through FY 2022-2023.

Table 1: Overview of TCC Grants Through FY 2022-2023

Site Location	Round (Fiscal Year)	Grant Type	Funding Amount
Fresno	Round 1 (FY 2016-2017)	Implementation	$66.5 million
Ontario	Round 1 (FY 2016-2017)	Implementation	$33.25 million
Los Angeles – Watts	Round 1 (FY 2016-2017)	Implementation	$33.25 million
Coachella Valley	Round 1 (FY 2016-2017)	Planning	$170k
East Los Angeles	Round 1 (FY 2016-2017)	Planning	$170k
East Oakland	Round 1 (FY 2016-2017)	Planning	$170k
Gateway Cities	Round 1 (FY 2016-2017)	Planning	$170k
Moreno Valley	Round 1 (FY 2016-2017)	Planning	$94k
Richmond	Round 1 (FY 2016-2017)	Planning	$170k
Riverside	Round 1 (FY 2016-2017)	Planning	$170k
Sacramento - Franklin	Round 1 (FY 2016-2017)	Planning	$170k
Stockton	Round 1 (FY 2016-2017)	Planning	$170k
West Oakland	Round 1 (FY 2016-2017)	Planning	$170k
Northeast Los Angeles – Pacoima/Sun Valley	Round 2 (FY 2018-2019)	Implementation	$23 million
Sacramento – River District	Round 2 (FY 2018-2019)	Implementation	$23 million
Bakersfield	Round 2 (FY 2018-2019)	Planning	$200k
Indio	Round 2 (FY 2018-2019)	Planning	$200k
McFarland	Round 2 (FY 2018-2019)	Planning	$200k
South Los Angeles	Round 2 (FY 2018-2019)	Planning	$200k
Tulare County	Round 2 (FY 2018-2019)	Planning	$200k
East Oakland	Round 3 (FY 2019-2020)	Implementation	$28.2 million
Riverside – Eastside	Round 3 (FY 2019-2020)	Implementation	$9.1 million
South Stockton	Round 3 (FY 2019-2020)	Implementation	$10.8 million
Pomona	Round 3 (FY 2019-2020)	Planning	$200k
Porterville	Round 3 (FY 2019-2020)	Planning	$200k
San Diego – Barrio Logan/Logan Heights	Round 3 (FY 2019-2020)	Planning	$200k
Richmond	Round 4 (FY 2021-2022)	Implementation	$35 million
South Los Angeles	Round 4 (FY 2021-2022)	Implementation	$35 million
South Stockton	Round 4 (FY 2021-2022)	Implementation	$24.2 million
San Diego – Spring Valley	Round 4 (FY 2021-2022)	Planning	$300k
Karuk Tribe	Round 4 (FY 2021-2022)	Planning	$300k
Monterey – Pájaro Valley	Round 4 (FY 2021-2022)	Planning	$300k
Chicken Ranch Rancheria and Jamestown	Round 4 (FY 2021-2022)	Planning	$217k
Tulare County	Round 4 (FY 2021-2022)	Planning	$300k
Hoopa Valley Indian Reservation	Round 4 (FY 2021-2022)	Planning	$300k
Wiyot Tribe	Round 4 (FY 2021-2022)	Planning	$300k

Site Location	Round (Fiscal Year)	Grant Type	Funding Amount
Bakersfield	Round 5 (FY 2022-2023)	Implementation	$22 million
Pomona	Round 5 (FY 2022-2023)	Implementation	$22 million
Coachella	Round 5 (FY 2022-2023)	Implementation	$22 million
San Diego	Round 5 (FY 2022-2023)	Implementation	$22 million
San Diego	Round 5 (FY 2022-2023)	Planning	$300k
Fresno County	Round 5 (FY 2022-2023)	Planning	$300k
Paramount	Round 5 (FY 2022-2023)	Planning	$300k
Riverside County	Round 5 (FY 2022-2023)	Project Development	$4 million
Santa Barbara County	Round 5 (FY 2022-2023)	Project Development	$1.1 million
Mariposa County	Round 5 (FY 2022-2023)	Project Development	$1.1 million
Mendocino County	Round 5 (FY 2022-2023)	Project Development	$2.5 million

Representatives from SGC on a tour of Yo'Ville Community Garden and Farm in December of 2021. Photo credit: SGC

Representatives from the LCI evaluation team and SGC attending the 2023 Transform Fresno Summit. Photo credit: Transform Fresno

Evaluating the Impacts of TCC

In 2017, SGC contracted with the University of California, Los Angeles and the University of California, Berkeley ("UCLA-UCB evaluation team") to draft an evaluation plan for assessing the progress and outcomes of Round 1 TCC Implementation Grants at the neighborhood level. In November 2018, the UCLA-UCB evaluation team published an evaluation plan to serve as a guide for evaluating the three TCC Round 1 grants.[9]

After the publication of the Round 1 evaluation plan, the UCLA-UCB evaluation team entered a second contract with SGC to serve as the third-party evaluator in all three Round 1 sites. As of the writing of this report, the UCLA Luskin Center for Innovation (LCI) serves as the sole contractor in that role.

For later rounds of the TCC program, grantees were able to contract directly with a third-party evaluator of their choosing, including but not limited to the LCI evaluation team. To date, the LCI evaluation team is under contract to serve as the evaluator for the Round 2 grant in Northeast Los Angeles (Pacoima), the Round 3 grant in Stockton, and the Round 4 grants in South Los Angeles and Stockton.

LCI's evaluation plans for the later rounds of TCC closely follow the evaluation plan from Round 1, with some site-specific modifications to reflect each site's unique set of projects, goals, and priorities for data tracking. These modifications were made in close consultation with the project partners in each TCC site.

Contract Period for Evaluating TCC Round 1

The LCI evaluation team was initially contracted to provide evaluation technical assistance services to Round 1 sites from April 2019 through the end of December 2023. However, the COVID-19 pandemic, supply chain shortages, inflation, and other factors caused significant delays that pushed back the implementation timelines of Round 1 TCC grantees beyond the time period that the LCI evaluation team had set aside for closeout data collection and analysis.

To allow for more time for data collection, SGC extended the LCI evaluation team's contract period through June 2025. This extension will allow the LCI evaluation team to complete some, but not all, of the evaluation activities that were anticipated in the 2018 evaluation plan. The following subsections provide a summary of the evaluation activities that the LCI evaluation team had originally proposed, and the extent to which those activities are still possible under the current contract period for Round 1 evaluation.

Conceptual Framework for Evaluating TCC

Logic models are at the heart of the LCI evaluation team's conceptual framework for evaluating TCC and thus greatly informed all of the evaluations plans that LCI has produced. Logic models illustrate the interim steps that must occur

[9] The UCLA Luskin Center for Innovation and UC Berkeley Center for Resource Efficient Communities. 2018. *Transformative Climate Communities Evaluation Plan: A Road Map for Assessing Progress and Results of the Round 1 Place-based Initiatives*. Retrieved from: http://sgc.ca.gov/programs/tcc/docs/20190213-TCC_Evaluation_Plan_November_2018.pdf

for a project or plan to realize its intended goals. Within the context of TCC, these steps are defined as follows:

» **Inputs:** The investment dollars and leveraged funds that support TCC

» **Activities:** The work of TCC grantees and co-applicants

» **Outputs:** The products and services that TCC projects produce and deliver (the basis for many of the implementation accomplishments reported throughout this document)

» **Short-Term Outcomes:** Changes in stakeholders' knowledge, attitude, and skills

» **Intermediate Outcomes:** Changes in stakeholders' behaviors, practices, or decisions

» **Impacts:** Changes in environmental or human conditions that align with the objectives of TCC (i.e., GHG reductions; public health and environmental benefits; and economic opportunities and shared prosperity)

The LCI evaluation team translated the latter four steps in the logic model framework into indicators that could be quantified and tracked for the purposes of program evaluation. The TCC Round 1 evaluation plan summarizes the final list of indicators adopted by SGC for Fresno, Ontario, and Watts.[10]

Indicator tracking responsibilities were partially split among the LCI evaluation team and the TCC grantees. In general, the grantees committed to tracking all output-related indicators, while the LCI evaluation team committed to tracking most outcome- and impact-related indicators. The LCI evaluation team was funded to perform this function for the first five years of grant implementation (i.e., through the end of FY 2022-2023). Despite the contract extension, the LCI evaluation team is not funded to continue this function within its current scope of work.

Quantitative Methods for Evaluating TCC

To quantitatively assess the effects of TCC, the LCI evaluation team proposed two different forms of comparison: (1) before-and-after TCC investment; and (2) with-and-without TCC investment. Together, these two modes of comparison provide the most reliable assessment of what changes can be attributed to TCC investment.

For the before-and-after comparison, the goal of the evaluation was to collect enough longitudinal data to construct a five-year trend line before and after grant implementation. A time series such as this would allow the evaluator to discern whether indicators were already trending in a positive or negative direction before TCC investment began.

For the with-and-without comparison, the goal was to compare trends in TCC sites to trends in a set of control sites that did not receive TCC investment. This approach would allow the LCI evaluation team to isolate the effect of TCC from larger social, economic, and environmental forces that may also be acting on indicators. To support this effort, the LCI evaluation team identified control sites that were similar to TCC sites along a number of dimensions, including socioeconomic demographics, climate, and pollution (as demonstrated by CalEnviroScreen scores).[11]

Due to the previously discussed delays in TCC project and plan implementation, the LCI evaluation team will be unable to conduct a before-and-after comparison (and by extension, a with-and-without comparison) within its contract period. Nonetheless, the LCI evaluation team is committed to providing an updated time series of the quantitative data that has been collected thus far. This time series can be found in **Appendix 8**, **page 111**. When possible, the data is provided at the following geographic scales:

» **TCC project area:** The neighborhood boundary identified by the TCC grantees in which all TCC investments will be located. In some cases, a cluster of census tracts that have more than 10% area overlap with the TCC project area boundary will be used for indicator tracking purposes instead of the actual project area boundary. This is the case for all indicators that rely on American Community Survey (ACS) data, which cannot reliably be apportioned to fit the actual TCC project area boundary. See **Appendix 6, page 109,** for a list of census tracts that the LCI evaluation team selected as a proxy for Fresno's TCC project area boundary.

» **TCC control sites:** A cluster of census tracts that match TCC census tracts along a number of dimensions (e.g., demographics, climate, pollution burden, etc.) but that did not receive TCC investment. Collecting before-and-after data for the control sites will help control for external forces that may also be acting on indicators of interest within TCC sites. See **Appendix 7, page 110,** for a list of census tracts that the LCI evaluation team selected as control sites for evaluating the impacts of TCC investment in Fresno.

» **County:** The county in which TCC sites are located (i.e., Fresno County in the case of Fresno). County-scale measurements are helpful for understanding the degree to which TCC investments are addressing social equity indicators (e.g., income, employment, housing costs, etc.) at a regional scale. If, for example, employment slightly increases within TCC sites but a much greater increase

[10] **Ibid.**

[11] **See the TCC Round 1 Evaluation Plan (Appendix 3.2) of the TCC Round 1 Evaluation Plan for a summary of the methods used to identify control sites: http://sgc.ca.gov/programs/tcc/docs/20190213-TCC_Evaluation_Plan_November_2018.pdf**

is observed regionally, then the economic gap between TCC sites and nearby communities has not been sufficiently addressed.

» **State:** The state in which TCC sites are located (i.e., California). Like county-scale measurements, statewide measurements are helpful for understanding the degree to which TCC investments are addressing social equity concerns, but at an even broader scale.

Qualitative Methods for Evaluating TCC

Many of the effects of TCC cannot be fully captured by the quantitative methods previously described. For example, improvements in well-being, community capacity to tackle new challenges, and collaboration across diverse stakeholder groups are difficult to describe in numerical terms. Thus, to document some of the more nuanced effects of TCC, the LCI evaluation team is posing questions directly to TCC stakeholders about their lived experiences vis-a-vis surveys, interviews, and focus groups.[12]

For Round 1 sites, the LCI evaluation team prioritized its qualitative data collection resources to examine the aspects of TCC that are particularly novel relative to other grant programs. Specifically, the LCI evaluation team is collecting qualitative data about the roll-out of the three transformative plans and the Collaborative Stakeholder Structure. Additionally, the LCI evaluation team will also collect qualitative data from residents of TCC-funded affordable housing projects, which concentrate multiple GHG-reduction strategies into a single location and thus serve as a microcosm for the broader TCC program.

The extended contract period for TCC evaluation will allow the LCI evaluation team to wrap up the full suite of qualitative data collection tasks that were proposed in the original Round 1 evaluation plan. However, the LCI evaluation team will be unable to publish findings during the current evaluation contract period that reflect those qualitative data. The LCI evaluation team is seeking other grant opportunities to synthesize and publish findings from qualitative data collection activities, and at a minimum will anonymize all of the qualitative data collected and share the anonymized data with SGC for posterity.

Communicating the Effects of TCC

To broaden public understanding of what TCC has accomplished, the LCI evaluation team produced five annual progress reports for Round 1 sites that document the tangible results of their TCC-funded initiatives through June of 2023. To complement the tangible outputs detailed within the annual progress reports, each report also spotlights the perspectives of TCC project partners and beneficiaries. These perspectives are chronicled in the "Stories from the Community" chapter (see **page 31**).

It's important to note that the individuals profiled in the "Stories from the Community" chapter are recruited directly by TCC project partners and then interviewed by the LCI evaluation team. While providing invaluable insights into what the TCC model looks like in practice, these interviews are not included in the formal evaluation plan for Round 1 TCC grants (and thus are discussed separately from other qualitative data collection activities) because the interviewees are not recruited through a systematic or randomized recruitment strategy, which are conventions in traditional program evaluation. However, given TCC's emphasis on community empowerment, the LCI evaluation team felt it was critical to give TCC project partners the opportunity to amplify the voices they felt helped tell the story of their work, and not just rely on traditional program evaluation methods for doing so.

This report marks the final progress report that the LCI evaluation team was funded to deliver within its contract period. In the next year, however, the LCI evaluation team will continue to add to its standalone compendium of "Stories from the Community" hosted on the LCI website.[13] The LCI evaluation team has committed to publishing a total of 10 "stories" for each TCC Round 1 site. It's important to note that this total is a goal that is subject to change, as it is dependent on respondent participation.

Data Collection Activities in Fresno Through June 2023

With respect to output indicators, the LCI evaluation team successfully collected data from Transform Fresno partners through the end of June 2023 (which are highlighted as implementation accomplishments throughout this report). While Transform Fresno partners received an extension to continue grant implementation through the end of October 2025, it is outside of the LCI evaluation team's scope of work to continue to collect output data from project partners beyond June 2023.

With respect to outcome- and impact-related quantitative indicators, the LCI evaluation team completed baseline data collection by the end of 2019. Findings from baseline data collection are narratively described in the final chapter of Transform Fresno's first annual report, titled *Transform Fresno: A Baseline and Progress Report on Early Implementation of the TCC Grant*. For more recent data

[12] See Section 3.3 of the TCC Round 1 Evaluation Plan for more information about how each of these data collection instruments will be used: http://sgc.ca.gov/programs/tcc/docs/20190213-TCC_Evaluation_Plan_November_2018.pdf (since the publication of the Round 1 evaluation plan, the LCI evaluation team committed to interviewing members of each TCC site's Collaborative Stakeholder Structure on annual basis about implementation successes, challenges, and opportunities to improve TCC).

[13] Found here: https://innovation.luskin.ucla.edu/transformative-climate-communities-stories-from-the-community/

on many of the quantitative indicators that were featured in the baseline report, see **Appendix 8, page 111** of this report.

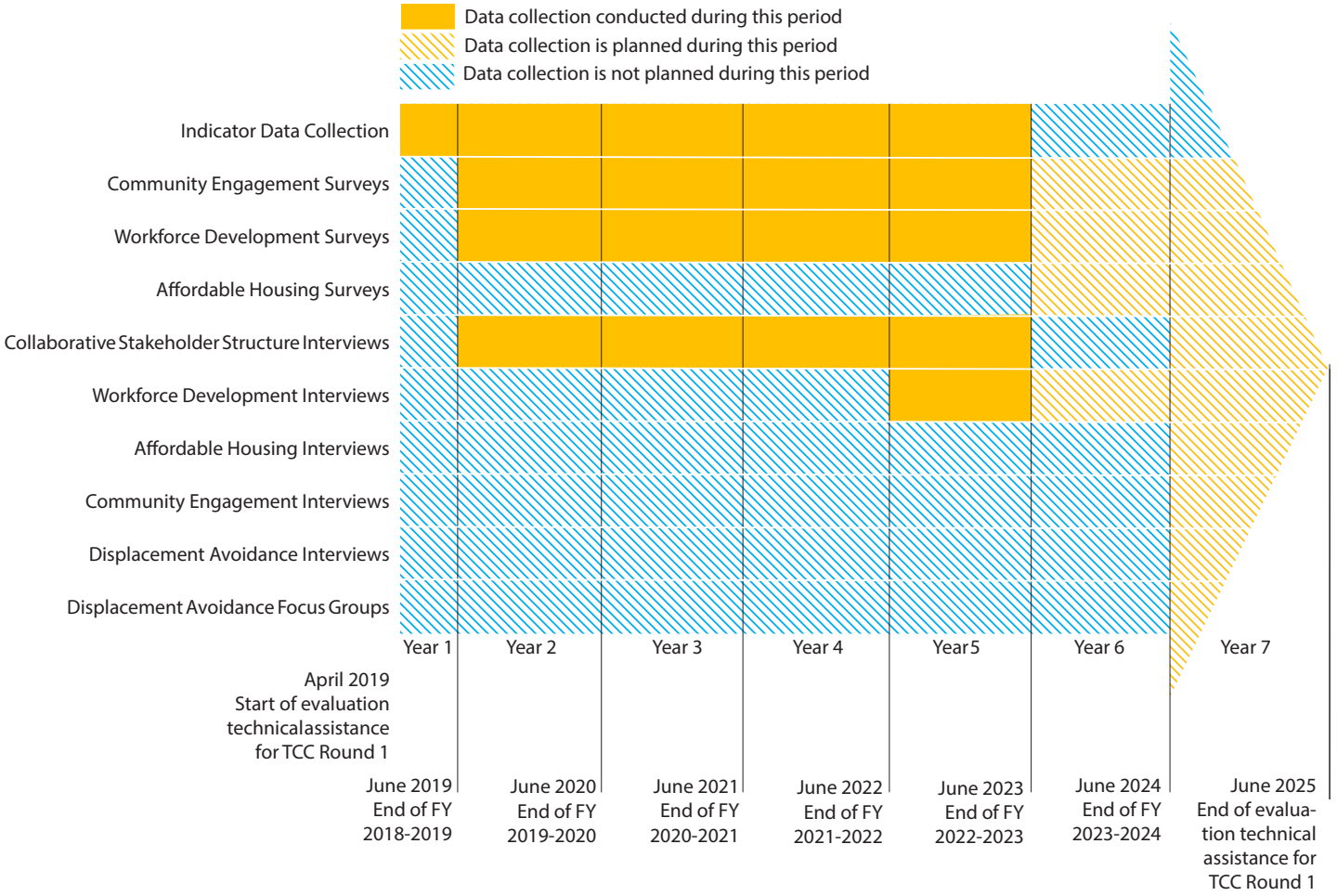
In regard to qualitative data collection, the LCI evaluation team has disseminated two surveys in all three Round 1 sites: (1) a survey focused on outcomes from community engagement activities and (2) a survey focused on outcomes from workforce development activities. The LCI evaluation team substantially revised the survey instruments from the versions posted in the 2018 evaluation plan, improving their legibility and reducing their completion time. The surveys have been made available in both English and Spanish, and in print and online formats.

In Fresno, community engagement surveys were disseminated at quarterly Outreach and Oversight community meetings. Workforce development surveys were disseminated at the beginning and end of the following three job training programs: (a) GRID Alternatives' solar installation training program: (b) Fresno EOC's solar installation training program; (c) the West Fresno Advanced Transportation Technology commercial truck driver training program; and (d) the Voice of including Community Equitably (VOICE) Welding Gladiator Program.

In addition to surveys, the LCI evaluation team has conducted interviews with individuals involved with and/or benefiting from grant implementation. Specifically, the LCI evaluation team has conducted interviews with members of the Collaborative Stakeholder Structure to learn more about the process of TCC implementation, including strengths, challenges, and opportunities for improvement. Additionally, during the most recent fiscal year, the LCI evaluation team began the process of interviewing individuals who had participated in the aforementioned job training programs to learn more about their post-training employment outcomes. For these latter interviews, the LCI evaluation team prioritized individuals who had been out of their job training program for at least a year.

Figure 2 provides a summary timeline of data collection activities for evaluating Transform Fresno. Pending activities are dependent upon respondent participation.

Figure 2. Timeline of LCI Data Collection Activities in Fresno by Fiscal Year (FY)



Along Highway 99, which runs through Fresno, air pollution is highly visible. Source: John Walker, The Fresno Bee

A Brief History of Fresno: The Legacy of Environmental Injustice

TCC grants are reserved for California's most disadvantaged communities. Understanding how those communities became so disadvantaged is critical for evaluating the efficacy of TCC. If the root causes of pollution, poverty, and other harms are overlooked, then they are likely to continue. This section provides a brief history of Fresno and how environmental injustices from the past affect the lives of Fresno residents today.

Displacement of Yokuts and Mono People

Located in the San Joaquin Valley, the city of Fresno is California's fifth most populous city, with over half a million residents. It has a culturally and ethnically diverse population and is home to many diaspora, immigrant, and refugee communities. Fresno has long struggled with environmental, health, and economic disparities, including high concentrations of poverty, air pollution, and toxin and pesticide exposure. Situated near the geographic center of California, it will increasingly experience the effects of extreme heat as the climate continues to warm.

The San Joaquin Valley is the traditional homeland of the Yokuts people, who lived in the foothills, and Mono peoples, who occupied the upper reaches of Fresno County's rivers.[8] In 1776, Spanish missionaries disrupted the lives of native peoples by capturing them and exposing them to diseases. By the 1800s, the indigenous population became weakened as more and more outsiders, including gold miners, took their land and displaced them.

Impact of Anti-immigrant and Anti-Black Policies

After Fresno was established by the Central Pacific Railroad in 1872, it saw a boom in agriculture and demanded an expanded labor force.[9] However, jobs that depended on Asian immigrant laborers fell short due to anti-immigrant policies, such as the Chinese Exclusion Act. In the 1940s, the majority of the agricultural labor force became Mexican workers brought by the Bracero Program, which has contributed to the growth of the Latino population in Fresno today. Although Chinese immigrants helped build the Central Pacific Railroad, they were viewed as outsiders by local white residents and were forced to settle west of the tracks in what is now Chinatown. Many more immigrant groups, including Japanese, Armenians, and Mexicans, were also ostracized and joined Chinese immigrants in an area now commonly referred to as Southwest Fresno.

[8] Fresno County Historical Society. "The People and Communities of the 19th Century Central Valley - Native Americans." Retrieved from: https://www.valleyhistory.org/native-americans

[9] City of Fresno. "History of Fresno." Retrieved from: https://www.fresno.gov/darm/historic-preservation/history-of-fresno/

In 1918, Fresno's first general plan was created.[10] It formalized the existing residential segregation by setting aside the southern parts of the city for heavy industrial facilities, air and land pollution, and public housing. After World War II, many Black Americans moved to Fresno but found they were confined to living in the city's southwest due to redlining policies. The legacy of the first general plan instituted a harmful pattern that remains today – Fresno's communities of color are relegated to the most unsafe and polluted neighborhoods in the city.

In the 1970s, the population of Fresno tripled.[11] As more and more immigrants from Latin America came to the city, white flight from central neighborhoods began to occur. Development away from its urban core, such as shopping centers, hospitals, and college campuses, in combination with newly constructed freeways, attracted white residents to the affluent neighborhoods of north Fresno. As resources and wealth shifted to the north, white residents experienced improved health and education outcomes, more green spaces, and increased economic development. Contrastingly, the disinvestment in central, southeast, and west Fresno has resulted in increased poverty, the disproportionate impact of environmental hazards, and lack of access to economic opportunities for residents of color. According to a study published in 2018 by the National Center for Health Statistics, the life expectancy of residents in south and central Fresno is eight years less than residents of north Fresno.[12]

Coming Together to Address Health Impacts

Today, Fresno is among the top polluted cities in California.[13] Fresno's air quality is affected by several factors, including its role as the region's center for agricultural industry and its location as the intersection of several major state highways. Low elevations in the Central Valley trap emissions from commuter vehicles and logistics vehicles like semi-trucks, along with high levels of pollutants from farming and pesticide use. Until 2004, farmers in the region would routinely burn tons of debris at the end of a growing season, which generated large amounts of particulate matter in the air. While agricultural burning has decreased, it has not been phased out completely. The Central Valley also experiences above average temperatures, especially in the summer, when ozone pollution becomes much worse due to the longer periods of time ozone can develop in the sunlight. As a result of these conditions, many Fresnans suffer from respiratory illness and poor health outcomes.

Despite the many challenges they face, residents of Fresno display a strong commitment to creating a better future for their city. Local leadership and community groups are working collaboratively to address the inequities in education, workforce development, and the environment. Adopted in 2014 and 2016, respectively, Fresno's General Plan and Zoning Ordinance call for approximately half of future development to be infill – building on vacant or underused land within an already developed area. This strategy is in contrast to previous plans that have encouraged development farther out into the county. By focusing on inward growth and reducing sprawl, the city is decreasing the distance people need to travel, the conversion of valuable agricultural land, and overall the amount of GHG emissions.

Other investments include the state's first high-speed rail station, bus rapid transit, and the revitalization of Downtown Fresno. Often negatively characterized, Downtown Fresno is now being "oriented toward pedestrian-friendliness, the restoration and use of vacant historic buildings, a high-density mix of uses, and 24-hour activity."[14] Additionally, the city has implemented greater water sustainability by increasing the use of surface water and minimizing groundwater pumping. In 2018, a majority of Fresno voters approved Measure P, an initiative to provide clean, safe neighborhood parks, trails, and recreational and art programs throughout the city. These major land use and infrastructure changes are expected to reduce GHG emissions and transform the community.

While Fresno has begun to tackle some its most persistent socioeconomic and environmental challenges, these circumstances are a consequence of many decades of discriminatory policies. The community continues to need improved access to parks, tree cover, affordable housing, transit, and transportation, and job training and opportunities. To address these and other community needs and goals, residents and other stakeholders from Downtown, Chinatown and Southwest Fresno came together and formed the Fresno Transformative Climate Communities Collaborative.

[10] Thebault, Reis. 2018. "Fresno's Mason-Dixon Line," *The Atlantic*. Retrieved from: *https://www.theatlantic.com/politics/archive/2018/08/fresnos-segregation/567299/*

[11] Pacheco-Werner, T. L., Corona, K., Corona, G., Chan, S., Conley, A., & Dhillon, H. 2018. "Unequal Neighborhoods: Demographics. Central Valley Health Policy Institute. California State University, Fresno. Retrieved from: https://chhs.fresnostate.edu/cvhpi/documents/introduction_25138583.pdf

[12] Arias E, Escobedo LA, Kennedy J, Fu C, Cisewski J. 2018. U.S. small-area life expectancy estimates project: Methodology and results summary. National Center for Health Statistics. *Vital Health Stat 2(181)*. Retrieved from: https://www.cdc.gov/nchs/data/series/sr_02/sr02_181.pdf.

[13] American Lung Association. 2021. *State of the Air 2021.* Retrieved from: https://www.lung.org/getmedia/17c6cb6c-8a38-42a7-a3b0-6744011da370/sota-2021.pdf

[14] City of Fresno. "Downtown Revitalization". Retrieved from: https://www.fresno.gov/mayor/downtown-revitalization/

Former SGC Executive Director Randall Winston (center, standing) leads a discussion on key goals and priorities of TCC in Fresno on July 20, 2017. Photo credit: Leadership Counsel for Justice and Accountability

Transform Fresno: Looking Back and Forward

Fresno's TCC Implementation Grant is the result of years community engagement, strategic planning, and capacity building. This section provides a brief history of that work.

Early Place-Based Planning Efforts

Residents, business owners, place-based civic organizations, and other stakeholders in Downtown, Chinatown, and Southwest Fresno have been active participants in shaping the various plans and policies that impact their neighborhoods. Over the past decade, local community groups have addressed issues such as concentrated poverty, brownfields remediation, public safety, advocacy for parks and public spaces, and community, economic, and housing development.

The development of the City of Fresno's General Plan (2014), the Downtown Neighborhoods Community Plan (2016), the Fulton Corridor Specific Plan (2016), and the Southwest Fresno Specific Plan (2017) was informed through diverse community engagement processes, including stakeholder interviews, neighborhood presentations, public meetings held by advisory and steering committees, participatory design workshops, community workshops, and public comment and questions periods.

The City of Fresno leveraged these existing civic and community engagement structures to ensure that the final TCC project package reflected and directly addressed the needs of the community. The first step was establishing a Collaborative Stakeholder Structure, which formed in 2017 during the development of Fresno's TCC application. Over the course of three months, there were five Community Steering Committee meetings, one town hall, two project development workshops, one project review day, and one supplemental information session. Anyone who lived, worked, or owned property in Downtown, Chinatown, or Southwest Fresno was encouraged to participate and to propose and discuss the types of projects that they wanted to see come to fruition. Sixty-two projects were proposed, of which 37 were eligible for funding consideration under TCC guidelines. The eligible projects were then gathered into five packages, each totaling $75 million to $77 million, that were presented and voted on in the final meeting.

To be a voting member for the final project package, residents had to prove that they lived in the project area and had attended more than 50% of the Community Steering Committee meetings; workers or property owners had to have attended more than 66% of the meetings. A total of 529 people participated, and of the 164 community members eligible to vote, 126 attended the final meeting and overwhelmingly chose the package of projects designed by residents of Southwest Fresno. This was the largest participatory budgeting process in the city's history and engaged residents in decision-making processes about projects in their community to an unprecedented extent.

The result of these engagement efforts is Transform

Fresno, a suite of projects and plans aimed at reducing GHGs while also providing local environmental, health, and economic co-benefits for Fresno residents. Per the TCC guidelines for Round 1 applicants, Transform Fresno includes the following elements: (1) TCC-funded projects that have a direct impact on GHG reductions; (2) leveraged projects that further the broad goals of TCC and use only matching funds; and (3) transformative plans to ensure that the suite of projects is bolstered by meaningful community engagement, workforce development, and displacement avoidance activities.

Transform Fresno Begins

In 2018, Transform Fresno was selected by SGC for a TCC grant of $66.5 million. Transform Fresno will also leverage $122.3 million in outside funds toward this vision. The TCC award not only brings a significant influx of financial resources to the community, but it also reinforces the cross-sector partnerships that were built before and during the TCC application process. **Table 2** provides a summary of the final set of Transform Fresno projects, plans, and partners involved with implementation. **Appendix 1**, **page 102,** provides a detailed map of where all of the TCC and leveraged projects are located within the 4.9-square-mile area of the Transform Fresno boundary area.

The final three chapters of this report provide summary profiles on the various transformative plans, TCC-funded projects, and leveraged projects that make up Transform Fresno. Each profile includes an overview of the project or plan's goals, the roles of various partners involved with implementation, and key accomplishments that have occurred since the announcement of Fresno's TCC award through the end of FY 2022-2023. This baseline and initial evaluation period overlaps with about 15 months of post-award consultation and 51 months of program implementation.

Table 2: Summary of Transform Fresno Projects and Plans

Project/Plan Type	Project/Plan Name	Partners	TCC Funding	Leveraged Funding
Community Engagement Plan	Transform Fresno Community Engagement Plan	City of Fresno;* Fresno Economic Opportunities Commission (Fresno EOC); Thrivance Group; Youth Leadership Institute	$891,083	$0
	Bike Safe Fresno	US Green Building Council – Central California (USGBC-CC);* City of Fresno; Fresno Bicycle Coalition; Urban Diversity Design; West Fresno Family Resource Center; Edison High School; CSU Fresno	$138,540	$0
Displacement Avoidance Plan	Transform Fresno Displacement Avoidance Plan	City of Fresno;*,† Thrivance Group; Fresno Anti Displacement Task Force; Central Valley Business Diversity Partnership; Fresno4Biz and Precision Home Loans	$0	$60,500
Workforce Development Plan	West Fresno Advanced Transportation Technology Training	Fresno Regional Workforce Development Board*	$1,249,432	$ 207,665
	Welding Pre-Apprenticeship Training Program	State Center Community College District (SCCCD);* Voice of Including Community Equitably (VOICE); and West Fresno Family Resource Center (WFFRC)	$1,850,500	$109,020
	Transform Fresno Workforce Development Plan - City Administration	City of Fresno*	$110,000	$0

* Project lead
† The City of Fresno also received a technical assistance grant of $133,333 from SGC and DOC to fund citywide displacement avoidance activities. These citywide activities directly support the implementation, goals, and strategies of the DAP.

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Project/Plan Type	Project/Plan Name	Partners	TCC Funding	Leveraged Funding
Active Transportation Program	Annadale Mode Shift	Self-Help Enterprises;* City of Fresno	$343,000	$150,000
Affordable Housing and Sustainable Communities	The Monarch @ Chinatown	Fresno Housing Authority*; City of Fresno; California Housing Finance Agency; and US Bank	$11,785,221	$25,736,978
Food Waste Prevention and Rescue	St. Rest + Food to Share Hub: Healthy Food Rescue and Redistribution Hub	Fresno Metro Ministry;* Saint Rest Baptist Church	$1,488,280	$3,571,913
Low-Carbon Transportation	Clean Shared Mobility Network	Fresno Metro Black Chamber of Commerce;* Bethel Temple Church of God in Christ; Drop Mobility; Fresno Career Development Institute; Green Commuter; Latino Equity, Advocacy, & Policy (LEAP) Institute; Shared-Use Mobility Center	$7,717,014	$2,292,900
Rooftop Solar and Energy Efficiency	EOC Partnership for Energy Savings and GHG Reductions in SW Fresno	Fresno EOC;* Fresno Local Conservation Corps (LCC); GHS Govans; SunPower	$3,208,377	$0
	GRID Solar Collaborative Single-Family Partnership	GRID Alternatives;* The Fresno Center; Stone Soup Fresno	$883,826	$535,808
	GRID Solar Collaborative Multi-Family Partnership	GRID Alternatives;* The Fresno Center; Stone Soup Fresno	$352,549	$110,000
Urban and Community Forestry	Southwest Urban Forest Expansion	City of Fresno;* Tree Fresno	$212,199	$0
	Yosemite Village Permaculture Community Garden and Urban Farm Incubator	Fresno Metro Ministry;* Youth Leadership Institute; Fresno Housing Authority	$367,500	$415,944
	Inside Out Community Garden	Fresno EOC;* Another Level Training Academy; The City of Fresno	$98,000	$0
	Yosemite Village Community Orchard	Fresno Metro Ministry;* Fresno Housing Authority	$262,500	$0

*Project lead

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Project/Plan Type	Project/Plan Name	Partners	TCC Funding	Leveraged Funding
Urban Greening	Southwest Fresno Trail	City of Fresno;* USGBC-CC; Urban Diversity Design	$1,978,959	$0
	Chinatown Urban Greening	City of Fresno;* USGBC-CC; Urban Diversity Design	$6,965,696	$0
	Mariposa Plaza	City of Fresno*	$3,859,000	$0
	Park at MLK Magnet Core	City of Fresno*	$5,489,606	$1,500,000
	St. Rest + Food to Share Hub: Urban Heat Island Mitigation	Fresno Metro Ministry;* Saint Rest Baptist Church	$62,220	$
	Fresno City College: West Fresno Satellite Campus	State Center Community College District (SCCCD)*	$16,542,746	$70,000,000
Leveraged Projects	Chinatown Property Based Improvement District	City of Fresno*	$0	$75,000
	EFMP Plus-Up Vehicle Replacement and Incentives	Fresno EOC;* Valley Clean Air Now (Vally CAN)	$0	$530,000
	Southwest Off-site Improvements	City of Fresno*	$0	$15,732,648
	TCC Connector	City of Fresno Department of Transportation*	$0	$3,532,774
Total**			**$65,856,250**	**$122,316,200**

*Project lead
**TCC funding subtotal shown here does not include additional grant money provided for grant administration and other related activities.

TRANSFORM FRESNO: STORIES FROM THE COMMUNITY

Members of the Yosemite Village Permaculture Community Garden & Urban Farm Incubator complete a mural on the garden's storage container. **Photo credit: Chris De León, Fresno Metro Ministry**

AS A COMMUNITY-LED INITIATIVE, Transform Fresno engages a wide variety of stakeholders. Residents, local business owners, workers, and others help implement projects to advance community-defined goals for climate action, economic development, and more. This chapter provides a series of case studies of how these stakeholders have contributed to the roll-out of Transform Fresno and/or benefited from the initiative's suite of projects and plans. The case studies are presented in reverse chronological order to spotlight more recent additions to this annual report. It's important to note that these stakeholders represent only a small sample of the many individuals who have shaped — or been shaped by — the implementation of Transform Fresno. Thus, their purpose is to be illustrative, but not exhaustive, of the ways in which Transform Fresno has touched the lives of community stakeholders.

Trucking program provides training ground for Fresnans to launch careers as commercial drivers

John Roberts in truck. **Photo courtesy of John Roberts**

BACKGROUND

This case study illustrates how TCC funding for the West Fresno Advanced Transportation Technology (WFATT) job training program has helped Fresno residents break into the trucking sector and increase their earning potential. It highlights how the training provided John Roberts and Breanna Rogers with a supportive, flexible environment to master the skills needed for commercial trucking and quickly land higher-paying jobs in the sector. For more on Transform Fresno's Workforce Development Plan, see page 58.

Interviews for this story were held in September and October 2023.

JOHN ROBERTS grew up in Fresno where he still lives with his wife, two kids, and grandson. Before the trucking driving program, he performed a number of tasks for work, such as stocking materials in a hospital, maintaining air conditioning units, manufacturing textiles, and removing products off trucks at Amazon. His most recent position at Amazon was particularly grueling. He often worked in the morning and then would work 10-hour graveyard shifts soon after.

In the back of his mind, Roberts had always been interested in truck driving as an alternative career because he knew that it had potential for growth and higher wages. However, he had not pursued it earlier because of the high costs of truck driving programs. That changed when he met Oscar Robinson, the project lead for WFATT, through his personal network. Robinson shared with him that he could get certified to be a truck driver at no cost. Sold on the free program, Roberts enrolled in the WFATT program in May 2022. "At $3,000, prices were astronomical for truck driving school. With WFATT, you don't have to pay anything and would be able to get into a different field with better pay and more independence on the job."

The WFATT program provides a combination of classroom and field-based experiential job training on the operation and maintenance of commercial trucks. The program can be completed in as quickly as four weeks full-time, but the program allows for flexibility, such that Roberts was able to complete the program over the course of a year, enabling him to factor in his challenging work schedule at Amazon.

In addition to training, WFATT provides career services such as case management, job readiness workshops, interview practice, and job placement. One of the goals of this program is also to expose trainees to low or zero-emission trucks. In fact, TCC provided funding for the program to purchase a demonstration truck powered by compressed natural gas.

Roberts completed the truck-driving program within a year. He credited the program with teaching him the ins and outs of driving and parking large vehicles, as well as how to prepare for the required tests with the DMV. Roberts felt that the training was beneficial because the instructors emphasized that he could take as long as he needed to feel comfortable behind the wheel and fully understand the driving mechanism. He was also encouraged to take the driving test as many times as needed.

Roberts was employed immediately after graduating from the driving program at a small trucking company that delivered produce cross-country. While the position came with more pay than his position at Amazon, it wasn't a clear win in terms of job quality because the company would often not provide Roberts with enough money for fuel, leaving him stranded until his employer sent additional funds to refill his vehicle.

"If you don't pass and need to start the process again, the instructors are going to be there with you until you pass and complete the program."

JOHN ROBERTS

In search of better working conditions, Roberts left his first post-training position after 6 months for a position at a larger company. While the work is similar (Roberts still hauls produce across the country), the company is a much larger operation and has more resources for drivers, thus resolving the refueling dilemma in his last position. Robert's income is about 30% more than before the program, which has allowed him to move into a larger home with more space and flexibility for his family.

Roberts enjoys what he does, and relishes in getting to be his own boss, but believes there is room for improvement. While he is making more money than before the training, he still does not have benefits, such as healthcare or retirement. However, he plans to leverage his newfound trucking experience to move to an even larger company like Walmart, which provides benefits and also has a better pay scale than his current role. Further down the road, Roberts aspires to save enough capital to put towards his own trucking business.

"After obtaining skills and experience at my current employment, in the future, I am optimistic I will have my own trucking LLC and my very own truck."

JOHN ROBERTS

BREANNA ROGERS was also raised in Fresno and now lives in her city of origin with her two toddler sons. For much of her life she struggled to figure out her true professional calling. At the age of 19, she worked in warehouses. Between the ages of 22 to 26, she worked in multiple service industry roles at restaurants and as a janitor.

While she was pregnant with her first son, she and her partner, a truck driver of 10 years, spent time on the road. This is how she first became exposed to a career in truck driving, but it wasn't until she had her second child that she decided to seriously consider the career for herself.

Rogers eventually crossed paths with Oscar Robinson, the Project Lead at WFATT, who was performing outreach for the TCC-funded truck driving training program and encouraged her to apply. She started the program in May 2021 and received her trucking license in November of that year. With childcare support from her family, Rogers committed to the program full-time and was at school from 8 a.m. to 3 p.m. Through a program called Workforce she was also able to complete the program without incurring any tuition.

Rogers credits the WFATT training program with thoroughly exposing her to what she would be tested on at the DMV, and providing her the space and time to make mistakes and refine her trucking skills. For example, Rogers was especially challenged by truck parking maneuvers, such as parallel parking, which kept her from completing the certification the first two times she took the test. She leveraged the resources at WFATT, such as practicing with the truck that was purchased for the program, to sharpen these skills, and on her third try, she passed.

"The program teaches you step by step the same steps that they will test you at the DMV."

BREANNA ROGERS

After getting her commercial trucking license, Rogers shopped for jobs and was eventually hired at a long-haul company delivering produce and clothing, where she still works. Rogers quickly impressed her employer, and in less than a year, she was promoted to train new drivers. The new position comes with a 60% pay increase from when she was a janitor, as well as health and retirement benefits.

In the next five years, Rogers would like to pivot from working for a long-haul trucking company to one that operates regionally so she can spend fewer nights away from home and more time with her kids. She would also like to work for a company that offers health insurance that not only covers herself but also her children. In the longer term, she hopes to put away enough money in savings so that she can retire at the relatively young age of 50, thereby maximizing the time she has to spend on what matters to her most in life: her family.

"The company I am at is a stepping stone to get better pay and benefits. I got into the trucking industry so I can retire early and kick my feet up."

BREANNA ROGERS

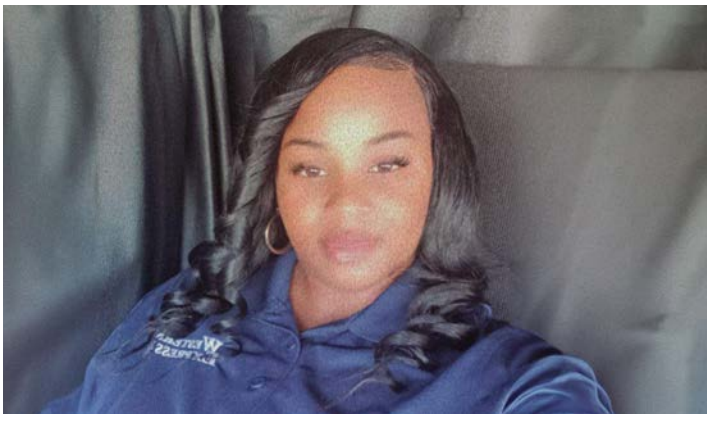


Photo courtesy of Breanna Rogers

Welding graduates secure higher paying construction jobs and save for the future

Josh Asberrey in welding gear. Photo courtesy of Gladiator Welding Program

BACKGROUND

This case study illustrates how TCC funding for the Gladiator Welding Program helps Fresnans develop skills to ascend in the construction industry and lay a foundation for economic mobility. It highlights how Aaron Greenwood and Josh Asberry leveraged this free skill-building course to land positions as welders, earn more money, build a financial safety net, and explore new career trajectories. For more on Transform Fresno's Workforce Development Plan, see page 58.

Interviews for this story were held in September 2023.

JOSH ASBERREY was born and raised in Fresno. He started working at the age of 16, and after graduating high school he attended college. But after one semester he realized it was not the right path for him and explored various jobs including landscaping, security, and baking. It wasn't until he entered the construction industry that he started to enjoy his work. He liked being outside and having opportunities for promotion that included better pay.

"I was excited about doing construction and just being out in the work field. It really motivated me to want to be better and be in a higher position. It was just the whole fact that you work hard, you learn, then you move up."

JOSH ASBERREY

Eager to increase his earning potential in the building trades, Asberrey enrolled in the TCC-funded, no-cost Gladiator Welding Program in 2022. The pre-apprenticeship program prepares individuals from Southwest Fresno for careers as welders, an occupation that is critical for building and maintaining infrastructure.

Within five months of entering the Gladiator Welding Program, participants earn American Welding Society (AWS) certifications in metal inert gas (MIG) and tungsten inert gas (TIG), and learn the arc welding technique, a process that uses an electric arc to generate heat to melt and fuse metal. The program is led by the State Center Community College District, operated by Voice of Including Community Equitably, and supported by the West Fresno Family Resource Center, the latter of which provides case management and mentorship services.

"I learned how to weld ... I got the basics and how to perfect my craft... and when I went back to my construction job, I had that skill. So I was able to move up the chain."

JOSH ASBERREY

Directly after completing the program, Asberry was recruited for a new job. He was grateful for the opportunity, but turned it down because he had already built rapport with his colleagues and he secured a pay increase to work as a welder at his current job.

Asberrey's tenure as a welder greatly improved his financial situation, but it was also physically taxing, so he ultimately decided to leave the industry after his brother passed away. After taking some time off to mourn with his family, he pursued his commercial driving license. And while he's no

"I've been working all my life, trying to make ends meet, and after the program, things started to turn around. I was able to put some money down and buy a home. Now, as a truck driver, I don't have to work as hard to pay the bills."

JOSH ASBERREY

longer applying his newfound welding skills in his current role as a truck driver, Asberrey credits the Gladiator Welding Program as the stepping stone into job opportunities with higher wages. The time he spent in the welding industry enabled him to save for a home, which he successfully purchased in 2022 for himself, his wife, and his four children. And with that monumental goal out of the way, Asberrey felt financially secure enough to make another career shift.

AARON GREENWOOD went to high school in Fresno and then spent a year at Fresno City College studying criminology, a choice that was inspired by his father's career as a corrections officer. After a year at college, he realized he didn't enjoy it. This led him to explore job opportunities in retail, where he spent about seven years working at companies such as Walmart, Dollar Tree, and Lowe's making $15 per hour. While he enjoyed talking to people, customer service was not satisfying.

In search of a fulfilling career working with his hands, Greenwood started looking into the building trades. A friend of Greenwood's had completed the Gladiator Welding Program and recommended it strongly. Greenwood knew he had to apply.

He was accepted to the program in 2022 and worked nights and weekends to make ends meet. Despite challenging circumstances, he was focused on providing a better life for his three-year-old son. Additionally, Greenwood's mother was diagnosed with terminal cancer, and he was determined to launch a meaningful career before she passed so that she could see him reach that milestone in his life. Like Asberrey, he earned his AWS certification in MIG license in hardwiring, TIG, and arc welding.

"Not only did the program deliver what I wanted, it delivered relationships with people I can call, till this day, and ask them for help with anything I need ... It gave me some mentors that I can really rally around."

AARON GREENWOOD

Greenwood expected to learn about welding, but the program had more in store for him. Through training he gained a meaningful community of peers that he calls on to this day. In fact, one of his welding instructors helped him get his first position welding workout equipment making $17 per hour.

Greenwood was then able to leverage his training and work experience for a position for a pipe welding company, which offered a higher wage and more on-the-job support. With two different welding positions under his belt, Greenwood developed a better sense of career options in the industry, and began reflecting on what type of welder he wanted to be. He realized he enjoyed welding most when he was chal-1lenged and was able to stretch his technical skills.

Aaron Greenwood in welding gear. Photo courtesy of Gladiator Welding Program

Eager to take on more complicated projects, Greenwood began to consider iron welding. He applied to multiple structural steel positions which fabricated metal components for buildings. He was hired by Golden State Steele, with a 33% income increase compared to his service industry wage, access to healthcare, as well as a 401K.

Beyond the financial benefits at Golden State Steele, Greenwood especially enjoys the company's supportive culture and the opportunity to work on meaningful projects. For example, he worked on a frame that was set to go to McKinley Elementary School, and is proud that he is helping provide the physical structure for spaces that build community.

The program has benefited Greenwood and his family in numerous ways. He now contributes to a savings account, is saving for his first house, and even maintains his beloved hobby of preserving vintage cars. And while his time after the program has also brought incredible loss, namely, the passing of his mother, he feels at peace knowing that she saw him working in a career he enjoys and which provides for his family. Professionally, he is looking forward to returning to school in the next five years and advancing to higher skill positions within the welding sector.

"From here... I plan on going back to school to become a certified welding inspector ... I want to be in the field for the next 30 years."

AARON GREENWOOD

Community engagement builds capacity and buy-in for shared electric bikes and cars

Keshia Thomas celebrates new electric vehicle charging infrastructure installed at an affordable housing site in southwest Fresno. Photo credit: Fresno Housing.

BACKGROUND

This case study explores how TCC funding for community engagement can develop local leadership and support for infrastructure projects. Specifically, the story highlights the community engagement strategy for Fresno's Clean Shared Mobility Network through the lens of two Fresnans who have been empowered in different ways through the process. For more on the network, see **page 72.** For more on Transform Fresno's Community Engagement Plan, see **page 49.**

Interviews for this story were held in August 2022 and January 2023.

KESHIA THOMAS is a Fresno native. Her educational journey began with Fresno Unified School District and continued on to California State University, Fresno. Now, she represents her community as an elected member of the school board.

Thomas also heads the Fresno Career Development Institute, a nonprofit targeting low-income West Fresnans. The institute leads community outreach for the Clean Shared Mobility Network. As the project prepares to launch the first wave of rentable electric vehicles — 200 bicycles and 40 cars — Thomas and her team are advertising what's coming and how it can help Fresno residents, while gathering feedback to ensure the project is based on the actual needs of the community.

At first, Thomas said, people thought the program was a sales pitch for pricey electric cars. But when it became clear that Transform Fresno was providing vehicles to borrow for prices as low as 15 cents a mile, people began to get excited.

One way that Thomas' team builds support for the project is through community events, where the electric cars and bikes are on display for residents to see. These events not only help people to learn about the Clean Shared Mobility Network, but also provide opportunities for community members to come together, have fun and enjoy free food.

"We do events where we put the bikes and cars on display, and we have people come out from the community. We might have a backpack drive or an Easter party in the park — but this is all centered around the project and building community," she said.

Thomas emphasizes the importance of listening to those who know the community well — who both understand community needs and can represent people's honest feedback on the project. When people have concerns, she said, "it's my job to have a conversation with them and find out why so that their voice can be heard. People give us their honest input."

Working with TCC and Transform Fresno has brought new professional opportunities to Thomas, from the influx of funds to her organization to personal networking and development. She has developed new relationships that help her understand her community even better.

"Everything that I do, live, and breathe is Fresno. Being a part of this has expanded my knowledge of how other community members feel about what Fresno needs to thrive — and it's also expanded my Rolodex."

KESHIA THOMAS

Conducting outreach for the Clean Shared Mobility Network has expanded Thomas' professional toolkit by enabling her to test new engagement strategies. She has piloted several innovative modalities to reach members of her community, from a youth ambassador program that hires local students to support engagement activities to an electric bike club that will launch in the fall. And she has more ideas, including a school program to train students for the jobs the program could create, from managing the cars and bikes to conducting community outreach.

GERALDINE EZENWUGO was born and raised in Fresno and has always been an active member of her community. From age 12, she has been a part of a local church where she now serves as a minister and teacher. Beyond the church, Ezenwugo volunteers to help unhoused Fresnans get back on their feet, and she is a trustee for the neighborhood watch.

Ezenwugo first heard about TCC and Transform Fresno from Keshia Thomas, through her team's outreach efforts. Thomas brought the Clean Shared Mobility Network to Ezenwugo's apartment building in the form of food and fellowship: She hosted a community meeting to help residents learn about the electric vehicles that would soon be available near the building.

Although the meeting was on Zoom, Thomas arranged for the residents attending the meeting to join together in their building's community room, providing a full spread of fried chicken, potato salad, rolls and more. For Ezenwugo, having the gathering in her building was very helpful — at the time, her car was out of commission, and she couldn't easily attend meetings in other locations. While she could have joined on Zoom, the physical gathering provided food and connection to neighbors.

Going into the meeting, Ezenwugo knew nothing about electric cars. "I've never been in one of them. I thought they were too expensive for me," she said. But by the end of the meeting, she was excited. "I'm gonna drive this. I'm gonna be the first one. I can't wait to get behind the wheel."

Thomas' devotion to the community was clear in her efforts to make the meeting participants comfortable in their own space, provide food and listen closely to their concerns. Ezenwugo knew Thomas from her work with the neighborhood watch, and the presentation confirmed that Thomas cared deeply about the Fresno community. "It was good to have somebody care so much about Fresno. And I enjoyed it — she did a wonderful job making the presentation interesting and answering our questions."

What concerns she had — such as how the cars would be cleaned and what would happen if someone returned a car late — she shared with Thomas in the meeting. But her doubts were few and far between by the end of the meeting, after Thomas listened to community members' feedback and reassured them that her team was figuring out how to manage these issues.

Geraldine Ezenwugo in her Fresno home. Photo courtesy of Geraldine Ezenwugo.

Thomas' outreach also gave Ezenwugo reasons to be excited about the electric car-share program. For one thing, Ezenwugo estimates that she spends as much as $80 per week on gas, so using the cheaper electric cars has the potential to save her hundreds of dollars each month.

> **"Driving on electricity will cost much less than gas. That's the main reason I'll use them."**
>
> GERALDINE EZENWUGO

The program will also provide another option for Ezenwugo to get around if her car isn't running properly. And Ezenwugo also values the health benefits of the project, which will be realized through reduced tailpipe pollution from fewer gas cars on the road. "I was drawn in because I'm an asthmatic. I see that we need to clean up our air. So, I want to help ensure that organizations are keeping our air clean."

Looking forward, Ezenwugo says she will also use the cars to get around town to interview people for a new book she is writing. Knowing that her car could break down and that she can save money on gas, the easy, low-cost electric rental cars will allow her to pursue her goals uninterrupted.

Catalyzing the growth of a longstanding food distribution program

Initial renderings of the Saint Rest Food to Share Hub. Photo credit: Paul Halajian Architects

BACKGROUND

This case study illustrates how TCC funds enable existing community projects and partnerships to expand and to attract more funding from other sources. The story spotlights project partners at Saint Rest Baptist Church (St. Rest) and Fresno Metro Ministry, who leveraged $1.5 million in TCC funds for food rescue and redistribution into over $6 million. For more about Fresno's food rescue work, see **page 70.**

Interviews for this story were conducted in December 2021 and October 2023.

BERNICE WILEY, the director of food ministries at St. Rest, grew up in "The Garden" neighborhood of Fresno. Her idyllic childhood inspires her work with St. Rest because she wants others to grow up in a family-oriented, healthy place as she did. A few years after taking over St. Rest's 40-year-old food distribution program in 2009, Wiley expanded its reach by forging partnerships with Fresno Metro Ministry's Food to Share program and the Central California Food Bank. The program rescues nutritious food that would otherwise be wasted and delivers it to partners, like St. Rest, to distribute to families in need.

Wiley is committed to serving the 100–200 people who come to the food giveaways three times a month; in 2023, St. Rest provided over 230,000 pounds of food. And the project is continuing to grow in capacity and reach. In 2020, an influx of $1.5 million in funding from Fresno's TCC grant kicked off a renovation and expansion of the St. Rest warehouse, including the addition of a commercial kitchen. "Since the renovation and new building, more and more people in the community are curious about what we're doing here. I'm getting more folks wanting to come out and to volunteer. It's absolutely amazing the transformation that we've seen on this corner."

"The TCC funding has made all of this possible — the renovation, the new building, the walk-in refrigerator. Without the TCC grant, we would not be able to function at the capacity we are now."
BERNICE WILEY

Bernice Wiley speaks at the groundbreaking event for the food hub in 2021. Photo credit: Edward Smith, The Business Journal

The expanding program has also led to personal growth for Wiley, who has developed stronger public speaking skills and new relationships. The project's increased exposure has given her opportunities to become more comfortable speaking with partners, investors, and community members alike. "I've become much better at interviews. We've gotten to know a lot of people in the community who are interested in what we're doing. This project has opened up a lot of avenues for progress for our food ministry."

Most importantly, though, the increased capacity has empowered the food distribution program to serve many additional community members. "More and more folks are coming to take advantage of the food that we distribute. I think it's really due to the curiosity about the building and the pride that the people in the community feel about it."

KEITH BERGTHOLD, current CEO of Regenerate California Innovation (RCI) and the former executive director at Fresno Metro Ministry, was born in central Fresno and has a long history of serving the community. He works with many churches in southwest Fresno, including St. Rest, because of their commitment to food distribution.

To help St. Rest achieve its vision for expansion, Bergthold took the lead in obtaining funding to renovate and expand the food distribution program's existing facilities. He submitted a TCC proposal in 2020, and the program was awarded $1.5 million. With growing interest in the food provided, as well as educational opportunities offered, the St. Rest and Food to Share team decided to further expand the project with a new building that includes a commercial community kitchen and training area. Bergthold began to fundraise in earnest for the new building, reaching out to individual and corporate donors and quadrupling the TCC funds over several years.

"The TCC grant was the seed money — the foundational layer of what is now 30 funders. I advertise the $1.5 million from TCC, and it gives other people confidence to give. Now, I've raised $6.3 million [including TCC funds]."

KEITH BERGTHOLD

Keith Bergthold (right) presents visuals of the new building, to be constructed adjacent to the Food Hub. Photo credit: Build Healthy Places Network

Working on this project has also helped Bergthold to develop his already formidable skills as a fundraiser and community leader. He has become more savvy at navigating bureaucracy, such as the development entitlement process, and he has developed his professional network. "This work has given me the confidence to look at some bigger projects for Fresno — maybe a $100 million or $200 million project. I know a lot of people, and I feel like I've got a skill set now that I can use to do some other big things for Fresno."

Ron Wiley and Bernice Wiley distribute food outside the food hub warehouse. Photo courtesy of Bernice Wiley

RON WILEY, a deacon at St. Rest, moved to Fresno to attend Fresno State University in 1971 and has been deeply engaged with the community ever since. Now retired, Wiley remains an active member of St. Rest and is a highly engaged volunteer with the food ministry. To counteract high levels of poverty and food insecurity in southwest Fresno, Wiley follows his wife Bernice's lead – working with food banks and other partners to build community visibility and capacity.

Wiley described all the ways that the recent influx of funding from TCC and leveraged funding sources has helped the food distribution program expand. With a larger, modernized building, St. Rest is able to provide more food, as well as to start new programs, like a cooking class. "We've been able to purchase equipment that we didn't have prior to being a recipient of the TCC funds. We're going to have a state-of-the-art kitchen where we can train entrepreneurs that want to go into food service operations. We'll teach folks how to cook some of the produce that they receive in the food line."

With more people participating in the food distribution program, whether as donors, volunteers, or beneficiaries, Wiley credits increased visibility. He says people are more willing to donate when they see that a project is successful.

"The more financial resources, and the bigger we become, the more visible we become. With visibility comes more participation. People see the growth of our project and say, 'I want to be a part of that.'"

RON WILEY

Wiley has benefited from the project's expansion personally as well. He has become a better communicator and strengthened his network of engaged community members. "Working with the staff and volunteers has enhanced my communication skills as I coordinate their efforts. I've developed greater friendships with some of the workers that we see time after time."

Planting seeds for careers through urban farming

Member of the Yo'Ville Community Garden waters corn and flowers in 2020. Photo credit: Chris De León, Fresno Metro Ministry

BACKGROUND

This case study spotlights how the Yosemite Village (Yo'Ville) Community Garden and Urban Farm Incubator is utilizing TCC funding to not only improve access to healthy food and green space, but also support Fresnans with fulfilling job opportunities and catalyzing farming experience. Learn more about the community garden and Transform Fresno's other Urban and Community Forestry projects on **page 79.**

Interviews for this story were conducted in April and June 2021.

CHRIS DE LEÓN is the Community Garden Manager and a staff member at Fresno Metro Ministry, the lead project partner at the Yo'Ville Community Garden. He moved to Fresno at four years old, and his love for the city runs deep. But he also recognizes the health disparities stemming from the lack of access to healthy food and healthy green spaces, and a concentration of environmental pollution in Southwest Fresno.

De León has wanted to start a community garden since high school, and he tried but couldn't obtain funding. "I didn't know how to write a grant, and our school didn't have a lot of funding for it. Now it's exciting that I get to do that as an adult... just a couple blocks down from where I wanted to do it before." When the Fresno Metro Ministry was hiring for two part-time positions for the garden, De León jumped at the opportunity. But he needed full-time work, so he asked for it — and Fresno Metro Ministry obliged, enabling De León to fulfill a longtime dream while making ends meet.

In his role, De León has developed new skills for growing food, including knowledge of permaculture. "[I've learned] to design a local food system that engages and benefits residents and doesn't deplete the soil and focuses on community care." He also learned about the logistics of building a larger-scale site than he had worked with previously, including navigating city code, hiring contractors, and working with site plans.

"I've been wanting to work on this project for so long, and now I have a full-time job that allows me to do just that."
CHRIS DE LEÓN

Chris De León at the Yosemite Village Permaculture Community Garden & Urban Farm Incubator.
Photo credit: Jesse Martindale, Fresno Metro Ministry

De León says that the most rewarding part of working in the garden is that it brings the community together. When COVID hit, he says, "we saw a surge in residents applying to the garden because more people wanted a place to be outside of their homes. I think the garden helped a lot of the residents to have somewhere safe to be together."

The garden has generated community-wide benefits that specifically address food insecurity. "The Yo'Ville Community Garden is creating a local food system," De León explains. "Fresno residents can buy fresh produce that's organically grown on site. They can meet the farmer growing the food, see the practices they're utilizing," he stated. "The garden provides much needed green space and space for residents to grow their own food and learn how to start a small-scale urban growing operation."

MIGUEL AVENDAÑO is one of the community members that Chris De León recruited to start a half acre urban farm at the Yo'Ville site. Avendaño has years of experience growing food. He moved to Fresno in 2003 for agricultural jobs and has worked throughout the Central Valley ever since. He appreciates the abundance of work opportunities and he, his wife, and two children have established a solid foundation in Fresno.

In 2021, Avendaño joined the Yo'Ville Urban Farm Incubator program. The farm incubator provides land, shared tools, water access, and learning opportunities for new small farmers wanting to grow in ecologically sustainable ways. Avendaño shares, "I am producing organic vegetables, using methods that won't damage the environment and our health."

Avendaño is now producing enough to sell and supplement his income with the produce he grows at the community farm. He partners with the other farmers from Yo'Ville Urban Farm Incubator to run a farm stand, where they sell their produce every 1st and 3rd Saturday of the month. "In five to ten years, my goal is to have many acres planted, to have employees, to be growing and selling fresh, organic produce wholesale. It will give my family a more comfortable and stable life," Avendaño says. He credits the farm incubator program with making this goal feasible, noting the ways it has already helped him progress toward it: providing a small piece of land, the materials he needs to farm, and the opportunity to learn new techniques for planting.

Miguel Avendaño and son at the Yo'Ville Farm Stand.
Photo credit: Chris De León, Fresno Metro Ministry

"My primary goal is to grow my farm... It would not be possible to start from zero without support from the incubator."
MIGUEL AVENDAÑO

PATRICIA HUBBARD was born and raised in Riverdale, a little town just outside of Fresno, and has lived in the city itself since 1996. Solidifying her roots here, Hubbard's three children and siblings also live in Fresno. But her feeling of connection to the place has grown since getting involved with the Yo'Ville Community Garden.

Hubbard first heard about the garden after someone knocked on her door and handed her a flier. Already familiar with gardening in her backyard, Hubbard signed on to volunteer. While she expected to help grow the garden, she has been pleasantly surprised by the relationships she's developed. For her, the community connection is the most rewarding part of being involved with the garden. "The people that I garden with, the volunteers, staff and other gardeners, are like a family or community," she said.

After having a successful first year with a garden plot, Hubbard expanded in her second year. She joined the Yo'Ville Urban Farm Incubator program, giving her a half acre of land to tend. She has also gained new skills and knowledge, including how to grow several new plant species. She also credits TCC's investment in the Yo'Ville Community Garden as allowing her to learn the business and finance side of running a farm.

Patricia Hubbard at the Yosemite Village Permaculture Community Garden and Urban Farm Incubator
Photo credit: Jesse Martindale, Fresno Metro Ministry

"There's an ongoing process of learning. For the incubator farm, they're going to teach me how to do a business plan and apply for grants and all of that."
PATRICIA HUBBARD

Looking ahead, Hubbard plans to use the skills she builds through the five-year incubator farm program to farm two acres of family land in Riverdale.

Anti-displacement engagement spurs advocacy, awareness, and government action

BACKGROUND

This story highlights Transform Fresno's Displacement Avoidance Plan — a key TCC requirement that sparked groundbreaking conversations about tenant protections among residents, government officials, and others. Three women who shaped the process share how they and the broader community benefited. For more information about the Displacement Avoidance Plan, see **page 54.**

Interviews for this story were conducted in July & August 2020.

"I'm involved because I want equitable, affordable housing and improvements for quality of life throughout the City of Fresno," said Sabrina Kelley at the groundbreaking of the Almy Street. Photo credit: The Fresno Bee

SABRINA KELLEY has deep roots in Fresno. Her family has a long history of community service and advocacy in Southwest Fresno, where she went to high school. Now when Kelley is at Transform Fresno community meetings, she feels the presence of her grandparents, aunts and uncles: "I feel like I'm picking up the family baton to advocate for affordable housing and for neighborhoods that are walkable and safe."

As the Community Relations Consultant and foundation manager for Wells Fargo, Kelley guides philanthropic investments for the Central Valley. She has led collaborative efforts to raise money for affordable housing, improved pedestrian infrastructure, and expanded public spaces, including the Almy Street Playground in Southwest Fresno. Her role also involves small-business support for ethnic minority groups, as well as financial health and literacy for low- and moderate-income families and individuals.

Kelley became involved with Transform Fresno because of her personal and family commitment to advancing equitable community development, affordable housing, and livable neighborhoods. She now serves as a member of the O&O Committee for Transform Fresno. Through her involvement with the O&O Committee, Kelley has helped steer the development of the Transform Fresno's DAP, and has grown into a more informed advocate in the process.

"Some of the skills I've been able to develop are diplomacy and active listening. You think you bring so many years to the table, but there's always a story and an opportunity to learn."

SABRINA KELLY

In addition to its $X million TCC implementation grant, the City of Fresno received a $X technical assistance grant for the development of its DAP. These funds allowed the City to hire a consultant with anti-displacement and community engagement expertise: Thrivance Group. As a member of the committee that selected Thrivance Group, Kelley focused on ensuring applicants demonstrated an understanding of equity, inclusion, and culturally appropriate community development strategies. For Kelley, Thrivance Group fit that bill. She remarked that "Thrivance Group is so committed to letting the community tell its story while also bringing resources and guidance to the process."

Kelley spoke of the importance of having women lead the DAP, asserting that women bear the brunt of pandemic impacts and poverty generally. As she put it, "With women leading our DAP — women who have lived experience with disenfranchised poor neighborhoods, who understand the narrative but also have professional experience of collecting data and storytelling — our hope is to build empathy and awareness so that our elected officials make better choices."

DR. KATHRYN FORBES is a professor at California State University, Fresno, and program coordinator for the Women's, Gender and Sexuality Studies Department. As a member of the city's Anti-Displacement Task Force (ADTF), Dr. Forbes helps identify areas of displacement in Fresno and lends her technical expertise to help determine what metrics and data the city needs to track to prevent displacement. Like Kelley, Dr. Forbes helped to hire the anti-displacement consultant.

Through participating in the ADTF, Dr. Forbes has become more adept at navigating bureaucracy, which is relevant to her research at CSU Fresno. "This experience has forced me to understand at a more intimate level how to navigate those bureaucracies — what all the different constituents you have to bring in to affect some kind of policy change."

Dr. Forbes believes that the process for developing the plan and the community engagement efforts for TCC have had an immediate impact on how the local government functions in Fresno. For example, the city started to consider anti-eviction and tenant protection policies after community advocacy around housing issues in the Transform Fresno project area.

Photo credit: Fresno State Women's, Gender and Sexuality Studies

"It was completely eye-opening — for city leaders, for advocates, and for residents — to realize there are a bunch of different tools to address displacement."

DR. KATHRYN FORBES

Photo credit: Thrivance Group

DR. DESTINY THOMAS called Fresno home for six years after she graduated from college. She considers it a special place, saying it was easy for her to build community. Dr. Thomas founded Thrivance Group, the consultant leading design and implementation of the DAP. With experience in environmental planning, community organizing, and social work, she brings a wealth of knowledge to Fresno's DAP. In all her work, she stays heavily rooted in a racial justice framework.

Dr. Thomas developed a method for engaging with people experiencing gender-based violence and houselessness in Los Angeles, called Thrivance Project. Using this method, Thrivance Group is conducting participatory civic engagement activities to inform the DAP. These activities include interviews with community stakeholders and government officials, as well as an oral history project to bring visibility and cultural recognition to historically marginalized groups in the project area.

Working with Transform Fresno has given Dr. Thomas the chance to do work she once would have thought impossible. As part of the displacement avoidance planning process, Dr. Thomas has been able to integrate restorative justice work, such as conversations about abolition and reparations.

"We are doing work that the elders in my life told me would never be possible — you know, the stuff you sit at the dinner table and say, when I grow up, I'm going to fix this problem."

DR. DESTINY THOMAS

Dr. Thomas' work on Transform Fresno's DAP has also helped her grow as a professional working in the environmental justice space. As she put it, "I've learned so much from being in a setting like Fresno. It's not quite urban, it's not suburban — it's its own type of land use. And it creates an opportunity to think outside of the box about the interconnectedness of impacts from one decision."

By the end of its contract with the city, Thrivance Group recommended anti-displacement policies that reflect community needs and contribute to healing past institutional harms. These recommendations are summarized in a 2021 report entitled, *Here to Stay: Policy-Based Blueprint for Displacement Avoidance in Fresno*.

Removing barriers to clean energy careers

Luther Mays working at an installation project job site in Fresno. Photo credit: GRID Alternatives

BACKGROUND

This case study explores how solar installation training, funded in part by TCC and administered by GRID Alternatives, has helped remove barriers for Fresno residents to enter the workforce. For Luther Mays and Matthew De La Rosa, the program provided tools and certifications needed to enter the solar industry — and a fulfilling way to get involved in their community. For more on Fresno's Workforce Development Plan, see **page 58.**

The interviews for this story were conducted in December 2019 and September 2023.

LUTHER MAYS — a longtime California resident who spent most of his life in Sacramento — moved to Fresno in 2019 to help a family member. He immediately began looking for a new job but faced several obstacles, including having been out of the job market for a few years. Mays also doesn't own a vehicle; he relies on the Fresno Area Express public transportation system and his bicycle to get around. He decided to start volunteering with GRID Alternatives a few weeks after relocating and found it an open, judgment-free working environment.

After volunteering on a few solar installations, Mays learned he could become more formally trained by joining GRID Alternatives' Installation Basics Training-200 (IBT-200) program. The five-week course includes 40 hours of classroom learning and 96 hours of on-the-job training in rooftop solar photovoltaic system installation and maintenance. Now, he knows how to safely install and configure a solar array, and has developed specialized skills, such as how to anchor panels on different types of roofs. Through the course, he also became certified in CPR and basic workplace safety with the Occupational Safety and Health Standards 10-hour (OSHA 10) training. According to Mays, "Understanding all these safety things makes you more employable."

Luther Mays, a GRID Alternatives solar installation trainee.
Photo credit: GRID Alternatives

Mays graduated from the IBT-200 program in September 2019 and is inspired to keep working toward a career in the solar field. The training set him up for success in multiple ways. In addition to certifications, GRID Alternatives has logged the nearly 200 hours of volunteer work, training, and installation experience — a record that Mays says will be helpful evidence of his experience for potential employers.

"[One] thing that I really like about GRID Alternatives [is that] any jobs that you do for them, they keep a log of the hours ... That's really helpful as far as like a job reference."

LUTHER MAYS

But the most rewarding part of his training was how excited and kind the families were as the crews were setting up their solar PV system. He also enjoys being able to help relieve families of the financial burden of their electricity bills, which can have a big impact.

"The most rewarding part of my solar installation training is how excited and kind the families are as our crew is setting up their solar PV system."

LUTHER MAYS

Matthew De La Rosa, a GRID Alternatives solar installation trainee. **Photo credit: GRID Alternatives**

MATTHEW DE LA ROSA, originally from Hollister, moved to Fresno in 2022 to be with his family after a period of incarceration. Soon after arriving, De La Rosa attended a Parole and Community Team meeting (a gathering intended to connect recently incarcerated individuals with community resources) where GRID Alternatives was presenting about its solar installation job training program.

De La Rosa had been having difficulty finding work after his incarceration. While incarcerated, he got certified to operate a forklift — but though he applied for many jobs, potential employers rejected his applications upon learning of his background. So when he heard GRID's presentation, he immediately signed up. Four days later, he started the installation basics training, joining several others with similar backgrounds.

"There's a lot of places in the solar industry that believe in second chances, and especially GRID. They focus on helping people that come from backgrounds like mine."

MATTHEW DE LA ROSA

Through the training, De La Rosa learned critical skills for working in the solar industry, from the math and technical aspects of setting up a solar array to the safety certifications needed to perform the work. He emerged from the training with OSHA 10 and CPR certificates. The training also came with a $2,400 stipend, which came just in time to help De La Rosa out of a tight spot: He had been getting a ride to work, and the stipend helped him to purchase a vehicle just as the person giving him a ride became unavailable.

And beyond these skills and the financial benefit, De La Rosa also established new professional and personal relationships through the camaraderie of the training cohort. He stays in touch with several other trainees, all of whom work in the solar industry — he's even going to be in a wedding with one.

The training has changed the course of De La Rosa's career. Prior to the training, he was working at Applebee's — and while he loves cooking and has spent years in the food industry, he was ready to use his newfound skills and exercise his brain in a new way. After completing the training, he worked with the electrical union for five months. When he saw a job posting for GRID Alternatives, he jumped at the chance to apply. Now, he has a position with GRID as a solar installer. "I worked for the Union on a big solar farm, but I wasn't using the skills I obtained at GRID. I kept looking for jobs, and when I saw GRID's post, I applied — I wanted to work there since I was in the program."

While De La Rosa had never considered working in the solar industry prior to GRID's presentation, he finds the job fulfilling. He likes it — apart from the heat of working on Fresno's rooftops.

"The benefits of this job are financial for sure. But also, I'm a hard worker. And I feel like right now, I'm using a lot more of my skills."

MATTHEW DE LA ROSA

GRID's efforts to serve low-income families resonate with De La Rosa, as well. "The whole reason I joined GRID is because I like what they're going for, as far as helping people on a low income. I come from a family with low income and I know it's helpful for a lot of families. It would have been helpful for my family."

De La Rosa looks forward to advancing in the solar industry. GRID is covering the cost of a more advanced North American Board of Certified Energy Practitioners solar certification, which will support his efforts to move into a leadership role at GRID. "I have really good supervisors — they have a bunch of knowledge. I always try to ask questions, and eventually I would like to be a supervisor myself."

Matthew De La Rosa working at installation project job sites in Fresno. **Photo credit: GRID Alternatives**

Outreach and Oversight Committee members guide TCC implementation

O&O Committee quarterly meeting on June 12, 2019. Photo credit: UCLA Luskin Center for Innovation

BACKGROUND

This case study spotlights how Fresno's Outreach and Oversight (O&O) Committee — an advisory body composed of residents and business owners that governs TCC grant implementation —has supported transparent, community-driven planning and fostered leadership development among residents. The committee is a core piece of the Transform Fresno Community Engagement Plan (see **page 49**).

Interviews for this story were conducted in December 2019.

ARTIE PADILLA, born and raised in Fresno, is a seasoned community leader. He founded the Every Neighborhood Partnership (ENP) — a nonprofit that runs youth, community, and economic development programs in over half of Fresno's 92 public elementary school districts. He is also involved in the Fresno Community Health Improvement Partnership (a local public health organization), Cradle to Career (an education and economic mobility initiative) and more.

Given his passion for improving his hometown, Padilla took part in the early community engagement process that shaped Transform Fresno's investment priorities and guided funds toward his neighborhood of Southwest Fresno. In his words, becoming more involved with TCC was a "no-brainer" given how its goals naturally fit in with his organization's work. Now, Padilla represents Southwest Fresno on the O&O Committee. As a long-term TCC participant, Padilla has seen firsthand the transformation already underway in the project area. "[The community engagement process] helped spark more civic engagement throughout the area, especially among folks that normally don't attend community meetings," said Padilla.

Through his role on the O&O Committee, Padilla has deepened his learning about his community. Listening is a big part of his job on the committee, and he has heard from a number of community members about the legacy of poor local and regional planning decisions. "[I learned] how the city grew this way... why the freeway caused damage... and separated Southwest Fresno. So, that added a little more historical knowledge that I still use."

Photo credit: UCLA Luskin Center for Innovation

To help repair this legacy, Padilla brings a holistic view of Fresno to his work on the O&O Committee and thinks critically about how to integrate community engagement efforts across multiple initiatives. "I'm trying to look at it from the residents' lens, from a business owner's lens... and how can we do it in a way that is efficient and respects everyone's time and capacity?" Padilla said. He sees TCC as building infrastructure that can help achieve this goal. It invites community members to participate in planning discussions about a variety of distinct but interrelated projects and transformative plans focused in a single neighborhood.

"Community engagement anchors our TCC initiative and is building that civic infrastructure of community through involvement on a weekly, monthly basis of what's going on in their neighborhood... not just a hodgepodge of a meeting here or a meeting there."

ARTIE PADILLA

Photo credit: UCLA Luskin Center for Innovation

JORDAN GUSTAFSON grew up in Clovis, the neighboring city of Fresno, and moved to Downtown Fresno a few years before the TCC grant began. She chairs the Downtown Fresno Foundation, which is dedicated to economic development and revitalization within the City's central business district. She is a member of the O&O Committee.

"I've seen a lot of the positive impact of the community coming together and trust being restored. We're committed to making sure Southwest Fresno is getting those funds."

JORDAN GUSTAFSON

The potential of the TCC funds for Downtown revitalization motivated Gustafson to attend the first TCC community meeting. Once there, she realized the projects being discussed could uplift community voices and reinvest in historically underserved areas.

After that first meeting, Gustafson was inspired to apply for a spot on the O&O Committee. As a member of the committee, she has gained insight into her community: "the top benefit is learning about my neighbors and how we can support each other and make Fresno as a whole better," she said. She also developed crisis management and conflict resolution skills through facilitating conversations among residents with different priorities for funds. "People are very impassioned at these meetings. I've learned how to de-escalate tension when we're having meetings with the entire community. It's been an amazing lesson in empathy."

The O&O Committee has helped to resolve conflict and address challenges that projects come up against during implementation. "When a project looks like it will fall through, we need to replace or fund another project that is going to benefit the exact people that the other project would."

BARBARA WILSON has decades-long ties to the Fresno community, dating back to the early 1960s. Though her career took her to the Bay Area after she graduated from Edison High School, Wilson returned to Fresno in 2008 to care for her mother. She took on new roles in the community and regularly attends neighborhood meetings. Now, Wilson serves as a member of the O&O Committee.

Wilson was reading a newspaper when she came across an announcement for the first TCC Community Steering Committee meeting. She called friends to ask if they had heard about it and told them they should check it out. She hasn't missed a TCC-related meeting since. "As a resident of the southwest side of Fresno, I'm excited for the program to improve lives through intentional redevelopment geared to the needs of the people living and working in Southwest Fresno."

She says her motivation to get involved, and to stay involved, comes from her connection to Fresno as her home. "The opportunity to see redevelopment within my own district, community and how it would come together is exciting to me," she said. "Most urban development projects happen to the community as opposed to happening for the community.... I want to ensure that the community engagement is thoughtful and intentional and those who live and work here today will still call it home after the redevelopment is complete."

Photo credit: UCLA Luskin Center for Innovation

As a member of the O&O Committee, Wilson helps to resolve conflict among Transform Fresno partners and oversees project budgets, helping to adjust course when projects get off track, and working with the community and SGC staff alike to solve problems that arise. Through this experience, Wilson has developed a stronger network of Fresnans who are involved in local redevelopment work, as well as gaining experience with leadership skills like conflict resolution.

"The experience has allowed me to meet others who play an intimate role in the redevelopment process... [And] when partners weren't getting along, we've had to step in and help resolve that issue. Now, they are working together."

BARBARA WILSON

PROFILES:

TRANSFORMATIVE PLANS

GRID Alternatives trainees upgrading an electrical box to accommodate rooftop solar panels. **Photo credit: GRID Alternatives**

THE COUPLING OF TRANSFORMATIVE PLANS alongside greenhouse gas (GHG) emissions-reduction projects is one of the central elements of TCC that separates it from all other California Climate Investments. For Round 1 of TCC, applicants were required to develop three transformative plans: a community engagement plan, a displacement avoidance plan, and a workforce development plan. Together, these plans are designed to ensure that TCC investments reflect the community's vision and goals, bring economic opportunities to disadvantaged and low-income communities, and minimize the risk of gentrification and displacement of existing residents and businesses. Applicants were provided a menu of strategies for developing their plans and encouraged to choose those that spoke to the site's priorities and strengths. The following section provides an overview of how Transform Fresno structured its plans and the progress that has been made toward implementation.

Community Engagement Plan

Youth leader presenting at the 2023 Transform Fresno Annual Summit. **Photo credit: Transform Fresno**

TRANSFORM FRESNO'S COMMUNITY ENGAGEMENT PLAN (CEP) leverages the many partnerships formed throughout the TCC application and project implementation process. Together, those partners will implement the CEP to accomplish the following objectives: (a) provide clear, consistent, and accessible communications to residents, businesses, and other community stakeholders; (b) build trust through transparency; (c) utilize local knowledge and expertise; (d) develop civic capacity; (e) foster the next generation of community leaders; (f) enable active participation in project implementation; (g) create opportunities to provide input on pending implementation decisions; (h) document the implementation process; and (i) celebrate accomplishments.

In addition to the overarching CEP for the entire Transform Fresno initiative, there is a more narrowly focused plan to engage residents around the design of a bike trail in the project area located along Fanning Ditch. This effort is known as the Southwest Green Trails Project.

The City of Fresno is leading the CEP, with support from the following partners: Fresno Economic Opportunities Commission (Fresno EOC); KMc Strategic Solutions; and the Youth Leadership Institute (see **Appendix 4, page 106,** for a summary of each partner's role). Meanwhile, the U.S. Green Building Council Central California is leading the Southwest Green Trails Project, with support from The City of Fresno; Fresno Bicycle Coalition; Urban Diversity Design; West Fresno Family Resource Center; Edison High School; and California State University, Fresno.

Recent Accomplishments*

- 177 outreach events about specific TCC projects and plans held (also counted under those projects' and plans' accomplishments)
- 79 planting workdays organized at Yo'Ville Community Garden, with 280 volunteers
- 41 informational videos about specific projects (12 videos) and Transform Fresno generally created (29 videos)
- 12 students are participating in the Youth Leadership Development Program
- 4 resident-inclusive Outreach and Oversight Committee grant governance meetings held
- 1 ArtFest event organized to showcase residents' art, engaged ~120 community members
- 1 annual summit which spotlit Transform Fresno projects held

** Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

CEP Development Process

The final narrative for the Transform Fresno CEP was prepared by Raimi + Associates and released on Sept. 6, 2019. The CEP was informed by a Sampling Plan which highlighted demographic and economic characteristics of hard-to-reach population segments in the project area. Outcomes from that process include:

» 30 stakeholder surveys evaluating the CEP framework and identifying preferences for frequency and methods of communications;

» One-on-one conversations with the 12 project partners;

» Five pop-up workshops which included 120 community members and stakeholders at high-traffic locations throughout the project area;

» Meetings with the Transform Fresno Outreach & Oversight Committee, a governance body established during the TCC proposal process; and

» Other comments and feedback received from City of Fresno staff and community stakeholders through other means, such as emails and comment letters.

Key issues that emerged include: urgency to begin implementation to meet the needs of longtime residents and businesses; a strong desire for displacement avoidance safeguards and connections to workforce development opportunities; and concern for hard-to-reach populations, such as the elderly, those who are linguistically isolated or distrust local government, being considered and prioritized in development strategies for targeted outreach.

As a result of these issues, the final CEP was designed to be rigorous and flexible — leveraging existing relationships with project partners, while creating space for formal inclusion of new community partners. The CEP was also designed to provide transparency, build trust within the community, and expand and institutionalize civic engagement opportunities. The methods for doing so are described below and are divided into three broad categories: (1) information sharing; (2) community participation; and (3) documentation.

Methods for Information-sharing and Communication

The specific methods to inform the community and general public about Transform Fresno implementation and ways to actively participate in the process include:

» **Central website** - hub for all TCC materials and updates

» **Social media** - text, image, and video updates on the City of Fresno's Facebook, Twitter, and Instagram accounts

» **Newsletters** - email summary of project updates and profiles on people contributing to TCC implementation

» **Text messages**- reminders about upcoming events

» **Communications database** - directory of stakeholder emails and phone numbers established during the grant application process which will be updated throughout implementation

» **Door-to-door canvassing** - reserved for strategic times to gather input (especially for hard to reach populations) on pending implementation decisions

» **Flyers and meeting notices** - mailed and posted before significant events and key planning and implementation decisions

» **Updates of engagement activities** - community and partner meetings, email, newsletters, and posts on the Transform Fresno website

Methods for Community Participation

Specific methods to allow residents and stakeholders to actively participate in the process and take ownership of the projects include:

» **Outreach and Oversight Committee** - quarterly meetings that provide a regular opportunity to discuss project updates and community issues, and to identify what types of engagement are needed

» **Annual Transform Fresno Summit** - event for community, project partners, and state officials to celebrate progress, recruit future leaders, and prioritize funding needs through presentations, breakout sessions, panel discussions, and activities

» **Project-specific charrettes or workshops -** opportunities for community members to contribute to the design of new parks and street improvements

» **Youth Leadership Development Program** - training program that will cultivate 48 new community leaders from middle and high schools to support engagement efforts; students learn about community organizing, meeting facilitation, public speaking, and local government procedures

» **Neighborhood project update meetings** - engagement between TCC partners and community groups, such as churches or parent-teacher associations, to discuss TCC implementation

» **Preference and opinion surveys** - data collection opportunities in online and paper formats to identify existing and emerging needs in the community

» **Direct participation in TCC projects -** volunteer opportunities to implement TCC (e.g., hosting or installing a rooftop solar system, planting trees, gardening at an urban farm, etc.)

» **Integration of arts and culture** - place-making oppor-

tunities such as mural painting, sculptural installations, and other forms of cultural expression

Methods for Documentation

Specific methods to document the outcomes, successes, and lessons learned from Transform Fresno include:

- **Video history** - short videos (30–90 seconds) that capture project implementation, interviews with participants, or summaries of community workshops or other events, as well as a longer videos (5–10 minutes) that captures the entire five-year Transform Fresno process
- **Community narrative documentation** - storytelling opportunities that result in physical documentation of the history of the project area and the community's vision for the future (e.g. a "story corps" booth at annual summits or a standalone event dedicated to broadcasting community stories)
- **Participation dashboard** - an online platform that tracks community participation through the following metrics: (a) number of people at each event; (b) total number of people engaged over the life of the project; (c) geographic distribution of participants; (d) ethnic distribution of the participants; and (e) number of events or meetings in which individuals participated
- **Annual and final engagement reports** - narrative summaries, engagement activities, major outcomes, and the metrics included in the Participation Dashboard

Southwest Green Trails Project

The U.S. Green Building Council Central California (USGBC-CC) is leading a separate engagement plan to coordinate a bicycle trail design outreach process and a bicycle education program. Given the narrow focus of this work, it was not included in the broader Transform Fresno CEP.

With respect to outreach, USGBC-CC and Urban Diversity Design will engage residents and stakeholders in the planning of the Southwest Fresno Trail project (see **page 87**) along the Fanning Ditch Alignment through a series of workshops and tactical urbanism activities. The outreach process aims to gather input on how best to increase connectivity in Southwest Fresno and between TCC projects, such as the Yosemite Village Permaculture Garden (see **page 83**) and the Southwest Fresno Community Food Hub (see **page 84**).

With respect to education, USGBC-CC is partnering with the Fresno County Bicycle Coalition and its Smart Cycling trainers to offer six bicycle education workshops. The workshops aim to increase rider safety and use of existing bicycle facilities by promoting safe driving practices, encouraging bicycle use, and sharing information about current and future biking infrastructure (including TCC trail projects).

Shared Governance Model

Transform Fresno has a resident- and business-inclusive collaborative stakeholder structure (CSS) for overseeing grant governance. The CSS includes the City of Fresno, 12 project partners, and 16 Outreach & Oversight (O&O) Committee members. See **Appendix 3, page 105,** for a summary of the roles and responsibilities of CSS members.

Within the CSS, the O&O Committee serves as the primary pathway for the community to provide guidance on TCC implementation including major budget or programmatic changes. The O&O Committee is composed of residents or business owners from all three neighborhoods of the TCC project area (Chinatown, Downtown, and Southwest). The Committee meets monthly and holds quarterly public meetings in which the community can provide comments.

The O&O Committee formed in December 2017 after the final project package was approved by 164 eligible voters through a participatory budget process. Eligibility required one to live, work, or own a business or property in ZIP codes 93706 and 93721. Moreover, residents must have attended 50% of the meetings about the participatory budgeting process; workers and owners of businesses and property must have attended 66% of the meetings. The mayor then appointed 16 of those voting members to serve on the O&O Committee. The composition of the Committee will evolve over time as members cycle in and out. When a vacancy occurs, nominations from the community are solicited and chosen based on recommendations from the current committee, a panel interview, and at the direction of the mayor of Fresno. All new members must have participated in the development of Transform Fresno projects, be a voting member on the original Community Steering Committee, and either work, live, or own property in the project area.

Community Engagement Plan

The Transform Fresno Community Engagement Plan provides opportunities for project area residents to learn about and participate in the implementation of Transform Fresno, as well as weigh in on pending decisions.

Project Details

- **Launch date:** September 2019
- **Anticipated completion date:** June 2024
- **Project lead:** The City of Fresno
- **TCC grant funds:** $891,083
- **Leveraged funds:** $0

Cumulative Progress Through FY 2022-2023

Outputs From the Planning Process for the Final CEP

- 28 community engagement surveys collected in May and June of 2019
- 5 workshops run by Raimi + Associates in May 2019 (120 community members engaged)

Outputs From Community Engagement Activities

- 335 documented events, workshops, and meetings to engage the community on the implementation of TCC (many of which are counted under specific projects' and plans' outputs later in this report; and some of which are detailed in the outputs below)
- 120 videos created and uploaded to the Transform Fresno YouTube channel and posted on social media
- 40 youth ambassadors trained under the Youth Leadership Development Program (notable collaborations between this program and other TCC projects include: planting fruits and vegetables at Inside Out Community Garden, participation in Yo'Ville Community Garden events, volunteering at a community gleaning event, and conducting a tour of the Food to Share program)
- 23 O&O Committee quarterly community meetings held (17 after TCC grant execution), with 13-80 stakeholders at each meeting
- 3 annual Transform Fresno summits (in 2021, 2022, and 2023), with sessions live streamed and archived on the Transform Fresno website
- 1 resource fair and pumpkin patch event to celebrate the completion of TCC investments along East Annadale Avenue and to highlight other Transform Fresno opportunities
- Fresno Street Saints and Youth Leadership Institute leveraged in-kind resources to provide youth ambassadors with laptops and food during cohort and summer workshop series meetings
- City of Fresno recognized by the American Planning Association for the CEP and the participatory Transform Fresno final project package development and selection process (Central Section 2020 Award of Excellence and Achievement in Planning and the California Chapter 2020 Award of Merit in Public Outreach)
- Branding and associated guide created and implemented project wide
- Website created, launched, and maintained
- Delivered flyers about the Transform Fresno summits to every door in the project area

Responses to COVID-19

- Many activities conducted virtually, including O&O Committee meetings and Youth Leadership Development Program meetings and workshops
- Quarterly O&O Committee meetings streamed on social media and CMAC TV
- City of Fresno designed outreach events to ensure the health of staff and public.

Southwest Green Trails Project

Southwest Green Trails Project is a standalone community engagement plan to motivate greater bicycle usage and resident participation in the design of a bike trail along Fanning Ditch.

Project Details

- **Launch date:** September 2019
- **Anticipated completion date:** June 2024
- **Project leads:** U.S. Green Business Council - Central California
- **TCC grant funds:** $138,540
- **Leveraged funds:** $0

Cumulative Progress Through FY 2022-2023

- 6 bicycle education workshops provided, including: hands-on learning about the usage of community bikes, bike infrastructure, active transportation gaps to be addressed with TCC investments, a bike rodeo, loading bikes on electric buses, and helping people understand how to use bike/transit connectivity opportunities (17-77 stakeholders at each)
- 3 meetings with project stakeholders held to gather input on the design of the Southwest Fresno Trail (15 stakeholders engaged at each meeting)
- 2 videos created and launched: "Bike to School PSA" and "Bike to School Transportation Challenge"
- 1 Bike to School Day at Edison High School held which included a free helmet-decorating table and a bike rodeo (200 stakeholders engaged)
- 1 Talk & Walk event organized to share design plans and seek community input regarding which trees to plant
- 1 community meeting to seek input from residents about trail design and tree selection

Responses to COVID-19

- USGBC-CC developed a website and moved the Bike Safe Fresno program online
- Some community events (e.g., bike to school days) paused until schools in Fresno reopened

Displacement Avoidance Plan

Members of the Anti-displacement Task Force meeting in October 2021. Photo credit: Transform Fresno

TRANSFORM FRESNO'S DISPLACEMENT AVOIDANCE PLAN (DAP) contains programs and potential policies to avoid displacement of existing residents and local businesses. It's important to note that Transform Fresno will not directly cause displacement, as housing units are being constructed on vacant, underutilized lots and transportation activities are occurring within the public right of way. However, there are concerns about the indirect effects of TCC investment, which may lead to displacement by raising the value of residential and commercial land. To address these concerns, the DAP outlines a process to determine displacement vulnerabilities within the Transform Fresno project area, potential policies to mitigate displacement, and resources that economically empower residents and businesses so that they are less vulnerable to displacement pressures.

The City of Fresno is leading the implementation of the DAP in consultation with a number of supporting partners, including: Fresno's Anti-displacement Task Force, the O&O Committee, Thrivance Group, Wells Fargo, the Central Valley Business Diversity Partnership, the Fresno Regional Workforce Development Board Business Service Center, and other community stakeholders. See **Appendix 5, page 107,** for a detailed summary of the partners involved.

Recent Accomplishments*

- 56 affordable housing units constructed
- 40 individuals provided input or commentary on affordable housing and sustainable communities project
- 1 business development workshop held, engaging 24 business owners and stakeholders

**Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

Continued Planning Efforts

The DAP builds upon previous planning efforts to revitalize Fresno's downtown region while minimizing gentrification and displacement. These efforts have lead to several reports which highlight potential actions for balancing those goals, including: the *Downtown Neighborhoods Community Plan* (2016), the *Southwest Fresno Specific Plan* (2017), and the *Fresno General Plan 2015-2023 Housing Element* (2017). The latter document specifically called for the creation of the Anti-displacement Task Force to explore ways for low-income residents and merchants to remain in their neighborhoods.

Funded through leveraged funds, TCC implementation grant funds, and a supplemental technical assistance grant ($133,333) from SGC, Fresno's DAP furthers past planning efforts by funding the following research and community engagement tasks:

- **Release of the *Downtown Displacement Report*,** which highlights data related to displacement vulnerabilities in Downtown Fresno and the surrounding city.
- **Release of the Draft Framework for the DAP**, a working document which highlights existing and proposed displacement avoidance policies in Fresno.
- **A community workshop,** in which residents can react to the Draft Framework and provide input on the policies to include in the final DAP.
- **Collect community surveys,** in which residents can anonymously comment on the Draft Framework.
- **Release the final DAP**, which revises the Draft Framework to reflect stakeholder feedback and acts as a living document (despite the "final" nomenclature) that aligns with the vulnerabilities and priorities of the community as new information is revealed.
- **Hire an implementation consultant**, Thrivance Group, to gather qualitative and quantitative data to inform the roll-out of policies proposed in the DAP, conduct community-based workshops to gain additional feedback about those policies, release an analysis of findings, and present findings to the Anti-displacement Task Force (ADTF) and the Fresno City Council.

Policies and Programs that Mitigate Displacement

Fresno's DAP also leverages a number of existing policies and programs aimed at mitigating displacement. However, based on the public comments about the Draft Framework, Fresno's existing policies and programs could further protect residents and businesses from displacement pressures. Thus, Fresno's DAP also proposes new actions for mitigating displacement driven by the priorities of community members (see **Table 2** for an overview of existing and proposed policies in the DAP).

The Fresno City Council is the final authority on whether proposed policies are adopted. To inform the policymaking process, City Council will work closely with the Anti-displacement Task Force and the implementation consultant to review findings from the aforementioned research and community engagement activities.

Economic Empowerment Opportunities for Residents

To support neighborhood stabilization and wealth building within the TCC project area, the City of Fresno partnered with Precision Homan Loans to conduct six Home-buyer and Financial Literacy Education Summits. These events educated the public about the home-buying process, necessary qualifications for buyers, and strategies for improving one's access to credit.

Additionally, the city also implemented a project labor agreement for all city-led construction projects funded by the TCC grant. It encourages contractors and unions to hire qualified workers from the TCC project area, thereby improving residents' access to high-paying jobs with robust benefits. While project labor agreements are typically a workforce development strategy, they are included within Fresno's DAP because they help generate wealth for residents and reduce their vulnerability to the negative impacts of increasing housing costs.

Economic Empowerment Opportunities for Businesses

Leveraging the TCC technical assistance grant from SGC, the city partnered with the Fresno Metro Black Chamber of Commerce and the Central Valley Business Diversity Partnership to establish a business development and retention program. The program will provide one-on-one, culturally relevant coaching sessions and technical assistance to 10 small businesses in the project area. Additionally, the city partnered with the Fresno Regional Workforce Development Board Business Service Center to hold business development workshops in the project area.

The city also took some initial steps to help small businesses in Chinatown form a small business alliance, formally known as a Property Based Improvement District (PBID). To support this effort, the city hired Willdan Financial Solutions to: conduct a feasibility study for the creation of a PBID, coordinate three community outreach meetings to provide information about the potential PBID, and gauge the level of business owner support. The results of the feasibility study indicated that there was not enough support from business and property owners in Chinatown to form a PBID, so no further action was taken.

Table 2. Existing and Proposed Policies in the Transform Fresno DAP (by Strategy)

Strategy	Existing Policies /Programs	Proposed Policies / Programs
Preservation of Affordable Housing	» **Rent control for mobile homes** - regulates rent increases and evictions for mobile homes » **No-net loss of affordable housing** - the City is working with public and nonprofit agencies to purchase and manage affordable housing units at risk of closing » **Protection of single-room occupancy (SRO) units** - the City is rehabilitating SROs, a low-cost housing option for low-income households and those vulnerable to homelessness » **Condominium conversion restrictions** - limits the number of apartments and mobile homes that can be converted to condominiums	» **Expanded Rent Controls** would stabilize rents at the city or county level (beyond mobile homes) through a rent control ordinance and the establishment of a rent review board that conducts hearings of tenant and landlord petitions under the ordinance.
Tenant Protections and Support	» **Anti-harassment policies** - the City refers housing discrimination complaints to enforcement bodies, sponsors fair housing workshops, and spreads fair housing information » **Legal services**- the City provides funding to the Fair Housing Council of Central California to provide no-cost legal services to tenants	» **"Just Cause" Eviction Policies** would prohibit landlords from evicting tenants without proper cause (e.g., owner move-in, removal of the unit from the rental market). Raising the rent is typically not a proper cause under local rent control policies.
Production of Affordable Housing	» **Density bonus ordinance** - allows the increase of permitted density in exchange for the development of affordable housing » **Funding for affordable housing production** - the City continues to apply for local, state, and federal programs to fund new housing for low-income renters and homebuyers. » **Development of accessory dwelling units (ADUs)** - allows the development of ADUs on the same lot as stand-alone single-family homes	*No new policies proposed*
Protections for Small Business	» **Local purchasing requirements** - extends preferences to local businesses for contracts bid through the city's competitive bid process pursuant to the application of construction and consultant contracts	» **Creation of a small business alliance** would support small businesses in Chinatown by forming a PBID. » **Business development programs** would provide no- and low-cost technical assistance to local businesses seeking to expand.
Neighborhood Stabilization and Wealth Building	» **Local purchasing requirements** - as mentioned above, the City extends preference to businesses that competitively bid for construction and consultant contracts.	» **First-time homeowner incentives** would provide first-time, low-income home-buyers with financial assistance for down payments and low-cost financing options. » **Project labor agreements** would require TCC-funded capital projects to hire locally. » **Commercial rental subsidies** would offer rent subsidies to minority-owned businesses. » **PBID training** would provide training on how to form a PBID in Chinatown.

Displacement Avoidance Plan

The Displacement Avoidance Plan is a series of leveraged programs and potential policies to avoid the displacement of existing residents and local business.

Project Details

- **Launch date:** September 2019
- **Anticipated completion date:** June 2024
- **Project lead:** City of Fresno
- **TCC grant funds [implementation grant only]:** $0
- **TCC technical assistance funds:** $133,333
- **Leveraged funds:** $60,500

Cumulative Progress Through FY 2022-2023

Outputs From the DAP Planning Process (in chronological order)

- Established the ATDF in November 2018 under City Council Resolution 2018-2077 (11 ADTF meetings held)
- The City released the *Downtown Displacement Report* (2019), a document that highlights statistics related to displacement in Downtown Fresno
- The City released the Draft Framework for the DAP (2019), a working document that highlights existing and proposed displacement avoidance policies within Fresno
- 32 stakeholders engaged at a workshop (May 2019) to identify and prioritize policies to mitigate displacement
- 23 stakeholder surveys collected from community members evaluating the Draft Framework for the DAP
- The City released the final *Transform Fresno Displacement Avoidance Plan Narrative* (September 2019), which updated the Draft Framework for the DAP to reflect stakeholder feedback
- Awarded a $133,333 technical assistance grant from SGC in January 2020 to fund activities that support the development and implementation Transform Fresno's DAP
- Hired Thrivance Group to serve as the DAP implementation consultant in March 2020
- 200 hours of one-on-one interactions and 50 in-depth interviews held with community stakeholders in support of Thrivance Group's Social Climate Analysis (a method for ground-truthing assumptions about gentrification and displacement with the TCC project area)
- 551 surveys collected to inform Thrivance Group's social impact analysis
- Released *Here to Stay: Policy-Based Blueprint for Displacement Avoidance in Fresno,* a draft report published by Thrivance Group in June 2021 that summarized findings from the Social Climate Analysis and expanded the DAP framework to include 46 anti-displacement policies (15 of which were later included as priority recommendations in Fresno's 2022 citywide housing plan, titled: *One Fresno Housing Strategy*)
- 4 workshops conducted by Thrivance Group (known locally as Community Study Sessions) that explored policy bundles from the *Here to Stay* report in more detail; engaged 18 to 51 stakeholders per sessions

Outputs From Displacement Avoidance Activities

- 7 webinars held (4 on business development and 3 on home-buyer education)
- Executed project labor agreement with local hiring provisions for construction projects that are at least 75% funded by TCC and have a bid amount greater than $133,000 (excluding: housing construction and rehabilitation; residential solar construction or weatherization); thus, the agreement applies to: Chinatown Urban Greening, Mariposa Plaza, the Park at MLK Magnet Core, Southwest Fresno Trail, and The Monarch @ Chinatown (specifically transportation investments at the Monarch: street lighting, sidewalks, curbs, etc.)

Responses to COVID-19

- Conducted outreach, engagement, interviews, and policy analysis virtually or by phone; and moved ADTF meetings to a virtual platform, recorded them, and shared them on social media and CMAC TV

Workforce Development Plan

GRID Alternatives' volunteers installing rooftop solar panels on a residence. Photo credit: GRID Alternatives

TRANSFORM FRESNO'S WORKFORCE DEVELOPMENT PLAN (WDP) funds the creation of two unique training programs: (1) West Fresno Advanced Transportation Technology Training (WFATT); and (2) Voice of Including Community Equitably (VOICE) Gladiator Welding Program. Aside from these two stand-alone programs, a number of training and employment opportunities are also being offered through TCC projects. Additionally, the WDP includes continued strategic planning for Fresno residents to take advantage of create training and employment pipelines to careers in industries that are needed for the shift to a cleaner economy.

The Fresno Regional Workforce Development Board (FRWDB) is the lead partner for WFATT, providing grant administration and oversight. FRWDB already oversees a suite of workforce development programs in the region which help place Fresno County residents in new jobs or gain new skills.

The State Center Community College District (SCCCD) is the lead partner for the Gladiator Welding Program. VOICE, a community-based organization dedicated to workforce development for the underprivileged and underserved populations of Fresno, manages the day-to-day operations of the program. The West Fresno Family Resource Center (WFFRC) provides case management and mentorship services for participants.

Recent Accomplishments*

- 49 individuals graduated from the VOICE Gladiator Welding Program (and 26 placed at related employers)
- 42 individuals received on-the-job training from GRID Alternatives in the rooftop solar sector (also reported on page 77)
- 20 individuals enrolled in paid training to learn how to install energy efficiency measures and solar panels (also reported on page 76)
- 15 individuals enrolled in WFATT (24 graduated, including past enrollees, and 15 placed at related employers)

** Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

WFATT

This program aims to train 200 qualified residents on the operation and maintenance of advanced clean truck technologies. The program targets project area residents, with 80% of enrollment from the 93706 (Southwest Fresno) and 93721 (Downtown and Chinatown) ZIP codes.

Qualified participants complete 160 hours of classroom and field training in commercial truck operation at the Fresno United Truck Driving School. At the end of the training, participants obtain a California Class A Commercial driver's license.

Additional services offered through WFATT include academic and career assessments, case management, job readiness workshops, interview skill building, vocational training, and job placement. Program graduates are referred to employers that operate zero- and low-emission truck fleets and offer competitive wages, benefits, and full-time work.

VOICE Gladiator Welding Program

This welding pre-apprenticeship program is addressing underemployment challenges by building a workforce in West Fresno that is prepared to complete industry-recognized certifications and the skills for gainful and sustainable employment. The program aims to train 108 qualified residents, primarily from the 93706, 93721, and 93727 ZIP codes.

The program is designed to be implemented through a nontraditional, holistic approach to complement the whole person. As such, the program will provide ongoing support and career coaching to assist with retention.

Job and Training Opportunities on TCC Projects

Fresno residents have access to the following employment and training opportunities on TCC projects:

- Construction jobs (with a local hiring preference formalized in a project labor agreement) for the following projects: Chinatown Urban Greening, Mariposa Plaza, the Park at MLK Magnet Core, Southwest Fresno Trail, and The Monarch @ Chinatown (specifically transportation investments at the Monarch: street lighting, sidewalks, curbs, etc.)
- Solar photovoltaic system installation and maintenance training with GRID Alternatives and the Fresno Economic Opportunities Commission
- Home weatherization and energy efficiency measures training with the Fresno Economic Opportunities Commission
- Food waste prevention and edible food rescue and distribution jobs at the Saint Rest + Food to Share Hub
- Workforce training, technical certificates and degree programs, and employment opportunities at the new West Fresno Satellite Campus
- Agricultural training provided by Yosemite Village Permaculture Community Garden & Urban Farm Incubator

Continued Planning Efforts

The City hired a consultant to conduct an independent study of the challenges and opportunities related to workforce development in Fresno. The purpose of the study was to help guide policymakers in making strategic decisions towards better aligning the talent pipeline post-COVID-19 and into the future. Given the objectives of TCC, the study focused on workforce development opportunities in industries that are needed for the shift to a cleaner economy.

The study was finalized in August of 2022, and while not published online, is available upon request by contacting the authors. Key findings include, but are not limited to, the following:

- Health care, manufacturing, and construction are industries with high growth potential industries in Fresno
- For the agricultural industry to remain competitive, farmers need to invest in new equipment, software, and training
- "Green jobs" across various industries are growing but could benefit further from a greater policy focus
- Fresno's workforce is highly diverse and, while there are some shortages, training is generally available for most industries through a wide variety of providers, community colleges, and universities
- Employers expect a skilled workforce that can be productive from the first day on the job; in many cases, new employees require some on-the-job training
- Training providers cited the need for larger budgets for a higher volume of graduates and their placement and programs that focus on longer-term upskilling of individuals to prepare them for higher paying opportunities
- There should be a greater focus on career counseling and marketing of jobs that offer a high value to the community's base industries, such as manufacturing
- To encourage people to pursue "green job" opportunities, there must be more education about what those jobs actually are, the earnings potential they offer, the skills required, where to get certifications, and which employers are hiring.

Workforce Development Plan - WFATT

The WFATT Program offers training on the operation and maintenance of advanced clean truck technologies, and prepares participants for a California Class A Commercial driver's license.

Project Details

- **Launch date:** June 2020
- **Anticipated completion date:** June 2024
- **Project lead:** FRWDB
- **TCC grant funds:** $1,249,432
- **Leveraged funds:** $207,665

Cumulative Progress Through FY 2022-2023

Outputs From Workforce Development Activities

- 49 participants enrolled
- 46 participants completed all 160 hours of classroom and field training
- 22 participants obtained a California Class Commercial A license
- 18 participants placed in jobs after completing training (15 within the trucking sector)
- Purchased a low-emissions 80-gallon compressed natural gas truck for the training program
- Arranged a job placement program with United Truck Driving

Outputs From Community Engagement Activities

- 3,000+ prospective participants contacted about WFATT via social media
- 55+ prospective participants engaged through 15 outreach and recruitment events
- 10 prospective employers engaged via three educational events that demonstrated low/zero-emission vehicle technologies

Workforce Development Plan - VOICE Gladiators

The Voice Gladiators Program is a welding pre-apprenticeship training opportunity in which participants gain industry-recognized certifications.

Project Details

- **Launch date:** June 2020
- **Anticipated completion date:** October 2025
- **Project lead:** SCCCD
- **TCC grant funds:** $1,850,000
- **Leveraged funds:** $109,020

Cumulative Progress Through FY 2022-2023

Outputs From Workforce Development Activities

- 85 individuals enrolled in (and 58 graduated from) the VOICE Gladiators training program
- 60 trainees placed in jobs (50 within the welding sector)
- 42 trainees received Gas Metal Arc Welding plate certification
- 16 trainees received Gas Tungsten Arc Welding plate certification
- 12 trainees received Flux Cored Arc Welding dual shield certification
- 8 trainees received GMAW spray certification
- 8 trainees received Shielded Metal Arc Welding, also known as Stick Welding, certification

Outputs From Community Engagement Activities

- 35 employers contacted about potential job placement opportunities
- 17 job placement partnerships arranged with employers
- 15 employer site visits (6 to 18 individuals engaged at each)
- 4 video spotlights created on the VOICE Gladiators training program aired on local news outlets (*The Fresno Bee* and *YourCentralValley.com*)
- 3 cohort graduations (60 to 64 individuals engaged at each graduation)
- 1 job fair attended (34 individuals engaged at the City of Fresno Manufacturing Job Fair)

Workforce Development Plan - Job Training on TCC Projects

Job Training on TCC Projects is being offered via: projects led by partners with a pre-existing workforce development program (i.e., GRID Alternatives and Fresno EOC); construction projects that fall under the project labor agreement described in the DAP on **page 55** (Chinatown Urban Greening, Mariposa Plaza, the Park at MLK Magnet Core, Southwest Fresno Trail, etc.); projects with a food production or rescue component (i.e., Saint Rest + Food to Share Hub and the Yosemite Village Permaculture Community Garden & Urban Farm Incubator); and the new West Fresno Satellite Campus vis-a-vis the workforce training, technical certificates, and degree program offered there.

Project Details

- **Launch date:** June 2020
- **Anticipated completion date:** June 2024
- **Project leads:** Chinatown Housing Development / Fresno EOC / GRID Alternatives / Saint Rest / State Center Community College District
- **TCC grant funds:** See projects in next chapter
- **Leveraged funds:** Ibid.

Cumulative Progress Through FY 2022-2023

Outputs From Workforce Development Activities

- 9,681 hours of paid employment supported by projects that fell under the project labor agreement (categorized as an output under the DAP on **page 55**).
- 191 individuals received on-the-job training from GRID Alternatives in the rooftop solar sector (also reported under outputs from Rooftop Solar and Energy Efficiency Projects on **page 74**)
- 54 individuals received paid training from Fresno EOC on how to install energy efficiency measures and solar panels (also reported on **page 74**).
- 4 farmers received access to land, tools, water, and training on how to grow food in ecologically sustainable ways as part of the Urban Farm Incubator Program at the Yosemite Village Permaculture Community Garden

Workforce Development Plan - Strategic Planning

Strategic Planning funding within the WDP went toward an independent study that documented some of the challenges and opportunities related to workforce development in Fresno, specifically within industries needed for the shift to a cleaner economy.

Project Details

- **Launch date:** February 2021
- **Completion date:** November 2022
- **Project lead:** City of Fresno
- **TCC grant funds:** $110,500
- **Leveraged funds:** $0

Cumulative Progress Through FY 2022-2023

Outputs From Planning Process (in chronological order)

- Hired Economic Development Partners as lead consultant
- Created electronic database and began collecting information regarding workforce data, green jobs, training programs, and other relevant documents from the region
- Performed research on the status of the workforce and employment in Fresno and surrounding region
- 100+ stakeholders contacted to provide feedback on the draft document
- 45 key stakeholders (representing training providers, employers, industries, and workforce development professionals) interviewed
- Produced a draft workforce strategy document
- Finalized study in August of 2022, and titled: *A Workforce Strategy for Fresno* (available upon request by contacting the authors of this report)

PROFILES:
TCC-FUNDED PROJECTS

Members of the Department of Housing and Urban Development team on a site tour of The Monarch @ Chinatown. Photo credit: Fresno Housing

TCC APPLICANTS CHOSE FROM A WIDE ARRAY OF PROJECT TYPES in their effort to achieve the three objectives, namely: (1) reductions in greenhouse gas (GHG) emissions; (2) improvements in public health and environmental benefits, and (3) expanded economic opportunity and shared prosperity. These project types align with the suite of California Climate Investments overseen by various state agencies.[1] This alignment was built into TCC to streamline the proposal and indicator tracking process. For example, the California Air Resources Board (CARB) has developed GHG-emissions reduction quantification methodologies and co-benefit assessment methodologies for each project type under the existing suite of California Climate Investments. These methodologies can then be used by TCC grantees (and technical assistance providers, such as the LCI evaluation team) to estimate the benefits of each project. The following section provides an overview of the Transform Fresno projects, aggregated by project type, that are using TCC dollars to achieve the aims of the program.

[1] For more information about California Climate Investments, visit: http://www.caclimateinvestments.ca.gov/

Active Transportation Project

A Class II bicycle lane long Annadale Avenue. **Photo credit: Self-Help Enterprises**

THE ANNADALE MODE SHIFT makes active transportation options safer and more convenient for the Transform Fresno community. The project installed approximately 1,196 linear feet (0.2 miles) of Class II bicycle lanes, 1,154 linear feet (0.2 miles) of new sidewalk, signage for 1,085 linear feet (0.2 miles) of Class III bike lanes, and street lighting on East Annadale Avenue between South MLK Jr. Boulevard and South Elm Avenue. The project closed a gap in pedestrian pathways and improved connectivity along a street which links West Fresno Elementary and Middle Schools, the Mary Ella Brown Community Building, the Clinica Sierra Vista Health Center, and current and proposed affordable housing developments, including Annadale Commons. By encouraging alternative modes of travel and shifting more trips out of cars, the project should reduce traditional vehicle miles traveled (VMT), thereby reducing tailpipe GHG emissions.

Self-Help Enterprises served as the lead partner for the project. Supporting partners included the City of Fresno Department of Public Works, which provides long-term operations and maintenance for the improvements. Self-Help Enterprises used leverage funds to conduct public outreach to educate residents and other community members on the transportation options and to connect them with existing subsidy programs, such as Taxi Scrip, Handy Ride, and other City of Fresno Transit programs.

Recent Accomplishments*

» **Project complete**

**Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

Annadale Mode Shift

The Annadale Mode Shift improved connectivity for pedestrians and cyclists within the Transform Fresno project area by installing bike lines (Class II and III) and a new sidewalk on East Annadale Avenue between South MLK Jr. Boulevard and South Elm Avenue.

Project Details

- **Launch date:** April 2021
- **Completion date:** July 2021
- **Project lifetime (post-implementation):** 20 years
- **TCC grant funds:** $343,000
- **Leveraged funds:** $150,000
- **Project lead:** Self-Help Enterprises

Estimated Lifetime Benefits

- **GHG emissions reductions:** 41 MTCO2e
- **VMT reductions:** 111,511 miles
- **Travel cost savings:** $62,114
- **Direct jobs from TCC dollars:** 2 FTE
- **Indirect jobs from TCC dollars:** 1 FTE
- **Induced jobs from TCC dollars:** 1 FTE

Cumulative Progress Through FY 2022-2023

- Construction completed
- 1,196 linear feet (0.23 miles) of Class II bike lanes added
- 1,154 linear feet (0.22 miles) of new sidewalk added
- 1,085 linear feet (0.21 miles) of Class III bike lanes added

Responses to COVID-19

- Self-Help Enterprises conducted virtual public outreach to educate community members on active transportation options and to connect them with existing subsidy programs,ð such as Taxi Scrip, Handy Ride, and other City of Fresno transit programs.

Affordable Housing and Sustainable Communities Project

Completion of The Monarch @ Chinatown in March 2023. Photo credit: Transform Fresno

TRANSFORM FRESNO'S AFFORDABLE HOUSING and sustainable communities project augmented housing supply and increased density, which should in turn reduce vehicle miles traveled. Specifically, the project funded the construction of a 57-unit mixed-use development called The Monarch @ Chinatown.[10] It includes 4,695 square feet of ground floor retail space, a below-ground parking garage, 56 affordable housing units, and one manager's unit. The project has varying levels of income restrictions: 15 units are rented to households with incomes at or below 30% of the area median income (AMI); 14 units are rented to households earning at or below 50% of the AMI; and 27 units are reserved for households earning at or below 60% of the AMI. Since the project site is on 0.60 acres of vacant land, it did not directly displace Chinatown residents or businesses.

The Monarch @ Chinatown was constructed by the Fresno Housing Authority, the project's lead partner. GGLO Design and Johnston Contracting served as architectural and construction subcontractors. Other partners include US Bank, the California Housing Finance Agency, and the Department of Housing and Community Development. The City of Fresno provides long-term operations and maintenance for the project.

Recent Accomplishments*

- Construction complete
- Filled all 56 units of housing with new tenants
- 170 kilowatts of solar capacity installed on site
- 19 bike racks installed in parking garage

**Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

[10] For a definition of affordable, see Appendix A of the FY 2017-2018 AHSC Program Guidelines.

The project also provided a number of on-site amenities for the building's residents. Material amenities include a computer room, an exercise room, a community room, a tot lot, solar panels, EV charging stations, and bike storage lockers. Residents are also supported by a service coordinator, who organizes community building and enrichment activities for tenants (holiday events, tenant councils, etc.) and refers tenants to public resources available in the broader community. Moreover, tenants have access to educational, health, and skill-building classes on site. Classes include a minimum of 84 hours of instruction per year, and cover topics such as financial literacy, home buying, resume building, nutrition, exercise, parenting, and smoking cessation.

In addition to the investment in affordable housing stock, this project offers 56 free transit passes per year for residents (one for each affordable unit) for three years. To further encourage the use of public transit and active transportation, the project plans to complete three sustainable transportation improvements (STI) alongside the affordable housing development:

- **STI 1** will improve active transportation access to a transit stop located on F and Tulare Streets by installing LED streetlights on F Street and making improvements to a half-mile of paved pedestrian facilities surrounding the apartment development.
- **STI 2** will plant 26 trees on F Street from Fresno to Mariposa Streets to increase canopy cover in Chinatown. A parklet and irrigation systems will also be installed within these limits.
- **STI 3** will reconstruct China Alley between Kern and Inyo Streets into a permeable green alley and install string lighting to increase visibility. (The remaining part of China Alley will be reconstructed under the "Chinatown Urban Greening" project between Tulare and Kern Streets and between Inyo and Ventura Streets). Signage and other traffic-calming surface improvements will be included as well.

Fresno Housing Authority staff give a tour of a studio apartment at The Monarch during the 2023 Transform Fresno Summit.
Photo credit: Transform Fresno

The Monarch @ Chinatown

The Monarch @ Chinatown is a four-story infill housing community that added 56 units of affordable housing (and one manager's unit), as well as approximately 4,700 square feet of mixed-use commercial space, to the heart of Chinatown. Each of the 56 households will receive three years of free transit passes. Additionally, the housing development will be complemented by investments in hard and soft transportation infrastructure around the building, such as lighting, trees, and signage.

Project Details

- **Launch date:** September 2020
- **Completion date:** March 2023
- **Project lifetime (post-implementation):** 30 years
- **TCC grant funds:** $11,785,221
- **Leveraged funds:** $25,736,978
- **Project lead:** Fresno Housing Authority

- **Estimated Lifetime Benefits**
- **GHG emissions reductions:** 5,345 MTCO2e
- **VMT reductions:** 14,170,461 miles
- **Travel cost savings:** $5,257,152
- **Direct jobs from TCC dollars:** 56 FTE
- **Indirect jobs from TCC dollars:** 30 FTE
- **Induced jobs from TCC dollars:** 4 FTE

Cumulative Progress Through FY 2022-2023

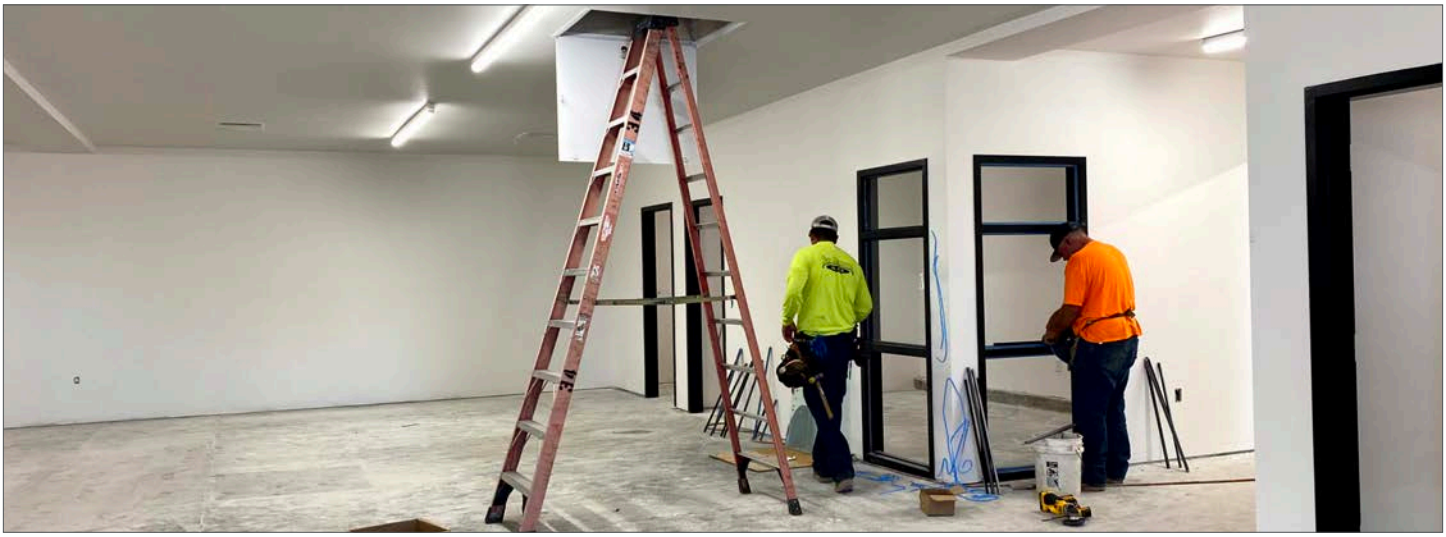
Outputs From Affordable Housing Development

- Completed construction of The Monarch @ Chinatown
- Filled all 56 units of housing with new tenants
- Hired an on-site serviced coordinator
- 170 kilowatts of solar capacity installed on site
- 19 bike racks installed in parking garage

Outputs From Sustainable Transportation Investments

- Plans, specifications, and estimates for active transportation infrastructure completed.

Food Waste Prevention and Rescue Project



Workers renovating a warehouse for the Saint Rest + Food to Share Hub program. Photo credit: Mark Wilson Construction

FRESNO'S FOOD WASTE PREVENTION AND RESCUE PROJECT, called the Saint Rest + Food to Share Hub: Healthy Food Rescue and Redistribution, will provide Fresno residents with access to fresh, local, and healthy food at the former Farmer John Meat Co. The warehouse is in the TCC project area and was renovated and repaired to accommodate modern dry and cold storage facilities, an operations office, and a central food donation and distribution space. A new two-story structure next to the warehouse will expand the project and contain a community commercial kitchen, classrooms, and community-service offices. In addition to addressing food insecurity, the Food to Share Hub will reduce GHG emissions by diverting edible food from landfills, where the organic materials would release methane as they decompose.

The project is led by Fresno Metro Ministry, a community-based organization that runs a food program called Food to Share which rescues off-farm edible food waste; collects food donations from businesses, restaurants, schools, and markets; and delivers recovered food to local pantries, kitchens, churches, and hunger-fighting organizations. The Hub project will significantly expand the rescue, sorting, storage, and distribution capacity of the Food to Share program. Saint Rest Baptist Church serves as the project co-lead and will support Fresno Metro Ministry in managing the long-term operations and maintenance of the Food to Share Hub.

Recent Accomplishments*

- Began construction of the new two-story structure, which includes a commercial kitchen, a classroom, and office space
- Completed renovation of the interior of the warehouse

**Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

Paul Halajian Architects designed the site plans for the Hub renovation. All project components are expected to be operational by May 2024.

In addition to the physical building improvements and expanded food rescue and redistribution capacity, the renovated Food to Share Hub will offer community-focused programming. The commercial kitchen space will be open to the public for cooking skills and nutrition education classes. These classes will cover topics such as food preparation, shopping on a budget, and the connection between food, health, and wellness using the nationally recognized Cooking Matters curriculum. Saint Rest Baptist Church will also coordinate regular community events and activities that elevate the importance of health, education, exercise, and resilience.

A Community Advisory Committee will also be established to advise on all aspects of community engagement, activities programming, event planning, and identifying additional community services that can be provided at the Hub site.

Saint Rest + Food to Share Hub: Healthy Food Rescue and Redistribution

The Saint Rest + Food to Share Hub: Healthy Food Resource and Redistribution Hub project funds new and renovated facilities to recover over 1 million pounds of nutritious food per year, which would otherwise be wasted, and distribute it to families experiencing food hardship.

Project Details

- **Launch date:** March 2021
- **Completion date:** May 2024
- **Project lifetime (post-implementation):** 10 years
- **TCC grant funds:** $1,488,280
- **Leveraged funds:** $3,571,913
- **Project lead:** Fresno Metro Ministry

Estimated Lifetime Benefits

- **GHG emissions reductions:** 9 MTCO2e
- **Material diverted from landfill:** 31 tons
- **Direct jobs from TCC dollars:** 16 FTE
- **Indirect jobs from TCC dollars:** 4 FTE
- **Induced jobs from TCC dollars:** 7 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Food Hub Expansion Activities

- Began construction of the new two-story structure, which includes a commercial kitchen, a classroom, and office space
- Completed renovation of the interior of the warehouse

Outputs From Community Engagement Activities

- Press conference to announce the Saint Rest + Food to Share Hub expansion project – attended by 60 plus
- Community Advisory Meeting conducted at Saint Rest Church – attended by 60 plus

Low-carbon Transportation Project

Fresno Deputy Mayor Matthew Grundy speaking at an event on July 8, 2021, to showcase newly installed electric vehicle charging stations at Sierra Plaza, an affordable housing complex in the TCC project area. Photo credit: Transform Fresno

FRESNO'S LOW-CARBON TRANSPORTATION PROJECT will reduce tail-pipe emissions from passenger vehicles by establishing new electric vehicle (EV) car-sharing, vanpool, ride-sharing, and bicycle-sharing programs. These programs, collectively named the Clean Shared Mobility Network, will provide low- to no-cost mobility services throughout the project area. Specifically, it will offer vouchers to reduce the economic burden of accessing and using these low-carbon mobility options. As a result, the project will assist residents with limited transportation options in getting to school, work, and health care appointments, while generating new growth for the local business community.

The Fresno Metro Black Chamber Foundation is the lead partner for this project, and will develop a long-term operations and maintenance plan for the system during the first year of the grant term. Supporting implementation partners include Bethel Temple Church of God in Christ, Drop Mobility, the Fresno Career Development Institute, Green Commuter, the Latino Equity, Advocacy & Policy Institute, and the Shared Use Mobility Center. And a vanpool operator will support the project in future years.

Recent Accomplishments*

- 18,437 kilowatt-hours (kWh) of energy consumption at EV charging infrastructure, displacing about 47,936 miles traveled in a conventional vehicle fueled by gasoline**
- 47 EV chargers installed across 6 locations, including 12 fast chargers
- 32 outreach and community engagement events (reaching 10 to 400+ individuals at each)
- 17 community centers, churches, and stores visited through door-to-door outreach

**Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

***Assumes 2.6 miles per kWh of charge per EMission FACtor, a model developed by the California Air Resources Board that estimates the official emissions inventories of on-road mobile sources in California.*

In total, the car-share network will consist of 34 battery-EVs (Tesla Model 3 or Chevy Bolt) that can be rented by the hour or by the day, with below-market rates for low-income members. The project also includes a rural vanpool consisting of eight battery-EVs that will transport residents to and from employment centers. The bike share will consist of 200 electric bicycles and approximately 300 docking stations at hubs across Downtown, Chinatown, and Southwest Fresno.

In addition to the investment in new EVs, bicycles, and vouchers to keep usage rates affordable, TCC dollars is also funding the following activities:

- Installing EV charging infrastructure for the 42 vehicles, including approximately 34 Level 2 EV supply equipment (EVSE) chargers for car-share vehicles, and approximately eight Level 3 EVSE chargers for vanpool vehicles;
- Creating a physical location for engaging with the program, called the Mobility Hub Customer Service Center. The Mobility Hub will have multi-modal trip information displays and refillable trip card machines;
- Establishing a volunteer driver program who will provide rides to underserved residents; and
- Developing an integrated services web platform and phone/tablet application.

Clean Shared Mobility Network

The Clean Shared Mobility Network is establishing a low-carbon transit system of EV and bicycle shares to provide low- or no-cost services throughout the project area and will include an EV car-share with below-market rates for lower-income members.

Project Details

- **Launch date:** September 2020
- **Anticipated completion date:** October 2025
- **Project lifetime (post-implementation):** 3 years
- **TCC grant funds:** $7,717,014
- **Leveraged funds:** $2,292,900
- **Project lead:** Fresno Metro Black Chamber Foundation

Estimated Lifetime Benefits

- **GHG emissions reductions:** 1,446 MTCO2e
- **Direct jobs from TCC dollars:** 37 FTE
- **Indirect jobs from TCC dollars:** 15 FTE
- **Induced jobs from TCC dollars:** 23 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Network Implementation Activities

- 19,770 kWh of energy consumption at EV charging infrastructure, displacing about 51,402 miles traveled in a conventional vehicle fueled by gasoline (assumes 2.6 miles per kWh of charge per EMisson FACtor, a model that estimates the official emissions inventories of on-road mobile sources in California)
- 85 EV chargers installed across 11 charging sites to support the EV car-share network

Outputs From Community Engagement Activities

- 800 printed flyers distributed in English and Spanish
- 63 outreach and community engagement events (8 to 1,000 individuals engaged at each event)
- 17 local community centers, churches, and stores visited through door-to-door outreach

Rooftop Solar and Energy Efficiency Projects

A Fresno EOC crew installs solar panels on a home. Photo credit: Fresno EOC

TRANSFORM FRESNO'S SOLAR AND ENERGY EFFICIENCY PROJECTS are reducing energy bills for low-income households while also reducing reliance on fossil fuels to meet local energy needs. These projects include: (1) Economic Opportunities Commission (EOC) Partnership for Energy Savings and GHG Reductions in SW Fresno; (2) GRID Solar Collaborative Single-Family Partnerships; and (3) GRID Solar Collaborative Multi-Family Partnerships. Together the projects are installing rooftop solar PV on 195 low-income single-family homes and five multi-family dwelling units, and implementing energy efficiency measures in 170 single-family homes. All of this work is being done at no-cost for low-income households that makes less than 80% of the area median income.

The Fresno EOC is leading the energy efficiency installations and a portion of the solar PV installations on single-family homes (135 in total). Fresno EOC is a locally based nonprofit (specifically, a Community Action Agency per the U.S. Economic Opportunity Act of 1964). The organization provides programming and services in the areas of youth and adolescent education, housing and shelter, food and nutrition, community health and preventive care, financial literacy, energy conservation, vocational counseling and training, and job placement.

GRID Alternatives is leading the remaining solar PV installations on single-family homes (60 in total) and multi-family properties (five in total). GRID Alternatives is a national nonprofit organization that installs solar power systems and provides job training for underserved communities.

Recent Accomplishments*

EOC Partnership

- 40 homes retrofitted with weatherization measures
- 16 individuals enrolled in paid job training (also reported under accomplishments on **page 51**)
- 14 solar PV systems installed, totaling 55.4 kW in capacity

GRID Solar Collaborative Single-Family Partnerships

- 42 volunteers received on-the-job training (also reported on **page 51**)
- 5 solar PV systems installed, totaling 19.6 kW in capacity
- 5 workshops held on energy efficiency measures

**Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

Training a Solar and Energy Efficiency Workforce

Along with the material benefits of the solar and energy efficiency projects, they are also providing job training and skill building opportunities for TCC project area residents. All training is being targeted to individuals from the TCC project area, but will not be limited to them.

Fresno EOC will provide training to at least six youth (ages 18 to 25). Participants must be enrolled in some kind of educational program beyond Fresno EOC's training program (e.g., high school diploma program, community college, etc.). Each participant attends a three-day training and certification with SunPower, a company which develops solar power systems and offers trainings to accredit solar installers. Additionally, Fresno EOC is providing on-the-job and classroom training at the Solar Training Lab, located at Fresno EOC's Neighborhood Youth Center.

GRID Alternatives is targeting 200 individuals for on-the-job and classroom training. The training provides participants with direct installation skills, as well as job safety and basic electrical skills.

Community Engagement and Outreach

To generate interest around the no-cost installations and job training opportunities, Fresno EOC and GRID Alternatives are carrying out community engagement and outreach activities in the TCC project area. Each partner is also providing technical support to households that receive a solar PV or energy efficiency installation.

With respect to outreach, Fresno EOC aims to attend a total of 10 community events in the TCC project area. And GRID Alternatives is partnering with the Fresno Center for New Americans and Stone Soup Fresno to host monthly energy efficiency workshops and community outreach activities on solar qualification, training opportunities, and educating the community on energy efficiency and consumer behaviors that save money on electrical utility bills. Both partners are also active on social media to promote opportunities from their projects.

GRID Alternatives' volunteers install solar panels as part of their job and skill building training. Photo credit: GRID Alternatives

EOC Partnership for Energy Savings & Greenhouse Gas Reductions in SW Fresno

The EOC Partnership for Energy Savings and GHG Reductions in SW Fresno is installing energy efficiency and solar water-heating measures on 170 single-family homes in Southwest Fresno. The project is also assessing, designing, and installing 510 kW of solar PV systems on 135 single-family homes. Fresno Economic Opportunities Commission (EOC) is providing on-the-job training and Sun Power certification of crews from the project area.

Project Details

- **Launch date:** May 2019
- **Anticipated completion date:** June 2024
- **Project lifetime:** 30 years
- **TCC grant fund:** $3,208,377
- **Leveraged funds:** $0
- **Project lead:** Fresno Economic Opportunities Commission (Fresno EOC)

Estimated Lifetime Benefits

- **GHG emissions reductions:** 7,736 MTCO2e
- **Renewable energy generation:** 23,941,080 kWh
- **Energy cost savings:** $3,198,528
- **Direct jobs from TCC dollars:** 17 FTE
- **Indirect jobs from TCC dollars:** 7 FTE
- **Induced jobs from TCC dollars:** 12 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Installation Activities

- 75 homes retrofitted with weatherization measures to save on energy needed for heating and cooling
- 39 solar PV systems installed on single-homes owned by low-income households, totaling 167.2 kW in renewable energy capacity

Outputs From Workforce Development Activities

- 50 individuals received paid job training to learn how to install energy efficiency measures and solar panels (also reported under outputs from the Transform Fresno Workforce Development Plan on **page 58**)

Outputs From Community Engagement Activities

- 15 community events and outreach events hosted or attended

GRID Solar Collaborative Single-Family Partnerships

The GRID Solar Collaborative Multi-Family Partnership project is installing 183 kW of solar PV panels on 60 single-family homes in the project area. GRID Alternatives is also hosting monthly efficiency workshop classes and community outreach activities on solar qualification, training, opportunities, and educating the community on energy efficiency and consumer behaviors that save money on electricity bills.

Project Details

- **Launch date:** April 2019
- **Anticipated completion date:** June 2024
- **Project lifetime:** 30 years
- **TCC grant fund:** $883,826
- **Leveraged funds:** $535,808
- **Project lead:** GRID Alternatives

Estimated Lifetime Benefits

- **GHG emissions reductions:** 2,355 MTCO2e
- **Renewable energy generation:** 8,590,620 kWh
- **Energy cost savings:** $1,147,707
- **Direct jobs from TCC dollars:** 5 FTE
- **Indirect jobs from TCC dollars:** 2 FTE
- **Induced jobs from TCC dollars:** 3 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Installation Activities

- 50 solar PV systems installed on homes owned by low-income households, totaling 178.9 kW in capacity

Outputs From Workforce Development Activities

- 191 volunteers received on-the-job training in the rooftop solar sector (also reported under outputs from the Transform Fresno Workforce Development Plan on **page 58**)

Outputs From Community Engagement Activities

- 19 energy efficiency workshops held (56 unique stakeholders engaged across workshops)

Responses to COVID-19

- Developed written protocols, incorporated social distancing markers into the facility, implemented sanitation protocols, and limited class sizes to six trainees per cohort

GRID Solar Collaborative Multi-Family Partnership

The **GRID Solar Collaborative Multi-Family Partnership** project is installing 91 kW of solar PV panels on five affordable multi-family housing units operated by the Fresno Housing Authority.

Project Details

- **Launch date:** April 2019
- **Anticipated completion date:** June 2024
- **Project lifetime:** 25 years
- **TCC grant fund:** $352,549
- **Leveraged funds:** $110,000
- **Project lead:** GRID Alternatives

Estimated Lifetime Benefits

- **GHG emissions reductions:** 1,048 MTCO2e
- **Renewable energy generation:** 3,559,475 kWh
- **Energy cost savings:** $475,546
- **Direct jobs from TCC dollars:** 2 FTE
- **Indirect jobs from TCC dollars:** 1 FTE
- **Induced jobs from TCC dollars:** 1 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Installation Activities

- 2 solar PV systems installed, totaling 30.3 kW in capacity, at the following locations: (1) Bridges at Florence, affordable senior living apartments (20.7 kW in capacity); and (2) Sequoia Courts, a public housing complex (9.6 kW in capacity)

Responses to COVID-19

- Followed COVID-19 prevention protocols; established social distancing requirements

Urban and Community Forestry Projects

Tree planting efforts funded by the Southwest Urban Forest Expansion project along Jensen Avenue in February 2021.
Photo credit: Beautify Fresno

FRESNO'S URBAN AND COMMUNITY FORESTRY PROJECTS are increasing resident access to tree coverage, healthy food, and open green space. There are four projects of this type: (1) Southwest Urban Forest Expansion; (2) Inside Out Community Garden; (3) Yosemite Village (Yo'Ville) Permaculture Community Garden & Urban Farm Incubator; and (4) Yo'Ville Community Orchard. Together these projects are planting over 500 trees in or along sidewalks, street medians, park strips, existing parks, and newly constructed community gardens and orchards. As the trees mature, they will reduce GHG emissions by sequestering carbon and cooling nearby buildings, which should reduce the demand for electricity on hot days. Many of these trees will also increase healthy and nutritious food access for residents.

The urban forestry projects is led by a variety of partners. Fresno Metro Ministry is leading both projects at the Yo'Ville site, with support from Youth Leadership Institute and Fresno Housing Authority. Fresno EOC is leading the project at the Inside Out Community garden, with support from the City of Fresno and Another Level Training Academy. The City of Fresno is leading the remaining project to plant trees across Southwest Fresno, with support from Tree Fresno.

Recent Accomplishments*

Southwest Urban Forest Expansion:
- 15 trees planted

Inside Out Community Garden:
- 9 community events held, including a food box giveaway, cooking demonstration, planting event, pesticide training, a health expo, and more

Yo'Ville Permaculture Community Garden & Urban Farm Incubator:
- 167,333 sq. ft. of vegetation planted
- 19,598 pounds of produce harvested
- 79 planting workdays organized
- 9 informational presentations

Yo'Ville Community Orchard:
- 244 trees planted
- 6 planting days organized
- 5 drip irrigation workshops
- 5 trainings on how to plant trees and native plants

**Includes only accomplishments during the last fiscal year (July 2022 - June 2023)*

Healthy Food Access

Improving access to healthy food in Southwest Fresno is a major priority for the suite of Transform Fresno projects. Thus, three community garden and orchard projects provide residents the opportunity to garden, grow, and harvest their own fruits and vegetables. Specifically, the Yo'Ville Community Orchard is planted 244 citrus, stone fruit, and nut trees. Meanwhile, the Inside Out Community Garden and Yo'Ville Permaculture Community Garden and Urban Farm Incubator projects is planting predominantly fruit trees. To encourage community use of these trees, the projects include design elements that invite the community in, such as walking paths, benches, picnic tables, and shaded areas.

Soil Health and Water Conservation

The forestry projects utilize environmentally and water friendly practices when trees are planted in vegetable and produce plots. The Yo'Ville Community Garden and Community Orchard projects incorporate organic and permaculture techniques including non-mechanical, no-till, no-spray methods, landscaped bioswales, rainwater capture features, and on-site composting. Similarly, the Inside Out Community Garden uses organic soil, non-genetically modified seeds, drip irrigation, and a composting area.

Community Engagement and Education

Community engagement, input, partnership, and education are integral parts of project implementation. Below is a summary of what each project partner is doing with respect to community engagement and education:

- Fresno Metro Ministry is partnering with the Youth Leadership Institute and the Fresno Housing Authority to conduct multicultural, multi-generational, and multilingual outreach to residents and community members, encouraging engagement in the community garden and orchard project programming at Yo'Ville; specific programming includes: volunteer planting days, nutrition, and cooking classes, and the establishment of a small farmer incubator for gardeners to sell their produce to the community.
- Fresno EOC is partnering with Another Level Training Academy to hold weekly community harvesting events, monthly outreach and community events, and provide healthy food education through live cooking demonstrations.
- The City of Fresno is partnering with Tree Fresno and other nonprofits to educate volunteers on proper tree planting techniques throughout the Southwest Urban Forest Expansion.

Long-term Operations and Maintenance

The City of Fresno Department of Public Works is caring for trees planted under the Southwest Urban Forest Expansion, and will support Fresno EOC with tree care for the Inside Out Community Garden. Meanwhile, a resident-based Garden Leadership Committee is managing the garden operations and maintenance at Yo'Ville, in conjunction with Fresno Metro Ministry.

Partners from Fresno Metro Ministry and Yo'Ville Permaculture Community Garden constructing the Yosemite Village Community Orchard. **Photo credit: Transform Fresno**

Southwest Urban Forest Expansion

The **Southwest Urban Forest Expansion** project resulted in 420 new trees planted in Southwest Fresno. The original intent of the project was to plant 295 trees in street medians and alongside existing sidewalks, park strips, and parks within the identified area. The goal was achieved under budget. After identifying additional locations, City of Fresno staff obtained approval to continue planting an additional 125 trees (the benefits of which are not yet reflected in the estimates below). The final planting locations include: Fruit Avenue and Jensen Avenue Buffers (150 trees); Elm Avenue between North Avenue and Jensen Avenue (110 trees); Elm Avenue South of Jensen Avenue to Ventura Avenue (80 trees); Jensen Avenue from Highway 41 to Martin Luther King Jr. Boulevard (35 trees); Jensen Avenue from Highway 41 to Elm Avenue (15 trees); Chandler Park (15 trees); and Tupman Park (15 trees). The City of Fresno Department of Public Works will provide long-term maintenance of all trees and collaborate with the local urban forester as needed.

Project Details

- **Launch date:** April 2019
- **Completion date:** December 2023
- **Project lifetime (post-implementation):** 40 years
- **TCC grant funds:** $212,199
- **Leveraged funds:** $0
- **Project lead:** City of Fresno

Estimated Lifetime Benefits*

- **GHG emissions reductions:** 521 MTCO2e
- **Trees planted:** 420 trees
- **Avoided stormwater runoff:** 1,328,532 gallons
- **Direct jobs from TCC dollars:** 2 FTE
- **Indirect jobs from TCC dollars:** 0.3 FTE
- **Induced jobs from TCC dollars:** 1 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Planting Activities

- 420 trees planted (125 above the original project goal) completing the project
- Approved to spend $25,000 budget balance to beautify one median on Jensen Ave

Outputs From Community Engagement Activities

- 2 volunteer tree planting events held at Tupman Park and Chandler Park, with about 20 elementary school children engaged at each

Responses to COVID-19

- Masking practices adopted for volunteer tree planting events

*** Estimated benefits were based on original anticipated project outcomes from 295 trees.**

Inside Out Community Garden

The **Inside Out Community Garden** project is building a community garden at Sunset Community Center which includes site preparation, garden construction and planing, volunteer recruitment, and community engagement on garden maintenance, harvesting, and cooking demonstrations. The garden includes five fruit trees, an Americans with Disabilities Act (ADA) accessible planter box, benches, a tool shed, and composting box. Tree Fresno also donated 16 additional trees that were planted along the street in front of the Sunset Community Center (the benefits of which are not yet reflected in the estimates below).

Project Details

- **Launch date:** April 2019
- **Anticipated completion date:** June 2024
- **Project lifetime (post-implementation):** 40 years
- **TCC grant funds:** $98,000
- **Leveraged funds:** $0
- **Project lead:** Fresno EOC

Estimated Lifetime Benefits*

- **GHG emissions reductions:** 1 MTCO2e
- **Trees planted:** 21 trees
- **Avoided stormwater runoff:** 9,275 gallons
- **Direct jobs from TCC dollars:** 1 FTE
- **Indirect jobs from TCC dollars:** 0.2 FTE
- **Induced jobs from TCC dollars:** 0.4 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Installation Activities

- 150 sq. ft. of permeable paved surfaces installed, connecting the sidewalk outside the Sunset Community Center to the new ADA-compliant garden beds
- 112.5 sq. ft. of edible plants (e.g.,corn, lettuce, thyme, rosemary, peppers, strawberries, eggplant, squash, watermelon, and cantaloupe) planted in five 22.5 sq. ft. newly constructed raised beds
- 21 trees planted (five fruit bearing: peach, pomegranates, lime, lemon, and Chinese jujube), thereby surpassing the project goal by 16 additional trees, which were donated by Tree Fresno
- Installed a tool shed

Outputs From Community Engagement Activities

- 330 total stakeholders engaged through garden activities (220 of which are residents from the project area)
- 120 children fed from the garden as part of the after school programming at the Sunset Community Center
- 21 community events held with education on nutrition, cooking, gardening, or some combination of those topics (e.g., a smoothie making demonstration for youth leaders, a planting event in honor of Clean Air Day, a resource fair to draw attention to chronic kidney disease among Black Americans, etc.)
- 5 recorded cooking demonstrations on how to make salsa, Pho, walnut tacos, mahi mahi tacos; and peach cobbler produced

Responses to COVID-19

- Cooking demonstrations conducted virtually
- Food giveaways held in May and June 2020

*** Estimated GHG emissions and avoided stormwater runoff were based on original anticipated project scope of 5 trees planted.**

Yosemite Village Permaculture Community Garden & Urban Farm Incubator

The **Yosemite Village Permaculture Community Garden & Urban Farm Incubator** project is developing a resident-led community garden and urban green space in Southwest Fresno behind the 69-unit Yosemite Village Housing Complex. In addition to the community garden, the project includes a farm incubator provides land, shared tools, water access, and learning opportunities for new small farmers wanting to grow in ecologically sustainable ways.

Project Details

- **Launch date:** April 2019
- **Anticipated completion date:** June 2024
- **Project lifetime (post-implementation):** 40 years
- **TCC grant funds:**$367,500
- **Leveraged funds:** $434,153
- **Project lead:** Fresno Metro Ministry

Estimated Lifetime Benefits

- **GHG emissions reductions:** 254 MTCO2e
- **Trees planted:** 90 trees
- **Avoided stormwater runoff:** 453,576 gallons
- **Direct jobs from TCC dollars:** 4 FTE
- **Indirect jobs from TCC dollars:** 1 FTE
- **Induced jobs from TCC dollars:** 2 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Planting Activities

- 325,221 sq. ft. (7.5 acres) of vegetation planted and 94 new garden plots dedicated to community farming
- 32,614 pounds of produce harvested (at least 286 of which was given away for free to residents, a conservative estimate based on documented donations)
- 90 trees planted

Outputs From Farmer Incubation

- 6 local farmers trained through the project's incubator program, and subsequently selling produce grown at Yosemite Village through three channels: (1) at an onsite farm stand; (2) at the 93706 Farmers' Market; and (3) through Fresno Farm Box, a Community Supported Agriculture (CSA) program in Fresno

Outputs From Community Engagement Activities

- 279 volunteers engaged across 272 planting workdays
- 226 households reached through door knocking and 96 individuals reached through phone bank calls about opportunities to become involved with the garden
- 39 presentations offered about gardening basics, permaculture design, and opportunities to become involved with the garden (7 to 30 stakeholders engaged at each)
- 15 tabling events held to promote the project and giveaway seeds (10 to 250 stakeholders engaged at each)
- 12 Garden Leadership Committee meetings held
- 6 focus groups gathered feedback for developing the site, ways to engage youth, and the impact of the pandemic on the food system in Southwest Fresno (29 to 45 unique stakeholders engaged)
- 5 community input sessions held about farm operations (7 to 15 stakeholders engaged at each)
- 2 group tours held (with an average of 59 stakeholders engaged)
- 1 Youth Leadership Institute training event held (eight youth trained to engage residents about permaculture)

Responses to COVID-19

- Garden remained open throughout the pandemic
- Resident outreach for engagement was conducted remotely (e.g., mailers, Zoom presentations, phone, etc.)

Southwest Fresno Community Food Hub: Community Orchard

The **Southwest Fresno Community Food Hub: Community Orchard** project is constructing a 0.73-acre community orchard and bioswales at the Yosemite Village Permaculture Garden. Fresno Metro Ministry committed to plant at least 120 citrus, stone fruit, and nut trees, and exceeded that goal by 124 trees. The additional trees were donated by community partners and discounted by suppliers. Fresno Metro Ministry is managing the orchard using organic and bio-dynamic practices.

Project Details

- **Launch date:** February 2021
- **Anticipated completion date:** June 2024
- **Project lifetime (post-implementation):** 40 years
- **TCC grant funds:**$262,500
- **Leveraged funds:** $0
- **Project lead:** Fresno Metro Ministry

Estimated Lifetime Benefits

- **GHG emissions reductions:** 23 MTCO2e
- **Trees planted:** 244 trees
- **Avoided stormwater runoff:** 381,033 gallons
- **Direct jobs from TCC dollars:** 3 FTE
- **Indirect jobs from TCC dollars:** 1 FTE
- **Induced jobs from TCC dollars:** 1 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Planting Activities

- 3,671 linear feet of drip irrigation installed
- 244 trees planted

Outputs From Community Engagement Activities

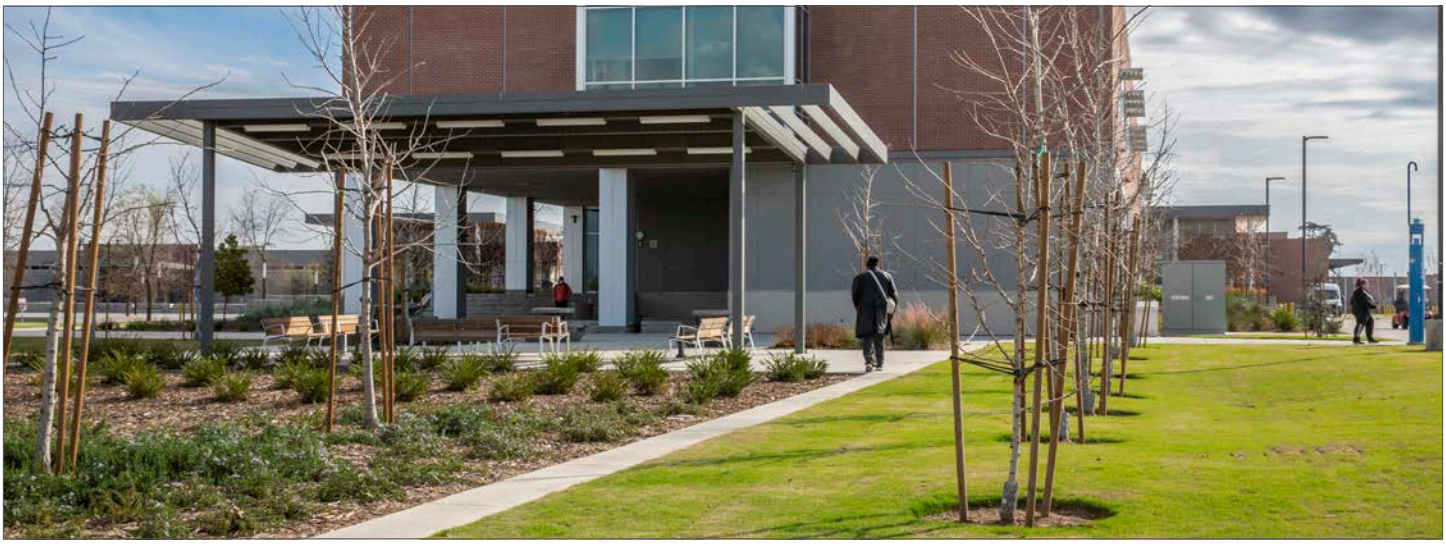
- 6 planting days held (5 in English and 1 in Spanish; engaged an average of 47 stakeholders at each)
- 5 drip irrigation workshops (4 in English and 1 in Spanish; engaged an average of 20 stakeholders at each)
- 5 trainings on how to plant trees and native plants held (engaging an average of 24 trainees at each)
- 2 input sessions held to teach community members about food forests and collaboratively create a tree list and orchard design (eight unique stakeholders engaged)

Responses to COVID-19

- Resident outreach for engagement conducted remotely through mailers, Zoom presentations, phone bank calls, and social media recruitment

*** Estimated GHG emissions and avoided stormwater runoff were based on original anticipated project scope of 120 trees planted.**

Urban Greening Projects



Newly added vegetation, trees, and pathways at the Fresno City College's satellite campus, the West Fresno Center.
Photo credit: State Center Community College District

TRANSFORM FRESNO'S URBAN GREENING PROJECTS complement other efforts throughout the neighborhood to increase resident access to tree coverage, active transportation infrastructure, and open green space and recreation areas. There are six projects of this type: (1) Southwest Fresno Trail; (2) Chinatown Urban Greening; (3) Mariposa Plaza; (4) Park at MLK Magnet Core; (5) Saint Rest + Food to Share Hub: Urban Heat Island Mitigation Project; and (6) and Fresno City College: West Fresno Satellite Campus. Together the projects are planting over 950 trees and installing two miles of bicycle lanes. Similar to the urban and community forestry projects, the planted trees will sequester carbon, cut electricity demand, and reduce the urban heat island effect as they mature. The bicycle lanes will encourage more active forms of travel, thereby reducing vehicle miles traveled.

The urban greening projects are being lead by a variety of partners. The City of Fresno is the lead for the first four of the aforementioned projects, with support from the U.S. Green Business Council - Central California for the first two. Fresno Metro Ministry is the lead for the Saint Rest + Food to Share Hub: Urban Heat Island Mitigation Project, with support from the Saint Rest Baptist Church. And the State Center Community College District is the lead for the urban greening efforts for the West Fresno satellite campus project known as Fresno City College's West Fresno Center.

Recent Accomplishments*

Chinatown Urban Greening:
» Completed project design

Mariposa Plaza:
» Completed project design

Park at MLK Magnet Core:
» Completed 90% of project design

Saint Rest + Food to Share Hub:
» Began construction of heat island mitigation infrastructure

Fresno City College:
» 39,000 sq. ft. (0.9 acres) of vacant land transformed into bioretention basins
» 2,952 linear feet (0.6 miles) of Class I bike lanes added
» 2,527 linear feet (0.5 miles) of pedestrian pathways added

**Includes only accomplishments during the last fiscal year (July 2022 - June 2023)*

Designing for Connectivity

Transform Fresno's urban greening projects place an emphasis on increasing bicycle and pedestrian connectivity between other TCC-funded projects and neighborhood amenities such as transit stops, schools, parks, hospitals and health clinics, banks, churches, and grocery stores. For example, the Southwest Fresno Trail plans to install a new Class I multi-use trail along the Fanning Ditch alignment. Additionally, the Chinatown Urban Greening and the Park at MLK Magnet Core projects will make improvements to sidewalks and pedestrian facilities. Moreover, the West Fresno Satellite Campus constructed about one mile of walking paths and one mile of Class II bicycle lanes on-site and surrounding the development. Each of the six urban greening projects will also install street, path, and trail lighting to make biking and walking safe and convenient options for the community.

Designing for a Sustainable Water Cycle

Water conservation and stormwater capture are central to many of Transform Fresno's urban green projects. For example, Mariposa Plaza will install permeable paving, a rainwater capture pavilion and irrigation system, and drought-tolerant shrubs and plants. Similarly, the new 9.5-acre Park at MLK Magnet Core will have low-water use plantings, irrigation systems, and an open field layout that reduces flood risks by eliminating stormwater runoff. Likewise, the Saint Rest + Food to Share Hub project will have permeable surfaces, native and drought-tolerant trees, landscaping, plants, and a rainwater collection basin and cistern system to recharge property wells and to be used for irrigation. Finally, the West Fresno Satellite Campus will meet multiple objective stormwater goals through drought-tolerant landscaping, permeable paving, bioretention basins, and a central water feature with a stormwater capture and conservation function.

Community Engagement and Education

Many of Transform Fresno's Urban Greening projects integrate community engagement and educational components into the implementation process. For example, the U.S. Green Business Council - Central California is partnering with the City of Fresno to implement a standalone Community Engagement Plan for the Southwest Fresno Trail (see **page 53**). They will conduct a bicycle trail design outreach process and education program, designed to raise bicycle safety awareness and encourage a mode shift while gathering input on community needs. Additionally, Fresno City College hosted a series of community discussions regarding the West Fresno Satellite Campus to solicit feedback on the proposed project.

Long-term Operations and Maintenance

Transform Fresno's urban green projects also leverage community partnerships in long-term tree care and garden maintenance. The City of Fresno Department of Public Works will provide long-term operations and maintenance for tree plantings and trail and park improvements made under the Southwest Fresno Trail, Chinatown Urban Greening, Mariposa Plaza, and the Park at MLK Magnet Core projects. The lead project partners for the Saint Rest + Food to Share Hub (Fresno Metro Ministry) and West Fresno Satellite Campus will manage the long-term operations and maintenance for the landscaping, urban greening, and stormwater reduction improvements made throughout these projects.

Southwest Fresno Trail

The **Southwest Fresno Trail** project will install a Class I Trail along the Fanning Ditch Alignment, from West to Thorne. The project will also landscape and plant 102 trees to increase the urban tree canopy and add trail and street lighting.

Project Details

- **Launch date:** April 2019
- **Anticipated completion date:** October 2025
- **Project lifetime (post-implementation):** 40 years
- **TCC grant funds:** $1,978,959
- **Leveraged funds:** $0
- **Project lead:** City of Fresno

Estimated Lifetime Benefits

- **GHG emissions reductions:** 232 MTCO2e
- **VMT reduction:** 148,180 miles
- **Trees planted:** 102 trees
- **Avoided stormwater runoff:** 506,992 gallons
- **Travel costs savings:** $80,017
- **Direct jobs from TCC dollars:** 7 FTE
- **Indirect jobs from TCC dollars:** 3 FTE
- **Induced jobs from TCC dollars:** 8 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Greening Activities

- Selected a design consultant to facilitate the project design

Outputs From Community Engagement Activities

- See outputs reported on **page 5353** under the standalone Community Engagement Plan for this project

Responses to COVID-19

- All meetings with stakeholders and other project partners held virtually

Chinatown Urban Greening

The **Chinatown Urban Greening** project will install improvements to paved pedestrian facilities in Chinatown, improving active transportation and connections to the adjacent planned high speed rail station. Lighting and greening improvements will also be installed. The proposed improvements are located on: F Street from Mariposa to Ventura, Mariposa from E Street to G Street, and portions of Kern Street. This project achieves several goals of the TCC program including: reducing greenhouse gas emissions through carbon sequestration, installing facilities that encourage active travel, and increasing the urban tree canopy.

Project Details

- **Launch date:** July 2019
- **Anticipated completion date:** October 2025
- **Project lifetime (post-implementation):** 40 years
- **TCC grant funds:** $6,965,696
- **Leveraged funds:** $0
- **Project lead:** City of Fresno

Estimated Lifetime Benefits

- **GHG emissions reductions:** 442 MTCO2e
- **VMT reduction:** 19,080 miles
- **Trees planted:** 248 trees
- **Avoided stormwater runoff:** 1,231,487 gallons
- **Travel costs savings:** $11,066
- **Direct jobs from TCC dollars:** 27 FTE
- **Indirect jobs from TCC dollars:** 13 FTE
- **Induced jobs from TCC dollars:** 25 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Planting Activities

- Completed 100% of project plans, specifications, and estimates

Outputs From Community Engagement Activities

- 1 community engagement event held to gather input about plans, specifications, and estimates
- 1 stakeholder meeting with Chinatown Foundation held to answer questions and discuss design concerns

Responses to COVID-19

- All community outreach conducted through virtual meetings and social media

Mariposa Plaza

The **Mariposa Plaza** project will refresh a significant downtown plaza and enhance its connection to the future high-speed rail station. Renovations will include tree planting, landscaping, installation of permeable paving, and a rainwater capture pavilion. It will maintain its historic use as a place for public speaking and community events. Other improvements, such as the addition of public artwork and canopies for shade, cement the cultural significance of the area while keeping the plaza flexible for a wide range of public events.

Project Details

- **Launch date:** April 2019
- **Anticipated completion date:** October 2025
- **Project lifetime (post-implementation):** 40 years
- **TCC grant funds:** $3,859,000
- **Leveraged funds:** $0
- **Project lead:** City of Fresno

Estimated Lifetime Benefits

- **GHG emissions reductions:** 15 MTCO2e
- **Trees planted:** 8 trees
- **Avoided stormwater runoff:** 34,851 gallons
- **Energy cost savings:** $4,632
- **Direct jobs from TCC dollars:** 25 FTE
- **Indirect jobs from TCC dollars:** 7 FTE
- **Induced jobs from TCC dollars:** 19 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Greening Activities

- Completed 100% of project plans, specifications, and estimates

Outputs From Community Engagement Activities

- 792 informational flyers about the project distributed to community members
- 4 stakeholders meetings held with Downtown Fresno Partnership and local businesses along Fulton Street Corridor to discuss design concerns with the plaza
- 2 pop-up events at the plaza held to showcase how TCC investments will be spent
- 1 community meeting held to collect community input (15 stakeholders engaged)

Responses to COVID-19

- Conducted community outreach and engagement through virtual meetings and social media

Park at MLK Magnet Core

The **Park at MLK Magnet Core** project will design and construct a new 9.5-acre public park in the center of a planned residential development adjacent to the new West Fresno Satellite Campus, on the west side of MLK Jr. Boulevard between Church and Jensen avenues. The TCC grant will fund the design phase, property acquisition, and park construction, which will include landscaping 100 trees, low water use plantings, a walking path, irrigation, a restroom, site furnishings, and utilities infrastructure.

Project Details

- **Launch date:** April 2019
- **Anticipated completion date:** October 2025
- **Project lifetime (post-implementation):** 40 years
- **TCC grant funds:** $5,489,606
- **Leveraged funds:** $1,500,000
- **Project lead:** City of Fresno

Estimated Lifetime Benefits

- **GHG emissions reductions:** 275 MTCO2e
- **Trees planted:** 100 trees
- **Avoided stormwater runoff:** 468,206 gallons
- **Direct jobs from TCC dollars:** 37 FTE
- **Indirect jobs from TCC dollars:** 9 FTE
- **Induced jobs from TCC dollars:** 26 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Greening Activities

- Developed 90% of project plans, specifications, and estimates

Outputs From Community Engagement Activities

- 1 community meeting event held to gather questions and comments about the park redesign

Responses to COVID-19

- Community meeting held virtually, recorded, and archived on the Transform Fresno website

Saint Rest + Food to Share Hub: Urban Heat Island Mitigation Project

The **Saint Rest and Food to Share Hub: Urban Heat Island Mitigation** project will plan, permit, and improve the immediate site surrounding the building that will house the Food Hub for the Saint Rest + Food to Share Hub: Healthy Food Rescue and Redistribution Hub (see **page 70**).

Project Details

- **Launch date:** February 2021
- **Anticipated completion date:** June 2024
- **Project lifetime (post-implementation):** 40 years
- **TCC grant funds:** $62,220
- **Leveraged funds:** $308,690
- **Project lead:** Fresno Metro Ministry

Estimated Lifetime Benefits

- **GHG emissions reductions:** 143 MTCO2e
- **Trees planted:** 41 trees
- **Avoided stormwater runoff:** 248,752 gallons
- **Direct jobs from TCC dollars:** 0.4 FTE
- **Indirect jobs from TCC dollars:** 0.1 FTE
- **Induced jobs from TCC dollars:** 0.3 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Greening Activities

- Began construction of heat island mitigation infrastructure around the Saint Rest + Food to Share Hub, including removal of asphalt and installation of decomposed granite, cool pavement, and planting beds

Outputs From Community Engagement Activities

- Press conference held to announce the expansion project – attended by 60 plus (also reported under the Saint Rest + Food to Share Hub project, see **page 71**)
- Community advisory meeting conducted at Saint Rest Baptist Church – 60 plus attended the meeting (also reported under the Saint Rest + Food to Share Hub project, see **page 71**)

Fresno City College: West Fresno Satellite Campus

The **Fresno City College: West Fresno Satellite Campus** project is developing a park-like setting at the new Fresno City College West Fresno Center, including large areas of urban green space, new bicycle and pedestrian paths connected to the neighborhood's active transportation plan. The project planted over 498 trees to maximize shading around buildings and pathways, and landscaping with drought-resistant plants, outdoor study spaces, and green infrastructure for stormwater retention and groundwater recharge.

Project Details

- **Launch date:** April 2019
- **Anticipated completion date:** October 2024
- **Project lifetime (post-implementation):** 40 years
- **TCC grant funds:** $16,542,746
- **Leveraged funds:** $70,000,000
- **Project lead:** State Center Community College District

Estimated Lifetime Benefits

- **GHG emissions reductions:** 936 MTCO2e
- **VMT reduction:** 383,430 miles
- **Trees planted:** 498 trees
- **Avoided stormwater runoff:** 2,224,959 gallons
- **Travel costs savings:** $212,894
- **Direct jobs from TCC dollars:** 119 FTE
- **Indirect jobs from TCC dollars:** 26 FTE
- **Induced jobs from TCC dollars:** 73 FTE

Cumulative Progress Through FY 2022-2023

Outputs From Greening Activities

- 167,300 sq. ft. (3.8 acres) of permeable concrete added to contribute to infiltrating stormwater
- 105,000 sq. ft. (2.4 acres) of rooftop added directing rainfall to the site's stormwater collection system which includes a 5,000 gallon storage tank for a water feature and bioretention basins
- 61,200 sq. ft. (1.4 acres) of drought-resistant vegetation planted
- 39,000 sq. ft. (0.9 acres) of vacant land transformed into bioretention basins to capture and infiltrate stormwater below ground
- 7,400 linear feet (1.4 miles) of Class I bike lanes added
- 4,700 linear feet (0.9 miles) of pedestrian pathways added
- 498 trees planted (48 more trees than the project goal)
- 3 gazebo/shade structures built
- Completed concrete work for a water feature
- Began layout and paving of the pedestrian plaza
- Majority of the utilities for lighting pedestrian/bicycle pathways and the bioretention basins completed

Outputs From Community Engagement Activities

- 4 events held to gather input to inform the design of the water feature (5 to 50 people engaged at each)
- 1 event held to update the public on the project's progress (100 people engaged)

*** Estimated GHG emissions and avoided stormwater runoff were based on original anticipated project scope of 450 trees planted.**

PROFILES:

LEVERAGED PROJECTS

Fresno City College's satellite campus, known as the West Fresno Center, where leveraged funding is paying for transportation and utility infrastructure around the campus. **Photo credit: State Center Community College District**

LEVERAGED PROJECTS are those that further the goals of TCC investments and use entirely external sources of funding. In addition to the 17 projects receiving TCC funding, the City of Fresno includes the following four leveraged projects as part of its Transform Fresno package: (1) Chinatown Property-based Improvement District; (2) Fresno Economic Opportunities Commission (EOC)'s Partnership for Energy Savings and GHG Reductions in Southwest Fresno: EFMP Plus-Up Vehicle Replacement and Incentives; (3) Southwest Off-site Improvement; and (4) TCC Connector.

These four projects are part of a long-standing effort in Fresno to transform the economic, health, and mobility conditions of residents. By working synergistically with TCC-funded projects, leveraged projects allow the City of Fresno to augment its existing efforts by funding local business retention and development, providing rebates for electric vehicle (EV) and charging infrastructure, increasing transit route frequencies, and installing safer biking and walking paths. The following section provides an overview of the four leveraged projects underway in Fresno.

Chinatown Property-based Improvement District

Residents walk through a main intersection in historic Chinatown. Photo credit: Transform Fresno

THE CHINATOWN PROPERTY-BASED IMPROVEMENT DISTRICT (PBID) project was funded by the City of Fresno to work in concert with the TCC-funded infrastructure improvement projects in Chinatown, including urban greening, pedestrian infrastructure, and housing development projects. The PBID project had two main components: (1) a feasibility study and (2) the potential formation of the PBID as determined by the study results. The overarching goals for the PBID included job creation, business attraction and retention, economic growth, drawing new investments, and displacement avoidance (through neighborhood stabilization and wealth building). Given these goals, several of the tasks and responsibilities for forming the PBID are also outlined in the Transform Fresno Displacement Avoidance Plan (see **page 54**).

The City of Fresno served as a lead partner for the Chinatown PBID. For the feasibility study, the city hired a consultant, Willdan Financial Services, to identify and assess property owners in Chinatown, set up a framework for the PBID formation, and create a draft Management District Plan. Additional efforts by the consultant included assessing service priorities and support levels; conducting outreach to educate property owners and stakeholders regarding the proposed district; and developing a report with recommendations on the feasibility of the PBID.

Recent Accomplishments*

» **Project complete**

** Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

The feasibility study was completed in February 2022 and published on the Transform Fresno website. Results from the study ultimately indicated that a PBID in Chinatown would not be feasible at this time. The report cited a number of challenges to transforming Chinatown into a thriving commercial district, including homelessness, abandoned structures, and a lack of street lightning and well-maintained sidewalks. Given the cost to properly address these issues, and the decline in economic activity in Chinatown over the years, local property owners were reluctant to take on the financial burden of improving the neighborhood without further support form the City of Fresno.

Chinatown Property-based Improvement District

Project Details

- **Launch date:** July 2019
- **Completion date:** February 2022
- **Project lead:** City of Fresno
- **TCC grant funds:** $0
- **Leveraged funds:** $75,000

Cumulative Progress Through FY 2022-2023

- Held kick-off meeting with 11 attendees (local business owners and Chinatown Fresno Foundation)
- Hired Willdan Financial Services to conduct a feasibility study to inform the potential formation of a PBID
- Held 11 steering committee meetings (steering committee included local business owners and Chinatown Fresno Foundation)
- Held a meeting with property owners in Chinatown in fall 2021 to discuss the potential PBID formation (32 stakeholders engaged)
- Consultant completed the feasibility study based on results from the meeting with property owners; results from the study ultimately indicated that a PBID in Chinatown is not feasible at this time.

EFMP Plus-up Vehicle Replacement and Incentives

A Fresno resident who replaced their vehicle with a plug-in hybrid through the incentive program. Photo credit: Valley CAN

THE ENHANCED FLEET MODERNIZATION PROGRAM (EFMP) PLUS-UP offers rebates to low- and moderate-income households that voluntarily scrap or retire a working, high-emitting vehicle and replace it with cleaner, alternative fuel option such as a hybrid, plug-in hybrid, battery-electric, or fuel-cell EV. The total rebate amount available varies depending on household income and the type of replacement vehicle, ranging from a minimum of $1,500 to a maximum of $9,500. Since the project's launch, vouchers totaling $193,500 have been issued and used to purchase EVs to replace older vehicles. The households that qualify for the program will benefit from reduced vehicle operation and fuel costs. The program also achieves greenhouse gas (GHG) emissions reductions that further the air quality improvement goals for the community.

The Fresno Economic Opportunities Commission (EOC) is partnering with the nonprofit organization Valley Clean Air Now (Valley CAN) to implement the project. The project will be carried out in close conjunction with the Fresno EOC Partnership for Energy Savings and GHG Reductions in Southwest Fresno (see **page 76**). Through that project, Fresno EOC will identify approximately 135 households that may qualify for the EFMP Plus-up vehicle replacement and incentives. Valley CAN is assessing the qualifications of the households and will provide approximately 50 vehicle replacements, 20 home charging stations, 10 home service panel upgrades, and 40 PG&E Clean Fuel Rebate Program Incentives.

Recent Accomplishments*

» **1 high-emitting vehicle retired and replaced by an EV (with a $9,500 incentive put toward the purchase)**

** Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

Enhanced Fleet Modernization Program (EFMP) Plus-Up Vehicle Replacement and Incentives

Project Details

- **Launch date:** July 2019
- **Anticipated completion date:** N/A
- **Project lifetime:** 40 years
- **Project lead:** Fresno EOC
- **TCC grant funds:** $0
- **Leveraged funds:** $530,000

Cumulative Progress Through FY 2022-2023

- 27 high-emitting vehicles retired and replaced by lower-emitting vehicles (16 battery-electric and plug-in hybrid incentives for $9,500 each distributed; 10 hybrid 35+ mpg vouchers for $7,000 each distributed; and 1 hybrid 25-34 mpg voucher for $4,000 each distributed)
- 5 outreach events held, with a turnout of 1,250 households

Southwest Off-site Improvements

Looking off site from a plaza at Fresno City College's satellite campus, the West Fresno Center. Photo credit: State Center Community College District

THE SOUTHWEST OFF-SITE IMPROVEMENTS project will install active transportation infrastructure including trails, sidewalks, and bike lanes surrounding the new Fresno City College West Fresno Centers. The project also plans to install underground power lines and make water utility and roadway improvements around the campus. The boundaries of the project are South MLK Jr. Boulevard, and East Church, East Jensen, and South Walnut Avenues.

The project, funded entirely by external sources, supports the active transportation components of the TCC-funded Fresno City College: West Fresno Satellite Campus project, which broke ground in October 2020 (see the Urban Greening chapter on **page 85** for more information on the TCC-funded project). The improvements will support multi-modal travel in the neighborhood and access to the new community college campus.

The City of Fresno is the lead partner for the Southwest Off-site Improvements project.

Recent Accomplishments*

- Completed draft construction documents
- Right-of-way for land acquisition certified by the California Department of Transportation

**Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

Southwest Off-site Improvements

Project Details

- **Launch date:** January 2018
- **Anticipated completion date:** September 2025
- **Project lead:** City of Fresno
- **TCC grant funds:** $0
- **Leveraged funds:** $15,732,648

Cumulative Progress Through FY 2022-2023

- Executed agreement with architectural and engineering services firm in June 2020
- Completed draft construction documents
- Right-of-way for land acquisition certified by the California Department of Transportation

TCC Connector

A Fresno Area Express bus stopping along Route 38. Photo credit: City of Fresno Department of Transportation

THE TCC CONNECTOR project doubled transit frequencies for the Fresno Area Express (FAX) buses along a portion of Route 38 which runs through the Transform Fresno project area. The impacted portion includes 40 stops and extends from the Downtown Transit Center (L Shelter at Courthouse Park) to the bus stop at the intersection of Jensen Avenue and California State Highway 41. FAX buses along this portion of Route 38 previously ran on 30-minute intervals from 6 a.m. to 6 p.m. on weekdays, and now run at 15-minute intervals.

In addition to recruiting, hiring, and training additional bus drivers to operate the expanded service, leveraged funds were used to purchase two 40-foot electric buses and construct a charging station for the zero-emission vehicles with 46 chargers. While near-zero compressed natural gas (CNG) buses were initially deployed to address the transit service improvement, they were replaced by electric buses in late 2021.

The City of Fresno Department of Transportation is the lead partner for the TCC Connector project.

Recent Accomplishments*

- 28,588 new electric bus miles added to the transit system (and 3,448 new revenue hours)
- 46 electric bus chargers installed (Level 1)

**Includes only accomplishments during the last fiscal year (July 2022 through June 2023)*

TCC Connector

Project Details

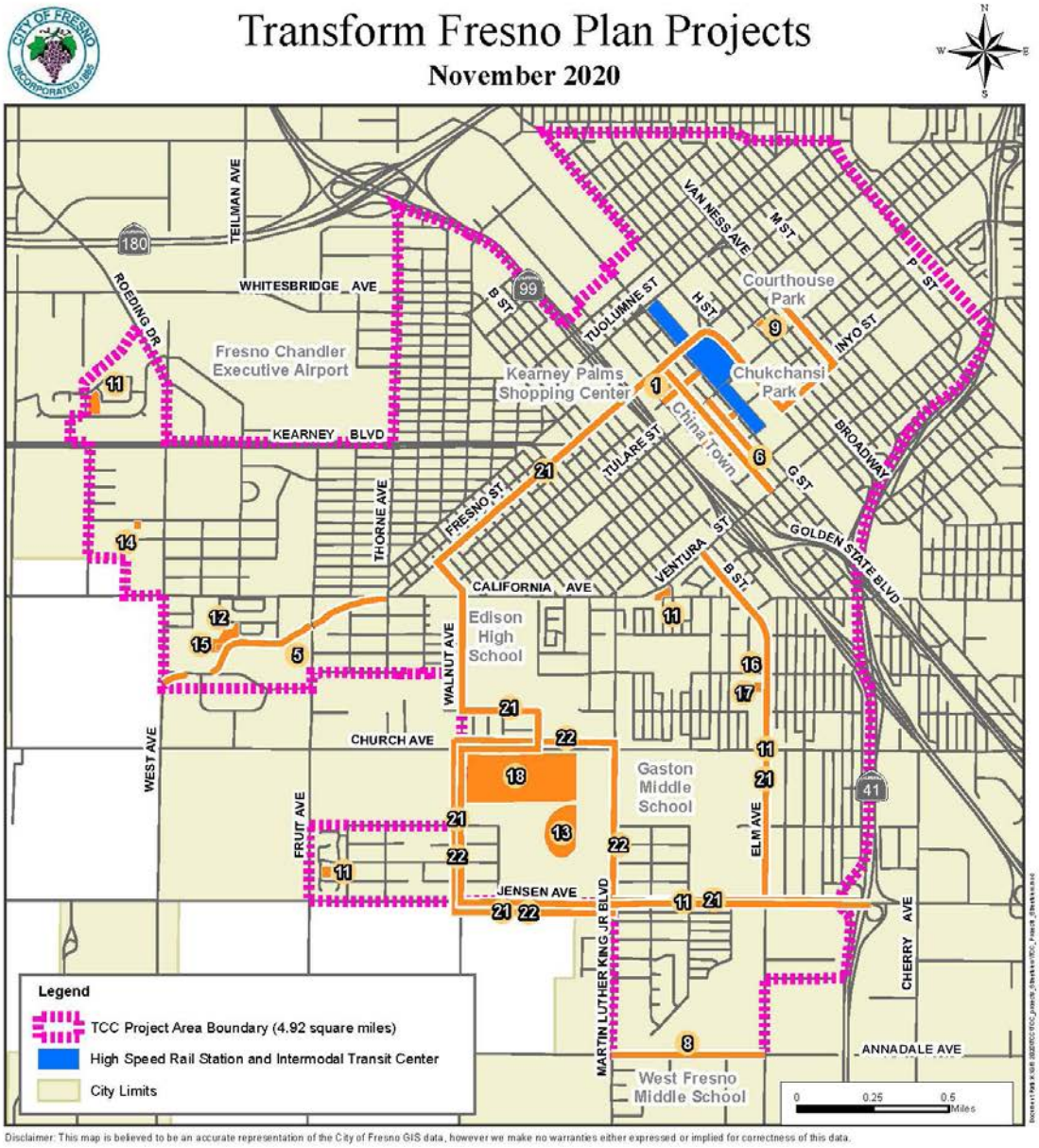
- **Launch date:** January 2021
- **Anticipated completion date:** March 2023
- **Project lead:** City of Fresno Transportation Department
- **TCC grant funds:** $0
- **Leveraged funds:** $3,532,774

Cumulative Progress Through FY 2022-2023

- 28,588 new electric bus miles added to the transit system (and 3,448 new revenue hours)
- 14,294 of CNG revenue miles replaced by electric buses
- 46 bus chargers installed (across 23 cabinets) that can charge 46 buses at a time, thereby accommodating future growth in the FAX EV fleet
- Doubled bus service at 40 stops in the TCC project area along Route 38, from 6 a.m. to 6 p.m. on weekdays, starting January 4, 2021
- Purchased and deployed two 40-foot electric buses

APPENDICES

Appendix 1: Supplemental Maps



Disclaimer: This map is believed to be an accurate representation of the City of Fresno GIS data, however we make no warranties either expressed or implied for correctness of this data.

01 - Chinatown Housing Project
05 - Southwest Fresno Trail
06 - Chinatown Urban Greening- Pedestrian Pathways, Lighting and Tree Planting
08 - Annadale Mode Shift
09 - Mariposa Plaza
11 - Southwest Urban Forest Expansion-Tree Planting
12 - Yosemite Village Permaculture Community Garden and Urban Farm
13 - Park at MLK Magnet Core
14 - Inside Out Community Garden
15 - Yo 'Ville Community Orchard
16 &17 - St. Rest and Food to Share Hub
18 - Fresno City College: West Fresno Satellite
21 - TCC Connector - Enhanced Bus Service
22 - Southwest Offsite Improvements

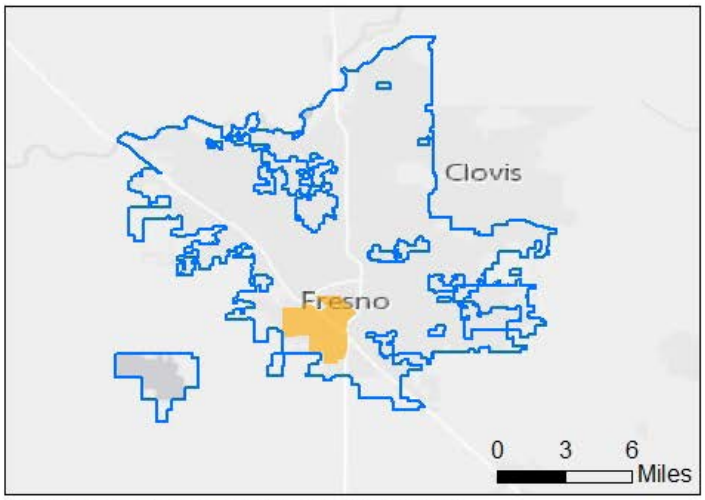
The projects below do not have a specific location and are not depicted on the map.

02 - EOC Partnership for Energy Savings and GHG Reductions in SW Fresno
03 - GRID Solar Collaborative Single-Family Partnership
04 - GRID Solar Collaborative Multi-Family Partnership
07 - Clean Shared Mobility Network
19 - Chinatown Property Based Improvement District
20 - EOC Partnership for Energy Savings and GHG Reductions in SW Fresno: EFMP Plus-Up Vehicle Replacement and Incentives
WDP - Workforce Development:Welding Program
WDP - Workforce Development: Low/Zero EmissionTruck Driver Training

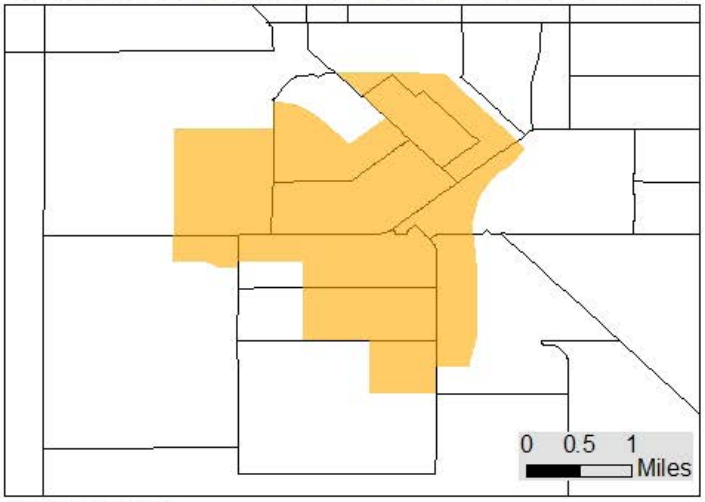
Detailed project map at the time of proposal. Figure credit: City of Fresno.

Fresno TCC Project Area Overlay Maps

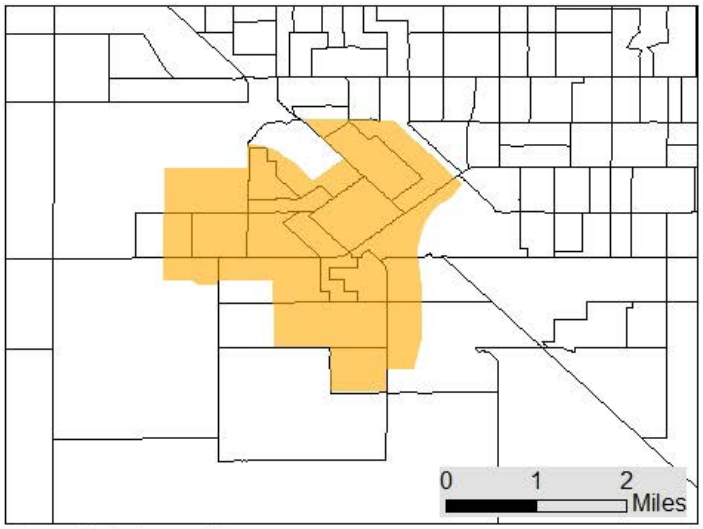
(#) = number of geographic units that intersect with TCC project area
(excluding units with less than 2% of total area under TCC project area)
Census tract, block group, and zip code maps from US Census Bureau (2016)



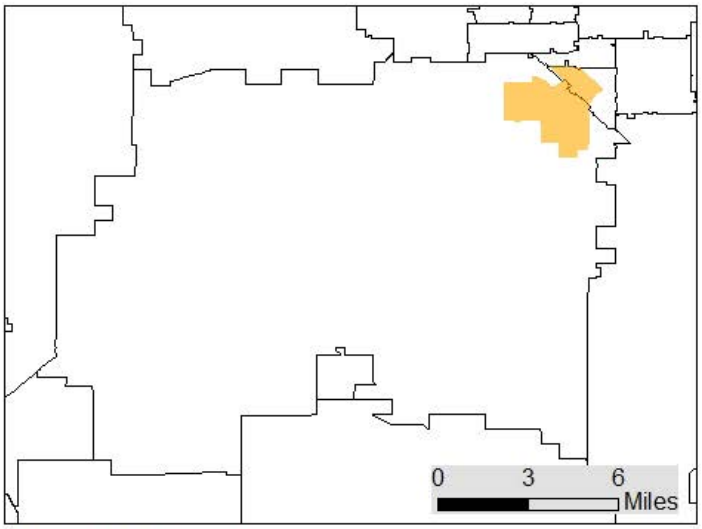
City of Fresno (blue) and TCC Project Area (orange)



Census Tracts (11)



Census Block Groups (21)



Zip Code Tabulation Areas (2)

Maps depicting the scale of the TCC project area. **Figure credit: UCLA Luskin Center for Innovation**

Appendix 2: Summary of Methods for Estimating Project Benefits

Benefit	Methodology	Version
Avoided stormwater runoff	iTree Planting	1.2.0
Energy cost savings	California Air Resources Board (CARB) Co-benefit Assessment Methodology for Energy and Fuel Cost Savings*	September 13, 2019
Greenhouse gas (GHG) reductions	CARB GHG Quantification Methodologies by Project Type	FY 2016-17
Jobs (direct, indirect, induced)	CARB Job Co-benefit Assessment Methodology	April 2019
Travel cost savings	CARB Co-benefit Assessment Methodology for Travel Cost Savings**	October 18, 2019
Vehicle miles traveled (VMT) reductions	CARB GHG Quantification Methodologies by Project Type	FY 2016-17

* CARB's energy and fuel cost savings methodology does not provide an explicit example of how to calculate cost savings from urban forestry and greening projects. Nonetheless, CARB's methodology does provide a basic framework for estimating cost savings from any project that achieves energy use reductions: (energy cost savings = net decline in energy use X per unit cost of energy). Thus, for urban forestry and urban greening projects, the UCLA-UCB evaluation team estimated energy cost savings by taking two outputs from iTree (annual electricity savings and annual natural gas savings) and multiplying these outputs by their per unit cost (as based on cost assumptions from Appendix A of CARB's energy cost savings methodology). The evaluation team then scaled up these costs by 40 years and prorated them according to the percentage of trees that actually shade buildings (and therefore have a meaningful impact on electricity and gas use).

** To calculate travel cost savings, CARB's travel cost savings methodology relies on estimates about changes in transit ridership. For Affordable Housing and Sustainable Communities (AHSC) projects, subsequent changes in ridership are unknown, and CARB's methodology does not provide a method for calculating travel cost savings because of that unknown. Thus, the UCLA-UCB evaluation team expanded upon CARB's methodology by estimating travel cost savings from AHSC projects without ridership estimates. To do so, the evaluation team conservatively assumes the following: (1) VMT reductions associated with the AHSC projects are achieved by drivers who switch to the most expensive alternative mode (which, between transit, biking, and walking, would be transit); (2) all individuals in the apartment complex will take transit so often that they buy a monthly transit pass because that is the most economical thing to do at high levels of transit ridership; and (3) that all individuals in the apartment complex buy a pass for the duration of the project lifetime (less the number of months for which they receive a free pass). The evaluation team estimated the number of individuals in the apartment complex by multiplying the number of units by the average household size for the TCC census tracts.

Appendix 3: Transform Fresno Collaborative Stakeholder Structure

Governance Structure of Transform Fresno Project Implementation

Name	Established Roles and Responsibilities
City of Fresno	As the Lead Agency, the City of Fresno is tasked with the responsibility of implementing the Master Grant Agreement with the Strategic Growth Council; including compiling and submitting invoices and reporting documents, serving as the primary fiscal agent, implementing the 3 transformative plans, and ensuring a fair, transparent, accountable, participatory, and public implementation process.
Project Partners	The 12 Project Partners are responsible for project implementation, monitoring transformative requirements, indicator tracking and reporting, and ensuring delivery of the projects in accordance with TCC Program Guidelines and the Master Grant Agreement.
Outreach and Oversight Committee	The O&O Committee is the advisory committee that will be a resource for community collaboration and feedback, providing overall guidance on project and transformative plan implementation, and making material changes to projects (such as budget or programmatic changes). For a list of current O&O Members, see the table below.

Transform Fresno Outreach & Oversight Committee Members

Chair	Neighborhood / Members			
	Chinatown	Downtown	Southwest	
Miguel Arias	Ofelia Hemme Morgan Doizaki Jan Minami Barbara Wilson	Amy Arambula Jordan Gustafson Sabrina Kelly Chris Rocha	Mary Curry Chris Finley Sandra Flores B.T. Lewis	Kimberly McCoy Artie Padilla Margarita Rocha Ivanka Saunders Hunt

Appendix 4: Community Engagement Plan Partners and Roles

Transform Fresno Community Engagement Plan (CEP) Partners and Roles

Partner	Role	Engagement Methods	Deliverables
City of Fresno	Program Implementation Manger	Coordination with the Outreach and Oversight Committee; Community Partners; and other stakeholders	Quarterly Community Meeting documentation
Fresno EOC	**Prime Community Partner**	Translation Services; Annual Summit; Community Engagement Updates; Community Meetings; Quarterly Newsletters; Text, Email and Direct Outreach; Coordination with other Community Partners; Update the Outreach and Oversight Committee	Coordination with Lead Agency, other Community Partners, and Project Partners; Expense Reports; Annual Summit Documentation; Community Meeting Videos and Agendas; Coordination of Community Engagement; Quarterly Newsletters; Coordinated communications activities
	Direct Outreach Community Partner	Print Materials for Distribution; Distribute Transform Fresno Flyers; Distribute Transform Fresno Mailers; Maintain a Volunteer Interest Database; Maintain Online Community Engagement Calendar; Administer Surveys	Coordination with Lead Agency, other Community Partners, and Project Partners; Materials for Distribution; Flyers; Mailers; Database for Volunteers; Calendar of Community Engagement; Surveys
	Media and Communications Community Partner	Create Branding; Update and Maintain Website; Share Informational Videos; Share Media for Transform Fresno and Project Progress; Coordinate Radio Updates; Coordinate with Partners for Project-Wide Style Guide	Coordination with Lead Agency, other Community Partners, and Project Partners; Logo Design; Branding Style Guide; Website Redesign and Update; Videos and Social Media; Documentation Sessions; Public Service Announcements; Presentations to Partners
	Event Coordination Community Partner	Coordinate 1-2 Cultural or Arts Specific Community Events; Coordinate Project Milestone Events	Coordination with Lead Agency, other Community Partners, and Project Partners; Project Milestone Events; Cultural or Arts Specific Events
KMc Strategic Solutions	**Data and Reporting Community Partner**	Coordinate with Project Partners; Coordinate with CEP partners; Coordinate with Evaluation Team; Data Collection and Management; Evaluation and General Reporting; Produce Final Engagement Summary Report	Database of Community Engagement; Coordination with Evaluation Team; Final Engagement Summary Report
The Youth Leadership Institute	**Leadership Development Community Partner**	Coordinate Transform Fresno Youth Leadership Development Program	Coordination with Lead Agency, other Community Partners, and Project Partners; One cohort of up to 12 students trained per year

Appendix 5: Displacement Avoidance Plan Partners and Roles

Transform Fresno Displacement Avoidance Plan (DAP) Partners and Roles

Partner	Role
Anti-Displacement Task Force (ADTF)	Will serve as subject matter experts and will help determine what datasets will be used to conduct the research. Members of the committee will also participate in the procurement process to hire the DAP Implementation Consultant. The ADTF was proposed in the *Fresno General Plan 2015-2023 Housing Element* (2017), underscored in the *Southwest Fresno Specific Plan* (2017), and established under City Council Resolution 2018-277. All members of the ADTF are appointed by the Mayor of Fresno and serve four-year terms (see following table for a list of members).
Fresno City Council	Will be the final authority on whether the policies proposed are adopted. The City Council ratifies through a vote on all policy brought before them. City Council, along with the Mayor, has an opportunity to author policy and present it to Council for adoption. The DAP does not dictate whether the City Council will or will not approve the proposed policies.
City of Fresno Staff	Will be responsible for ensuring the DAP consultant is hired and completes their contract along with providing continuous oversight of progress related to policy development.
DAP Implementation Consultant: Thrivance Group	Will conduct quantitative and qualitative data-driven research pertaining to displacement within the TCC project area. A final analysis report and subsequent workshops will be led by the DAP consultant and delivered to the ADTF, Fresno City Council and other stakeholders.
O&O Committee	Will continue to serve as the Transform Fresno advisory committee and will be updated as various stages of the DAP are completed. This committee will also provide direction for policy development and any issues that may arise throughout DAP implementation.
Wells Fargo	Will produce biannual education workshops for potential first-time homebuyers.
Central Valley Business Diversity Partnership (CVBDP)	Will provide one-on-one coaching sessions, technical assistance, and mentorship to business owners in the TCC project area. The CVBDP consists of the Minority Business Development Agency, Fresno Metro Black Chamber of Commerce, Fresno Area Hispanic Foundation, Central California Hispanic Chamber of Commerce, and the Asian Business Institute & Resource Center.
Fresno Regional Workforce Development Board Business Service Center (FRWDBBSC)	Will host two business workshops per year and educate local businesses about resources available to grow their business. Resources include: marketing and strategic business plan assistance, recruitment of job candidates, human resources assistance, and business incubation support for startup and early stage companies.
Community Stakeholders	Will provide general feedback and information regarding displacement concerns in the TCC project area. Community members will be essential for qualitative data collection in the community.
TCC Project Partners	Will provide data and reporting to the DAP Consultant regarding project specific information.

Anti-Displacement Task Force Members

Member Type	Specific Requirements	Member Name
Residential Tenants	Fulton Corridor Specific Plan Area	Robert Fuentes
	Downtown Neighborhoods Community Plan Area	Hilda Lopez
	Southwest Fresno Specific Plan Area	Debbie Darden
Commercial Tenants	Downtown	Ana Li De Alba
	Chinatown or Southwest Fresno	Morgan Doizaki
Developers	Affordable Housing Developer	Preston Prince
	Market Rate Developer	Sal Gonzales
	Community Development Corporation	Eric Payne
	Community Development Corporation	Cherella Nicholson
Advocates	Nonprofit	Grecia Elenes
	Neighborhood	Patience Milrod
	Individual/non-affiliate	Kathryn Forbes
	Individual/non-affiliate	Artie Padilla

Appendix 6: Transform Fresno TCC Census Tracts

Census Tract GEOID Number	City	Population (ACS 2011-2016 estimate)	Area (sq. mi.)	Population Density (pop./ sq.mi.)	Overlap with TCC Project Area (%)
14000US06019000700	Fresno / Unincorporated	3,758	3.20	1,175	18%
14000US06019000701*	Fresno / Unincorporated	N/A	0.50	N/A	N/A
14000US06019000702*	Fresno / Unincorporated	N/A	2.70	N/A	N/A
14000US06019001100	Fresno	2,728	1.45	1,883	27%
14000US06019001000	Fresno / Unincorporated	3,955	1.89	2,093	14%
14000US06019000901	Fresno / Unincorporated	2,979	0.75	3,947	83%
14000US06019000200	Fresno	3,147	0.77	4,100	68%
14000US06019000300	Fresno	3,270	0.73	4,487	100%
14000US06019000400	Fresno	6,016	1.31	4,578	22%
14000US06019000600	Fresno	5,351	0.95	5,624	44%
14000US06019000601*	Fresno	N/A	0.45	N/A	N/A
14000US06019000602*	Fresno	N/A	0.50	N/A	N/A
14000US06019000902	Fresno	5,082	0.76	6,680	83%
14000US06019000100	Fresno	3,036	0.33	9,323	100%

Appendix 7: Transform Fresno Control Census Tracts

Census Tract GEOID Number	City	Population (ACS 2011-2016 estimate)	Area (sq. mi.)	Population Density (pop./ sq.mi.)
14000US06019001202	Fresno / Unincorporated	4,828	1.31	3,676
14000US06019001304	Fresno	5,528	0.50	1,0948
14000US06019001407	Fresno	4,530	0.50	9,078
14000US06019002800	Fresno	4,458	1.02	4,372
14000US06019003202	Fresno / Unincorporated	5,352	0.62	8,630
14000US06019003807	Fresno / Unincorporated	3,144	1.75	1,780
14000US06019004704	Fresno	4,772	0.49	9,820
14000US06019004802	Fresno	4,871	0.56	8,674
14000US06019005100	Fresno	6,276	1.00	6,281
14000US06019005403	Fresno	4,267	0.50	8,521

Appendix 8: Indicator Data

Appendix 8.1: Demographics

Table A8.1.1: American Community Survey (ACS) Demographic Indicators*

	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Total Population (B01003)	2018-2022	42,590	2,076	50,373	2,531	1,008,280	0.0	39,356,104	0.0
	2017-2021	41,346	2,192	49,836	2,449	1,003,150	0.0	39,455,353	0.0
	2016-2020	41,160	2,272	48,623	2,453	990,204	0.0	39,346,023	0.0
	2015-2019	39,487	1,536	49,882	1,608	984,521	0.0	39,283,497	0.0
	2014-2018	39,860	1,494	50,165	1,633	978,130	0.0	39,148,760	0.0
	2013-2017	38,699	1,501	48,598	1,796	971,616	0.0	38,982,847	0.0
	2012-2016	39,322	1,412	48,026	1,572	963,160	0.0	38,654,206	0.0
	2011-2015	38,854	1,349	48,698	1,598	956,749	0.0	38,421,464	0.0
	2010-2014	39,389	1,499	49,190	1,716	948,844	0.0	38,066,920	0.0
	2009-2013	39,140	1,647	48,862	1,786	939,605	0.0	37,659,181	0.0
Percent Hispanic, all races (B03002)	2018-2022	68.8%	2.6%	59.5%	2.9%	54.2%	0.0%	39.7%	0.0%
	2017-2021	68.2%	2.4%	59.8 %	2.8%	54.0%	0.0%	39.5%	0.0%
	2016-2020	67.1%	2.8%	57.5%	3.1%	53.4%	0.0%	39.1%	0.0%
	2015-2019	68.2%	2.3%	60.8%	2.7%	53.1%	0.0%	39.0%	0.0%
	2014-2018	67.8%	2.3%	59.3%	2.5%	52.7%	0.0%	38.9%	0.0%
	2013-2017	65.5%	2.8%	59.1%	2.8%	52.4%	0.0%	38.8%	0.0%
	2012-2016	65.7%	2.6%	56.2%	3.0%	52.0%	0.0%	38.6%	0.0%
	2011-2015	65.0%	2.4%	57.3%	2.8%	51.6%	0.0%	38.4%	0.0%
	2010-2014	63.5%	2.6%	55.6%	2.9%	51.2%	0.0%	38.2%	0.0%
	2009-2013	61.5%	2.9%	58.2%	3.3%	50.8%	0.0%	37.9%	0.0%

*MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by the UCLA Luskin Center for Innovation in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence.

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent White, non-Hispanic (B03002)	2018-2022	9.6%	2.0%	15.9%	2.5%	27.4%	0.1%	35.2%	0.0%
	2017-2021	9.5%	2.0%	17.3%	2.8%	27.9%	0.1%	35.8%	0.0%
	2016-2020	9.4%	2.0%	17.6%	2.8%	28.7%	0.0%	36.5%	0.0%
	2015-2019	7.1%	1.3%	16.2%	2.3%	29.4%	0.0%	37.2%	0.0%
	2014-2018	7.2%	1.1%	15.8%	2.1%	29.8%	0.1%	37.5%	0.0%
	2013-2017	7.2%	1.4%	15.3%	2.0%	30.2%	0.1%	37.9%	0.0%
	2012-2016	6.5%	1.0%	15.1%	1.5%	30.8%	0.0%	38.4%	0.0%
	2011-2015	6.2%	1.0%	15.3%	1.4%	31.2%	0.1%	38.7%	0.0%
	2010-2014	6.8%	1.1%	16.6%	1.6%	31.6%	0.1%	39.2%	0.0%
	2009-2013	6.4%	1.0%	17.5%	1.8%	32.2%	0.1%	39.7%	0.0%
Percent communities of color, non-Hispanic: Black, Asian, Pacific Islander, American Indian, other, and two or more races (B03002)	2018-2022	21.5%	2.3%	24.6%	2.4%	18.4%	0.3%	25.1%	0.1%
	2017-2021	22.2%	2.3%	23.0%	2.3%	18.1%	0.3%	24.7%	0.1%
	2016-2020	23.6%	2.3%	24.8%	2.6%	18.0%	0.3%	24.4%	0.1%
	2015-2019	24.7%	2.1%	23.0%	2.1%	17.5%	0.2%	23.8%	0.0%
	2014-2018	25.0%	2.0%	24.8%	2.1%	17.5%	0.2%	23.6%	0.0%
	2013-2017	27.4%	2.0%	25.6%	2.0%	17.3%	0.2%	23.3%	0.0%
	2012-2016	27.9%	2.1%	28.7%	2.8%	17.2%	0.2%	23.1%	0.0%
	2011-2015	28.8%	2.2%	27.3%	2.4%	17.2%	0.2%	22.9%	0.0%
	2010-2014	29.7%	2.6%	27.8%	2.3%	17.1%	0.2%	22.7%	0.0%
	2009-2013	32.1%	2.8%	24.2%	2.3%	17.1%	0.2%	22.4%	0.0%
Percent other communities of color, non-Hispanic: Pacific Islander, American Indian, other, two or, more races	2018-2022	2.9%	0.9%	3.1%	0.9%	3.8%	0.2%	4.9%	0.0%
	2017-2021	2.6%	0.9%	3.0%	0.9%	3.5%	0.2%	4.6%	0.0%
	2016-2020	2.3%	0.7%	2.3%	0.7%	3.1%	0.2%	4.4%	0.0%
	2015-2019	1.8%	0.5%	2.1%	0.6%	2.9%	0.2%	4.0%	0.0%
	2014-2018	2.4%	0.8%	2.2%	0.7%	2.9%	0.2%	3.9%	0.0%
	2013-2017	1.8%	0.5%	2.2%	0.7%	2.8%	0.2%	3.9%	0.0%
	2012-2016	2.4%	0.7%	1.9%	0.5%	2.7%	0.2%	3.8%	0.0%
	2011-2015	2.1%	0.6%	2.1%	0.6%	2.9%	0.1%	3.7%	0.0%
	2010-2014	2.1%	0.8%	2.5%	0.9%	2.8%	0.2%	3.7%	0.0%
	2009-2013	1.7%	0.6%	2.1%	0.7%	2.8%	0.2%	3.6%	0.0%

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent Black, non-Hispanic (B03002)	2018-2022	11.3%	1.5%	10.0%	1.6%	4.2%	0.1%	5.3%	0.0%
	2017-2021	12.3%	2.0%	7.9%	1.4%	4.2%	0.1%	5.4%	0.0%
	2016-2020	14.3%	1.8%	9.8%	1.7%	4.4%	0.1%	5.4%	0.0%
	2015-2019	14.4%	1.7%	8.6%	1.2%	4.5%	0.1%	5.5%	0.0%
	2014-2018	14.6%	1.5%	10.0%	1.3%	4.5%	0.1%	5.5%	0.0%
	2013-2017	17.4%	1.8%	10.3%	1.2%	4.7%	0.1%	5.5%	0.0%
	2012-2016	17.0%	1.6%	12.9%	1.9%	4.7%	0.1%	5.6%	0.0%
	2011-2015	16.5%	1.7%	11.7%	1.6%	4.7%	0.1%	5.6%	0.0%
	2010-2014	17.9%	1.9%	12.4%	1.5%	4.8%	0.1%	5.7%	0.0%
	2009-2013	20.1%	2.0%	10.8%	1.6%	4.8%	0.1%	5.7%	0.0%
Percent Asian, non-Hispanic (B03002)	2018-2022	7.4%	1.7%	11.5%	1.8%	10.4%	0.1%	14.9%	0.0%
	2017-2021	7.4%	1.5%	12.1%	1.8%	10.4%	0.1%	14.7%	0.0%
	2016-2020	6.9%	1.5%	12.7%	2.0%	10.4%	0.1%	14.6%	0.0%
	2015-2019	8.4%	1.3%	12.3%	1.7%	10.1%	0.1%	14.3%	0.0%
	2014-2018	8.0%	1.2%	12.6%	1.6%	10.0%	0.1%	14.1%	0.0%
	2013-2017	8.2%	1.1%	13.1%	1.7%	9.9%	0.1%	13.9%	0.0%
	2012-2016	8.5%	1.3%	13.9%	2.1%	9.7%	0.1%	13.7%	0.0%
	2011-2015	10.2%	1.4%	13.6%	1.8%	9.6%	0.1%	13.5%	0.0%
	2010-2014	9.8%	1.7%	12.8%	1.7%	9.5%	0.1%	13.3%	0.0%
	2009-2013	10.3%	2.1%	11.4%	1.6%	9.4%	0.1%	13.1%	0.0%
Percent Pacific Islanders, non-Hispanic (B03002)	2018-2022	0.2%	0.3%	0.1%	0.1%	0.2%	0.0%	0.3%	0.0%
	2017-2021	0.1%	0.4%	0.1%	0.1%	0.2%	0.0%	0.3%	0.0%
	2016-2020	0.2%	0.4%	0.1%	0.1%	0.1%	0.0%	0.3%	0.0%
	2015-2019	0.1%	0.2%	0.1%	0.1%	0.1%	0.0%	0.4%	0.0%
	2014-2018	0.1%	0.2%	0.0%	0.0%	0.1%	0.0%	0.4%	0.9%
	2013-2017	0.1%	0.1%	0.1%	0.1%	0.1%	0.9%	0.4%	0.0%
	2012-2016	0.3%	0.4%	0.1%	0.1%	0.1%	0.0%	0.4%	0.0%
	2011-2015	0.3%	0.3%	0.1%	0.1%	0.1%	0.0%	0.4%	0.0%
	2010-2014	0.2%	0.3%	0.3%	0.3%	0.1%	0.0%	0.4%	0.0%
	2009-2013	0.2%	0.3%	0.2%	0.2%	0.1%	0.0%	0.4%	0.0%

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent American Indian, non-Hispanic (B03002)	2018-2022	0.7%	0.5%	0.4%	0.3%	0.4%	0.0%	0.3%	0.0%
	2017-2021	0.5%	0.4%	0.7%	0.4%	0.4%	0.1%	0.3%	0.0%
	2016-2020	0.6%	0.4%	0.5%	0.3%	0.5%	0.0%	0.3%	0.0%
	2015-2019	0.3%	0.1%	0.4%	0.3%	0.5%	0.1%	0.4%	0.0%
	2014-2018	0.3%	0.2%	0.4%	0.2%	0.5%	0.0%	0.4%	0.0%
	2013-2017	0.3%	0.2%	0.4%	0.3%	0.4%	0.1%	0.4%	0.0%
	2012-2016	0.3%	0.2%	0.2%	0.1%	0.5%	0.0%	0.4%	0.0%
	2011-2015	0.4%	0.2%	0.3%	0.3%	0.5%	0.0%	0.4%	0.0%
	2010-2014	0.4%	0.2%	0.5%	0.5%	0.5%	0.0%	0.4%	0.0%
	2009-2013	0.5%	0.2%	0.4%	0.4%	0.5%	0.1%	0.4%	0.0%
Percent two or more races, non-Hispanic (B03002)	2018-2022	1.6%	0.6%	2.5%	0.9%	2.8%	0.2%	3.8%	0.0%
	2017-2021	1.6%	0.6%	2.1%	0.8%	2.6%	0.2%	3.6%	0.0%
	2016-2020	1.3%	0.5%	1.7%	0.6%	2.4%	0.2%	3.4%	0.0%
	2015-2019	1.5%	0.4%	1.5%	0.5%	2.2%	0.2%	3.0%	0.0%
	2014-2018	1.9%	0.7%	1.7%	0.6%	2.1%	0.2%	3.0%	0.0%
	2013-2017	1.4%	0.5%	1.7%	0.6%	2.0%	0.1%	2.9%	0.0%
	2012-2016	1.7%	0.6%	1.5%	0.5%	2.0%	0.1%	2.9%	0.0%
	2011-2015	1.4%	0.5%	1.6%	0.5%	2.0%	0.1%	2.8%	0.0%
	2010-2014	1.4%	0.7%	1.7%	0.7%	2.0%	0.1%	2.7%	0.0%
	2009-2013	1.0%	0.5%	1.4%	0.6%	2.0%	0.1%	2.6%	0.0%
Percent other, non-Hispanic (B03002)	2018-2022	0.4%	0.3%	0.2%	0.2%	0.4%	0.1%	0.4%	0.0%
	2017-2021	0.3%	0.2%	0.1%	0.2%	0.3%	0.1%	0.4%	0.0%
	2016-2020	0.1%	0.2%	0.1%	0.1%	0.2%	0.1%	0.3%	0.0%
	2015-2019	0.0%	0.1%	0.1%	0.1%	0.2%	0.1%	0.3%	0.0%
	2014-2018	0.0%	0.1%	0.1%	0.2%	0.2%	0.1%	0.2%	0.0%
	2013-2017	0.0%	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%	0.0%
	2012-2016	0.0%	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%	0.0%
	2011-2015	0.0%	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%	0.0%
	2010-2014	0.0%	0.1%	0.0%	0.1%	0.2%	0.1%	0.2%	0.0%
	2009-2013	0.0%	0.1%	0.0%	0.0%	0.2%	0.1%	0.2%	0.0%

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent foreign-born population (B05006))	2018-2022	22.7%	1.7%	21.5%	2.3%	19.9%	0.4%	26.5%	0.1%
	2017-2021	22.6%	1.7%	22.2%	2.3%	19.9%	0.4%	26.5%	0.1%
	2016-2020	22.2%	1.6%	22.4%	2.2%	20.4%	0.4%	26.6%	0.1%
	2015-2019	24.5%	1.6%	23.0%	1.9%	21.2%	0.4%	26.8%	0.1%
	2014-2018	24.9%	1.6%	22.2%	1.7%	21.3%	0.4%	26.9%	0.1%
	2013-2017	25.6%	1.8%	22.8%	1.7%	21.0%	0.3%	27.0%	0.1%
	2012-2016	26.0%	1.8%	22.5%	1.8%	21.4%	0.3%	27.0%	0.1%
	2011-2015	26.2%	1.9%	23.8%	2.1%	21.4%	0.3%	27.0%	0.1%
	2010-2014	27.2%	2.3%	23.5%	2.2%	21.7%	0.3%	27.0%	0.1%
	2009-2013	27.4%	2.5%	25.0%	2.7%	21.9%	0.3%	27.0%	0.1%
Percent born in Asia (B05006)	2018-2022	2.9%	0.8%	7.5%	1.8%	5.7%	0.2%	10.7%	0.0%
	2017-2021	3.4%	0.6%	7.4%	1.8%	5.8%	0.2%	10.6%	0.0%
	2016-2020	3.2%	0.6%	7.4%	1.7%	5.9%	0.2%	10.6%	0.0%
	2015-2019	3.9%	0.7%	6.5%	1.2%	5.8%	0.2%	10.6%	0.0%
	2014-2018	4.0%	0.7%	6.1%	1.1%	5.9%	0.2%	10.5%	0.0%
	2013-2017	4.0%	0.7%	6.1%	1.0%	5.8%	0.2%	10.4%	0.0%
	2012-2016	3.9%	0.8%	6.6%	1.2%	5.8%	0.2%	10.2%	0.0%
	2011-2015	4.4%	0.8%	7.0%	1.1%	5.8%	0.2%	10.1%	0.0%
	2010-2014	4.6%	1.0%	6.4%	1.0%	5.8%	0.2%	10.0%	0.0%
	2009-2013	4.4%	1.0%	5.7%	0.9%	5.6%	0.2%	9.8%	0.0%
Percent born in Africa (B05006)	2018-2022	0.1%	0.1%	0.2%	0.2%	0.3%	0.1%	0.5%	0.0%
	2017-2021	0.1%	0.1%	0.2%	0.2%	0.3%	0.1%	0.5%	0.0%
	2016-2020	0.1%	0.1%	0.3%	0.3%	0.2%	0.1%	0.5%	0.0%
	2015-2019	0.0%	0.1%	0.3%	0.3%	0.2%	0.1%	0.5%	0.0%
	2014-2018	0.1%	0.1%	0.3%	0.3%	0.2%	0.1%	0.5%	0.0%
	2013-2017	0.0%	0.1%	0.3%	0.3%	0.2%	0.0%	0.5%	0.0%
	2012-2016	0.0%	0.1%	0.3%	0.3%	0.2%	0.0%	0.5%	0.0%
	2011-2015	0.0%	0.1%	0.2%	0.2%	0.2%	0.0%	0.4%	0.0%
	2010-2014	0.0%	0.1%	0.1%	0.1%	0.2%	0.0%	0.4%	0.0%
	2009-2013	0.0%	0.1%	0.0%	0.1%	0.2%	0.0%	0.4%	0.0%

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent born in Latin America (B05006)	2018-2022	19.7%	1.6%	13.7%	1.5%	13.0%	0.3%	13.1%	0.1%
	2017-2021	19.1%	1.7%	14.3%	1.5%	13.1%	0.3%	13.1%	0.1%
	2016-2020	18.8%	1.6%	14.2%	1.6%	13.4%	0.3%	13.2%	0.1%
	2015-2019	20.4%	1.5%	15.7%	1.5%	14.3%	0.3%	13.5%	0.1%
	2014-2018	20.7%	1.6%	15.2%	1.5%	14.4%	0.3%	13.7%	0.1%
	2013-2017	21.3%	1.8%	15.7%	1.5%	14.2%	0.3%	13.8%	0.1%
	2012-2016	21.8%	1.7%	14.8%	1.6%	14.5%	0.3%	14.0%	0.0%
	2011-2015	21.5%	1.9%	16.0%	1.9%	14.6%	0.3%	14.2%	0.1%
	2010-2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2009-2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Appendix 8.2: Economy

Table A8.2.1: American Community Survey (ACS) Economic Indicators*

	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Median household income (B19001)	2018-2022	$28,778	N/A	$33,392	N/A	$67,756	$967	$91,905	$277
	2017-2021	$26,719	N/A	$33,335	N/A	$61,276	$1,031	$84,097	$236
	2016-2020	$24,513	N/A	$30,559	N/A	$57,109	$929	$78,672	$270
	2015-2019	$24,688	N/A	$28,011	N/A	$53,969	$794	$75,235	$232
	2014-2018	$24,171	N/A	$27,223	N/A	$51,261	$808	$71,228	$217
	2013-2017	$23,405	N/A	$26,905	N/A	$48,730	$655	$67,169	$192
	2012-2016	$23,075	N/A	$24,848	N/A	$45,963	$661	$63,783	$188
	2011-2015	$22,148	N/A	$26,502	N/A	$45,233	$692	$61,818	$156
	2010-2014	$22,332	N/A	$26,387	N/A	$45,201	$713	$61,489	$154
	2009-2013	$22,843	N/A	$25,319	N/A	$45,563	$638	$61,094	$157
Percent of individuals living below poverty (B17001)	2018-2022	44.1%	3.7%	38.7%	3.7%	19.5%	0.7%	12.1%	0.1%
	2017-2021	44.5%	3.6%	37.2%	4.0%	20.2%	0.7%	12.3%	0.1%
	2016-2020	45.9%	4.0%	38.2%	3.6%	20.8%	0.7%	12.6%	0.1%
	2015-2019	47.3%	3.8%	41.9%	3.2%	22.5%	0.7%	13.4%	0.1%
	2014-2018	50.1%	4.2%	42.0%	3.1%	24.1%	0.6%	14.3%	0.1%
	2013-2017	50.3%	3.6%	43.0%	3.4%	25.4%	0.6%	15.1%	0.1%
	2012-2016	52.2%	3.4%	46.6%	3.4%	26.9%	0.6%	15.8%	0.1%
	2011-2015	52.7%	3.2%	42.0%	3.1%	26.8%	0.7%	16.3%	0.1%
	2010-2014	52.7%	3.7%	41.7%	3.1%	27.4%	0.6%	16.4%	0.1%
	2009-2013	50.5%	3.7%	41.9%	3.6%	26.0%	0.6%	15.9%	0.1%
Percent high income ($125k +) (B19001)	2018-2022	5.8%	1.5%	6.8%	1.7%	23.4%	0.7%	36.4%	0.1%
	2017-2021	3.3%	1.1%	6.3%	1.7%	19.9%	0.6%	32.6%	0.1%
	2016-2020	2.2%	0.9%	4.8%	1.4%	17.2%	0.6%	29.8%	0.1%
	2015-2019	2.7%	0.9%	3.8%	1.2%	15.8%	0.5%	28.0%	0.1%
	2014-2018	1.9%	0.8%	3.2%	1.0%	14.6%	0.5%	26.1%	0.1%
	2013-2017	2.3%	0.9%	3.0%	1.1%	13.3%	0.4%	23.9%	0.1%
	2012-2016	1.9%	0.7%	1.7%	0.8%	12.0%	0.4%	22.1%	0.1%
	2011-2015	2.2%	0.8%	2.1%	0.9%	11.3%	0.4%	20.9%	0.1%
	2010-2014	1.7%	0.9%	1.6%	0.8%	11.1%	0.4%	20.4%	0.1%
	2009-2013	2.4%	1.1%	1.7%	0.8%	11.1%	0.4%	19.9%	0.1%

*MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by the UCLA Luskin Center for Innovation in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence.

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent with less than high school education (S1501)	2018-2022	39.2%	2.9%	34.7%	3.0%	21.7%	0.5%	15.6%	0.1%
	2017-2021	41.1%	2.8%	34.4%	2.8%	22.1%	0.5%	15.8%	0.1%
	2016-2020	40.0%	2.5%	33.4%	2.8%	22.7%	0.5%	16.1%	0.1%
	2015-2019	42.0%	2.6%	35.1%	2.8%	24.0%	0.4%	16.7%	0.1%
	2014-2018	43.1%	2.5%	36.7%	2.8%	24.7%	0.5%	17.1%	0.1%
	2013-2017	45.3%	3.0%	36.0%	2.7%	25.3%	0.5%	17.5%	0.1%
	2012-2016	44.2%	2.5%	37.0%	2.8%	26.2%	0.5%	17.9%	0.1%
	2011-2015	46.4%	2.8%	37.8%%	2.7%	26.5%	0.5%	18.2%	0.1%
	2010-2014	47.9%	2.8%	37.9%	2.6%	26.8%	0.5%	18.5%	0.1%
	2009-2013	48.5%	3.0%	38.9%	3.6%	26.9%	0.5%	18.8%	0.1%
Percent with bachelor's degree or higher (S1501)	2018-2022	8.4%	1.4%	9.4%	1.6%	23.4%	0.5%	35.9%	0.1%
	2017-2021	7.8%	1.5%	8.7%	1.7%	22.6%	0.5%	35.3%	0.1%
	2016-2020	7.6%	1.3%	9.1%	1.8%	22.0%	0.5%	34.7%	0.1%
	2015-2019	7.8%	1.4%	8.0%	1.6%	21.2%	0.4%	33.9%	0.1%
	2014-2018	7.6%	1.3%	8.0%	1.4%	20.7%	0.4%	33.3%	0.1%
	2013-2017	6.1%	1.1%	7.9%	1.3%	20.1%	0.4%	32.6%	0.1%
	2012-2016	6.5%	1.0%	8.4%	1.3%	19.7%	0.4%	32.0%	0.1%
	2011-2015	5.8%	1.0%	8.4%	1.3%	19.4%	0.4%	31.4%	0.1%
	2010-2014	6.9%	1.1%	7.8%	1.3%	19.5%	0.4%	31.0%	0.1%
	2009-2013	6.5%	1.1%	6.7%	1.0%	19.6%	0.4%	30.7%	0.1%

Appendix 8.3: Energy

Table A8.3.1: American Community Survey (ACS) Energy Indicators*

	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent employed for the population 16 years and over (B23025)	2018-2022	40.4%	2.6%	51.0%	2.5%	55.9%	0.5%	59.3%	0.1%
	2017-2021	40.0%	2.6%	50.4%	2.6%	55.5%	0.4%	59.3%	0.1%
	2016-2020	39.4%	2.2%	49.9%	2.6%	55.3%	0.4%	59.4%	0.1%
	2015-2019	40.3%	1.9%	48.4%	2.1%	55.6%	0.4%	59.4%	0.1%
	2014-2018	40.1%	2.0%	46.5%	2.2%	55.0%	0.4%	58.9%	0.1%
	2013-2017	39.6%	2.2%	45.6%%	2.1%	54.3%	0.3%	58.2%	0.1%
	2012-2016	38.4%	2.3%	42.7%	2.0%	53.3%	0.4%	57.5%	0.1%
	2011-2015	36.5%	2.2%	42.5	2.0%	52.8%	0.5%	56.9%	0.1%
	2010-2014	36.6%	2.3%	43.3%	2.1%	52.3%	0.4%	56.4%	0.1%
	2009-2013	36.2%	2.5%	42.6%	1.7%	52.4%	0.4%	56.4%	0.1%
Percent of households heating home with electricity (B25040)	2018-2022	49.3%	4.7%	44.7%	3.1%	35.9%	0.8%	28.3%	0.1%
	2017-2021	47.3%	4.7%	42.7%	3.1%	35.1%	0.7%	27.7%	0.1%
	2016-2020	46.2%	4.4%	42.5%	3.0%	34.4%	0.7%	27.1%	0.1%
	2015-2019	37.5%	3.2%	42.3%	3.1%	33.8%	0.6%	26.6%	0.1%
	2014-2018	32.3%	2.9%	42.0%	2.8%	34.5%	0.5%	26.4%	0.1%
	2013-2017	30.5%	2.8%	43.2%	3.0%	35.4%	0.5%	26.5%	0.1%
	2012-2016	27.3%	2.7%	43.2%	2.9%	35.7%	0.5%	26.4%	0.1%
	2011-2015	26.4%	2.5%	44.4%	3.0%	36.1%	0.6%	26.2%	0.1%
	2010-2014	25.7%	2.3%	43.1%	2.8%	36.0%	0.7%	25.8%	0.1%
	2009-2013	27.0%	2.6%	42.0%	3.0%	35.5%	0.7%	25.5%	0.1%
Percent of households heating home with other non-fossil fuels (B25040)	2018-2022	0.9%	0.5%	2.8%	1.0%	3.5%	0.3%	2.3%	0.0%
	2017-2021	0.7%	0.4%	2.0%	0.8%	3.3%	0.2%	2.2%	0.0%
	2016-2020	0.4%	0.3%	1.0%	0.6%	3.1%	0.2%	2.2%	0.0%
	2015-2019	0.6%	0.4%	1.1%	0.6%	3.1%	0.2%	2.1%	0.0%
	2014-2018	0.4%	0.4%	0.9%	0.6%	2.7%	0.2%	2.1%	0.0%
	2013-2017	0.3%	0.3%	0.6%	0.5%	2.5%	0.2%	2.0%	0.0%
	2012-2016	0.3%	0.3%	0.4%	0.3%	2.1%	0.2%	1.9%	0.0%
	2011-2015	0.2%	0.3%	0.3%	0.3%	2.1%	0.2%	1.9%	0.0%
	2010-2014	0.0%	0.2%	0.3%	0.3%	2.0%	0.2%	1.9%	0.0%
	2009-2013	0.0%	0.2%	0.3%	0.3%	2.0%	0.2%	1.8%	0.0%

*MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by the UCLA Luskin Center for Innovation in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence.

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent of households heating home with utility gas (B25040)	2018-2022	47.4%	3.1%	48.9%	4.0%	54.0%	0.8%	62.3%	0.1%
	2017-2021	49.0%	2.7%	53.0%	3.6%	55.0%	0.7%	63.0%	0.1%
	2016-2020	50.7%	3.0%	53.5%	3.6%	55.8%	0.7%	63.6%	0.1%
	2015-2019	59.8%	3.1%	53.8%	3.0%	56.5%	0.5%	64.1%	0.0%
	2014-2018	63.9%	2.8%	54.1%	2.8%	56.0%	0.5%	64.3%	0.1%
	2013-2017	66.7%	2.7%	53.4%	2.9%	55.4%	0.7%	64.4%	0.1%
	2012-2016	69.8%	2.6%	53.6%	2.9%	55.2%	0.6%	64.6%	0.1%
	2011-2015	70.5%	2.6%	53.0%	2.9%	54.9%	0.7%	65.0%	0.1%
	2010-2014	71.5%	2.4%	54.3%	2.8%	55.1%	0.6%	65.6%	0.1%
	2009-2013	70.3%	2.7%	55.7%	2.8%	55.5%	0.6%	66.0%	0.1%

Table A8.3.2: Solar PV Systems per 1,000 Households*

Indicator	Dataset Year	Fresno TCC Census Tracts	Control Census Tracts	Fresno County	California
Solar PV Systems for All Building Types	2018	33.5	20.6	82.9	49.4

* Solar PV system data were sourced from *The DeepSolar Project,* a product of Stanford Engineering. For TCC census tracts and control tracts, a weighted average was applied, as based on the number of households within each census tract (using 2011-2015 ACS data).

Appendix 8.4: Environment

Table A8.4.1: Land-Cover Indicators*

Indicator	Dataset Year	Percent area for TCC Project Area	Square Miles
Impervious / buildings	2016	39.1%	2.0
Dry vegetation / barren	2016	29.7%	1.5
Green vegetation	2016	12.0%	0.6
Shadow	2016	9.9%	0.5
Unclassified	2016	9.0%	0.5
Water	2016	0.3%	<0.1

*Land-cover indicators were derived from satellite imagery maintained by the National Agriculture Imagery Program (NAIP).

Appendix 8.5: Health

Table A8.5.1: American Community Survey (ACS) Health Indicators*

	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent of households heating home with other fossil fuels (B25040)	2018-2022	0.8%	0.7%	2.7%	1.2%	5.3%	0.2%	3.7%	0.0%
	2017-2021	0.9%	0.7%	1.4%	0.7%	5.1%	0.2%	3.6%	0.0%
	2016-2020	0.7%	0.7%	1.2%	0.6%	4.9%	0.3%	3.6%	0.0%
	2015-2019	0.4%	0.4%	1.3%	0.6%	4.8%	0.2%	3.5%	0.0%
	2014-2018	0.4%	0.4%	1.6%	0.7%	4.8%	0.2%	3.5%	0.0%
	2013-2017	0.4%	0.4%	1.2%	0.6%	4.7%	0.2%	3.5%	0.0%
	2012-2016	0.6%	0.4%	1.4%	0.6%	5.0%	0.2%	3.4%	0.0%
	2011-2015	0.7%	0.4%	1.6%	0.7%	4.9%	0.2%	3.4%	0.0%
	2010-2014	0.7%	0.4%	1.6%	0.6%	5.0%	0.2%	3.4%	0.0%
	2009-2013	0.7%	0.5%	1.3%	0.6%	5.2%	0.3%	3.5%	0.0%
Percent of houses with no fuel used (B25040)	2018-2022	0.7%	0.5%	0.1%	0.2%	0.9%	0.1%	3.1%	0.0%
	2017-2021	1.2%	0.9%	0.1%	0.2%	0.9%	0.1%	3.1%	0.0%
	2016-2020	1.1%	0.7%	0.7%	0.5%	0.9%	0.2%	3.2%	0.0%
	2015-2019	1.7%	0.9%	0.9%	0.5%	0.9%	0.1%	3.3%	0.0%
	2014-2018	2.8%	1.3%	1.4%	0.7%	1.0%	0.1%	3.4%	0.0%
	2013-2017	2.0%	0.9%	1.4%	0.6%	1.0%	0.1%	3.4%	0.0%
	2012-2016	2.0%	0.9%	1.3%	0.6%	1.1%	0.1%	3.3%	0.0%
	2011-2015	2.2%	1.0%	0.7%	0.4%	1.0%	0.1%	3.2%	0.0%
	2010-2014	2.0%	0.9%	0.6%	0.4%	1.0%	0.1%	3.0%	0.0%
	2009-2013	1.9%	0.8%	0.5%	0.3%	0.9%	0.1%	2.9%	0.0%
Percent with health insurance coverage (B27001)	2018-2022	88.8%	1.6%	93.0%	1.7%	92.8%	0.3%	92.9%	0.1%
	2017-2021	88.1%	1.4%	93.1%	1.2%	92.7%	0.3%	92.8%	0.1%
	2016-2020	88.2%	1.2%	92.2%	1.2%	92.2%	0.3%	92.8%	0.1%
	2015-2019	88.4%	1.4%	91.0%	1.1%	91.7%	0.3%	92.5%	0.1%
	2014-2018	86.9%	1.7%	89.2%	1.0%	90.5%	0.3%	91.5%	0.1%
	2013-2017	83.8%	1.7%	86.3%	1.1%	88.3%	0.4%	89.5%	0.1%
	2012-2016	81.0%	2.0%	83.7%	1.3%	85.8%	0.4%	87.4%	0.1%
	2011-2015	78.4%	1.8%	81.7%	1.6%	83.6%	0.4%	85.3%	0.1%
	2010-2014	75.3%	2.3%	79.2%	1.8%	81.5%	0.4%	83.3%	0.1%
	2009-2013	74.4%	1.8%	77.6%	1.6%	80.4%	0.4%	82.2%	0.1%

*MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by the UCLA Luskin Center for Innovation in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence.

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent with private health insurance coverage (B27002)	2018-2022	25.4%	2.7%	31.8%	2.5%	53.8%	0.7%	64.2%	0.2%
	2017-2021	25.0%	2.6%	32.9%	2.5%	53.7%	0.7%	64.3%	0.2%
	2016-2020	23.5%	2.6%	34.0%	2.5%	53.7%	0.6%	64.3%	0.2%
	2015-2019	22.8%	1.9%	32.1%	2.5%	52.4%	0.6%	63.8%	0.2%
	2014-2018	22.4%	1.9%	32.4%	2.3%	51.7%	0.5%	63.4%	0.2%
	2013-2017	23.0%	2.1%	32.6%	2.3%	51.3%	0.6%	62.6%	0.2%
	2012-2016	21.7%	2.2%	30.0%	2.3%	49.9%	0.6%	61.8%	0.2%
	2011-2015	21.6%	2.0%	30.1%	2.3%	49.4%	0.6%	61.2%	0.2%
	2010-2014	20.5%	2.1%	29.4%	2.0%	49.0%	0.6%	60.8%	0.2%
	2009-2013	19.5%	1.9%	28.7%	1.8%	48.9%	0.6%	61.0%	0.2%
Percent with public health insurance coverage (B27003)	2018-2022	70.4%	2.7%	69.0%	3.1%	49.1%	0.6%	38.5%	0.1%
	2017-2021	69.3%	2.3%	68.3%	3.2%	49.2%	0.7%	38.0%	0.1%
	2016-2020	71.3%	2.1%	66.8%	3.2%	49.0%	0.6%	38.0%	0.1%
	2015-2019	71.8%	2.3%	67.1%	2.6%	49.5%	0.6%	38.0%	0.1%
	2014-2018	70.1%	2.8%	64.7%	2.6%	48.7%	0.5%	37.2%	0.1%
	2013-2017	66.5%	2.4%	61.2%	2.8%	46.9%	0.5%	35.8%	0.1%
	2012-2016	64.5%	2.6%	60.7%	2.4%	45.2%	0.6%	34.3%	0.1%
	2011-2015	61.8%	2.5%	58.3%	2.7%	43.1%	0.5%	32.6%	0.1%
	2010-2014	59.9%	2.9%	55.7%	2.8%	41.3%	0.4%	30.8%	0.1%
	2009-2013	60.5%	2.7%	54.2%	2.9%	40.2%	0.5%	29.5%	0.1%

Table A8.5.2: Vehicle Collisions Involving Bicyclists and Pedestrians*

Indicator	Dataset Year	Gross Number of Collisions				Normalized per 1,000 Street Miles			
		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size	
		0ft	50 ft	0ft	50 ft	0ft	50ft	0ft	50ft
Bicycle Collision at Injury Level 1: Fatal	2022	0	1	0	1	0	7.6	0	7.6
	2021	0	0	0	1	0	0	0	7.6
	2020	0	0	1	1	0	0	7.6	7.6
	2019	1	1	1	1	9.4	9.4	7.6	7.6
	2018	0	0	0	0	0	0	0	0
	2017	1	1	1	1	9.4	9.4	7.6	7.6
	2016	0	0	0	0	0	0	0	0
	2015	0	0	0	0	0	0	0	0
	2014	0	0	0	0	0	0	0	0
	2013	1	1	0	2	9.4	9.4	0	15.1
Bicycle Collision at Injury Level 2: Severe Injury	2022	3	2	1	3	28.2	18.8	7.57	22.7
	2021	0	0	0	0	0	0	0	0
	2020	0	1	2	3	0	9.4	15.1	22.7
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	2015	1	1	0	0	9.4	9.4	0	0
	2014	1	1	1	1	9.4	9.4	7.6	7.6
	2013	0	0	0	0	0	0	0	0

*Collision data were obtained from the Transportation Injury Mapping System (TIMS). The numbers presented here are conservative in that they do not include collisions that were missing geographic coordinates in TIMS. Street mileage was obtained from OpenStreets-Map (OSM) and totaled 129 miles for the project area and 470 miles for the control tracts. Vehicle collisions involving bicycles and pedestrians are not mutually exclusive because some accidents may involve both modes.

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Indicator	Dataset Year	Gross Number of Collisions				Normalized per 1,000 Street Miles			
		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size	
		0ft	50 ft	0ft	50 ft	0ft	50ft	0ft	50ft
Bicycle Collision at Injury Level 3: Visible Injury	2022	4	4	3	3	37.6	37.6	22.7	22.7
	2021	2	2	3	4	18.8	18.8	22.7	30.3
	2020	2	3	0	1	18.8	28.2	0	7.6
	2019	2	2	1	1	18.8	18.8	7.6	7.6
	2018	0	0	0	0	0	0	0	0
	2017	0	0	1	2	0	0	7.6	15.1
	2016	1	1	2	2	9.4	9.4	15.1	15.1
	2015	3	3	5	8	28.2	28.2	37.8	60.6
	2014	2	2	2	6	18.8	18.8	15.1	45.4
	2013	2	2	0	0	18.8	18.8	0	0
Bicycle Collision at Injury Level 4: Complaint of Pain	2022	2	2	0	3	18.8	18.8	0	22.7
	2021	2	2	2	5	18.8	18.8	15.1	37.8
	2020	0	0	1	3	0	0	7.6	22.7
	2019	0	0	2	2	0	0	15.1	15.1
	2018	0	0	0	1	0	0	0	7.6
	2017	0	0	1	2	0	0	7.6	15.1
	2016	2	2	0	0	18.8	18.8	0	0
	2015	3	3	4	8	28.2	28.2	30.3	60.6
	2014	5	5	9	13	47.0	47.0	68.1	98.4
	2013	1	1	2	3	9.4	9.4	15.1	22.7

Table continues on next page

Indicator	Dataset Year	Gross Number of Collisions				Normalized per 1,000 Street Miles			
		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size	
		0ft	50 ft	0ft	50 ft	0ft	50ft	0ft	50ft
Pedestrian Collision at Injury Level 1: Fatal	2022	0	0	6	8	0	0	45.4	60.6
	2021	1	1	1	1	9.4	9.4	7.6	7.6
	2020	2	2	2	4	18.8	18.8	15.1	30.3
	2019	2	2	3	5	18.8	18.8	22.7	37.8
	2018	1	1	4	5	9.4	9.4	30.3	37.8
	2017	3	3	2	4	28.2	28.2	15.1	30.3
	2016	0	0	2	2	0	0	15.1	15.1
	2015	0	0	0	1	0	0	0	7.6
	2014	1	2	1	2	9.4	18.8	7.6	15.1
	2013	2	3	1	1	18.8	28.2	7.6	7.6
Pedestrian Collision at Injury Level 2: Severe Injury	2022	2	2	2	5	18.8	18.8	15.1	37.8
	2021	3	3	4	12	28.2	28.2	30.3	90.8
	2020	2	2	2	5	18.8	18.8	15.1	37.8
	2019	0	0	1	1	0.0	0.0	7.6	7.6
	2018	0	0	0	1	0.0	0.0	0.0	7.6
	2017	0	0	0	0	0.0	0.0	0.0	0.0
	2016	1	1	1	1	9.4	9.4	7.6	7.6
	2015	0	0	4	4	0.0	0.0	30.3	30.3
	2014	1	1	4	7	9.4	9.4	30.3	53.0
	2013	1	2	1	3	9.4	18.8	7.6	22.7
Pedestrian Collision at Injury Level 3: Complaint of Visible Injury	2022	8	8	8	10	75.1	75.1	60.6	75.7
	2021	5	5	5	12	47.0	47.0	37.8	90.8
	2020	3	3	3	10	28.2	28.2	22.7	75.7
	2019	2	2	2	2	18.8	18.8	15.1	15.1
	2018	0	0	1	2	0	0	7.6	15.1
	2017	0	0	1	1	0	0	7.6	7.6
	2016	1	1	3	4	9.4	9.4	22.7	30.3
	2015	3	3	1	2	28.2	28.2	7.6	15.1
	2014	15	16	0	0	140.9	150.3	0	0
	2013	1	1	3	3	9.4	9.4	22.7	22.7

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Indicator	Dataset Year	Gross Number of Collisions				Normalized per 1,000 Street Miles			
		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size	
		0ft	50 ft	0ft	50 ft	0ft	50ft	0ft	50ft
Pedestrian Collision at Injury Level 4: Complaint of Pain	2022	6	6	1	5	56.4	56.4	7.6	37.8
	2021	4	4	3	4	37.6	37.6	22.7	30.3
	2020	3	3	2	4	28.2	28.2	15.1	30.3
	2019	3	3	1	3	28.2	28.2	7.6	22.7
	2018	0	0	0	0	0.0	0.0	0.0	0.0
	2017	0	0	1	1	0.0	0.0	7.6	7.6
	2016	2	2	0	3	18.8	18.8	0.0	22.7
	2015	4	4	5	9	37.6	37.6	37.8	68.1
	2014	9	10	5	9	84.5	93.9	37.8	68.1
	2013	2	2	2	2	18.8	18.8	15.1	15.1
Combined Bicycle and Pedestrian Collision at Injury Level 1: Fatal	2022	0	0	0	0	0	0	0	0
	2021	0	0	0	0	0	0	0	0
	2020	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	2015	0	0	0	0	0	0	0	0
	2014	0	0	0	0	0	0	0	0
	2013	0	0	0	0	0	0	0	0
Combined Bicycle and Pedestrian Collision at Injury Level 2: Severe Injury	2022	0	0	0	0	0	0	0	0
	2021	0	0	0	0	0	0	0	0
	2020	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	2015	0	0	0	0	0	0	0	0
	2014	0	0	0	0	0	0	0	0
	2013	0	0	0	0	0	0	0	0

Indicator	Dataset Year	Gross Number of Collisions				Normalized per 1,000 Street Miles			
		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size		Value for TCC Site by Buffer Size		Value for Controls by Buffer Size	
		0ft	50 ft	0ft	50 ft	0ft	50ft	0ft	50ft
Combined Bicycle and Pedestrian at Injury Level 3: Visible Injury	2022	0	0	0	0	0	0	0	0
	2021	0	0	0	0	0	0	0	0
	2020	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	2015	0	0	0	0	0	0	0	0
	2014	0	0	0	0	0	0	0	1
	2013	0	0	0	0	0	0	0	0
Combined Bicycle and Pedestrian at Injury Level 4: Complaint of Pain	2022	1	1	0	0	9.4	9.4	0	0
	2021	0	0	0	0	0	0	0	0
	2020	0	0	0	0	0	0	0	0
	2019	0	0	0	0	0	0	0	0
	2018	0	0	0	0	0	0	0	0
	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
	2015	0	0	0	0	0	0	0	0
	2014	0	0	0	0	0	0	0	0
	2013	0	0	0	0	0	0	0	0

Appendix 8.6: Housing

Table A8.6.1: American Community Survey (ACS) Housing Indicators*

	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent renters (B25003)	2018-2022	75.5%	3.4%	67.0%	2.7%	45.8%	0.7%	44.4%	0.2%
	2017-2021	73.6%	3.7%	66.1%	2.8%	45.9%	0.7%	44.5%	0.1%
	2016-2020	73.0%	3.8%	67.2%	3.1%	46.3%	0.7%	44.7%	0.1%
	2015-2019	71.0%	2.7%	70.7%	2.6%	46.7%	0.6%	45.2%	0.1%
	2014-2018	69.9%	2.7%	70.4%	2.6%	47.2%	0.5%	45.4%	0.1%
	2013-2017	69.2%	2.8%	72.2%	2.5%	47.0%	0.6%	45.5%	0.1%
	2012-2016	70.5%	2.7%	71.3%	2.6%	47.5%	0.6%	45.9%	0.2%
	2011-2015	70.6%	2.8%	69.8%	2.4%	47.2%	0.6%	45.7%	0.1%
	2010-2014	71.0%	2.6%	69.1%	2.5%	46.9%	0.7%	45.2%	0.1%
	2009-2013	71.6%	2.7%	68.0%	2.7%	46.2%	0.5%	44.7%	0.1%
Percent homeowners (B25003)	2018-2022	24.5%	2.6%	33.0%	2.9%	54.2%	0.7%	55.6%	0.3%
	2017-2021	26.4%	2.6%	33.9%	2.9%	54.1%	0.6%	55.5%	0.3%
	2016-2020	27.0%	2.5%	32.8%	2.8%	53.7%	0.6%	55.3%	0.3%
	2015-2019	29.0%	2.2%	29.3%	2.4%	53.3%	0.5%	54.8%	0.3%
	2014-2018	30.1%	2.4%	29.6%	2.3%	52.8%	0.5%	54.6%	0.3%
	2013-2017	30.8%	2.3%	27.8%	2.2%	53.0%	0.6%	54.4%	0.3%
	2012-2016	29.5%	2.4%	28.7%	2.3%	52.5%	0.6%	54.1%	0.3%
	2011-2015	29.3%	2.3%	30.2%	2.4%	52.8%	0.5%	54.3%	0.3%
	2010-2014	29.0%	2.5%	30.9%	2.2%	53.1%	0.7%	54.8%	0.3%
	2009-2013	28.4%	2.5%	32.0%	2.4%	53.8%	0.5%	55.3%	0.3%

*MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by the UCLA Luskin Center for Innovation in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence.

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent of households paying ≥30% of income on rent (B25070)	2018-2022	56.3%	5.7%	64.5%	5.2%	50.7%	1.4%	51.6%	0.2%
	2017-2021	57.2%	5.9%	63.5%	5.4%	51.0%	1.5%	51.5%	0.2%
	2016-2020	59.1%	5.5%	64.6%	5.1%	52.5%	1.4%	51.5%	0.2%
	2015-2019	54.9%	4.7%	65.6%	4.7%	53.0%	1.1%	52.1%	0.2%
	2014-2018	58.0%	4.7%	65.8%	4.6%	53.6%	1.2%	52.6%	0.2%
	2013-2017	59.7%	4.8%	64.0%	4.7%	54.1%	1.1%	53.1%	0.1%
	2012-2016	60.4%	4.7%	68.1%	4.4%	55.5%	1.3%	53.6%	0.1%
	2011-2015	59.7%	4.6%	67.5%	4.8%	55.0%	1.1%	54.0%	0.1%
	2010-2014	60.1%	4.6%	66.1%	4.7%	55.1%	1.1%	54.2%	0.1%
	2009-2013	58.4%	4.8%	66.2%	4.8%	54.5%	1.2%	54.1%	0.2%
Percent of households paying ≥50% of income on rent (B25070)	2018-2022	35.3%	5.3%	33.5%	3.5%	26.2%	1.0%	26.6%	0.2%
	2017-2021	35.5%	5.3%	32.0%	3.5%	26.1%	1.1%	26.3%	0.2%
	2016-2020	35.6%	4.3%	35.1%	3.4%	27.0%	1.1%	26.2%	0.2%
	2015-2019	32.4%	3.6%	40.8%	3.5%	28.4%	0.7%	26.6%	0.2%
	2014-2018	34.0%	3.5%	42.8%	3.7%	29.3%	0.9%	27.0%	0.2%
	2013-2017	33.5%	3.8%	42.0%	3.8%	29.8%	0.9%	27.4%	0.1%
	2012-2016	33.6%	3.6%	44.0%	3.4%	30.6%	1.1%	27.9%	0.1%
	2011-2015	34.6%	3.8%	41.3%	3.5%	29.8%	0.9%	28.2%	0.2%
	2010-2014	36.1%	3.5%	40.2%	3.5%	30.5%	0.9%	28.5%	0.1%
	2009-2013	35.2%	3.9%	39.9%	3.7%	29.7%	0.9%	28.3%	0.1%
Percent of households paying ≥30% of income on mortgage (B25091)	2018-2022	24.2%	6.2%	25.6%	4.9%	12.3%	0.7%	14.8%	0.1%
	2017-2021	25.2%	5.7%	28.0%	5.0%	12.6%	0.7%	15.1%	0.1%
	2016-2020	27.6%	6.3%	25.9%	5.0%	12.9%	0.7%	15.4%	0.1%
	2015-2019	21.2%	5.4%	25.7%	5.1%	22.0%	0.8%	24.4%	0.0%
	2014-2018	23.9%	5.4%	23.1%	4.9%	22.0%	0.7%	24.7%	0.0%
	2013-2017	21.3%	4.4%	20.3%	4.5%	22.8%	0.7%	25.3%	0.0%
	2012-2016	22.3%	4.5%	20.5%	4.2%	24.0%	0.7%	26.2%	0.2%
	2011-2015	24.2%	5.3%	25.1%	4.8%	25.4%	0.8%	27.4%	0.2%
	2010-2014	23.5%	5.2%	24.0%	4.6%	26.5%	0.8%	28.5%	0.0%
	2009-2013	26.2%	5.6%	29.7%	5.0%	27.9%	0.8%	29.7%	0.1%

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent of households paying ≥50% of income on mortgage (B25091)	2018-2022	4.6%	3.0%	3.3%	1.8%	4.1%	0.4%	5.0%	0.1%
	2017-2021	4.8%	3.0%	3.1%	1.9%	4.1%	0.4%	5.1%	0.1%
	2016-2020	6.0%	3.5%	3.0%	1.5%	4.4%	0.4%	5.2%	0.1%
	2015-2019	7.2%	3.3%	4.7%	2.1%	4.7%	0.3%	5.3%	0.0%
	2014-2018	8.3%	3.6%	4.4%	1.9%	4.5%	0.3%	5.4%	0.1%
	2013-2017	7.6%	3.0%	6.2%	2.4%	4.8%	0.3%	5.5%	0.1%
	2012-2016	6.3%	2.5%	7.2%	2.7%	5.1%	0.4%	5.8%	0.1%
	2011-2015	5.0%	2.3%	8.5%	3.2%	5.3%	0.4%	6.2%	0.0%
	2010-2014	3.1%	1.7%	8.3%	3.2%	5.6%	0.4%	6.7%	0.0%
	2009-2013	4.9%	2.6%	9.9%	3.4%	5.9%	0.4%	7.2%	0.1%
Percent of households with more than one occupant per room (B25014)	2018-2022	16.8%	2.6%	20.3%	3.3%	10.6%	0.5%	8.2%	0.1%
	2017-2021	14.2%	2.5%	20.4%	3.3%	10.0%	0.5%	8.2%	0.1%
	2016-2020	15.8%	2.6%	18.6%	3.4%	9.6%	0.5%	8.2%	0.1%
	2015-2019	15.6%	2.5%	16.5%	2.6%	9.4%	0.4%	8.2%	0.1%
	2014-2018	14.7%	2.3%	16.6%	2.5%	9.3%	0.4%	8.2%	0.1%
	2013-2017	13.9%	2.2%	14.6%	2.2%	9.4%	0.4%	8.2%	0.1%
	2012-2016	15.2%	2.2%	12.5%	2.0%	9.5%	0.3%	8.2%	0.1%
	2011-2015	15.9%	2.3%	13.1%	2.0%	9.7%	0.4%	8.2%	0.1%
	2010-2014	16.4%	2.4%	14.4%	2.2%	10.0%	0.4%	8.2%	0.1%
	2009-2013	16.8%	2.5%	16.2%	2.5%	10.2%	0.4%	8.2%	0.1%
Percent of households with more than one occupant per room (renters) (B25014)	2018-2022	13.9%	2.4%	17.1%	3.2%	7.6%	0.4%	5.8%	0.1%
	2017-2021	11.5%	2.3%	17.3%	3.1%	7.1%	0.4%	5.9%	0.1%
	2016-2020	12.0%	2.3%	15.2%	3.2%	6.9%	0.4%	5.9%	0.1%
	2015-2019	11.7%	2.3%	13.4%	2.4%	6.6%	0.3%	6.0%	0.1%
	2014-2018	11.0%	2.0%	13.5%	2.3%	6.6%	0.3%	6.0%	0.0%
	2013-2017	10.3%	1.9%	12.0%	2.1%	6.6%	0.3%	6.0%	0.1%
	2012-2016	11.8%	2.0%	10.5%	1.8%	6.7%	0.3%	6.1%	0.0%
	2011-2015	12.4%	2.0%	10.9%	1.8%	6.9%	0.3%	6.0%	0.1%
	2010-2014	13.2%	2.2%	11.7%	2.0%	7.2%	0.4%	6.0%	0.0%
	2009-2013	13.7%	2.3%	13.2%	2.4%	7.3%	0.3%	6.0%	0.0%

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent of households with more than one occupant per room (homeowners) (B25014)	2018-2022	2.9%	1.1%	3.2%	1.0%	3.0%	0.2%	2.4%	0.0%s
	2017-2021	2.7%	1.1%	3.2%	1.0%	2.9%	0.2%	2.4%	0.0%
	2016-2020	3.7%	1.3%	3.4%	1.2%	2.8%	0.2%	2.3%	0.0%
	2015-2019	3.9%	1.2%	3.1%	1.0%	2.8%	0.2%	2.2%	0.0%
	2014-2018	3.7%	1.0%	3.1%	1.1%	2.7%	0.2%	2.2%	0.0%
	2013-2017	3.7%	1.1%	2.6%	0.9%	2.8%	0.2%	2.2%	0.0%
	2012-2016	3.4%	1.0%	2.0%	0.9%	2.7%	0.2%	2.1%	0.0%
	2011-2015	3.6%	1.0%	2.2%	0.9%	2.7%	0.2%	2.2%	0.0%
	2010-2014	3.1%	1.0%	2.7%	1.0%	2.8%	0.2%	2.2%	0.0%
	2009-2013	3.2%	1.0%	3.0%	0.9%	2.9%	0.2%	2.3%	0.0%
Percent of households in same house 1 year ago (renters) (B07013)	2018-2022	62.7%	4.2%	57.6%	3.5%	38.1%	0.8%	35.5%	0.2%
	2017-2021	61.6%	4.2%	56.9%	3.6%	38.0%	0.8%	35.6%	0.2%
	2016-2020	58.6%	4.0%	54.0%	4.0%	37.5%	0.8%	35.6%	0.2%
	2015-2019	54.9%	3.7%	52.1%	3.3%	37.1%	0.6%	35.9%	0.2%
	2014-2018	53.1%	3.7%	53.0%	3.2%	37.0%	0.7%	35.8%	0.2%
	2013-2017	52.0%	3.3%	53.6%	3.3%	36.6%	0.7%	35.6%	0.2%
	2012-2016	52.4%	3.4%	51.5%	3.2%	36.8%	0.5%	35.4%	0.2%
	2011-2015	52.5%	3.3%	51.8%	3.2%	36.3%	0.6%	34.7%	0.2%
	2010-2014	54.0%	3.4%	54.0%	3.2%	36.0%	0.7%	33.7%	0.2%
	2009-2013	56.4%	3.8%	52.5%	3.9%	35.5%	0.6%	32.7%	0.2%
Percent of households in same house 1 year ago (homeowners) (B070103)	2018-2022	27.3%	3.4%	31.5%	3.1%	51.2%	0.8%	53.6%	0.2%
	2017-2021	29.2%	3.6%	31.2%	3.2%	50.7%	0.8%	53.1%	0.2%
	2016-2020	30.3%	3.3%	31.0%	3.1%	50.2%	0.8%	52.7%	0.2%
	2015-2019	31.6%	3.1%	28.4%	3.0%	49.3%	0.7%	52.0%	0.3%
	2014-2018	31.6%	2.8%	28.1%	2.6%	48.7%	0.7%	51.6%	0.2%
	2013-2017	32.0%	2.7%	25.0%	2.4%	48.5%	0.7%	51.4%	0.2%
	2012-2016	29.8%	2.7%	25.1%	2.6%	47.7%	0.6%	51.0%	0.3%
	2011-2015	29.1%	2.8%	26.6%	2.6%	47.9%	0.6%	51.3%	0.3%
	2010-2014	28.2%	2.8%	27.3%	2.5%	48.2%	0.8%	51.7%	0.3%
	2009-2013	27.1%	2.7%	28.5%	2.4%	48.7%	0.6%	52.3%	0.3%

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent of households in same house 1 year ago (w/ income of >$75k) (B07010)	2018-2022	2.8%	0.7%	4.7%	1.2%	13.4%	0.3%	20.4%	0.1%
	2017-2021	2.1%	0.6%	4.3%	1.2%	11.6%	0.3%	18.3%	0.1%
	2016-2020	1.7%	0.5%	3.5%	1.0%	10.5%	0.3%	16.8%	0.1%
	2015-2019	1.7%	0.5%	2.7%	0.7%	9.7%	0.2%	16.0%	0.1%
	2014-2018	1.2%	0.4%	2.7%	0.7%	8.8%	0.2%	14.8%	0.1%
	2013-2017	1.0%	0.3%	2.5%	0.7%	8.1%	0.2%	13.8%	0.1%
	2012-2016	1.2%	0.4%	1.8%	0.5%	7.4%	0.2%	13.0%	0.1%
	2011-2015	1.0%	0.4%	1.7%	0.5%	7.0%	0.2%	12.4%	0.1%
	2010-2014	0.8%	0.3%	1.6%	0.5%	6.9%	0.2%	12.3%	0.1%
	2009-2013	0.7%	0.3%	1.6%	0.5%	7.0%	0.2%	12.1%	0.1%
Percent of households in same house 1 year ago (w/ income of <$75k) (B07010)	2018-2022	81.1%	1.8%	84.4%	0.3%	75.5%	0.8%	67.8%	0.1%
	2017-2021	83.4%	6.5%	83.4%	0.2%	76.8%	0.8%	69.6%	0.1%
	2016-2020	81.9%	6.4%	81.8%	0.4%	76.8%	0.8%	70.6%	0.1%
	2015-2019	78.7%	2.2%	78.8%	2.6%	76.4%	0.7%	71.0%	0.1%
	2014-2018	76.7%	2.1%	78.9%	2.3%	76.5%	NA	71.8%	0.1%
	2013-2017	76.2%	1.8%	76.6%	2.3%	76.7%	0.7%	72.4%	0.1%
	2012-2016	74.1%	2.2%	75.7%	2.5%	76.9%	0.7%	72.8%	0.1%
	2011-2015	74.9%	2.2%	76.9%	2.4%	77.2%	0.7%	72.9%	0.1%
	2010-2014	76.7%	2.2%	79.7%	2.5%	77.5%	0.7%	72.5%	0.1%
	2009-2013	77.5%	2.0%	80.0%	2.1%	77.4%	0.7%	72.2%	0.1%
Percent of housing units for rent that are vacant (B25002 and B25004)	2018-2022	2.5%	1.1%	1.4%	0.8%	1.4%	0.2%	1.7%	0.0%
	2017-2021	3.3%	1.2%	1.3%	0.7%	1.4%	0.2%	1.7%	0.0%
	2016-2020	3.4%	1.1%	1.3%	0.7%	1.5%	0.2%	1.6%	0.0%
	2015-2019	4.7%	1.6%	1.4%	0.6%	1.5%	0.2%	1.6%	0.0%
	2014-2018	4.8%	1.4%	2.2%	0.8%	1.6%	0.2%	1.5%	0.0%
	2013-2017	5.3%	1.4%	3.0%	0.9%	1.8%	0.2%	1.6%	0.0%
	2012-2016	5.6%	1.3%	4.0%	1.1%	2.1%	0.2%	1.7%	0.0%
	2011-2015	6.1%	1.5%	4.4%	1.2%	2.4%	0.2%	1.8%	0.0%
	2010-2014	5.6%	1.5%	5.7%	1.4%	2.8%	0.2%	2.0%	0.0%
	2009-2013	5.8%	1.4%	5.5%	1.4%	2.9%	0.3%	2.1%	0.0%

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent of housing units for sale that are vacant (B25002 and B25004)	2018-2022	0.2%	0.3%	0.1%	0.2%	0.6%	0.1%	0.5%	0.0%
	2017-2021	0.2%	0.3%	0.1%	0.2%	0.7%	0.2%	0.5%	0.0%
	2016-2020	0.6%	0.5%	0.1%	0.2%	0.7%	0.1%	0.5%	0.0%
	2015-2019	0.8%	0.6%	0.1%	0.2%	0.6%	0.1%	0.6%	0.0%
	2014-2018	0.8%	0.6%	0.0%	0.1%	0.6%	0.1%	0.6%	0.0%
	2013-2017	0.7%	0.5%	0.0%	0.1%	0.6%	0.1%	0.6%	0.0%
	2012-2016	0.8%	0.6%	0.0%	0.1%	0.6%	0.1%	0.6%	0.0%
	2011-2015	1.0%	0.6%	0.0%	0.1%	0.7%	0.1%	0.7%	0.0%
	2010-2014	1.0%	0.7%	0.3%	0.4%	0.8%	0.2%	0.8%	0.0%
	2009-2013	1.0%	0.6%	0.3%	0.4%	1.0%	0.2%	0.9%	0.0%

Appendix 8.7: Transportation

Table A8.7.1: American Community Survey (ACS) Transportation Indicators*

	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent of households with a vehicle available (B08201)	2018-2022	N/A	N/A	N/A	N/A	92.6%	1.1%	93.1%	0.2%
	2017-2021	N/A	N/A	N/A	N/A	92.6%	1.2%	93.1%	0.2%
	2016-2020	N/A	N/A	N/A	N/A	92.1%	1.1%	93.0%	0.1%
	2015-2019	N/A	N/A	N/A	N/A	91.7%	0.9%	92.9%	0.1%
	2014-2018	N/A	N/A	N/A	N/A	91.5%	1.0%	92.8%	0.1%
	2013-2017	N/A	N/A	N/A	N/A	91.3%	0.9%	92.6%	0.1%
	2012-2016	N/A	N/A	N/A	N/A	90.9%	0.9%	92.4%	0.1%
	2011-2015	N/A	N/A	N/A	N/A	91.0%	0.9%	92.3%	0.1%
	2010-2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2009-2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent of workers commuting to work alone by car (B08301)	2018-2022	68.8%	3.8%	73.7%	3.1%	75.9%	0.7%	68.4%	0.1%
	2017-2021	66.5%	3.9%	77.1%	2.0%	77.5%	0.7%	70.1%	0.1%
	2016-2020	66.0%	4.1%	76.1%	2.4%	78.3%	0.6%	72.1%	0.1%
	2015-2019	67.5%	3.7%	73.0%	2.7%	78.5%	0.6%	73.7%	0.0%
	2014-2018	65.8%	2.9%	71.9%	2.7%	78.5%	0.7%	73.7%	0.0%
	2013-2017	64.8%	2.9%	69.8%	2.1%	78.1%	0.7%	73.6%	0.1%
	2012-2016	65.7%	3.0%	68.8%	2.0%	77.0%	0.6%	73.5%	0.0%
	2011-2015	64.1%	2.7%	71.0%	2.4%	76.9%	0.4%	73.4%	0.1%
	2010-2014	62.7%	2.6%	71.1%	1.6%	77.0%	0.4%	73.2%	0.1%
	2009-2013	61.1%	2.5%	70.2%	2.5%	77.0%	0.6%	73.2%	0.1%
Percent of workers commuting to work by carpool (B08301)	2018-2022	16.0%	3.4%	12.6%	2.6%	11.7%	0.5%	9.5%	0.1%
	2017-2021	17.9%	3.5%	10.2%	2.2%	11.5%	0.5%	9.6%	0.1%
	2016-2020	19.7%	3.7%	11.5%	2.5%	11.9%	0.6%	10.0%	0.1%
	2015-2019	17.8%	2.9%	13.2%	2.5%	12.2%	0.5%	10.1%	0.1%
	2014-2018	16.7%	2.9%	13.4%	2.7%	12.0%	0.5%	10.3%	0.1%
	2013-2017	17.4%	3.2%	15.2%	3.1%	12.2%	0.6%	10.4%	0.1%
	2012-2016	15.1%	3.3%	16.8%	3.4%	12.8%	0.5%	10.6%	0.1%
	2011-2015	15.6%	3.4%	14.8%	2.7%	12.8%	0.6%	10.8%	0.1%
	2010-2014	14.9%	3.4%	11.9%	2.3%	12.5%	0.5%	11.1%	0.1%
	2009-2013	15.8%	3.5%	12.8%	2.7%	12.2%	0.5%	11.3%	0.1%

* MOEs for the county and the state are obtained directly from the U.S. Census Bureau. MOEs for TCC and control census tracts are derived by the UCLA Luskin Center for Innovation in accordance with the methods described by the U.S. Census Bureau in *Understanding and Using American Community Survey Data: What All Data Users Need to Know* (2018). All MOEs are reported at the 90% confidence.

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent of workers commuting to work by public transit (B08301)	2018-2022	1.6%	0.9%	2.8%	1.1%	0.9%	0.1%	3.6%	0.0%
	2017-2021	2.8%	1.3%	3.1%	1.1%	0.9%	0.1%	4.1%	0.0%
	2016-2020	2.4%	1.2%	3.2%	1.1%	0.9%	0.1%	4.6%	0.0%
	2015-2019	3.2%	1.4%	3.5%	1.3%	1.1%	0.1%	5.1%	0.0%
	2014-2018	3.2%	1.6%	4.8%	1.5%	1.2%	0.1%	5.1%	0.0%
	2013-2017	4.0%	1.8%	5.0%	1.8%	1.2%	0.1%	5.2%	0.0%
	2012-2016	3.5%	1.6%	4.9%	1.7%	1.3%	0.1%	5.2%	0.0%
	2011-2015	4.2%	2.1%	4.5%	1.5%	1.3%	0.2%	5.2%	0.0%
	2010-2014	3.5%	1.1%	4.2%	1.3%	1.3%	0.2%	5.2%	0.0%
	2009-2013	4.4%	1.4%	3.4%	1.2%	1.2%	0.1%	5.2%	0.0%
Percent of workers commuting to work by foot (B08301)	2018-2022	2.7%	1.5%	1.9%	0.8%	1.5%	0.2%	2.4%	0.0%
	2017-2021	2.6%	1.6%	2.4%	1.0%	1.5%	0.2%	2.4%	0.0%
	2016-2020	2.2%	1.2%	2.3%	0.8%	1.5%	0.1%	2.5%	0.0%
	2015-2019	1.3%	0.7%	2.8%	1.0%	1.6%	0.2%	2.6%	0.0%
	2014-2018	2.0%	0.8%	2.7%	0.9%	1.7%	0.2%	2.7%	0.0%
	2013-2017	2.1%	0.9%	2.5%	1.0%	1.6%	0.2%	2.7%	0.0%
	2012-2016	1.8%	0.8%	2.0%	0.8%	1.7%	0.1%	2.7%	0.0%
	2011-2015	1.9%	0.9%	1.8%	0.7%	1.9%	0.2%	2.7%	0.0%
	2010-2014	2.8%	1.3%	2.1%	1.0%	2.1%	0.2%	2.7%	0.0%
	2009-2013	2.9%	1.3%	2.8%	1.4%	2.1%	0.2%	2.7%	0.0%
Percent of workers commuting to work by bike (B08301)	2018-2022	0.8%	0.5%	0.4%	0.4%	0.4%	0.1%	0.7%	0.0%
	2017-2021	0.6%	0.5%	0.4%	0.4%	0.4%	0.1%	0.8%	0.0%
	2016-2020	0.9%	0.6%	0.3%	0.3%	0.4%	0.1%	0.8%	0.0%
	2015-2019	1.4%	0.9%	0.5%	0.4%	0.5%	0.1%	1.0%	0.0%
	2014-2018	1.6%	0.9%	0.3%	0.4%	0.6%	0.1%	1.0%	0.0%
	2013-2017	1.5%	0.9%	0.5%	0.4%	0.7%	0.1%	1.1%	0.0%
	2012-2016	1.5%	0.9%	0.8%	0.5%	0.9%	0.1%	1.1%	0.0%
	2011-2015	1.6%	0.8%	1.3%	0.6%	0.9%	0.1%	1.1%	0.0%
	2010-2014	1.4%	0.8%	2.2%	0.9%	0.8%	0.1%	1.1%	0.0%
	2009-2013	0.9%	0.7%	2.5%	1.0%	0.8%	0.1%	1.1%	0.0%

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	Time Period (ACS 5-year sample)	Estimate for TCC Tracts	MOE	Estimate for Control Tracts	MOE	Estimate for Fresno County	MOE	Estimate for California	MOE
Percent of workers commuting to work by other modes: taxicab, motorcycle, and other (B08301)	2018-2022	4.5%	1.6%	1.8%	0.9%	1.4%	0.2%	1.7%	0.0%
	2017-2021	3.9%	1.5%	1.6%	0.7%	1.3%	0.2%	1.6%	0.0%
	2016-2020	2.2%	1.2%	1.4%	0.7%	1.2%	0.2%	1.6%	0.0%
	2015-2019	2.6%	1.1%	2.2%	0.9%	1.5%	0.2%	1.6%	0.0%
	2014-2018	5.0%	1.6%	2.2%	0.9%	1.7%	0.2%	1.6%	0.0%
	2013-2017	5.9%	1.6%	2.4%	1.0%	1.8%	0.2%	1.5%	0.0%
	2012-2016	7.8%	2.1%	2.6%	1.2%	2.0%	0.2%	1.4%	0.0%
	2011-2015	9.4%	2.4%	3.3%	1.4%	2.0%	0.2%	1.4%	0.0%
	2010-2014	10.7%	3.3%	4.7%	2.3%	2.4%	0.2%	1.3%	0.0%
	2009-2013	9.5%	4.5%	5.3%	2.3%	2.7%	0.3%	1.3%	0.0%

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Table A8.7.2: Plug-in Electric Vehicle (PEV) Registrations [14]

Indicator	Dataset Year	Gross Number			Normalized per 10,000 Residents		
		TCC Census Tracts	Control Census Tracts	Fresno County	TCC Census Tracts	Control Census Tracts	Fresno County
Battery-electric vehicle (BEV)	2022	113	58	5,858	26.5	11.5	58.1
	2021	90	49	3,992	21.8	9.8	39.8
	2020	61	31	2,934	14.8	6.4	29.6
	2019	48	27	2,577	12.2	5.4	26.2
	2018	31	27	2,218	7.7	5.3	22.7
	2017	28	25	1,919	7.2	5.1	19.8
	2016	23	16	1,361	5.8	3.3	14.1
	2015	16	6	870	4.1	1.2	9.1
Plug-in hybrid electric vehicle (PHEV)	2022	71	65	3,124	16.7	12.9	31.0
	2021	63	53	2,702	15.2	10.6	26.9
	2020	48	41	2,112	11.7	8.4	21.3
	2019	28	36	1,638	7.1	7.2	16.6
	2018	18	20	1,168	4.5	4.0	11.9
	2017	7	14	535	1.8	2.9	5.5
	2016	8	7	450	2.0	1.5	4.7
	2015	7	6	317	1.8	1.2	3.3
Fuel-cell electric vehicle (FCEV)	2022	0	0	23	0	0	0.2
	2021	0	0	5	0	0	<0.1
	2020	0	0	0	0	0	0
	2019	0	0	0	0	0	0
	2018	0	0	0	0	0	0
	2017	0	0	0	0	0	0
	2016	0	0	0	0	0	0
	2015	0	0	0	0	0	0
Total electric vehicle (EV) registration	2022	184	123	9,005	43.2	24.4	89.3
	2021	153	102	6,699	37.0	20.5	66.8
	2020	109	72	5,046	26.5	14.8	51.0
	2019	76	63	4,215	19.2	12.6	42.8
	2018	49	47	3,386	12.3	9.4	34.6
	2017	35	39	2,454	9.0	8.0	25.2
	2016	31	23	1,811	7.9	4.8	18.8
	2015	23	12	1,187	5.9	2.5	12.4

[14] EV registration data were obtained by request from the California Air Resources Boards (CARB) Online Fleet Database. The EV registration data were normalized with 2017 and 2015 five-year ACS data.

Table A8.7.3: Publicly Available Charging Infrastructure[15]

Indicator	Dataset Year	Gross Number			Normalized per 10,000 Residents		
		TCC Census Tracts	Control Census Tracts	Fresno County	TCC Census Tracts	Control Census Tracts	Fresno County
Level 2 stations	2023	15	6	215	4.6	1.2	2.1
	2022	20	4	231	6.2	0.8	2.3
	2021	27	6	272	8.4	1.2	2.7
	2020	6	2	94	1.9	0.4	1.0
	2019	2	1	51	0.5	0.2	0.5
	2018	3	1	41	0.8	0.2	0.4
	2017	3	0	42	0.8	0	0.4
	2016	2	0	15	0.5	0	0.2
	2015	1	0	8	0.3	0	0.1
DC fast-charging stations	2023	5	0	50	1.6	0	0.5
	2022	5	0	41	1.5	0	0.4
	2021	5	0	42	1.6	0	0.4
	2020	1	0	20	0.3	0	0.2
	2019	1	0	13	0.3	0	0.1
	2018	0	0	11	0	0	0.1
	2017	0	0	10	0	0	0.1
	2016	0	0	10	0	0	0.1
	2015	0	0	4	0	0	<0.1

[15] Charging station data were obtained by request from the Alternative Fuels Data Center (AFDC), a resource administered by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy's Vehicle Technologies Office. Each dataset includes active stations and does not include stations that have previously opened and closed. In other words, each dataset is a snapshot of currently active stations in that year (taken during fall of each year). The charging station data were normalized with five-year ACS data for the respective year.

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