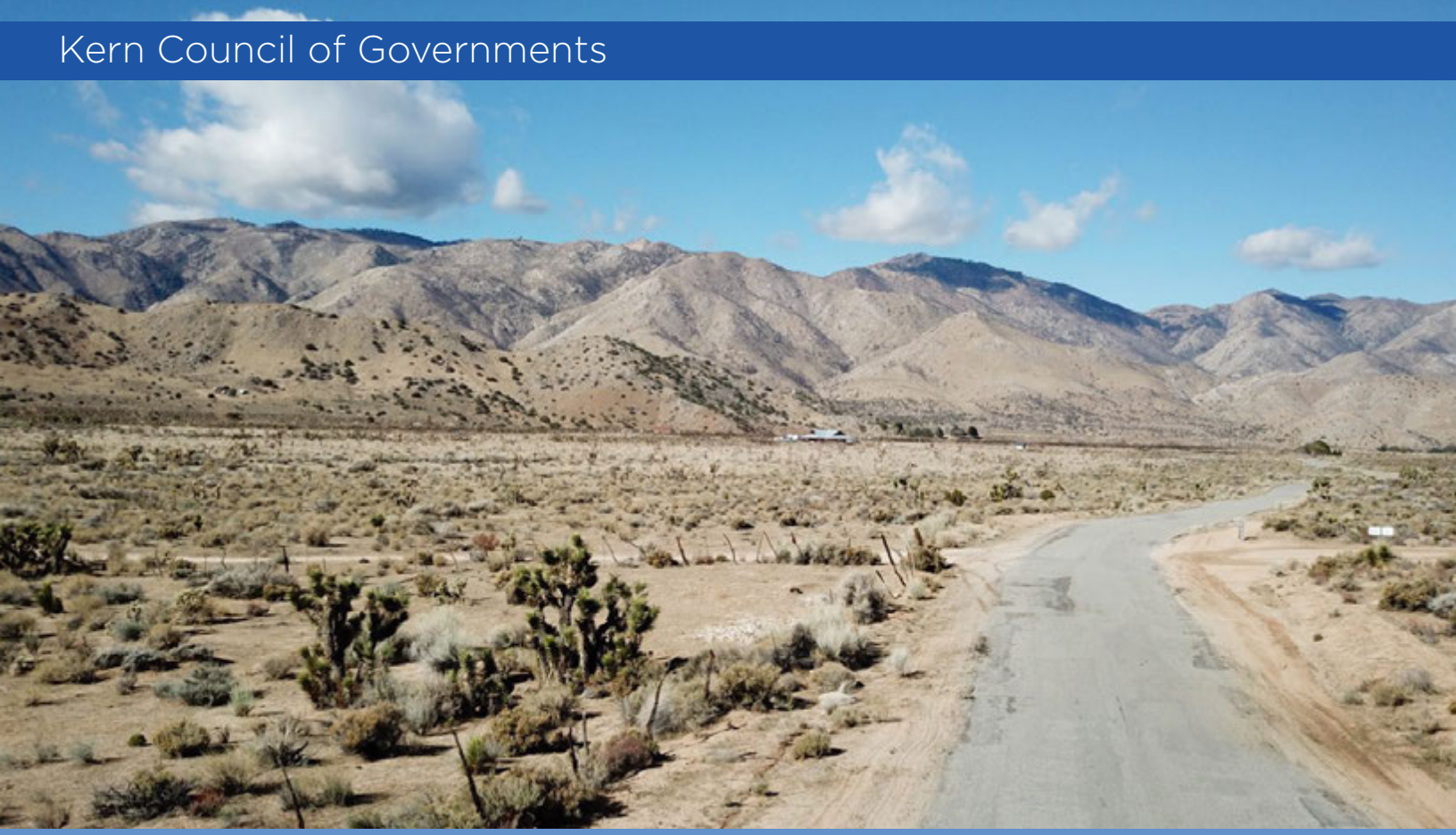
Kern Council of Governments



Kern County Rural Alternative Transportation Plan

June 2020


800-323-2396

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Executive Summary

The Kern County Rural Alternative Transportation Plan ("the Plan") evaluates alternative transportation options for Kern County that may either replace, supplement, or grow current regional transportation services. Kern COG has hired Nelson\Nygaard Consulting Associates to identify transportation needs within and between rural communities in the county, and their connectivity to Bakersfield. Based on extensive outreach and data analysis, the consultant team has developed a range of strategies to meet the transportation needs of residents of these communities.

Transit service needs and operating conditions vary significantly throughout the county. As a result, no single service model is appropriate for all public transportation situations, and a mix of alternatives may best fit what the county needs. This report offers both short- and long-term service priorities that can be used to build on and enhance the diverse mix of transit and public transportation strategies that have evolved throughout Kern County.

This report was largely completed in Fall 2019, well before the onset of the COVID-19 pandemic. The consulting team recognizes that in the substantially changed post-COVID environment, some or many of the proposed strategies will no longer be relevant, take longer to implement, or be even more critical to meeting the needs of lower-income and rural segments of the county's population. However, even within this context, the team believes that it is important to document the kinds of changes that are needed to enhance mobility options in the county, while providing the kind of flexibility that will be needed to adapt the recommendations to the new transportation operating environment.

PROJECT OBJECTIVES AND METHODOLOGY

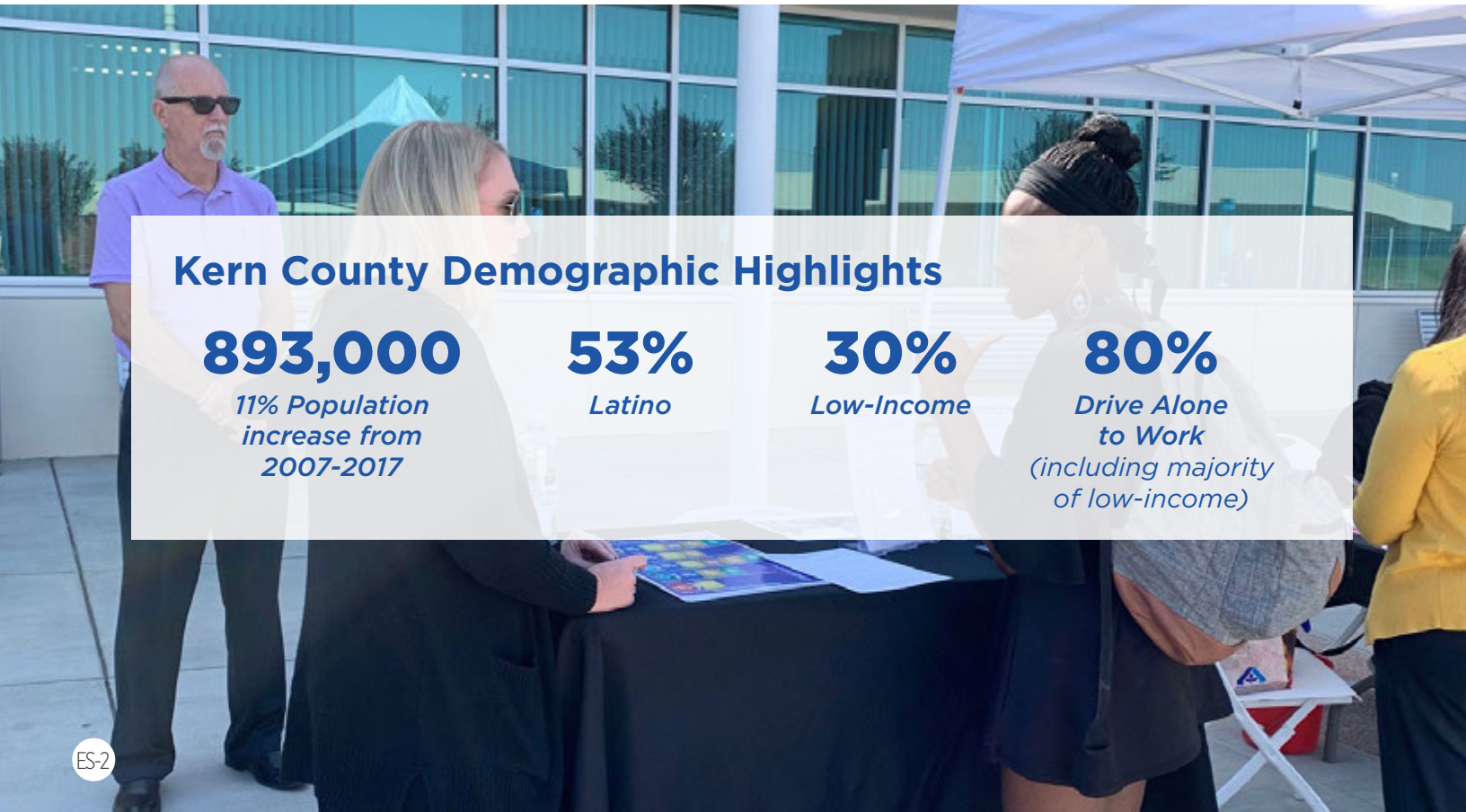
The objectives of this study include the identification and evaluation of transportation options and their applicability in the county, including:

- A review of industry best practices for regional public transit in rural counties
- Consideration of varying trade-offs involved in different transit strategies, such as coverage versus frequency
- Ensuring that recommendations made as a result of the research align with existing labor agreements as well as 13C agreements
- Development of strategies that are both operationally and financially feasible, depending on a range of implementation timeframes

The project team initially developed a series of implementation strategies designed to give the project stakeholders an idea of associated trade-offs with various service alternatives. Through a series of stakeholder engagements, we presented recommendations for best fit services and implementation strategies for Kern County.

The Project Steering Committee (PSC), consisting of staff from Kern Council of Governments (Kern COG), Caltrans Districts 6 and 9, Kern Transit, and the cities of Arvin, McFarland, California City, Ridgecrest, and Shafter, played an active role in the development of this report. This included meeting with the consultant team at various milestones during the project, reviewing draft project deliverables, and participating in key stakeholder interviews to provide more depth to meeting discussions. The overall guidance and support of the PSC was invaluable in the development of the report's recommendations.

In addition to the role of the PSC, the team conducted significant public outreach that was led by VMA, a public outreach firm with extensive experience in the Central Valley and bilingual capacity. Two series of public meetings were held in the Spring and Fall of 2019.



Kern County Demographic Highlights

893,000
11% Population increase from 2007-2017

53%
Latino

30%
Low-Income

80%
Drive Alone to Work
(including majority of low-income)

Trends That Will Impact Kern County Transportation

- COVID-19 Impacts on Public Transportation Ridership
- Expansion of Electric Vehicle Fleets
- Shared Mobility Programs in Rural Areas
- Partnerships with Transportation Network Companies (TNCs)

Future of Transportation in Kern County's Rural Areas

The report provides an inventory of all the transportation services available to county residents, and includes a section on new developments in the transportation industry that are relevant to the future of service delivery in Kern County. Examples of pilot projects and funding sources used are provided in this section of the report.

Public Outreach

Two substantial public outreach efforts were conducted in January 2019 and October through December 2019. These efforts were led by the VMA's bilingual outreach team, with Nelson\Nygaard team members in a support role (except for presentations, which were led by Nelson\Nygaard team members). A representative from Kern Council of Governments was also available to answer specific questions and talk about current countywide projects.

During the Spring outreach, the team staffed seven pop-up events and two presentations in several communities throughout Kern County and disseminated surveys and fact sheets about the Kern Rural Transit Study. The events included an information table with project area maps (boards), fact sheets, surveys and sign-up sheets.

During the second round of community outreach residents had an opportunity to provide feedback on draft study recommendations. The outreach team staffed six pop-up events, coordinated nine presentations and three briefings and/or meet-and-greet opportunities throughout the county.

Service Gaps and Mobility Strategies

The consultant team integrated the results of the demographic analysis, the documentation of transportation resources, and public input to produce a list of mobility gaps experienced by residents in rural Kern County. The team also developed a *transit propensity index* using demographic and socio-economic factors that are pertinent to determining an area's transit need. This analysis suggests that there is a growing need to improve transit for minority groups that live in neighborhoods north of the Kern River and west of Meadow Field Airport, as well as pockets south of Bakersfield along Route 58. Underserved cities include, but are not limited to, Arvin, California City, Tehachapi, and more noticeably in Ridgecrest, Delano, and Oildale.

Based on these various outputs, the team identified the service gaps and potential strategies to address these gaps (Figure ES-1).

City Plans

For each of the eight small to medium sized cities in the county (outside of Bakersfield), the report includes information about the city's demographics, fleet size, current service provided, and plans for the future. One of the strategies that is also addressed in each city profile is whether the city has an interested in being integrated into an expanded regional transit system under the auspices of Kern Transit. Most, but certainly not all cities indicated that they would be interested in this approach as long it did not result in a reduction in service levels, and, in some cases, that current staffing positions not be eliminated.

- Arvin
- California City
- McFarland
- Ridgecrest
- Shafter
- Tehachapi
- Taft
- Wasco

Figure ES-1 Matrix of Mobility Gaps and Potential Strategies

Gaps	Unmet Needs	Potential Strategies	Difficulty of Implementation
Temporal	Traveling to work between 7:00 a.m. to 6:00 p.m.	• Community vanpool program targeting workers at major job centers • Farmworkers vanpool program (see CalVans)	Easy/Medium
	Traveling to work during nontraditional work hours	• Employer-sponsored shuttle • Rural vanpool program	Medium
Spatial	Trips beyond the Get-A-Lift or North of the River CTSA zones	• Partnership with ridesharing and taxi companies with wheelchair accessible vehicles	Medium
	Limited connections to fixed-route transit network	• Pilot program involving subsidized/discounted rideshare or taxi trips to/from key transit hubs to close First/Last Mile gaps	Medium
	Getting to doctor/ medical care/work outside Kern County	• Partnership between healthcare providers, ridesharing companies, and taxi companies with wheelchair accessible vehicles	Medium
Service Design	Fixed-route service is limited in rural areas	• Electric vehicle (EV) carshare program (see Needles Car Share Program) • Pilot program involving subsidized/discounted rideshare trips to/ from key transit hubs to close First/Last Mile gaps • Volunteer driver program • Farmworker vanpool program	Difficult
	Service beyond door-to-door paratransit	• Partnering with door-through-door service providers • Create program within volunteer driver program to serve ambulatory riders with disabilities	Easy/Medium
Cost	Households without a motor vehicle	• Electric vehicle (EV) carshare program anchored at low-income, affordable housing sites (See Community CarShare Program) • Volunteer driver program	Difficult/Medium
	Fares	• Expand existing programs and services for low-income populations • Work with regional transit providers to create inter-network transfer subsidy program	Easy/Medium
Unfulfilled Trip Types	Traveling to local doctor/medical care	• Partnership between healthcare providers, ridesharing and taxi companies with wheelchair accessible vehicles	Medium
	Non-emergency medical transportation	• Partnership between healthcare providers, ridesharing and taxi companies with wheelchair accessible vehicles	Medium
	Traveling to college/ vocational/or adult education classes	• Partnership with ridesharing companies to provide discounted/ subsidized trips traveling to/from certain campuses • Partnerships with colleges and other higher-education or technical campuses for campus commute shuttle	Medium

RECOMMENDED FIVE YEAR SERVICE PLAN

The strategies presented in the prior sections were incorporated into a comprehensive five year plan that was presented to the PSC and Kern County residents. Based on input received, the plan was amended and used as the basis for a Five Year Service Plan, as well as Financial and Implementation Plans.

The following are big picture initiatives that Kern COG and city agencies can implement or facilitate. Strategies are divided into two categories, services and policies. Services involve the direct provision of transportation itself and policies include government principles and actions.

Figure ES-2 Summary of Proposed Strategies

Strategy Type	Strategy
Services	Expand Role of Regional Transit System
	Farmworkers Vanpool Program
	Community Vanpool Program Targeting Workers at Major Job Centers
	Shared Employer-Sponsored Shuttle
	Partnership with Ridesharing and Taxi Companies and Healthcare Providers to/from Key Transit Hubs to Close First/Last Mile Gaps
	Electric Vehicle (EV) Carshare Program
	Volunteer Driver Program
Policies	Work with Regional Transit Providers to Create Inter-Network Transfer Subsidy Program
	Expand Existing Programs and Services for Low-Income Populations
	Fleet Conversion to Zero Emission Vehicles and Solar Stops

IMPLEMENTATION PLAN

Figure ES-3 Implementation Plan Strategy Schedule

	Strategy	Agency Lead	Timeline
	Expand Role of Regional Transit System	Kern Regional Transit	Three to Five Years
	Farmworkers Vanpool Program	Kern COG	Less than Two Years
	Community Vanpool Program	Kern COG	Less than Two Years
	Shared Employer Sponsored Shuttle	KT in partnership with a designated large employer	One Year
	Partnerships with Rideshare Programs	Individual cities	One Year
	Electric Vehicle Carshare Program	Kern COG	Less than Two Years
	Volunteer Driver Program	Kern COG	One Year
	Inter-Agency Subsidized Transfer Program	KT/GET	One Year
	Expand Existing Programs for Low-Income Populations	Kern COG	One to Three Years
	Fleet Conversion to Zero Emission Vehicles & Solar Stops	Kern COG	Two to Five Years

Financial Plan

For the purposes of the following table, implementation and operating costs are ranked as follows:

Implementation Costs:

- Low – Below $25,000
- Medium $25,000 - $100,000
- High – Over $100,000

Ongoing Costs:

- Low – Below $50,000
- Medium - $50,000 - $100,000
- High – Over $100,000

Figure ES-4 Implementation and Operating Costs

Strategy	Implementation Costs	Ongoing Operating Costs	Funding Sources*
Expand Role of Regional Transit System	H	H	5311, LTF, STA
Farmworkers Vanpool Program	M	H	LTF, Private Partnerships, STA,
Community Vanpool Program	M	H	5310, AHSC, LTF, STA
Shared Employer Sponsored Shuttle	H	H	Employer Funded, LTF, STA
Partnerships with Rideshare Programs	L	M/H	AHSC, TNC Access for All
Electric Vehicle Carshare Program	H	H	LCTOP, LTF, SGR, STA, Sustainable Transportation Planning, TFCA
Volunteer Driver Program	L	M	5310, AHSC, LTF, STA
Inter-Agency Subsidized Transfer Program	L	M	5307, 5311, 5310, LTF, STA
Expand Existing Programs for Low-Income Populations	L - H	L – H	AHSC, LTF, STA, TNC Access for All
Fleet Conversion to Zero-Emission & Solar	M	L	LCTOP, SGR, Sustainable Transportation Planning Grant, TFCA

* Funding source acronyms = **5307**: FTA Urbanized Area Formula Program; **5310**: FTA Special Needs of Elderly Individuals and People with Disabilities Program; **5311**: FTA Formula Grants for Rural Areas; **AHSC**: Affordable Housing and Sustainable Communities; **LCTOP**: Low Carbon Transit Operations Program; **LTF**: LocaL Transportation Fund; **SGR**: State of Good Repair Program; **STA**: State Transit Assistance; **TFCA**: Transportation Fund for Clean Air

NEXT STEPS

Kern COG will need to work closely with the eight cities with the priority recommendations outlined for each city. Recommendations may be implemented over the course of the next few years as funding becomes available.


Regional Transit

1 Introduction

PROJECT PURPOSE

The purpose of the Kern County Rural Alternative Transportation Plan ("the Plan") is to evaluate alternative transportation options for Kern County that may either replace, supplement, or grow current regional transportation services. The County has hired Nelson\ Nygaard Consulting Associates to identify transportation needs within and between rural communities in the county, and their connectivity to Bakersfield. Based on extensive outreach and data analysis, the consultant team has developed a range of strategies to meet the transportation needs of residents of these communities.

PROJECT APPROACH

Transit service needs and operating conditions vary significantly throughout the county. As a result, no single service model is appropriate for all public transportation situations, and a mix of alternatives may best fit what the county needs. The project approach will offer both short- and long-term service priorities to build on and enhance the diverse mix of transit and public transportation strategies that have evolved throughout Kern County.

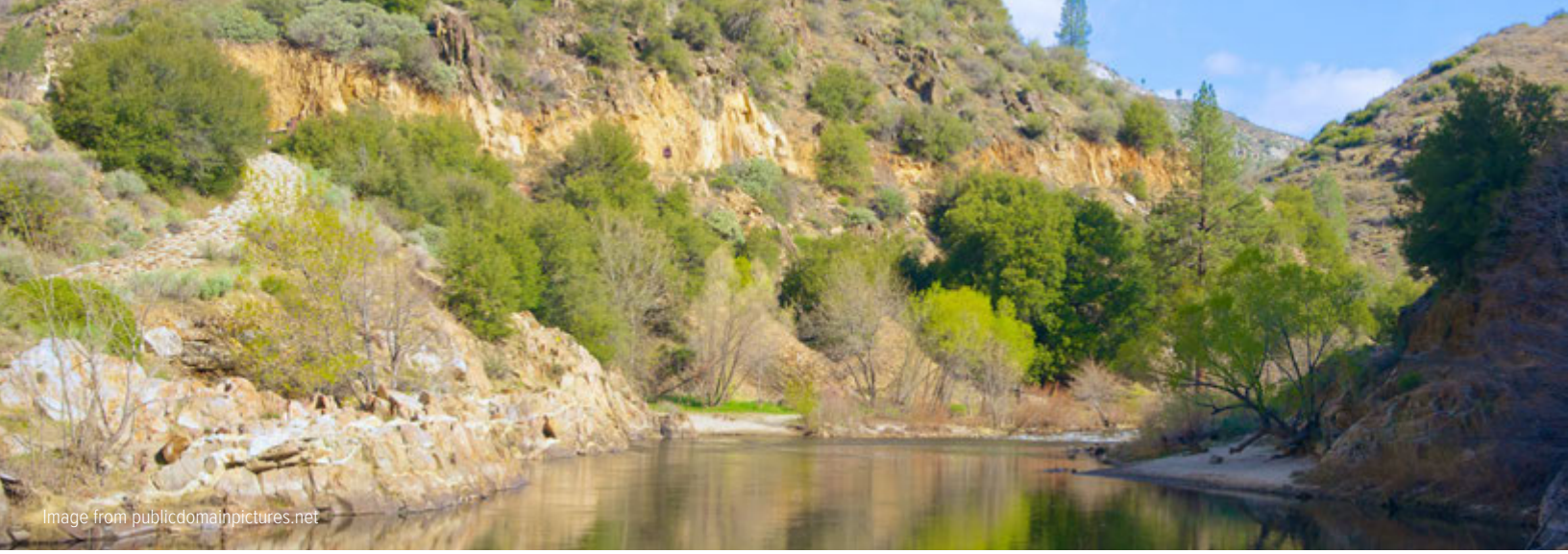


Image from publicdomainpictures.net

PROJECT OBJECTIVES

The objectives of this study include the identification and evaluation of transportation options and their applicability in the county, including:

- A review of industry best practices for regional public transit in rural counties
- Consideration of varying trade-offs involved in different transit strategies, such as coverage versus frequency
- Ensuring that recommendations made as a result of the research align with existing labor agreements as well as 13C agreements
- Development of strategies that are both operationally and financially feasible, depending on a range of implementation timeframes

The project team initially developed a series of implementation strategies designed to give the project stakeholders an idea of associated trade-offs with various service alternatives. Through a series of stakeholder engagements, we presented recommendations for best fit services and implementation strategies for Kern County.


Image from Wikimedia

PROJECT METHODOLOGY

Role of the Project Steering Committee

After conducting a kick-off meeting with County staff, a Project Steering Committee (PSC) was created consisting of staff from Kern Council of Governments (Kern COG), Caltrans Districts 6 and 9, Kern Transit, and the cities of Arvin, McFarland, California City, Ridgecrest, and Shafter.

The role of the PSC was to help guide and support the consulting team's efforts and provide a reality check to proposed recommendations. It was also hoped that the PSC will help develop ownership of the plan and play a key role in establishing support for future recommendations and programs. PSC meetings were held both in person and on the phone at regular project milestones.

Public Outreach

The Nelson\Nygaard team included staff from VMA, a public outreach firm with extensive experience in the Central Valley and bilingual capacity. The team developed a Public Outreach Plan (POP) that was approved by Kern COG staff and implemented over the course of the study.

The purpose of the POP was to focus on inclusive and authentic public engagement tools and tactics to reach the county's numerous and diverse stakeholders and residents early and consistently over the project's lifetime. These tools promoted a proactive, responsive, inclusive, and accessible public engagement approach intended to build partnership, trust, and credibility for Kern COG and city project implementation by sharing information and input from a variety of stakeholders and residents. Additionally, the POP included Limited English Proficiency and Title VI elements.

During the study, two series of public meetings were held in the Spring and Fall of 2019. More detail on public outreach efforts is provided in Appendix A.

Existing Conditions

A major effort of the Kern County Alternative Transportation Plan study was the compilation of the Existing Conditions report. This section, which is included as Chapter 2 in this document, laid the foundation for the development of transportation strategies. The report consisted of the following elements:

- Analysis of demographic trends in the county, including overall population and a focus on Hispanic/Latinx, low-income, people with disabilities, and seniors
- City profiles describing demographic trends and transportation resources

- Analysis of commuter trends based on ethnicity and income factors
- Documentation of existing public transportation, including fixed-route and demand response services, proximity to employment, and a transit propensity index indicating likelihood of transit use of different groups
- A "state of the industry" report on transit fleet conversion practices to zero-emission vehicles
- Peer review of partnerships with transportation network companies ("TNCs", also known as ride hailing companies)

Preferred Service Plan: Five-Year Countywide Service Alternatives

Based on the needs identified in the data analysis and public outreach, the consultant team developed a comprehensive range of transportation service options for Kern County cities over the next five years. Several service options were considered, including, but not limited to: fixed-route and shuttle services, TNC Partnerships, zero-emission vehicles, microtransit, volunteer services, car and bike sharing options, and other transit and technology alternatives.

These service alternatives were presented to the cities and communities in Kern County as part of the second round of public outreach. The second round of public outreach was intended to give communities additional opportunities to provide feedback, instill trust in the County and Kern COG, facilitate city and community buy-in, and allow the community to feel as though they were part of the planning process.

Five-Year Financial Plan

Transportation strategy costs developed in the Preferred Plan were further refined to include start up and ongoing operating costs, as well as required capital needs. These costs were amortized over a 5-year period. In addition to a fleet replacement and expansion plan for the recommended service options, the Plan identified other capital requirement cost projections for the recommended service options.

The Financial Plan identified potential operating and capital funding sources to support the recommended service plan. These included traditional funding sources, nontraditional funding opportunities, and strategies for securing discretionary government grants and private sector resources. For this task, we were also able to draw on previous case study reviews that documented the use of current, new, and creative funding sources for the implementation of the recommended service alternatives.

Projects Implementation Matrix

Drawing on the information documented and collected as a part of the Financial Plan, the team developed a Project Implementation Matrix. The matrix included the proposed improvement projects by city/community, the order of magnitude phasing for the projects, the estimated cost for project implementation, and potential funding sources for the projects.

Plan Review and Approval

All the deliverables from the previously described tasks were combined in a draft plan. Prior to submitting the plan for staff review, Nelson\Nygaard presented the findings and preliminary recommendations to Kern COG and the PSC. Based on feedback from the community and the PSC, the team then developed a refined version of the draft service plan, which included a listing of the researched service alternatives, city and county demographic information, a transportation need index, and recommendations based on need, community preference, and order of magnitude for implementation consideration. This draft plan was submitted to Caltrans Districts 6 and 9 for review. Comments will be incorporated into the final report.

Based on final comments from Caltrans and Kern COG staff, the team developed the Final Plan which is available for the Kern COG Board to adopt. Once the Kern COG Board adopts the plan, the agency will be responsible for disseminating the final report to all interested stakeholders.

REPORT OVERVIEW

This report of the Kern County Alternative Transportation Study consists of the following sections:

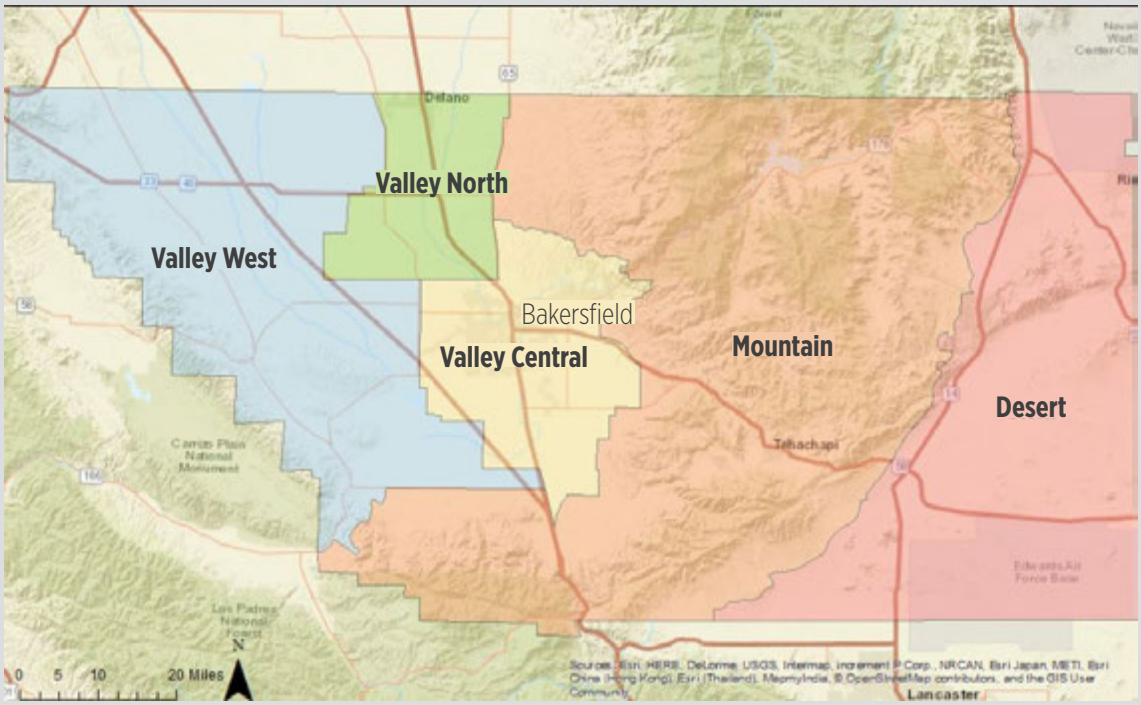
- **Introduction –** the purpose of the study, and methodology used
- **Existing Conditions –** demographic analysis, existing transportation resources, commute trends, transit propensity
- **Future of Public Transportation –** research on on-demand services in rural areas, adoption of zero emissions technology, partnerships with TNCs and technological support for ridesharing
- **Public Outreach –** community meetings, stakeholder interviews, community survey, public outreach results
- **Analysis of Service Gaps and Opportunities –** temporal and spatial gaps, unfulfilled trip types
- **Preferred Service Plan –** Five Year service alternatives, matrix of potential strategies, evaluation, city profiles
- **Capital and Financial Plan –** estimated capital and operational costs and potential funding sources for each strategy
- **Five Year Implementation Plan –** incorporation of previous sections into a final plan

2 Existing Conditions

BACKGROUND

Kern County is a large, predominantly rural county with a large metropolitan region in inland California, some 80 miles north of Los Angeles. Bakersfield is the County Seat of Kern County, and the main urbanized area for planning purposes. While it is one of the fastest growing counties in the state, the county is not without a number of infrastructure issues, including the need for connectivity between the many rural communities that make up the county, as well as connectivity to Bakersfield.

Although Kern County is rich in natural resources (including oil) and has a substantial agricultural economy that supports large numbers of farm workers, the area suffers from high rates of poverty, substandard education, unhealthy air and water, and inadequate infrastructure and public services. The employment base in Kern County is primarily military and agriculture based. The California Employment Development Department's (CEDD) county-level data show that agriculture is the largest employment sector in the county (17%), followed by education and health services (16%), government (14%), and construction (13%). Historically, a large proportion of immigrants have been attracted to the Central Valley, including Kern County, for its agricultural employment opportunities. More recently, this has also included jobs in distribution and construction. The largest employer in the county is Edwards Air Force Base followed by Kern County government and the China Lake Naval Weapons Station.



http://kerncountyvalleyfever.com/

Since many residents in the county are low income, a relatively large number do not always have access to cars to meet their mobility needs. Non-motorized infrastructure, including sidewalks, bicycle lanes, and adequate shade and shelter are not common along city streets, making it uncomfortable, and sometimes physically impossible, for residents to access services and reach primary destinations during hot summer months. Pedestrian and bicycle accessibility are also an important component of local economic activity, as safe streets and sidewalks allow local entrepreneurs and their potential customers to connect. Several communities in the county have limited resources and are challenged to implement planning policies, programs, and projects. This study is intended to help promote local agencies working together in order to respond creatively to plan for growing public transportation needs.

Travel in Kern County is primarily by car. As the population has increased, and the county has seen higher levels of congestion and air pollution, other transportation solutions have become increasingly important. Transit can do more than provide a transportation alternative. A strong transit network can improve the quality of life in Kern County by connecting people to jobs and services, as well as attracting new jobs and services to the region. A solid countywide transit infrastructure can make it easier for people to transition from welfare to work. It can offer an alternative for tourists to visit Kern County's mountains, deserts, wildlife reserves and cities, and provide efficient public transit access to future high-speed rail service.

Several communities across Kern County have limited resources and are challenged to implement planning policies, programs, and projects. Perhaps the greater challenge in providing transit is serving the diversity of needs from the transit-dependent populations scattered throughout the less dense areas of Kern County.

DEMOGRAPHIC TRENDS

Population Change

In the last 10 years, Kern County's population has increased by 11 percentage points – from 790,700 residents in 2007 to more than 890,000 residents in 2017.[1] As shown in Figure 2-2, this trend is noticeable in the population change seen across Kern's resident groups. Today, a larger portion of seniors, low-income households, and persons with disabilities live in Kern County. This is likely attributable to the overall increase in population, seniors choosing to age in place, and the cost of living. According to the 2017 Cost of Living Index (COLI), Kern County is the least expensive urban area in California.[2] Hispanic and Latino residents make up the largest sub-group in Kern County.

Commute Trends

In 2016, the U.S. Census reported that nearly 80 percent of Kern County workers drive-alone while only about 1 percent of workers travel by bus, ferry, or train.[3] Yet, as noted in Figure 2-3, African Americans and White (Non-Hispanic) maintain a slightly disproportionate share of public transit trips, compared to their overall populations. The majority of Kern County workers qualify as low-income as defined by any households that make less than $35,000, per year.[4] While Kern County's low-income population accounts for nearly 90 percent of the County's public transportation trips and 70 percent of carpool trips, the majority of low-income workers drive alone, accounting for more than 188,000 vehicle trips per year.[5]

1 U.S. Census (2018). Total Population – 2017 American Community Survey 1-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_1YR_B01003&prodType=table and U.S. Census (2018) Total Population – 2007 American Community Survey 1-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_07_1YR_B01003&prodType=table

2 Kern Economic Development Corporation (2018). Cost of Living – 2017 Annual Average. Retrieved from http://kedc.com/cost-of-living-quarterly-update-4/

3 Data USA (2018). Kern County. Retrieved from https://datausa.io/profile/geo/kern-county-ca/#mode_transport

4 U.S. Department of Housing and Urban Development, Economic and Market Analysis Division (2017). FY 2017 Income Limits Summary. Retrieved from https://www.huduser.gov/portal/datasets/il/il2017/select_Geography.odn, the 50% of the median family household was 29,950.

5 U.S. Census (2018). Means of Transportation to Work by Selected Characteristics. Retrieved from https://data.census.gov/cedsci/table?q=S0804%3A%20MEANS%20OF%20TRANSPORTATION%20TO%20WORK%20BY%20SELECTED%20CHARACTERISTICS%20FOR%20WORKPLACE%20GEOGRAPHY&tid=ACSST5Y2018.S0804&hidePreview=true&vintage=2018&g=310M400US10420

Figure 2-2 Change in Population (2007 – 2017)*

	2007	Percent of Total Population (2007)	2017	Percent of Total Population (2017)
Total Population	790,710		893,119	
Hispanic and Latinx	365,836	46%	477,237	53%
Seniors (65+)	71,164	9%	94,975	11%
Low-Income (<35,000 per HH)	239,662	30%	269,147	30%
Persons with Disabilities	87,237	11%	94,740	11%

* U.S. Census (2018). 2017 One-Year Estimates and 2007 One-Year Estimates. Retrieved from https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

Figure 2-3 Commute Patterns, by Race and Ethnicity

	Total Workers (n= 336,223)	Drive-Alone (n = 268,473)	Carpool (n= 43,078)	Public Transportation (n = 2,425)
Hispanic	53%	52%	59%	53%
Black/African American	5%	5%	5%	9%
Asian	6%	5%	9%	0%
White (Non-Hispanic)	35%	36%	26%	38%
Other	11%	10%	15%	14%

Figure 2-4 Commute Patterns, By Income

Income	Total Workers (n= 336,223)	Drive-Alone (n = 268,473)	Carpool (n= 43,078)	Public Transportation (n = 2,425)
$1 to $9,999	13%	11%	21%	22%
$10,000 to $14,999	10%	10%	10%	25%
$15,000 to $24,999	18%	17%	25%	35%
$25,000 to $34,999	14%	15%	22%	7%
Low Income (Sum)	56%	53%	67%	89% (2,149)

EXISTING PUBLIC TRANSPORTATION SYSTEMS

Kern Transit (See Figure 2-5), formerly Kern Regional Transit, is the primary regional operator of public transit services between the rural communities and Bakersfield. Kern Transit offers multiple regional routes with Bakersfield as a central hub, offering connections between Bakersfield and Arvin, California City, Delano, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. Although there is some level of transit connectivity to all the communities via Kern Transit, service is somewhat limited. Various routes only operate three days a week, during certain times, as countywide coverage is critical. With limited resources in a highly rural area, coverage takes precedence over the frequency of service.

Typically, transit-dependent populations such as seniors and persons with disabilities are primarily concentrated in portions of Bakersfield, Delano, Arvin, Wasco, Shafter, and Ridgecrest. These cities also have high proportions of low-income households, which are less likely to own their own vehicles and more likely to need transit services.

As previously stated, Kern County's population is growing rapidly; even more so for individuals with disabilities, adults 65 years and older, and low-income individuals. Kern County's growing population will directly affect transit demand within Bakersfield and the wider region. As more people move into Kern County, it is likely that transit services will need to expand, particularly for the above mentioned sub-populations who are more likely to require public transit services to reach their destinations – jobs, errands, and recreational activities.

The following tables provide an inventory of public transportation services available in Kern County. These tables were included in the Coordinated Human Services Public Transportation Update (2018) prepared by Moore & Associates. There have reportedly been minimal changes in the service offerings since that date, and these are reflected in the City Profiles included in this report.

Figure 2-5 Existing Service — Metropolitan Bakersfield Area (Northeast Kern County)

Agency/*Service*	Service Description	Service Area	Days and Hours of Service	Eligibility	Fare
City of Ridgecrest/ *Ridgecrest Transit*	Deviated Flex Route. Specified alignment will deviate up to 3/4 of a mile for mobility-impaired individuals based on advanced request.	Ridgecrest, Inyokern, Randsburg, and Johannesburg	Mon-Fri 7:00 AM – 5:00 PM	General public	**Ridgecrest** General public .....$2.50 Senior, Disabled, & Youth .....$1.25 Deviation ..... $2.00 **Monthly Pass –** City General .....$45.00 **Monthly Pass –** Senior, Disabled, & Youth . $35.00 **County** General Public ..... $2.00 Senior, Disabled, & Youth ..... $1.00 Monthly Pass..... $35.00 **Inyokern/Crest** General Public ..... $2.00 Senior, Disabled, & Youth .....$1.25 Deviation ..... $2.00 **Monthly Pass – Inyokern** General .....$45.00 **Monthly Pass – Inyokern** Senior, Disabled, & Youth . $35.00 **Randsburg/Johannesburg** General Public ..... $8.00 Senior, Disabled & Youth ..... $4.00 Children 3 and under..... FREE
Kern Transit/ *Kern River Valley Dial-A-Ride*	Dial-A-Ride	Onyx, Riverkern/ Kernville North, Kelso Valley, Hillview Acres, Southlake, Mountain Mesa, Bodfish, Lake Isabella, Wofford Heights	Mon-Fri 6:30 AM – 6:30 PM Sat 7:45 AM – 6:30 PM	General public	General..... $2.00 Reduced..... $1.00 31-Day Pass General.....$65.00 31-Day Pass Reduced..... $32.50 Reduced*..... $1.00 * Reduces = Youth 5-15, seniors 62+, and disabled passengers with Kern Transit "Reduced Fare Card"

Figure 2-6 Existing Service — Southeast Kern County

Agency/*Service*	Service Description	Service Area	Days and Hours of Service	Eligibility	Fare
City of Arvin / *Arvin Transit*	Fixed-route	Arvin, Lamont, Tejon Industrial Complex, and Bakersfield	Mon-Fri 7:00 AM – 4:30 PM	General public	**Arvin Local** General public ..... $1.00 Senior (60 & above) ..... $0.75 ADA Certified ..... $0.75 ADA Attendant ..... FREE Children under 5 – (with fare-paying adult) ... FREE **Arvin to Lamont** General public ..... $1.50 Senior (60 & above) ..... $1.00 ADA Certified ..... $1.00 ADA Attendant ..... FREE Children under 5 – (with fare-paying adult) . FREE **Arvin to Tejon Industrial Complex** General public ..... $2.00 Monthly Pass ..... $40.00 **Arvin to Bakersfield** General public ..... $3.00 Seniors $2.00
City of Arvin/ *Arvin Dial-A-Ride*	Eligibility-based Dial-A-Ride	Within Arvin city limits		Seniors (60 & older) and ADA-certified persons	Senior (60 & above) ..... $1.00 ADA Certified ..... $1.00 ADA Attendant ..... FREE Children under 5 – (with fare-paying adult) ..... FREE
California City/ *California City Dial-A-Ride*	Dial-A-Ride	California City, Rancho Estates, and Wonder Acres	Mon-Fri California City 8:30 AM – 4:30 PM Rancho Estates 9:00 AM – 2:30 PM Wonder Acres 9:00 AM – 2:30 PM	General public	General Public Cash Fare ..... $1.70 Senior (60+)/ADA/Disabled/ Senior Desert Jade ..... $1.00/$0.50 10-Ride General Public ..... $17.00 10-Ride Senior/ ADA/Disabled ..... $10.00 Children under 4'9" ..... $1.00 Medicare cardholders $1.00
Kern Transit/ *Rosamond Dial-A-Ride*		Rosamond	Mon-Sat 6:30 AM – 5:30 PM		General ..... $2.00 Reduced ..... $1.00 31-Day Pass General ..... $65.00 31-Day Pass Reduced ..... $32.50 Reduced ..... $1.00 * Reduces = Youth 5-15, seniors 62+, and disabled passengers with Kern Transit "Reduced Fare Card"
Kern Transit/ *Tehachapi Dial-A-Ride*		Tehachapi	Mon-Fri 5:45 AM – 7:00 PM Sat 7:30 AM – 5:30 PM		
Kern Transit/ *Mojave Dial-A-Ride*		Mojave	Mon-Sat 7:00 AM – 6:00 PM		
Kern Transit/ *Lamont Dial-A-Ride*		Lamont	Mon-Fri 4:30 AM – 7:00 PM Sat 5:30 AM – 7:00 PM Sun 7:00 AM – 8:00 PM		

Figure 2-7 Existing Service — Northwest Kern County Southwest Kern County

Agency/ *Service*	Service Description	Service Area	Days and Hours of Service	Eligibility	Fare
Kern Transit/ *Frazier Park Dial-A-Ride*	Dial-A-Ride	Cuddy Valley, Pinon Pines, Gorman, Lake of the Woods, Lebec, Frazier Park	Mon-Sat 7:15 AM – 5:15 PM	General Public	General..... $2.00 Reduced..... $1.00 31-Day Pass General..... $65.00 31-Day Pass Reduced..... $32.50 Reduced..... $1.00 * Reduces = Youth 5-15, seniors 62+, and disabled passengers with Kern Transit "Reduced Fare Card"
City of Taft/ *Taft Area Transit*	Fixed-route	Taft and Maricopa	Mon-Fri* 7:12 AM – 6:05 PM	General Public	General..... $2.00 Senior/ADA-Certified..... $2.00 Youth..... $2.00 Children under 5 (per fare-paying adult) ..... FREE ADA Attendant *(with paid registered ADA patron)* ..... FREE
City of Taft/ *Taft Dial-A-Ride*	Dial-A-Ride	City of Taft and adjoining areas	Mon-Fri* 7:15 AM – 5:30 PM Sat 8:15 AM – 5:30 PM	General Public	**One-Way Fares** General..... $2.50 Senior/ADA-Certified..... $1.75 Youth..... $1.75 Children under 5 (per fare-paying adult)..... FREE ADA attendant (with paid registered ADA patron)..... FREE **12-Trip Pass** General ..... $25.00 Senior/ADA/Youth $17.50

* No service on New Year's Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Thanksgiving Day, Thanksgiving Friday, Christmas Eve, Christmas Day, and New Year's Eve

Figure 2-8 Existing Service — Kern County-Wide

Agency/ *Service*	Service Description	Service Area	Days and Hours of Service	Eligibility	Fare
Kern Transit *Intercity Bus*	Fixed-route service between and in rural communities of Kern County	Arvin, Bakersfield, Bodfish, Boron, Buttonwillow, California City, Delano, Edwards, Frazier Park, Inyokern, Keene, Kernville, Lake Isabella, Lamont, Lebec, Lost Hills, McFarland, Mojave, Onyx, Ridgecrest, Rosamond, Shafter, Taft, Tehachapi, Wasco, Weldon, and Wofford Heights. Connections with Metrolink in Lancaster.	Mon- Fri 4:15 AM – 11:13 PM Sat-Sun 5:20 AM – 9:51 PM	General public	**Local Routes + Dial-A-Ride** General ..... $2.00 Reduced..... $1.00 **Intercommunity Routes** General ..... $3.00 Reduced..... $1.50 **Cross-County Routes** General ..... $5.00 Reduced ..... $2.50 **31-Day Pass All Routes + Dial-A-Ride** General ..... $65.00 Reduced ..... $32.50 **31-Day Pass Local Routes Only + Dial-A-Ride** General ..... $45.00 Reduced..... $22.50 Reduced..... $1.00 * Reduces = Youth 5-15, seniors 62+, and disabled passengers with Kern Transit "Reduced Fare Card"

EXISTING TRANSIT NEED

The Nelson\Nygaard project team developed a **transit propensity index** using demographic and socio-economic factors that are pertinent to determining an area's transit need.[6] The factors listed in Figure 2-8 were weighted to build a composite score for every city in Kern County.

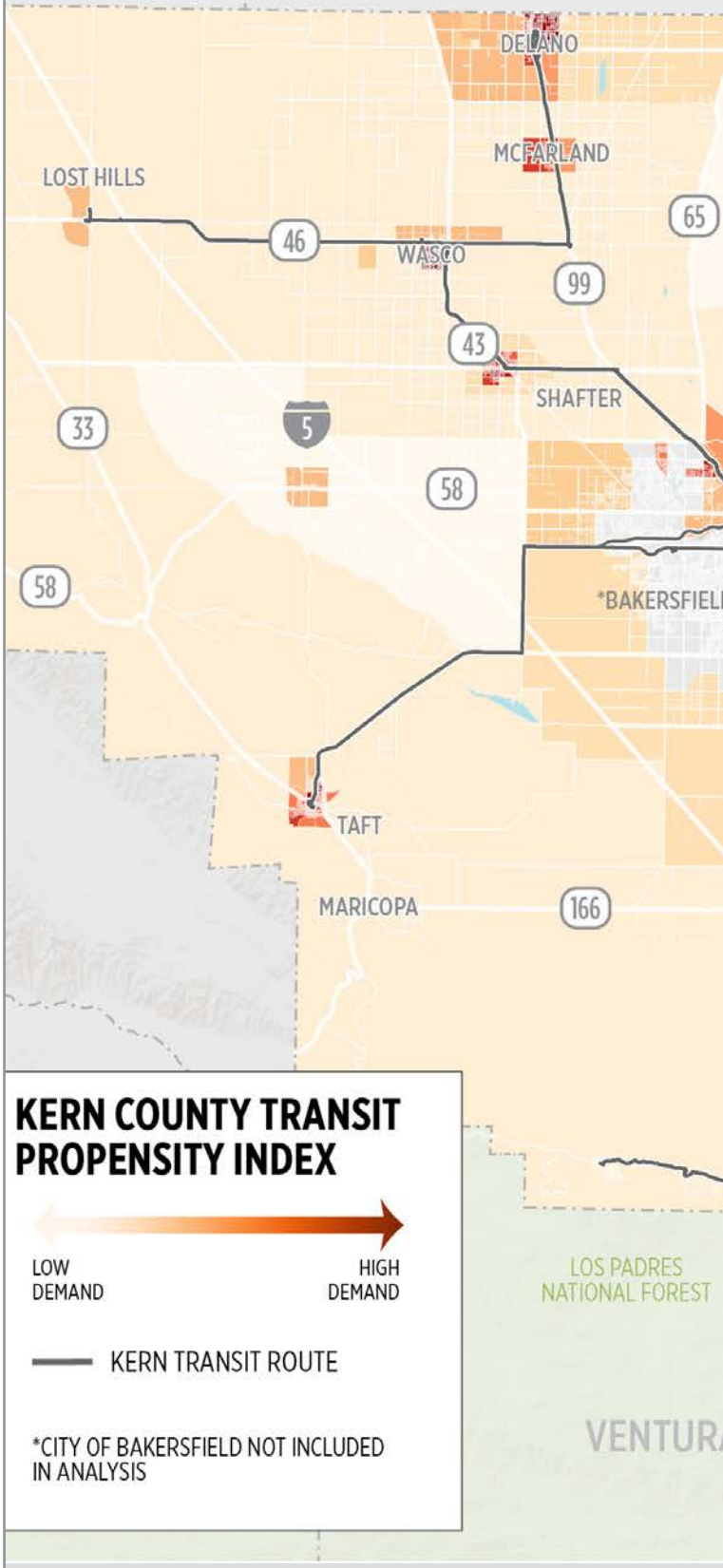
Figure 2-10 suggests that there is a growing need to improve transit for minority groups that live in neighborhoods north of the Kern River and west of Meadow Field Airport, as well as pockets south of Bakersfield along Route 58. Underserved cities include, but are not limited to, Arvin, California City, Tehachapi, and more noticeably in Ridgecrest, Delano, and Oildale.

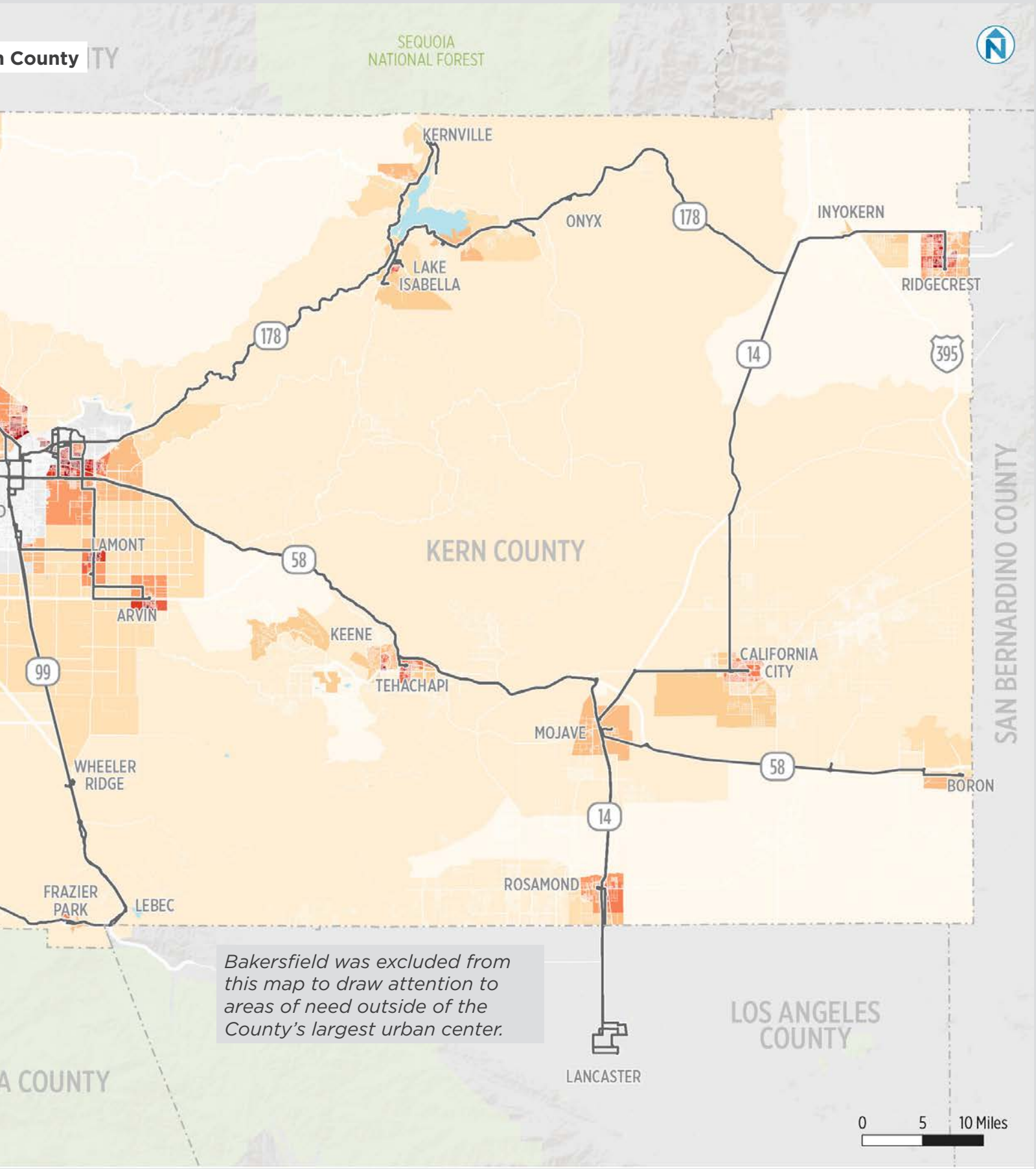
6 Data acquired from 2016 ACS 5-year estimates.

Figure 2-9 Transit Propensity Variables

Variable	Details
Minorities	Non-white, by individual
Low-Income	< $30,000 annual income, by household
Zero Vehicle	By household
Seniors (65 and Older	Persons 65 and older, by individual
Persons with Disabilities	By individual
Non-Citizen/Foreign Born	By individual

Figure 2-10 Transit Propensity Index Map – Kern





Bakersfield was excluded from this map to draw attention to areas of need outside of the County's largest urban center.

EMPLOYMENT TRENDS IN KERN COUNTY

Kern County

According to California's monthly statistics on countywide employment rates, approximately 336,000 people are employed in Kern County. Yet, the unemployment rate is 6.6 percent, which is more than 2 percentage points higher than California's current unemployment rate.[7] Two in every five workers work in either health care and social assistance, agriculture, educational services, or retail trade.[8]

According to America's Labor Market Information System (ALMIS) Employer Database (2019), the US Navy, NASA/ Dryden Flight Research, Sun Pacific, and Wasco State Prison are some of Kern County's larger employers. While many of these firms are located on a Kern Transit route, as shown in Figure 2-11, only five routes operate two or three days a week (Figure 2-12), affecting commuters' ability to rely on the regional bus system for their daily commute.

7 State of California, Employment Development Department (2018). Bakersfield Metropolitan Statistical Area (MSA). Retrieved from https://www.labormarketinfo.edd.ca.gov/file/lfmonth/bake$pds.pdf

8 US Census On the Map (2015). Home Area Profile Report. Retrieved from https://onthemap.ces.census.gov/

Figure 2-11 Transit Routes and Major Employers in Kern County

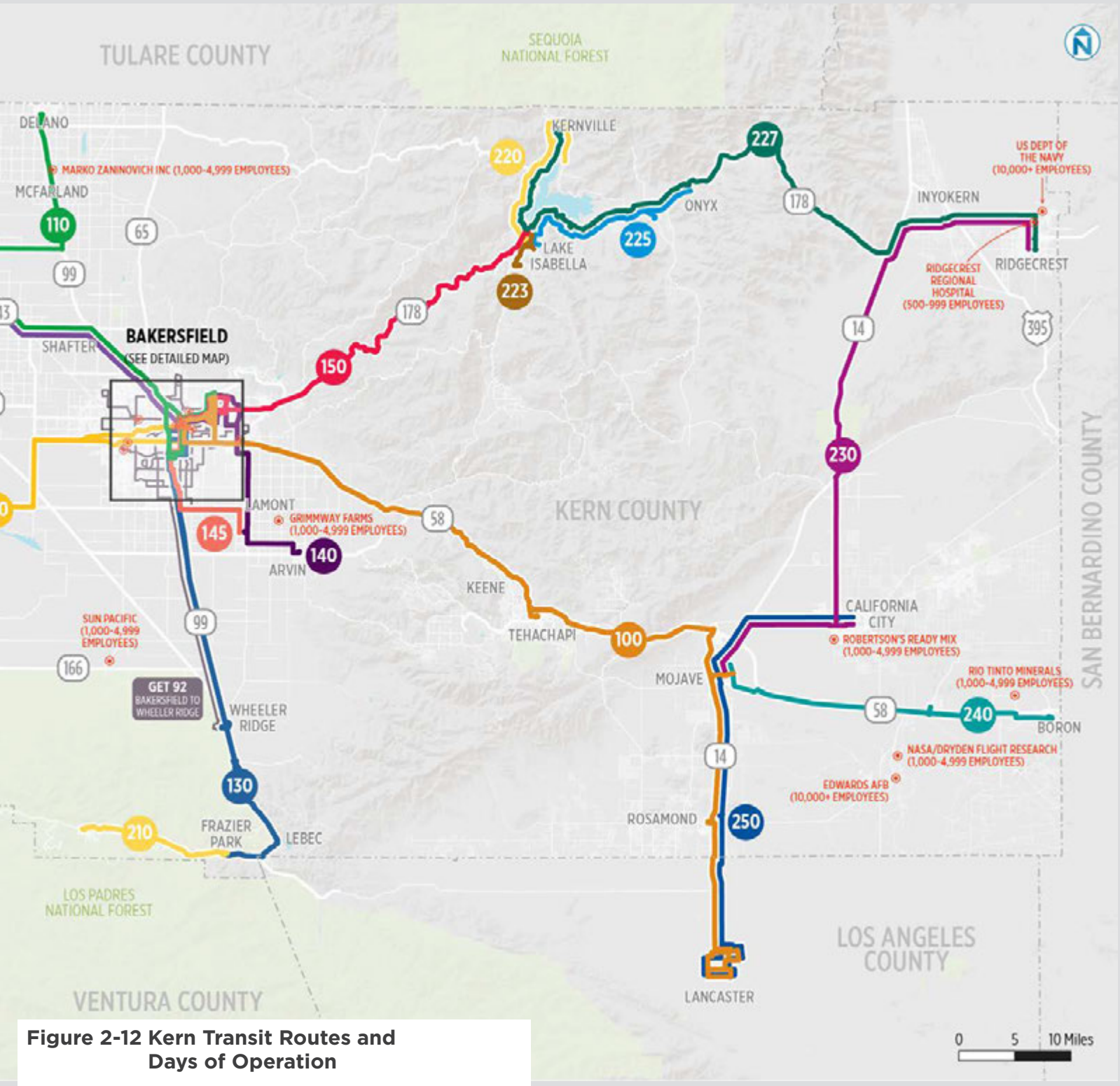


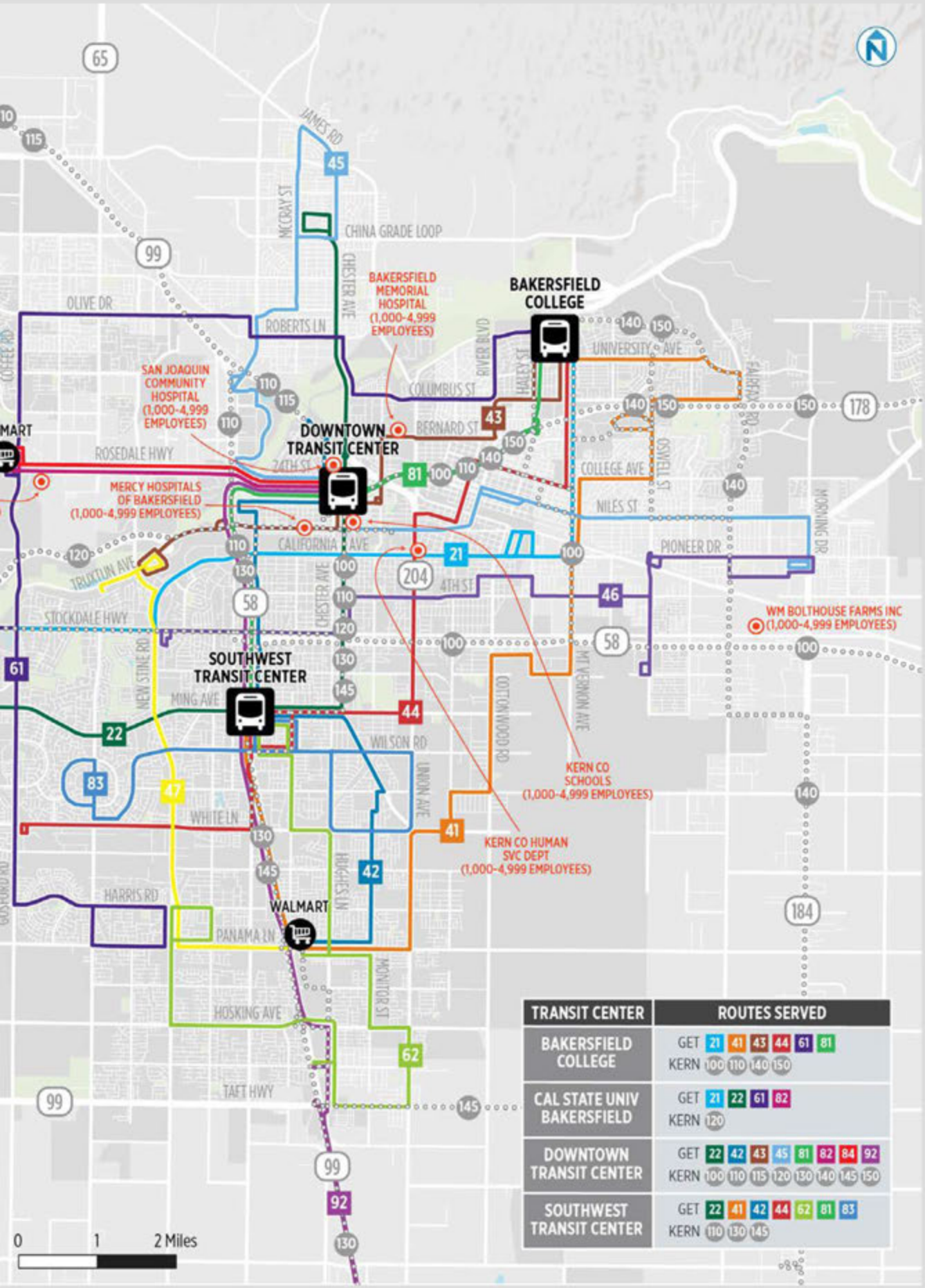
Figure 2-12 Kern Transit Routes and Days of Operation

Routes	Days of Operation
Route 115, 210	Thursday, Saturday
Route 227, 230, 240	Monday, Wednesday, Friday
Route 100, 110, 140, 145, 150,	Monday thru Sunday
Route 120, 130, 220, 223, 225, 250	Monday thru Saturday

Bakersfield

The 2016 five-year American Community Survey (ACS) reports that about 270,000 people work within the metro area. Major employers include, but are not limited to, three separate hospital facilities, Chevron Corp, and Cal State Bakersfield. The City is widely served by Golden Empire Transit (GET). As shown in Figure 2-13, the majority of employees can access and rely on public transportation as their primary commute option, with routes running between 6:00 a.m. and 7:00 p.m. and in some cases, as late as 11:00 p.m.

Figure 2-13 Proximity between Bus Routes and Major Employers in Bakersfield, CA



ANALYSIS OF MOBILITY GAPS IN RURAL KERN COUNTY

The matrix in Figure 2-14 summarizes the mobility gaps that have been identified based on the demographic and geographic analysis described in the first chapter and the public outreach efforts conducted during 2019. In addition to the identification of gaps, the matrix provides an initial recommendation of potential strategies to meet these needs, and a high level of assessment of the difficulty of implementing these strategies. Consolidation of some of these strategies is provided in the Five-Year Plan presented in the next chapter.

Figure 2-14 Matrix of Mobility Gaps and Potential Strategies

Gaps	Unmet Needs	Potential Strategies	Difficulty of Implementation
Temporal	Traveling to work between 7:00 a.m. to 6:00 p.m.	Community vanpool program targeting workers at major job centers Farmworkers vanpool program (*see CalVans*)	Easy/Medium
	Traveling to work during nontraditional work hours	Employer-sponsored shuttle Rural vanpool program	Medium
Spatial	Trips beyond the Get-A-Lift or North of the River CTSA zones	Partnership with ridesharing and taxi companies with wheelchair accessible vehicles	Medium
	Limited connections to fixed-route transit network	Pilot program involving subsidized/discounted rideshare or taxi trips to/from key transit hubs to close First/Last Mile gaps	Medium
	Getting to doctor/medical care/work outside Kern County	Partnership between healthcare providers, ridesharing companies, and taxi companies with wheelchair accessible vehicles	Medium
Service Design	Fixed-route service is limited in rural areas	Electric vehicle (EV) carshare program (*see Needles Car Share Program*) Pilot program involving subsidized/discounted rideshare trips to/from key transit hubs to close First/Last Mile gaps Volunteer driver program Farmworker vanpool program	Difficult
	Service beyond door-to-door paratransit	Partnering with door-through-door service providers Create program within volunteer driver program to serve ambulatory riders with disabilities	Easy/Medium
Cost	Households without a motor vehicle	Electric vehicle (EV) carshare program anchored at low-income, affordable housing sites (*See Community CarShare Program*) Volunteer driver program	Difficult Medium
	Fares	Expand existing programs and services for low-income populations Work with regional transit providers to create inter-network transfer subsidy program	Easy/Medium
Unfulfilled Trip Types	Traveling to local doctor/medical care	Partnership between healthcare providers, ridesharing and taxi companies with wheelchair accessible vehicles	Medium
	Non-emergency medical transportation	Partnership between healthcare providers, ridesharing and taxi companies with wheelchair accessible vehicles	Medium
	Traveling to college/vocational/or adult education classes	Partnership with ridesharing companies to provide discounted/subsidized trips traveling to/from certain campuses Partnerships with colleges and other higher-education or technical campuses for campus commute shuttle	Medium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3 The Future of Public Transportation

INTRODUCTION

This chapter highlights recent trends that are likely to have a significant impact on the future of public transportation in Kern County. These include the increased electrification of bus fleets, innovative share mobility models and partnerships with TNCs.

BUS ELECTRIFICATION

California's movement in reducing greenhouse gas emissions directly impacts public transportation fleets. In 2018, the California Air Resources Board (CARB) issued a rule in 2018 requiring all new transit buses to be fully battery electric by 2029. Large transit agencies are expected to have 25 percent of new vehicle orders electric by 2023, increasing to 50 percent by 2026. Small transit agencies are expected to have 25 percent of new vehicle orders electric by 2026, with no 50 percent benchmark.[1]
Transit agencies have an opportunity and obligation to take the lead in reducing emissions. Electric bus fleets have the potential to reduce a region's GHG emissions appreciably; according to the U.S. Department of Transportation (USDOT), every zero emission bus reduces about 1,690 tons of CO2 over a 12 year lifespan for urban operators and 7 year lifespan for rural operators.[2]

For many agencies across the country, the environmental and financial benefits of even one electric bus have been the motivator for launching electric fleet conversion programs. Forecasts from Bloomberg New Energy Finance (BNEF) suggest that the electrification of road transport will continue to escalate with electric buses becoming 84% of their global market share by 2030.[3]

1 California Air Resources Board (2018). Innovate Clean Transit. Retrieved from https://ww2.arb.ca.gov/sites/default/files/2020-01/UPDATED%20Rollout%20Plan%20Guidance%20Final_2.pdf

2 United States Department of Transportation (2016). Zero Emissions Bus Benefits. Retrieved from https://www.transportation.gov/sites/dot.gov/files/docs/R2ZE-Zero-Small.pdf

3 Retrieved from BloombergNEF (2018). E-Buses to Surge Even Faster Than EVs as Conventional Vehicles Fade.

Transit Operators' Experiences with Fleet Conversion

Public transit agencies face several challenges when choosing to electrify their bus fleets. This includes finding the political will, identifying and earmarking funds, and marketing the change to the public. However, despite these challenges, localities across the state have deemed the decision important in order to meet local environmental goals. The following section features agencies that have set goals and strategic pathways to bus electrification.

Foothill Transit – Electric Fleet Conversion

In 2010, Foothill Transit, which serves the San Gabriel and Pomona Valleys in the Greater Los Angeles region, became the first transit agency to introduce fast-charging electric buses to their fleet. As of 2017, 10 percent (373 total buses) of the agency's fleet runs on efficient, zero-emission electricity.[4] Over the last six years, the electric buses have eliminated 2,616 tons of GHG emissions. Foothill Transit is committed to having a fully electric fleet by 2030.[5] In 2019, the agency purchased two all-electric double-decker buses from Alexander Dennis Inc. (ADI), one of the world's leading bus manufacturers.[6]

The two buses, which will replace compressed natural gas commuter express buses, are financed through a $1.4 million Metro Express Lanes Toll Revenue Capital Grant.[7]
California requires that funds collected from the grant be reinvested into the corridor. Funds first go towards maintenance and operations and any remaining funds go towards enhancing mobility. This includes investing in capital investments such as electric buses.

4 CA Climate Investments (2018). Foothill Transit Fleet Electrification Project, LA County. Retrieved from http://www.caclimateinvestments.ca.gov/2018-profiles/2018/3/15/foothill-transit-fleet-electricification-project

5 Foothill Transit (2018). Electric Program. Retrieved from http://foothilltransit.org/news/sustainability/electric-program

6 Foothill Transit (2018). We're Bringing All-Electric Double Decker Buses to The SGV!" Retrieved from http://foothilltransit.org/all-electric-double-decker-bus-foothill-transit/

7 LA Metro (2018). ExpressLanes Net Toll Revenue Re-Investment Grant Program. Retrieved from https://www.metro.net/projects/expresslanes/projectsprograms/

San Joaquin Regional Transit District (RTD) – Electric Fleet Conversion

In 2012, San Joaquin Regional Transit (RTD) the transit agency for Stockton, California and the greater San Joaquin region was awarded a $2.5 million grant through the California Energy Commission to fund an electric bus demonstration project. Since then, the agency has gone full steam ahead; in 2015, the Federal Transit Administration (FTA) awarded RTD $4.7 million from the Low and No Emission Deployment Program to fund the expansion of the region's electric bus fleet. In 2018, RTD unveiled the nation's first fully electric route and recently announced that the agency will exclusively run zero-emission buses by 2025.[8]

8 Recodnet (2017). An Electrifying Moment for City Buses. Retrieved from http://www.recordnet.com/news/20170818/electrifying-moment-for-city-buses

Pioneer Valley Transit Authority – Electric Fleet Conversion

The Pioneer Valley Transit Authority (PVTA) serves 24 member communities in rural Western Massachusetts. Recently, PVTA, the largest regional transit provider in the region, introduced three 40-foot Catalyst FC battery electric buses to their fleet of 186 buses. While each bus was purchased at twice the price of an average diesel-fueled bus - $860,000 - PVTA estimates that they will save $350,000 on maintenance and operating costs over the lifetime of each vehicle. In addition to state funds, the three buses were funded through an FTA grant.[9]

The motivation for PVTA's fleet conversion program is led by their commitment to reducing their energy consumption and making mass transit more efficient.[10]

9 Proterra (2016). Transit Authority Acquires Its First Battery-Electric Proterra Buses. Retrieved from https://www.proterra.com/press-release/proterra-continues-its-march-into-new-england-as-pioneer-valley-transit-authority-acquires-its-first-battery-electric-proterra-buses/

10 Mass Transit (2016). PVTA Introduces First Battery Electric Buses into Fleet. Retrieved from http://www.masstransitmag.com/press_release/12288280/pvta-introduces-first-battery-electric-buses-into-fleet

Arvin – Electric Fleet Conversion

In 2018, the City of Arvin began working towards the City's goal of 100% electric vehicle fleets. By the Fall of 2018, Arvin announced that the City had received $2.3 million in grant funding from the Federal Transit Authority for the purchase of three new electric buses and charging stations, a significant amount of funding for electrification for a rural area. The buses the City purchased have a range of 251 miles per charge and zero air emissions, which is much needed in the San Joaquin Valley. The City began breaking ground on the vehicle charging stations in August of 2018 and is a stellar example of fleet electrification in a rural area. Arvin has set a goal to transform the entirety of the bus fleet by 2025; with the first phase of electrification funded through the FTA, with 20% match money coming from the Transit Development Assistance Funds (TDAF), and Low Carbon Transit Operations Program (LCTOP). The City is also working on solar aggregate power in their carports for the buses.[11]

11 https://www.bakersfield.com/news/arvin-debuts-electric-bus-it-hopes-will-spur-change-throughout-region/article_9a74a10c-e9e7-11e8-9090-e32b38817425.html

Financing Zero-Emission Bus Fleets

While the environmental benefits of zero-emission vehicles are clear, the major obstacle is the cost of purchasing a bus, much less a fleet. Battery-electric buses cost between $275,000 and $350,000, while fuel cell buses are upwards of $1.3 million.[12] As such, federal and state funding mechanisms are in place to curb capital and operational costs. Figure 3-2 details the funding options that are most applicable to Kern County.[13]

Associations and Incentive Programs

Hybrid and Zero-Emission Truck and Bus Program (HVIP)

In California, incentive programs have been created to make the purchase of electric buses more manageable. Transit agencies can apply for a voucher through the Hybrid and Zero-Emission Truck and Incentive Project (HVIP), a program funded through the state's Cap-and-Trade Program and administered by the California Air Resources Board (CARB). HVIP vouchers range from $35,000 to $315,000 per vehicle on a first-come, first served-bases.[14] Factors taken into consideration include load weight, the number of vehicles, and whether the agency resides in a designated Disadvantaged Community.[15] Each year, CARB receives $9 million in voucher funding, however, as of April 2018, an additional $5.4 million dollars has been allocated to the HVIP fund.[16]

CALSTART's California Zero Emissions Bus Coalition

The California Zero Emissions Bus Coalition (CA ZEB Coalition) is a union of stakeholders that advocate and lobby for public investments that accelerate electric fleet expansion across the state with the goal of deploying more than 500 buses by 2020. The coalition is a forum for agencies to have a dialogue about deployment, policies, and related discussions. CA ZEB members include San Joaquin RTD, Monterey Salinas Transit, Eastern Contra Costa Transit, and Proterra among others.[17]

12 Ibid.

13 California Fuel Cell Partnership. Fuel Cell Electric Bus Fact Sheet. Retrieved from https://cafcp.org/sites/default/files/CHBC-CaFCP-Fuel-Cell-Electric-Bus-Fact-Sheet.pdf

14 $300,000 vouchers are for >40 ft. Hydrogen Fuel Cell Electric Bus in a Disadvantaged Community

15 California HVIP (2018). Implementation Manual for Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) and Low NOx Engine Incentives Implemented through HVIP. Retrieved from https://www.californiahvip.org/wp-content/uploads/2018/01/Final-IM-01172018.pdf

16 California HVIP (2018). Retrieved from https://www.californiahvip.org/

17 Calstart (2018). CA ZEB Coalition. Retrieved from https://calstart.org/stateofzebs/

Figure 3-1 Funding Mechanisms to Finance Bus Fleet Conversions

Sponsoring Agency	Program	Type of Grant	Program Details	Eligibility	Funding Amount	Funding Match
Federal – FTA	Bus & Bus Facilities Infrastructure Investment Program[18]	Formula Allocations; Competitive	Funding to replace, rehabilitate, and/or purchase buses and related infrastructure.	Recipients must operate fixed route bus service.	**$366.3 million** for transit and bus projects, nationwide.	Grant **funds 80 percent** of the net capital project cost.
Federal – FTA	Low or No Emission Competitive Program[19]	Competitive	*A sub-program* of the Bus & Bus Facilities Infrastructure Investment Program. Funding to purchase zero-emission and low-emission transit buses.	Proposals for funding in non-urbanized areas must be submitted as part of a consolidated statewide proposal.	**$55 million** per year.	Federal share of the cost of leasing or purchasing a transit bus **is not to exceed 85 percent** of the total transit bus cost.
State – CARB[20] *(under AQIP program)*	Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)[21]	Competitive	A branch of California's Cap-and Trade auction, HVIP gives out vouchers to the transit agency to reduce the cost of purchasing electric buses. Registered HVIP dealers request vouchers on behalf of a transit agencies, or a purchaser.	Vouchers are available to public and private fleet operators. First-come, first-served basis.	To date, HVIP received $228 Million in funding. Currently, more than **$85 million** is available in voucher funds. Vouchers range from $35,000 to $315,000. The same agency can request vouchers for up to 200 vehicles.[22]	
State – CEC[23]	Alternative and Renewable Fuel and Vehicle Technology Program[24] [25]	Competitive	Promoted accelerated development and deployment of advanced transportation technologies to attain the state's climate change policies.	Grants and loans for public agencies, private businesses, public-private partnerships etc.	**$17.5 million** during 2017-2018 FY for Alternative Fuel and Advanced Technology Vehicles[26]	

18 https://www.transit.dot.gov/bus-program

19 https://www.transit.dot.gov/funding/grants/lowno

20 CARB refers to the California Air Resources Board. HVIP was developed through CARB under the Air Quality Improvement Program (AQIP) and the Greenhouse Gas Reduction Fund (GGRF)

21 https://ww2.arb.ca.gov/sites/default/files/2019-10/ICT%20Implementation%20Guidance%20Document%20Final.pdf

22 $300,000 vouchers are for >40 ft. Hydrogen Fuel Cell Electric Bus in a Disadvantaged Community

23 CEC refers to the California Energy Commission

24 https://www.energy.ca.gov/transportation/arfvtp/

25 https://www.energy.ca.gov/programs-and-topics/programs/clean-transportation-program

26 https://www.energy.ca.gov/programs-and-topics/programs/clean-transportation-program/clean-transportation-program-investment-2

SHARED MOBILITY PILOT PROJECTS IN THE SAN JOAQUIN VALLEY[27]

This overview of shared mobility pilot projects being implemented in the San Joaquin Valley (SJV) assesses alternative transportation alternatives with the potential to increase services in a largely rural and underserved area in California.

Transportation expenses can consume a high share of low-income households' budget: this is especially true in rural areas, where local transit options are limited and a personal vehicle is often a requirement for everyday life. In addition, lowering greenhouse emissions in rural areas is key to tackling climate change and meeting California's emission targets under Senate Bill 375.

As a result of those challenges, the California Department of Transportation (Caltrans) partnered with UC Davis and several SJV MPOs to plan and develop pilot projects with the goal of reducing vehicle emissions and identifying cost-effective transportation alternatives for disadvantaged rural communities. Pilot planning for these projects was made possible by approximately $500,000 in grant funding provided by Caltrans.

After the initial planning phase was concluded, a program was developed to introduce new travel models in the SJV. These projects include an electric vehicle car-share program for southern sections

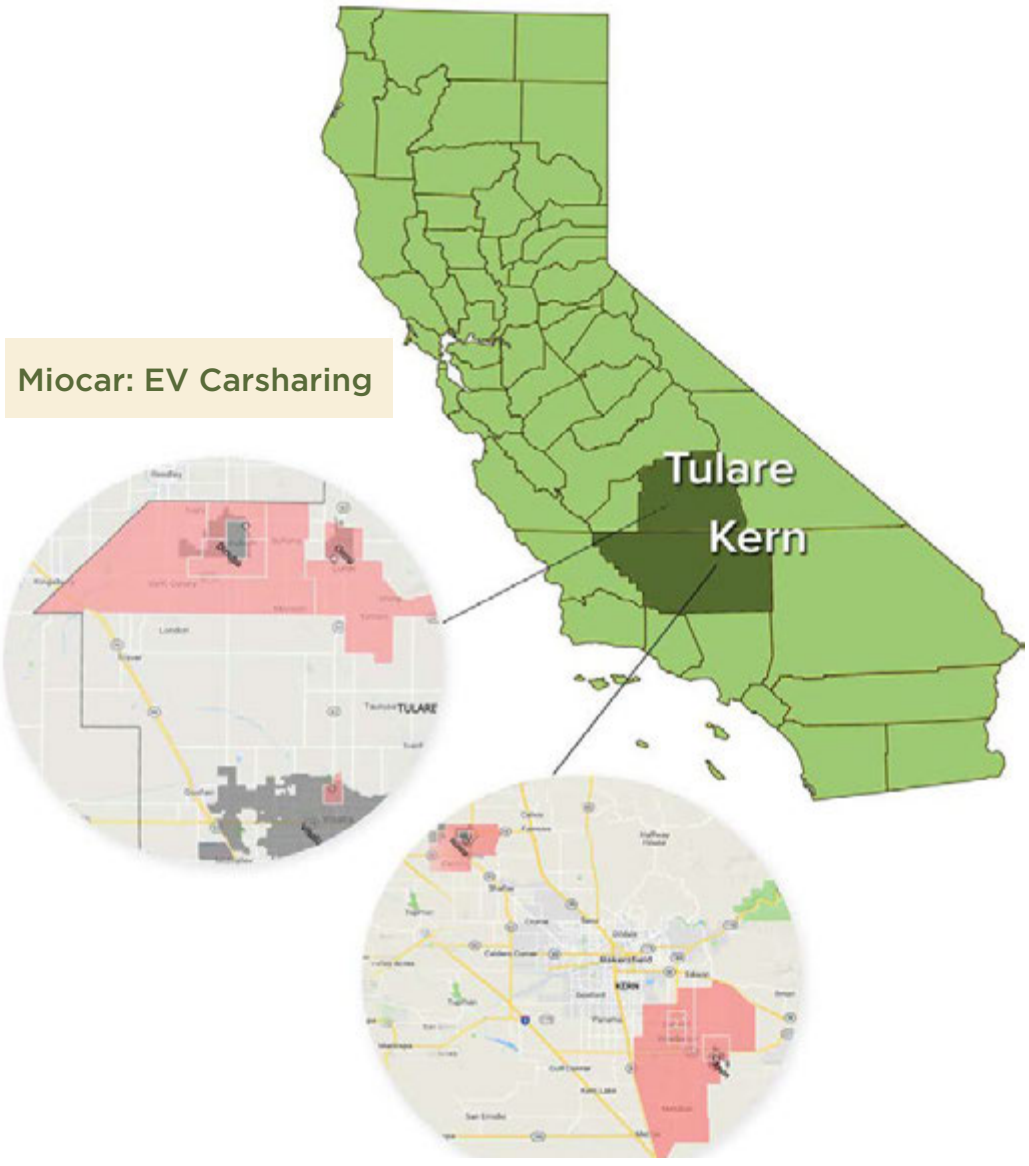
27 Derived from "Report on Caltrans' Planning Horizons" April 2019 Presentation

Figure 3-2 Geographic Locations of Pilots in the SJV*

* From the California Partnership for the SJV, pg. 10).

of the SJV and a volunteer-based ride-haling program and transit app for the northern part of the SJV. Funding for these projects was provided by The California Air Resources Board ($2.25 million) and various San Joaquin Valley MPO's and Transit Agencies ($1.5 million). Funds were fostered by California's Cap & Trade legislation, which requires 25 percent of Cap & Trade Revenues (at a minimum) to be distributed in disadvantaged communities throughout the state, many of which are in the SJV. The sections below contain more information for each of the pilot projects.

Miocar: EV Carsharing



Míocar: Electric Vehicle Carsharing

The Míocar pilot project provides carsharing opportunities in various low-income housing developments throughout Tulare and Kern Counties. Participating communities have a great need for the project, as indicated by existing demographic factors (Figure 3-3) and a survey conducted to gauge resident interest before the pilot was implemented.

The project has installed dual port chargers and purchased electric vehicles for various affordable housing complexes throughout the southern SJV (Figure 3-4). Various user guidelines have been set. For example, cars must be returned to the original lending location after each use. Míocar drivers must also be at least 21 years old and have a clean driving record in order to join the program. Project costs are highlighted in Figure 3-5.

Figure 3-3 Demographic Information for Selected Tulare/Kern Co. Locations

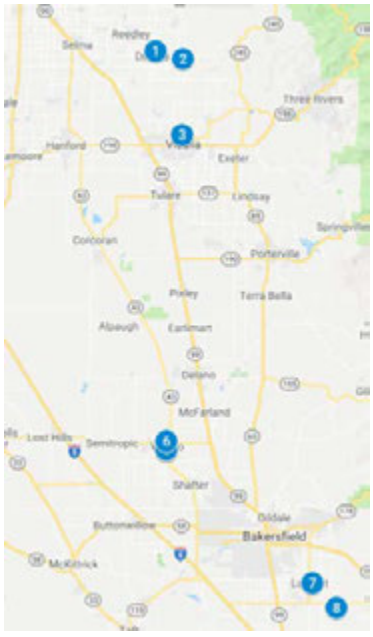
		NEED								
County	Census Place	Transit Access	Transit Trips	% <18	% >64	% Lack Vehicle	$< Basic Income	% Truant	Bank Access	Health
Kern	Arvin	NW	17	29	8	9	65	12	0.05	0.05
	Arvin	NW	17	39	5	19	81	12	0.05	0.05
	Lamont	DAR	17	35	6	23	69	10	0.04	0.22
	Wasco	NW	8	36	5	15	56	19	0.08	0.27
Tulare	Cutler	DAR	6	39	6	32	86	8	0.05	0.27
	Dinuba	DAR	6	35	9	13	63	8	0.12	0.45
	Dinuba	DAR	6	33	5	8	62	10	0.23	0.84
	Orosi	DAR	6	35	10	14	75	8	0.04	0.25
	Visalia	WA,DAR	6	35	7	15	69	38	0.27	1.99

Source: Planning Horizons Video Archive.

Figure 3-4 Miocar Locations

Pilot Locations

Complex	City	County	Units	Dual Port Chargers	Vehicles
1	Dinuba	Tulare	44	1	2
2	Orosi	Tulare	60	2	3
3	Visalia	Tulare	36	2	2
4	Wasco	Kern	44	2	3
5	Wasco	Kern	40	1	2
6	Wasco	Kern	226	4	8
7	Lamont	Kern	44	2	3
8	Arvin	Kern	46	3	4
				17	27



Source: California Partneship for the SJV, pg. 33

Míocar has relied on various collaborators to provide its services (Figure 3-6), including a partnership with Self-Help Enterprises, one of the largest affordable housing developers in the area, to host electric vehicles and to provide operational assistance. The program's carsharing operation is organized as follows:

- California Vanpool Authority: provides fleet management
- Self-Help Enterprises: primary EV site host
- Mobility Development: Company experienced with mobility services that oversees carsharing operations for Míocar

The Míocar pilot project aims to evaluate the feasibility of providing a cost-effective and environmentally friendly car-sharing program for underserved communities, applying lessons learned to guide future scalability. If the model proves successful, it could be adapted to other communities throughout the SJV. Although Míocar is currently undergoing its initial implementation phase, early results from the program include the following:

- 400 people have applied to become a member
- 150 active carsharing members since marketing launch in August 2019
- Total reservations have approximately doubled every 4 weeks
- Typical reservations are 8 hours with 50 vehicle miles traveled
- Typical active members are:
  - Female
  - Less than 44 years old
  - Lives in a household with 4 to 6 or more people and an income of $25,000 to $50,000
  - Has access to one vehicle or multiple older vehicles (15 to 20 years old).

Figure 3-5 Miocar Pricing

Membership Processing Fee	$20
Hourly	$4
Daily	$35
Weekend Daily	$45
Maintenance	Included
Mileage	150 miles inlcluded, then $0.35 per mile
Insurance	Included
Roadside Assistance	Included

Source: California Partneship for the SJV, pg. 35

Figure 3-6 Miocar Partners

míocar partners

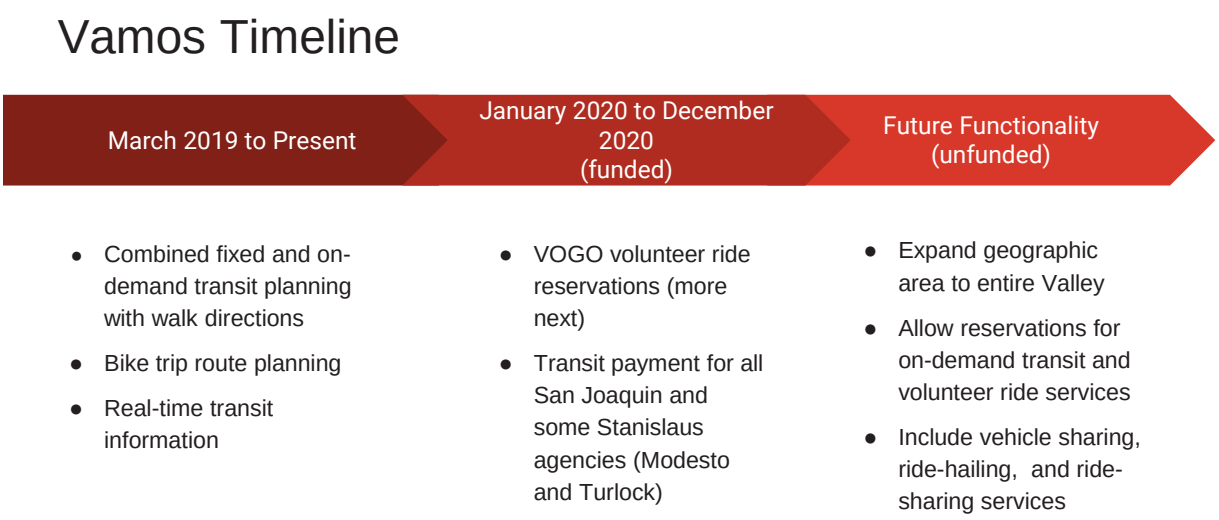
- **ARB, Kern COG and TCAG** *(Funders and program partners)*
- **SIVAPCD and Sigals, Inc.** *(Grant administrators)*
- **UC Davis** *(Implementation management and research evaluator)*
- **Self-Help Enterprises** *(EV site host, engagement and marketing)*
- **Kern County and City of Wasco housing authorities** *(EV site hosts)*
- **CalVans** *(Fleet owner, maintenance, and insurance)*
- **Mobility Development Group** *(Carsharing operations)*
- **Rural Development Center at Fresno State** *(Marketing)*

Smartphone Transit App (Vamos)

Vamos is a Mobility as a Service (MaaS) App available for residents of Stanislaus and San Joaquin Counties. Vamos allows its users to plan bicycle and real-time trips that include "combinations of fixed and demand-responsive transit (dial-a-ride, deviated shuttles, and VanGO!) and walk access." The figure below highlights the implementation timeline for the Vamos App.

If proven successful, the Vamos pilot program has the potential to decrease greenhouse emissions by increasing the number of people who utilize transit services. Additionally, Vamos can provide new transportation projects and smaller transportation providers access to a wider market, especially with possible implementation throughout the SJV in future years.

Figure 3-7 Vamos Implementation Timeline



Source: California Partnership for the SJV, pg. 23

Volunteer Ride-Hailing Service (VOGO)

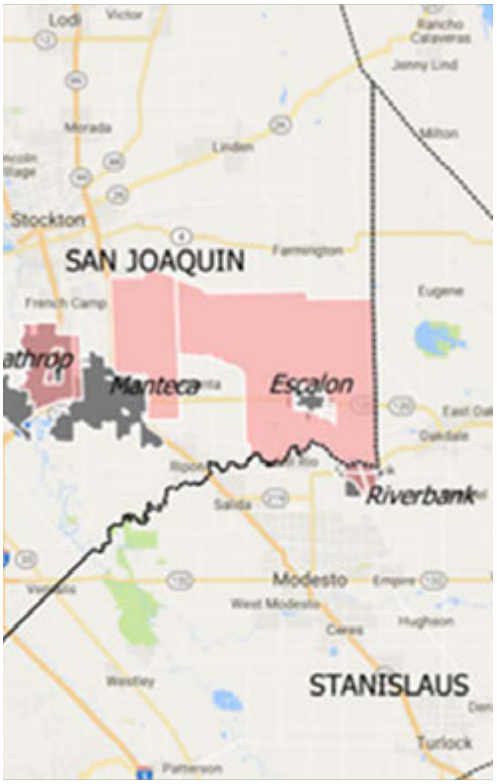
The Volunteer Ride-Hailing Service (VOGO) is available for certain disadvantaged communities in San Joaquin and Stanislaus Counties (Figure 3-8). When a trip cannot be completed with available transit options, users can request the service using the Vamos App for trips that start or end within the program's target area.

VOGO is made possible through various partnerships, which include the following organizations:

- **MOVE**, a non-profit transportation association that enlists volunteers for VOGO.
- **The Volunteer Transportation Center**, provides scheduling, dispatching, and other back-end operations for VOGO. Automated services they provide are crucial for minimizing total operating expenses.
- **ARB, SJCOG,** and **StanCOG**, funders and program partners
- **SJVAPCD and Sigala, Inc.,** grant administrators
- **UC Davis**, implementation management and research evaluator
- **San Joaquin and Stanislaus transit agencies**, app integration
- **Fresno State, MOVE Stanislaus, and SUMC**, engagement and marketing

VOGO and VAMOS have the potential to revolutionize travel in California's rural areas. In addition to providing insights into possible scalability and cost-saving measures for similar programs, these pilot projects are also providing transit planning agencies with much-needed information regarding unmet transportation needs in the region.

Figure 3-8 VOGO Service Areas



Source: California Partnership for the SJV, pg. 27

COMPLEMENTARY TRANSPORTATION NETWORK COMPANY SERVICE IN RURAL AND SUBURBAN COMMUNITIES

Transportation Network Companies (TNCs), or more colloquially referred to as ridesharing companies, have become fixtures in U.S. cities and counties, providing on-demand transportation services to residents and visitors. Over the past few years, a growing number of transit agencies have turned to companies like Uber and Lyft to explore ways in which TNCs can support existing transit service in areas underserved by fixed-route and/or frequent service. The following case studies look at how on-demand ridesharing services are creatively serving residents in rural communities and may serve as reference points for future pilot programs in Kern County.

Fixed-Route Partnerships

Dayton, Ohio - RTA Connect On-Demand

Launched in June 2017, RTA Connect is a public-private partnership between the Greater Dayton Regional Transit Authority (RTA) and Lyft. RTA Connect subsidizes Lyft rides so that a rider only pays what he/she would for a one-ride transit trip on RTA[28]. This program makes it easier for rural residents to gain access to the entire RTA system and offers residents more flexibility to travel during off-peak times – midday, evenings, and weekends.[29] Connect stops are clearly labeled throughout the system. Riders enter the program's coupon code to activate their free Lyft ride. For those that do not have a smartphone, users can call RTA to reserve a ride with an operator. ADA/Lift-equipped vehicles are also available via the call center.[30]

28 Regular fares for RTA is $2.00.

29 Lyft Blog (2017). Expanding Mobility and Transit Access in Dayton, Ohio. Retrieved from https://ny4bettertransit.com/lyft-partners

30 RTA Connect On-Demand (2018). On Demand. Retrieved from http://www.i-riderta.org/rta-connect/on-demand

Pinellas, Florida - Direct Connect Program

In 2014, Pinellas Suncoast Transit Authority (PSTA) reformatted their service delivery approach after the agency was confronted with budget cuts. To continue service those affected by the fixed-route service cuts, PSTA implemented the Direct Connect Program, a first-and-last mile program that connects local transit riders with either Uber, Care Ride, or United Taxi in Pinellas Park and East Lake. Users request a ride to one of eight select bus stops, transporting the user to the broader fixed-route system at a discounted rate. Direct Connect Service is accessible to everyone, including persons with disabilities and residents that do not have smartphones. PSTA subsidizes 50 percent of the ride up to $3.00 via a discount code that users enter into the Uber or Taxi smartphone apps.[31][32]

TD late shift

PSTA's Transportation Disadvantaged (TD) Pilot

PSTA has adapted the Direct Connect model to support residents that work second and third shift jobs. This subset of riders has limited public transportation options, particularly beyond the hours that fixed-route service typically operates. Eligible participants must qualify as a TD customer, work between the hours of 10:00 p.m. and 6:00 a.m., and use the bus for the majority of their trips. The pilot is funded through Florida's Commission for the Transportation Disadvantaged. Moving forward, PSTA plans to charge users a $9.00 monthly co-pay for 25 TD rides.[33]

31 Pinellas Suncoast Transit Authority (2018) Direct Connect Retrieved from https://www.psta.net/riding-psta/direct-connect/

32 Pinellas Suncoast Transit Authority (2018). Fiscal Year Update, 2018. Retrieved from https://www.psta.net/media/3167/tdp-fy18-update.pdf

33 Pinellas Suncoast Transit Authority (2020). Retrieved from: https://www.psta.net/programs/td-transportation-disadvantaged/

Subsidized TNC Pilot Programs

Sanford, Florida – Regional Rideshare Pilot

In August 2017, the City of Sanford, Florida joined the cities of Altamonte Springs, Lake Mary, Longwood, and Maitland to form the Municipal Mobility Working Group (MMWG) to provide more effective on-demand service to residents living across five separate jurisdictions. As shared on the City's website, "Throughout Phase 1, residents showed there was true value in ride sharing and a need for diverse transportation options throughout the region." Each of the participating cities spent $63,000 to subsidize Uber rides for their residents and for residents residing in surrounding cities.

The participating cities plan to continue the program by subsidizing 20 percent for Uber trips that end within their respective city limits, 25 percent for trips that begin or end at SunRail Stations, and 20 percent to users traveling between the five cities, allowing residents a much greater range of access to meet a more diverse set of needs. The partnership serves as an innovative national model for cities looking to create cost-effective alternatives to address their mobility challenges. As of July 2018, the five cities are working together to develop a more open-ended program, providing discounted rides to all TNCs, not just Uber. [34]

Monrovia, California - GoMonrovia

The City of Monrovia, located northeast of Los Angeles, felt the need to provide residents and visitors with more affordable and on-demand transportation services. As such, Monrovia collaborated with Lyft to provide discounted carpool rides within the service area for as low as 50 cents per trip. The Lyft partnership supplements Dial-A-Ride service, which is still available for persons who do not have a smart phone or need special accommodations.[35]

34 Next City (2017). 5 Florida Cities Team Up to Subsidize Uber Rides. Retrieved from https://nextcity.org/daily/entry/five-florida-cities-subsidize-uber-rides

35 City of Monrovia (2018) City of Monrovia Set to Launch a New Model for Suburban Mobility through Partnerships with Lyft and LimeBike Retrieved From https://www.cityofmonrovia.org/Home/Components/News/News/2229/785?backlist=%2F

On-Demand Paratransit in Rural Communities

In addition to rideshare companies acting as supplementary services for general public service, transit agencies are partnering with TNCs to enhance or replace traditional paratransit services to lessen programmatic and capital costs. Transit agencies can either use TNCs as a non-dedicated service provider for ADA paratransit service to decrease the cost per trip or use TNCs as a non-ADA paratransit alternative to reduce the ADA paratransit demand and to potentially cut the cost of the program.

Dallas, Texas – DART Paratransit Pilot Program

In an effort to provide more flexible paratransit service to seniors and persons with disabilities, DART, Dallas Area Rapid Transit, is piloting a month-to-month on-demand paratransit program. In coordination with the agency's existing paratransit provider, MV Transportation, DART has transferred 160 users over to Lyft to test out an alternative to MV's traditional paratransit services. For now, Lyft paratransit rides are funded through DART's existing $186 million contract with MV Transportation. Riders participating in the pilot continue to receive electronic notifications through MV's call center.[36]

36 Dallas News. Pilot Program give DART paratransit riders a Lyft when they need one. Retrieved from https://www.dallasnews.com/news/dart/2017/10/28/pilot-program-gives-dart-paratransit-riders-lyft-need-one

Figure 3-9 Using TNCs for Paratransit Service to Reduce the Cost per Trip

For Schedulers	For Dispatchers	For Both
Overall unit cost can be reduced by assigning to TNCs unproductive trips: • Peak overflow trips • Low-demand area/times • Long out of the way trips	Overall unit costs can be reduced by using TNCs to respond to: • Late-running vehicles • Vehicle break-downs • Re-emerging no-shows	TNCs don't have to provide accessible vehicles but if accessible vehicles are made available, they provide more options for schedulers are dispatchers

Image from omnitrans.org

San Bernardino County, California - Omnitrans' RIDE Paratransit Program

Eligible residents in San Bernardino County have access to RIDE, an on-demand paratransit service operated by the regional transit agency's special transportation services group. RIDE partners with taxis and Lyft to provide fares at a discounted rate for those who are unable to use the existing bus service, typically seniors and persons with disabilities. Residents interested in participating in the program are required to complete a RIDE application for proof of age and/or disability. Participants who travel by taxis receive a reloadable debt card. Each month, Omnitrans matches a participant's contribution up to $40. However, if a rider spends down the balance on their card before the end of the month, the rider is responsible for any additional fare charges. Users can verify their account balances by calling Omnitrans' staff hotline. Alternatively, participants can request and pay for paratransit rides via the Lyft app.[37]

37 OmniTrans (2018). Special Transportation Services. Retrieved from http://www.omnitrans.org/getting-around/transit-services/special-transportation-services/

Technology Support Services for Ridesharing

Often, in harmony with hiring TNCs to supplement existing transit services, transit agencies consider innovative technologies to improve riders' travel experience. The following technologies highlight trends that support services for alternative modes of transportation.

GoGoGrandparent – Secondary Lyft and Uber Services

GoGoGrandparent is a phone-based app that assists senior citizens and those without a smartphone to take on-demand ride-share services. The app is similar to calling a taxi dispatcher; for a small fee, a user calls the GoGoGrandparent hotline and reserves a Lyft or Uber ride. The app charges a 13 percent commission on each ride and a $1.80 fee to cover operational costs. While the cost to use the service is more than a standard Lyft or Uber fare, it's a small price to pay for mobility.[38] In northern New Jersey, GoGoGrandparent has partnered with the local transit agency to give older adults more independence. Riders pay between $3.00 and $5.00 per ride, while a local public-private consortium subsidizes the remainder of the fare.[39] In Lafayette, California, a former resident endowed a pilot program, paying for 50 percent of a rider's cost, up to $50 per month.[40]

38 https://techcrunch.com/2016/08/02/gogograndparent-lets-people-without-smartphones-use-on-demand-services-like-uber/

39 https://blog.gogograndparent.com/gogograndparent-announces-public-private-partnership-to-transport-new-jersey-seniors-34862af5c89

40 East Bay Times (2017). Senior Transportation in East Bay on 'GoGo' thanks to Pilot Program. Retrieved from https://www.eastbaytimes.com/2017/08/08/senior-transportation-in-east-bay-on-gogo-thanks-to-public-private-partnership/


100LANCASTER
Kern transit

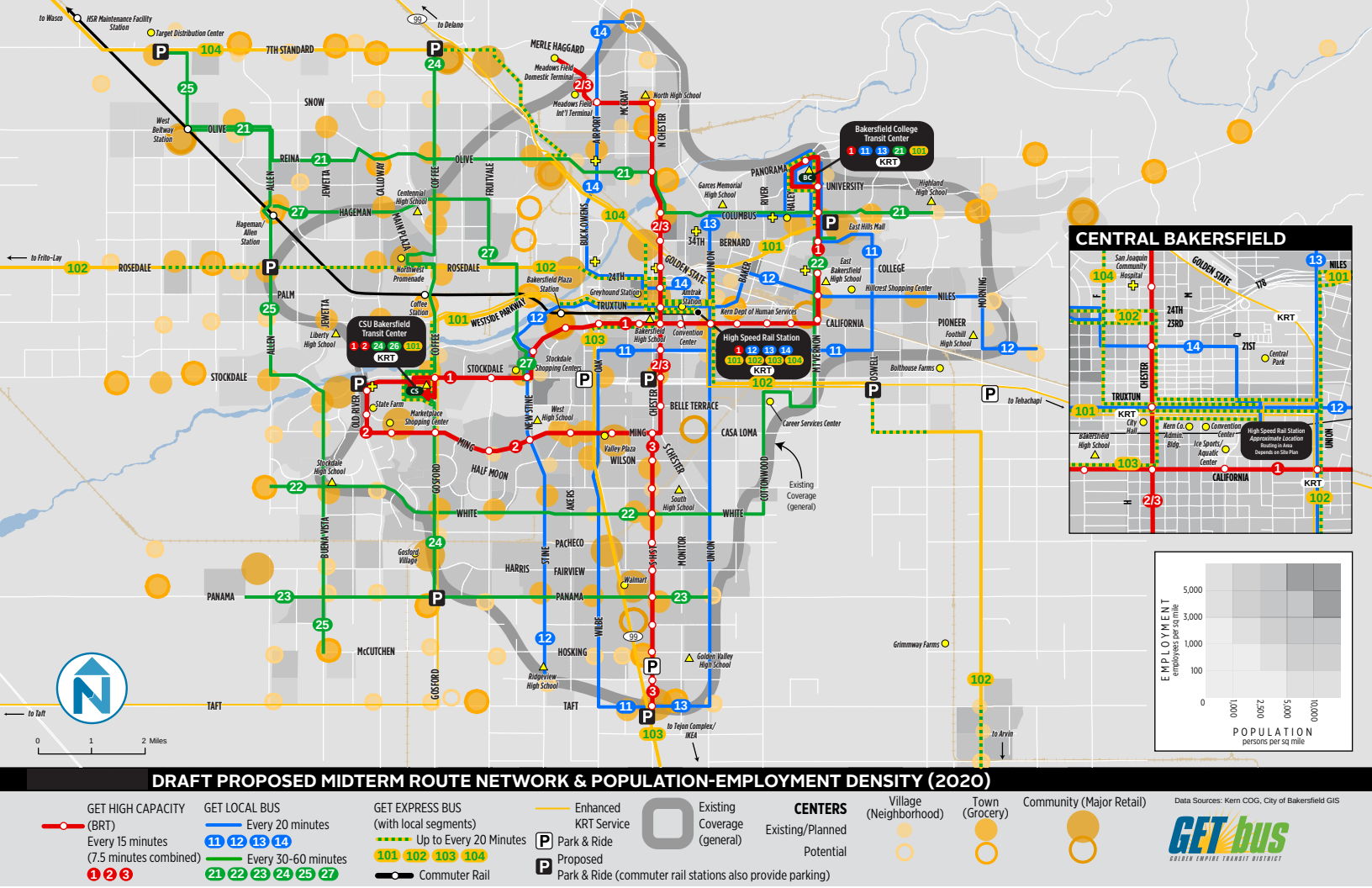
4 Plans and Funding Mechanisms

A PATH FORWARD

Municipalities within Kern County are required to prepare five-year Transportation Development Plans (TDP), which serve as primary planning documents, used to evaluate and assess existing transportation investments. Findings and recommendations illuminated in TDPs are taken into consideration when Kern COG, along with Caltrans and other member agencies, select projects for federal funding.

The project team reviewed fifteen TDPs to gain a better understanding of municipalities' transportation interests. Generally, localities across Kern County are evolving residents' transit experiences, calling for the expansion of fixed-route service and better frequencies, particularly weekend and evening service. However, outside of Bakersfield, several Kern County communities only operate demand-response transit (Dial-A-Ride).

The following cities recommended alternative transportation approaches in their most recent TDPs. Inventive capital and/or programmatic approaches confirm that Kern cities are ready for more innovative transportation solutions to improve how residents travel locally and regionally.



Bus Rapid Transit, Bakersfield

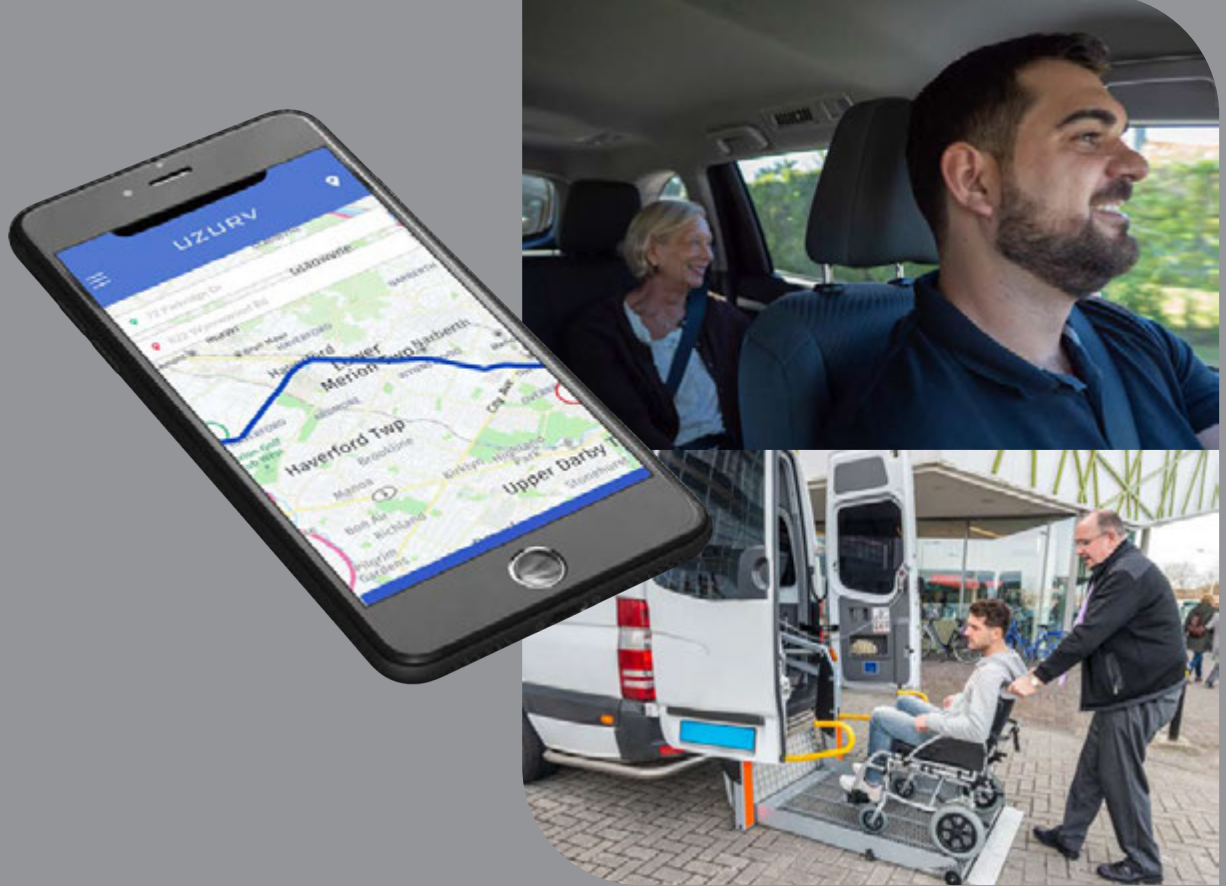
In 2012, Golden Empire Transit District, Kern COG, and a group of transportation consultants created the Metropolitan Bakersfield Transit System Long-Range Plan (LRP). The LRP is a comprehensive analysis of public transportation services in the greater Bakersfield area. In the report, the project team identified the need for more multimodal opportunities, particularly as the area's population grows. The report recommends the adoption of limited stop bus rapid transit (BRT) service, with plans of implementing service to the future High-Speed Rail station—a highly anticipated rail line that will smaller cities in Kern City will want access to.

Dial-A-Ride Zones

To reduce overlap of services between fixed-route and demand-response (Dial-A-Ride) services, Kern River Valley's TDP recommends that the City introduce Dial-A-Ride zones. In this alternative, Dial-A-Ride service is broken up into two separate zones with a timed transfer point at a proposed transit center. This change aims to formalize current demand patterns, allowing riders to access more routes.

Vanpool Service for Agricultural Workers

As shared in the City of McFarland's TDP (2015), the agricultural industry is a primary employer in McFarland. Many residents in McFarland have limited transportation options. As such, the report recommends a rideshare program that aims to reduce commute costs for residents, particularly those working on large farms that are away from residential areas.



Images from uzurv.com

CASE STUDIES OF POTENTIAL STRATEGIES FOR IMPLEMENTATION IN KERN COUNTY

This section describes twelve case studies that have been selected because they specifically address transportation needs in rural areas or provide lessons for the implementation of on-demand services that could be adopted in Kern County.

Richmond, VA – CARE On-Demand

The Greater Richmond Transit Company (GRTC) sought to provide another mobility option for its paratransit customers that was ADA and Title VI compliant. GRTC had explored potential partnerships with taxis and traditional ride hailing companies like Uber and Lyft, but ultimately partnered with UZURV and RoundTrip[1]. Both companies provide same-day, direct service and door-to-door assistance if needed by the customer. Customers must schedule their trip at least two hours in advance. Customers without access to a smartphone can still request rides. Customers using UZURV also have the option to request favorite drivers. Customers pay the first $6 and GRTC will pay up to an additional $15 per ride.

UZURV also works with Maryland-based Trivergent Health Alliance in to provide door-to-door service to patients for non-emergency medical appointments. Healthcare providers schedule rides on a patient's behalf for an upcoming appointment. Drivers assist patients from their doorstep to the car and from the car to the medical facility.

1 GRTC Transit System Care On-Demand: http://ridegrtc.com/services/specialized-transportation/care-on-demand/

RTC of Southern Nevada paratransit payment process.
Image from rtcsnv.com

Las Vegas, NV – Ride On-Demand Pilot Program

To add flexibility and freedom to paratransit riders, the Las Vegas Regional Transportation Commission of Southern Nevada (RTC) partnered with Lyft to launch its Ride On-Demand pilot program[2]. The pilot aimed to provide a cost-effective alternative to the Southern Nevada Transit Coalition's (SNTC) paratransit service, which serves residents in suburban and rural neighborhoods like Mesquite, Laughlin, and Indian Springs. Pilot participants can request rides through the Lyft app. Participants pay the first $3.00 of the trip while RTC subsidizes up to $15.00 each way. Participants who do not have access to a smartphone or need a Wheelchair Accessible Vehicle may arrange rides via the RTC Customer Service department. Within 6 months of launching the pilot, RTC has provided over 6,000 trips with a total cost savings of almost 50 percent.[3]

Central Pennsylvania, PA - DBA Rabbittransit

The Central Pennsylvania Transit Authority (CPTA), also known as Rabbittransit, is a nonprofit regional public transportation agency that provides shared ride services to 10 Pennsylvania counties. Rabbittransit partnered with Uber and Lyft for a 6-month pilot in York County to expand service to seniors and persons with disabilities. Rabbittransit schedules Lyft and Uber trips on customers' behalf when 1) the trip is equal to or less than the reimbursement from the existing Shared Ride program, and 2) the customer does not need assistance entering and exiting the vehicle. Once the ride is requested, the dispatcher contacts the customer to provide trip information.

Foothills Caring Corps Volunteer Transportation – Carefree, AZ

Volunteer drivers provide free round-trip rides to seniors for social outings and medical appointments. When a customer arranges a ride, drivers receive an itinerary with the rider's name and emergency contact information. Drivers who operate vans and wheelchair-accessible vehicles receive training on the basic operation of wheelchairs and wheelchair lifts. In 2017-2018, the program completed 12,673 rides with 4,514 rides for medical transportation.

2 Transportation Resource Advisory Committee and Community Collaboration Agenda of Public Meeting, RTC of Southern Nevada (December 2018) https://assets.rtcsnv.com/wp-content/uploads/sites/3/2019/06/15153600/TRAC-2018-12-06-rs.pdf

3 In the fiscal year of 2017, the RTC provided 1.3 million rides to annual customers at a total cost of $46 million, or approximately, $32.00 per ride.

Hitch Health helps connect users to appointment rides based upon their insurance, treatment needs and conditions.
Image from hitchhealth.co.

Hitch Health – Minneapolis, MN

Hitch Health, a Minneapolis-based healthcare technology company, partnered with Lyft and Hennepin County Medical Center to conduct a 6-month pilot that provided non-emergency medical transportation service to at-risk populations. Hitch Health securely connects healthcare providers' electronic health records to identify patients who may benefit from a free, convenient ride to and from a clinic, hospital or doctor's office. Eligible patients automatically receive SMS text to offer them a ride, which allows patients without a smartphone, Lyft account, or credit card to access the service. One month into the pilot, more than 10,000 rides have been completed and the clinic's no-show rate saw a 27% reduction in no-shows.

Community CarShare Program – Sacramento, CA

The Sacramento Metropolitan Air Quality Management District, Sacramento Housing and Redevelopment Agency, and the Municipal Utility District launched an electric vehicle (EV) car share pilot program in partnership with ZipCar.[4] As part of the pilot, up to 300 free memberships are made available for eligible residents throughout the City of Sacramento. Residents can reserve one of eight zero emission vehicles. Two zero-emission vehicles are available to residents at each of the three affordable housing complexes that are participating in the program. An additional two vehicles are available at the Sacramento Valley Train Station. Vehicles are available 3 hours per day or a total of 9 hours per week.

4 About Our Community CarShare Sacramento: http://www.airquality.org/our-community-carshare

Image from evgo.com

Green Raiteros Pilot Program – Huron, CA

Green Raiteros initially started as a grassroots system of retired farmworkers who provided rural Central Valley residents on-demand transportation to and from critical services. Local farm workers have used this program for decades as an alternative to the six-hour round trip bus ride between Huron[5] and Fresno, which are only 54 miles apart. In 2018, the Fresno County Rural Transit Authority, the Latino Environmental Advancement & Policy (LEAP) Institute, EVgo, and the Shared-Use Mobility Center partnered with the Green Raiteros organization to formalize the system. The pilot program launched with two electric vehicles and 10 public charging hubs provided by EVgo in Huron and Fresno.[6] Under this pilot, drivers receive insurance and will be reimbursed for miles driven. Organizers hope to expand the program with more electric vehicles and up to 12 professional raiteros making 100 trips per day.

Needles Car Share Program – Needles[7], CA

Victor Valley Transit Authority (VVTA) partnered with Enterprise Rent-A-Car to launch a small-scale car share pilot program in August 2016[8]. The program featured several cars parked outside the local credit union. Vehicles are available 24 hours a day, seven days a week. Members pay $5 an hour, including insurance and fuel. There is no membership cost or sign-up fee and customers are provided with a free gas card. Customers without access to a credit card can sign up for a payroll debit card when they enroll in the program. According to VVTA's Consolidated Transportation Services Agency Director, the program has about 50 members and higher than average utilization.

5 Similar to cities in Kern County, Huron is a small city with a population of 6,700. Huron's main industry is agriculture. The city once had the highest proportion of Hispanic or Latino people in the United States. During harvest season, the city's population swells to 15,000 people due to the influx of migrant farm workers.

6 EVgo – Green Raiteros Connects Rural Californians to Vital Services: https://www.evgo.com/about/news/green-raiteros-connects-rural-californians-vital-services/

7 More than a quarter of Needles' 4,000 residents live below the poverty line and many do not have access to a car. The city is located on the edge of Arizona and Nevada. The nearest grocery stores, medical offices, and other amenities are just over the border in cities like Laughlin, NV or Bullhead, AZ—not far but not reachable via public transit since they are located across state lines.

8 Shared-Use Mobility Center – How a Tiny California Town Launched a Successful Carshare Program (August 2017): https://sharedusemobilitycenter.org/how-a-tiny-california-town-launched-a-successful-carshare-program/

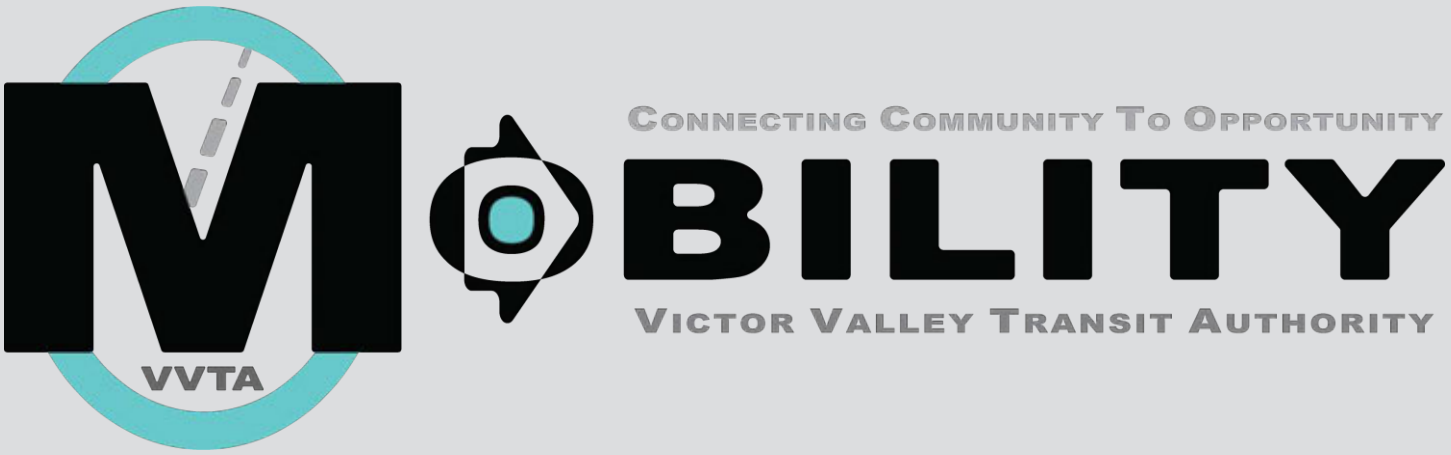


Image from Victor Valley Transit Authority

Community Access Transportation Program – King County, CA

King County's Community Access Transportation (CAT) Program provides vans, maintenance, and some operating funds to community and social service organizations that serve seniors and/or people with disabilities (including low-income populations). The program complements Access, a transportation service that travels further than what the ADA requires in eastern King County and in pockets of rural King County not served by Metro or Sound Transit. Participating agencies are able to customize their transportation services to meet their clients' needs. This program also provides a cost-effective alternative to ADA paratransit service. In 2017, the CAT program completed 340,265 rides with 54% being ADA rides[9]. These results translate to a cost savings of $4.5 million for Metro.

Victor Valley Transit Authority TRIP Program – Victor Valley, CA

TRIP[10] is a self-directed, mileage reimbursement transportation service that complements public transportation. Volunteers such as friends and neighbors transport transit-dependent elderly, people with disabilities, and others to access medical and other services where no transit service exists. Participants receive funds to reimburse the driver. If qualified, participants must identify someone who is willing to be their driver. Participants keep track of their trips and miles and report them at the end of the month. Participants can then relay the reimbursement to their driver. Qualifying participants are unable to drive, unable to use other forms of transportations (such as buses), live in San Bernadino County's rural, mountain, or desert communities, and are not using VVTA's Direct Access Service.

9 King County Metro's Community Access Transportation Program, King County Metro (2018) https://www.psrc.org/sites/default/files/sntc201803-pres-kcmcatprogram.pdf

10 TRIP, Victor Valley Transit (2018) - https://vvta.org/flex/trip/

Image from Kings County APTA

CalVans – King County, CA

The California Vanpool Authority, also known as CalVans, originated from the Kings County Area Public Transit Agency's vanpool program, which it operated for over 10 years. CalVans provides farmworkers great latitude to travel where they want to seek work and employers the ability to provide safe, accessible transportation to their employees. Because each van is a public transit vehicle, employers are able to provide farmworkers vouchers to subsidize their rides. Currently, over 900 farmworkers receive vouchers that cover all or part of their daily cost.

CalVans also provides vanpools for federal employees, teachers, students, and others to ensure access to schools, jobs, and medical services. These vanpools typically maintain regular destinations and schedules while those of farmworkers vary widely with the season. Riders pay a monthly fare based on the round-trip mileage of the commute, work schedule, the number of people in the van, and the van size. Each group has at least one approved volunteer driver and a volunteer bookkeeper.

CalVans vanpools traveled 7.7 million miles and provided 1.6 million trips, resulting in vehicle miles traveled (VMT) reduction of 63 million miles. The program is a $7.7 million operation and is self-funded from its users.

Agricultural Worker Vanpool Pilot Project – San Joaquin Valley, CA

The Agricultural Worker Vanpool Pilot Program is a new pilot program providing farmworkers with clean transportation to agricultural job sites within the San Joaquin Valley. CalVans, who oversees the program, received a $6 million[11] CARB through California Climate Investments to implement the project over the next two years. CalVans will deploy 154 new 15-passenger hybrid vans that provide transportation to farmworkers. This project expands CalVans San Joaquin Valley fleet by 60 percent, for a total of 188 vans serving agricultural workers in eight counties.

11 Agricultural Worker Vanpool Pilot Project provides clean transportation, reduces air pollution in disadvantaged San Joaquin Valley communities, California Air Resources Board (2018) - https://ww2.arb.ca.gov/news/agricultural-worker-vanpool-pilot-project-provides-clean-transportation-reduces-air-pollution

STATE FUNDS FOR PUBLIC TRANSPORTATION

The state of California has a variety of funding mechanisms for public transportation capital and operations, and many of those funding streams support "green" transit projects, including fleet conversion to electric vehicles, solar stop and station implementation, and vehicles powered by natural gas. The following table includes a review of these funding streams. Additional information on these statewide funding programs, as well as federal funding for public transportation, may be found in the appendix of this document.

Figure 4-1 Transportation Funding Guidelines

Name of Funding Source	Type of Funding	Transit Uses	Match Needed?
State Transit Assistance (STA) Program	Formula Funding	Operating and capital expenses	No
Local Transportation Fund (LTF)	Formula Funding	Planning, operations, and capital expenses	No
State of Good Repair Program (SGR)	Formula Funding	Capital: Maintain and repair existing fleets and facilities, new vehicle acquisition	No
Solutions for Congested Corridors Program (SCCP)	Competitive Grant Program	Capital: Rail, public transit, bike, and pedestrian facilities	No, but considered in evaluation
Transit and Intercity Rail Capital Program (TIRCP)	Competitive Grant Program	Capital: Rail, bus, and ferry projects	No, but considered in evaluation
Low Carbon Transit Operations Program (LCTOP)	Formula Funding	Operating and capital expenses	No
Affordable Housing and Sustainable Communities (AHSC) Program	Competitive Grant Program	Capital: Transit station improvements/amenities, connecting bike/pedestrian infrastructure, or traffic signal priority	No
TNC Access for All Act	Competitive Grant Program	Expenses related to on-demand transportation for wheelchair users	No
Sustainable Transportation Planning Grant	Competitive Grant Program	Planning efforts, including data collection and conceptual drawing/design	Yes
Transportation Fund for Clean Air (TFCA)	Competitive Grant Program	Operating and capital expenses that focus on emission reduction	No, but considered in evaluation

Transportation Fund for Clean Air (TFCA)

In 1991, the California state legislature authorized the Air District to impose a $4 surcharge on cars and trucks registered within the Air District's jurisdiction to provide grant funding to eligible projects that reduce on-road motor vehicle emissions. 40% of collected fees are available to each county with the remaining 60% administered by the Air District through a separate process. Eligible uses for transit include vehicle purchases, provision of service, traffic signal priority, bus stop relocation, rail-bus integration, and demonstration projects for public transit. Matching funds are not required but are considered in the evaluation process.

5 Preferred Service Plan

RECOMMENDED FIVE YEAR SERVICE PLAN

The following are big picture initiatives that Kern COG and city agencies can implement or facilitate. Strategies are divided into two categories, services and policies. Services involve the direct provision of transportation itself and policies include government principles and actions.

Figure 5-1 Summary of Proposed Strategies

Strategy Type	Strategy
Services	Expand Role of Regional Transit System
	Farmworkers Vanpool Program
	Community Vanpool Program Targeting Workers at Major Job Centers
	Shared Employer-Sponsored Shuttle
	Partnership with Ridesharing and Taxi Companies and Healthcare Providers to/from Key Transit Hubs to Close First/Last Mile Gaps
	Electric Vehicle (EV) Carshare Program
	Volunteer Driver Program
Policies	Work with Regional Transit Providers to Create Inter-Network Transfer Subsidy Program
	Expand Existing Programs and Services for Low-Income Populations
	Fleet Conversion to Zero Emission Vehicles and Solar Stops

Services

Expand Role of Regional Transit System

Kern Transit currently provides fixed route and some dial-a-ride service throughout the regional areas of the County. There are 16 intercity fixed routes offered on a limited basis between Arvin, Bakersfield, Bodfish, Boron, Buttonwillow, California City, Delano, Edwards, Frazier Park, Inyokern, Keene, Kernville, Lake Isabella, Lamont, Lebec, Lost Hills, McFarland, Mojave, Onyx, Ridgecrest, Rosamond, Shafter, Taft, Tehachapi, Wasco, Weldon, and Wofford Heights.

As discussed previously in the City Profile section of this report, most of the cities also provide their own public transportation services, which vary considerably between small demand response services to larger combinations of both fixed route and demand response services. As part of this study effort, Kern COG is interested in the exploring the possibility of expanding the role of Kern Transit to incorporate some or all of these smaller systems.

Responses from the City staff interviewed in this study have varied. A number have indicated that they would be willing to have their service absorbed into the regional system if this did not impact service levels or the jobs of those involved in managing and operating these services. The larger cities have been less interested in being absorbed into a regional system, as they believe their more developed local infrastructure effectively meets local mobility needs.

The proposed next steps are towards expanding the regional system to those cities which expressed an interest in being integrated into such a transportation network. One of the key objectives of this expansion would be improved coordination and reduced duplication between local services and regional trips resulting from system integration. Hopefully this would make these services more attractive, result in increased ridership, aid in operator retention, and reduce incidents of wasted operations expenses.

Farmworkers Vanpool Program

Transportation for farmworkers has been identified as a critical need in Kern County. Fortunately, there are programs that have been implemented in other locations in the San Joaquin Valley that provide a valuable model to be replicated in Kern County. These have generally been organized and sponsored by CalVans.

The CalVans program supplies qualified drivers with late model vans to drive themselves and others to work or school. It is sponsored by the California Vanpool Authority, a public transit agency, and has considerable experience with farmworker vanpool programs in California. CalVans pays for the gas, maintenance, repairs and a $10 million insurance policy.

According to the agency's website, farmworkers pay a modest fee to ride in a CalVans vanpool. The cost varies, but most riders pay a little over $2 per ride. The fee covers the Agency's cost of maintaining and insuring the vans, as well as the cost of replacing them when they wear out. **Drivers** receive no pay — they volunteer to operate a vanpool and enjoy the benefits of a safe, reliable and affordable commute to work.

Employers may participate in the program for free. A one-time start-up grant provided money to set-up the CalVans program and to purchase the 15-passenger vans. The money to sustain and expand the program comes from riders.

Community Vanpool Program Targeting Workers at Major Job Centers

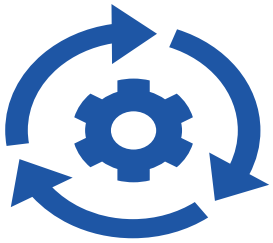
While CalVans has traditionally been used by employers to transport farm laborers, the program has also been used by employers of correctional officers and other state employees who must commute long distances, which would be particularly relevant in Kern County. This model may also be adopted to provide transportation to employees in a variety of industries and institutions. In Kern County, vanpool programs could serve the needs of employees in smaller cities to access the major employers in the Bakersfield area, in addition to those outside of Bakersfield that may be even less accessible by transit, such as Marko Zaninovich, Edwards Air Force Base, Grimmway Farms, and Wasco State Prison.

Shared Employer-Sponsored Shuttle

Many companies in the San Joaquin Valley already provide shuttles for their employees to reduce their reliance on single occupancy vehicles. Some of the benefits of employer shuttles include employees can use the down time to prepare for their day, shuttle programs strengthen the reputation of employer sites as a good place to work, they enhance employee retention, they can reduce costs where employees receive mileage reimbursements (and may benefit from tax credits), and clearly have environmental benefits by reducing the number of vehicles on the road.

This strategy proposes a shared employer-sponsored shuttle in order to benefit from the proximity of some of the major employers in the county. Some of the key aspects of this program would be as follows:

- Transportation services offered exclusively to the workforce of at least two and up to five employers, without charging a fare directly to workforce members.
- Not available to the public at-large.
- Have routes and schedules that complement and not duplicate existing public transit services in Kern County.
- Operate under agreement with Kern COG and under Kern Transit's supervision.
- Privately-funded and operated.



Partnership with Ridesharing and Taxi Companies and Healthcare Providers to/from Key Transit Hubs to Close First/Last Mile Gaps

Pilot programs that can close the first or last mile to a key commute mode, such as a bus or train station, can make the difference between riders having to get a lift from a friend or family member, or if they have access to a car, to drive to their destination without public transportation.

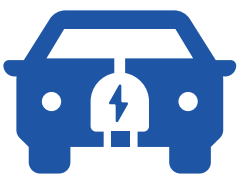
While the availability of taxis and ridesharing companies is somewhat limited in cities outside of Bakersfield, to the extent that these do exist, they should be explored as potential resources for meeting a variety of transportation needs that are not easily met through existing public transportation services. Some of the ways in which partnerships with taxis and ridesharing companies can address the needs of rural residents are addressing first and last mile connections, offering off-peak mobility services, or providing a guaranteed ride home.

These partnerships could be between the local public transit agency/human service agencies or healthcare providers on the one hand and rideshare/taxi companies. In those locations where wheelchair accessible vehicles are included in the fleets of these companies, this would greatly enhance their potential value, but we understand that these are currently extremely limited in the county.

Electric Vehicle (EV) Carshare Program

Car Share programs that are customized for low-income communities have recently been implemented in California communities ranging from the city of Sacramento to the town of Needles in San Bernardino County. A number of cities outside of Bakersfield have car rental companies such as Ridgecrest and Tehachapi. Subsidized car share programs involve partnerships with car rental companies in which the transit agencies offer the rental car company a guaranteed minimum payment for program costs in exchange for certain benefits granted to low-income and rural residents. In the Needles arrangement with Enterprise, hourly rentals start at $5/hour, with daily rentals at $40. Vehicles are available 24/7 at the local Credit Union. To offset the costs participants are not required to pay a membership fee or application fee and are not required to return vehicles with a full tank of gas. In this program, the generated revenue covered 70% of the cost, leaving the partner transit agency (Victor Valley Transit Authority) to cover only 30% of the cost.

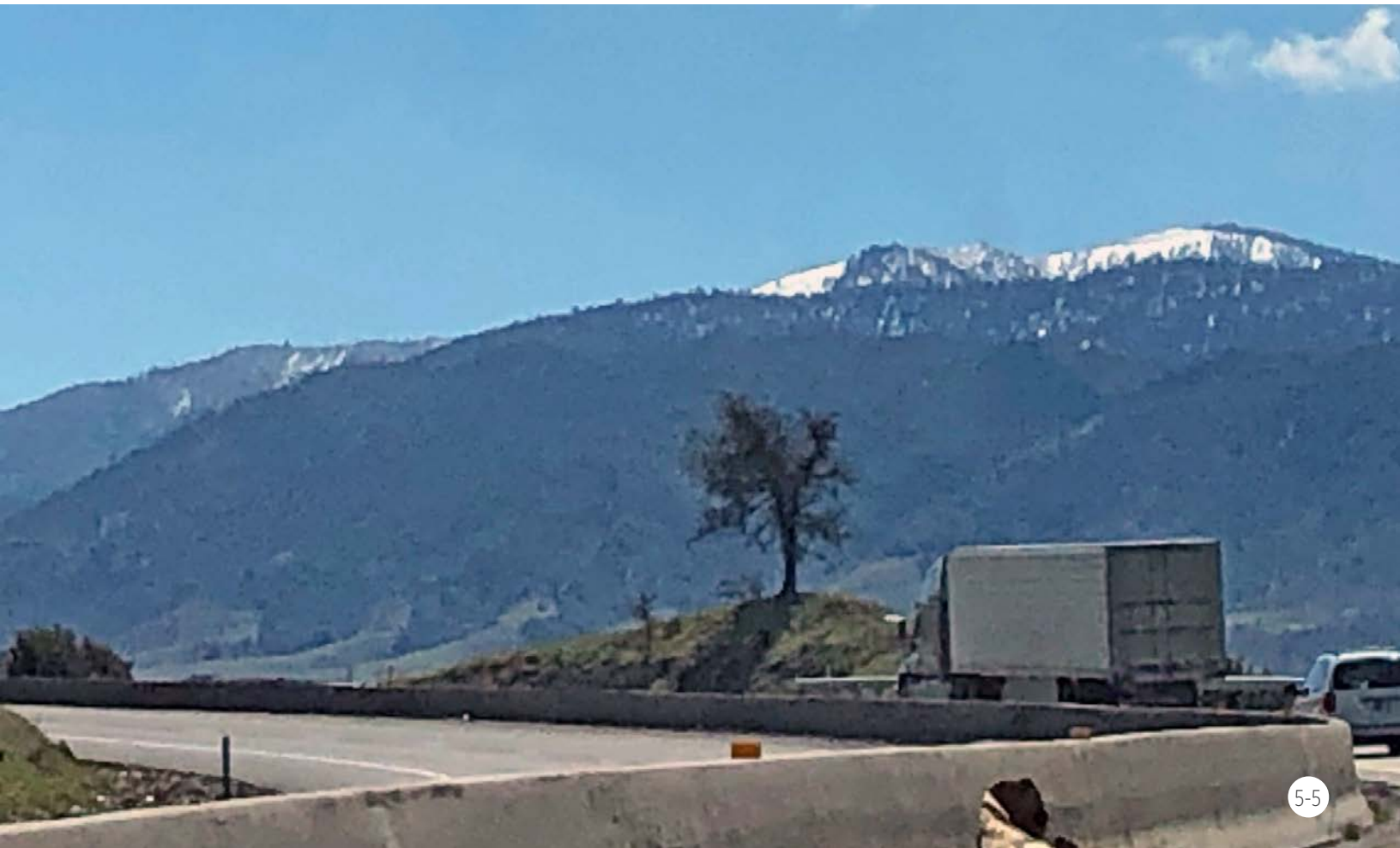
In California's settlement with auto manufacturer Volkswagen following the 2015 emission case, VW is currently adopting a variety of green initiatives, including those associated with low-income apartment complex car sharing stations. If the car share model is pursued in Kern County, the VW settlement should be considered as a possible source of funding for electric vehicles.



Volunteer Driver Program

Volunteer Driver Programs provide agency funding for volunteer drivers to provide transportation to friends, family members, or neighbors. The drivers can be reimbursed at a per-mile rate and may be organized to provide service to specific customers (e.g., seniors, people with disabilities, or limited income) or to the general public. These trips are often for critical needs such as medical and nutrition and are for passengers who need more support than other types of transportation offered.

Asking friends and family is a simple and often-used solution to transportation problems, but for those who regularly need to make repeated trips, continually asking others for rides can begin to feel like an imposition. While paying others helps to alleviate this sense of obligation, it can also be expensive for regular trips. Twenty-seven years ago, Riverside County pioneered the TRIP volunteer driver model. The TRIP model is an example of a program where riders can reimburse drivers – friends or family members – and then the riders are reimbursed by a sponsoring agency. The program is designed to limit liability and administration costs of the sponsoring agency, while providing 24/7 transportation to any destination by trusted members of one's own community. It is designed as a flexible model that can be adopted within a community. The model appears to be particularly well suited to the smaller cities in Kern County but would benefit from a county-wide coordinator to ensure efficient program administration.



Policies

Work with Regional Transit Providers to Create Inter-Network Transfer Subsidy Program

Paying an additional fare when transferring from Kern Transit to GET or from one of the dial-a-ride programs can present a significant financial challenge for low-income workers, particularly if they have to pay the transfer fee twice a week each workday. This strategy would involve a coordinated effort between the regional fixed route providers and the local services that recognizes the fare payment on the first leg of the trip. Funding would be required to compensate the transit agencies for the loss of revenue represented by free transfers, but this may be somewhat mitigated by the increase in ridership of those who cannot afford the transfer fares on a daily basis.

Expand Existing Programs and Services for Low-Income Populations

Almost all the strategies recommended in this report are tailored towards low-income populations. However, this recommendation would additionally involve an expansion of funding for existing services that already serve this population. In addition, this study proposes a mechanism that explicitly targets low-income residents, which is known as flexible transportation vouchers.

An effective mobility enhancement strategy, flexible transportation vouchers (flex vouchers) can fill an important gap for eligible individuals and provide additional revenues to transportation providers and even volunteer drivers. Some programs solely cover non-emergency medical transportation (NEMT) while others also cover specific trip purposes.

Flex vouchers can be issued or sold to eligible individuals and used to purchase trips from public or private transportation providers, or to reimburse volunteer drivers. They may serve as a way to reduce the cost of current transportation programs and provide new service.

As an example, a program in Logan, UT started its flex voucher program to cover NEMT trips and then expanded to cover trips related to:

- Employment/training activities
- Job search activities
- Educational activities (school or vocational training)
- Family/personal improvement activities (counseling, addiction intervention, support, mentoring, financial responsibility, etc.)

A single agency typically administers a flex voucher program to screen and approve applicants for eligibility, identify providers and partner organizations, provide the vouchers to participants, and reimburse providers.

Eligibility is based on age, disability, income criteria, or the need for a specific type of trip, such as employment transportation. Flex voucher programs that can potentially be used with any type of service and recognize family members as eligible providers of service, could fill temporal and geographic gaps in fixed-route and demand-response service for older adults and people with disabilities.

Voucher programs could also offer a means of employment transportation for individuals requiring access to jobs in areas not served by public transportation or during hours when those services are not in operation. Similar to other types of programs that provide subsidies to individuals rather than to transportation providers, flex voucher programs are consumer driven, and allow consumers to control resources directly and to make their own decisions about service providers. Other advantages include low start-up and administrative costs, support for existing transportation providers and services, and the flexibility to adapt to a variety of local conditions.

Transitioning to Zero-Emission Bus Fleets

Several cities in Kern County are in the process are fully converting their fleets to electric vehicles, and many of the remaining cities are considering full fleet conversion over the next 5-10 years to electric vehicles. In addition, many of the cities are encouraged to construct solar stations and bus stops, similar to the bus stop seen in the photo below.

Fleet conversion takes time and funding, however. Making the transition to a zero-emission bus fleet can be very beneficial if agencies run a small fleet because typically battery-electric buses (BEBs) are more energy-efficient than diesel buses and have lower per-mile maintenance costs. While up-front costs such as vehicle procurement, addition of bike racks, and investment in charging infrastructure can be daunting, the cost savings associated with BEBs can be worth it in the long-term. Similarly, the up front costs for installing solar shelters are typically higher than traditional shelters, the long-term cost savings make up for the initial installation expenses. The table below outlines a rough capital cost estimate of transitioning to a zero-emission bus fleet and solar shelters.

Figure 5-2 Zero-Emissin Fleet Capital Cost Estimate

Item	Unit Cost	Count	Total Cost
Vehicles *(Cutaway)*	$230,000	2	$460,000
Bike Racks	$400	2	$800
Plug-In Charging *(Design & Installation)*	$40,000	2	$80,000
Solar Bus Stop	$14,500	1	$14,500
	Total Capital Costs:		**$555,300**

Note: Vehicle costs are approximate based on the Lightning Bus Electric Ford E-450. Solar stop costs and analysis from GreenTech Media and Worchester Polytechnic Institute Research.

CITY PROFILES AND RECOMMENDATIONS

The following section consists of city profiles of key rural communities in Kern County. These profiles provide a snapshot of the demographics and transportation resources in each community, along with recommendations for service improvements.

City of Arvin

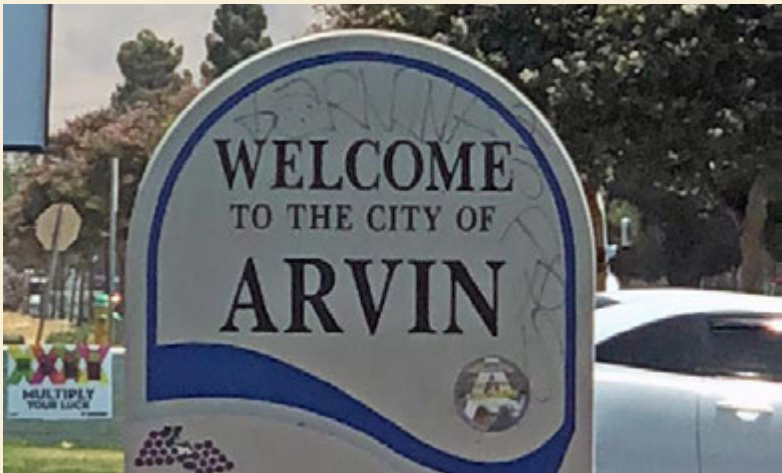
Arvin Transit

Funded by 5311 funds through the state and through Kern COG. Transit service runs Monday through Friday from 7:00 a.m. to 4:00 p.m., except for an employee shuttle to the Ikea warehouse in Tejon that runs from 4:00 a.m. to 1:00 p.m. Arvin Transit operates three fixed-route and various flex routes including a dial-a-ride that takes the place of paratransit. The dial-a-ride service is exclusive for older adults and individuals with disabilities. To ride, individuals fill out an application that must be approved by a physician for those age 55 and older.

The operation's largest bus travels to Tejon to pick up workers from the Ikea warehouse. Smaller buses are used for general fixed-route service within the City of Arvin. Arvin Transit's service area extends from Tejon South on State Route 99 to Bakersfield College. The routes travel to Wal-Mart, downtown Bakersfield, and the mall in Bakersfield. Every stop Arvin makes in Bakersfield, Tejon, and Lamont is shared with Golden Empire Transit (GET) and Kern Transit. The stop in downtown Bakersfield is half a block from the Greyhound and Amtrak stations.

In 2017-2018, Arvin Transit completed 78,606 round trip rides totaling 128,463 miles. A majority of the population in Arvin is reportedly transit dependent.

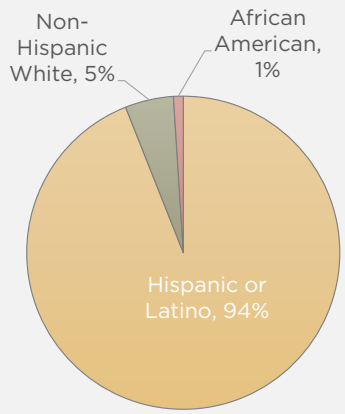
The City of Tehachapi does not currently have Transportation Network Companies like Uber and Lyft; as such, the city needs alternative means of transportation. To assist, the City of Arvin is currently extending their dial-a-ride service to cover gaps in service. Arvin.org has transit routes and schedules that may be downloaded by the public. Arvin is currently pursuing full fleet conversion, including electric vehicles for the city. As of August 2018, the city was in the process of breaking ground for electric vehicle charging stations. The Arvin Police Department just received a fleet of four electric vehicles for outreach.



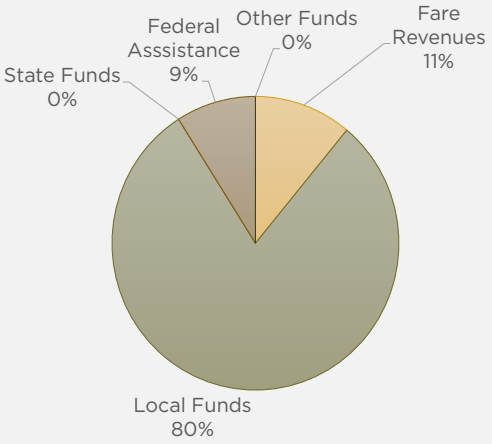
Arvin By The Numbers

Population
21,522

Demographics



Sources of Funds*



* https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2018/9R02-91027.pdf

Current and Future Funding Streams

- FTA 5311 Formula Funds
- Transit Development Act (TDA Funds)
- Low Carbon Transportation Operations Projects
- State of Good Repair

Vehicles

1 Natural Gas Bus

4 Electric Buses

1 Demand Response

Fares

Fare Types	One-ride General Public	Seniors	ADA Certified	ADA Attendant	Children (under 5)
Arvin Local	$1.00	$0.75	$0.75	Free	Free
Arvin to Lamont	$1.50	$1.00	$1.00	Free	Free
Arvin to Bakersfield	$3.00	$2.00	$2.00	Free	Free
Dial-A-Ride	--	$1.00	$1.00		

Fare Types	One-ride General Public	Monthly pass
Arvin to Tejon Industrial Complex	$3.00	$50.00

Future Planning in Arvin

The City of Arvin is in Phase I of converting its buses to an all-electric fleet. The FTA requires 20 percent match and the City of Arvin requested $2 million for the purchase of new vehicles. Matching funds are sourced from Transit Development Assistance Funds (TDAF), the Low Carbon Transit Operations Program (LCTOP), and state of good repair.

There is a need to expand alternative transportation options for the public on weekends when the service is not in operation. The city would like more rideshare programs and charging stations for rideshare vehicles at affordable housing locations. In addition, Arvin would like to create an Arvin to Tehachapi route. The City will be building a community college in Arvin and believe students from Tehachapi will want to attend.

Strategy	Timeline	Funding Sources
Farmworkers Vanpool Program	Less than Two Years	LTF, Private Partnerships, STA,
Community Vanpool Program	Less than Two Years	5310, AHSC, LTF, STA
Electric Vehicle Carshare Program	Less than Two Years	LCTOP, LTF, SGR, STA, Sustainable Transportation Planning, TFCA
Inter-Agency Subsidized Transfer Program	One Year	5307, 5311, 5310, LTF, STA
Expand Existing Programs for Low-Income Populations	One to Three Years	AHSC, LTF, STA, TNC Access for All
Fleet Conversion to Zero-Emission & Solar	Two to Five Years	LCTOP, SGR, Sustainable Transportation Planning Grant, TFCA

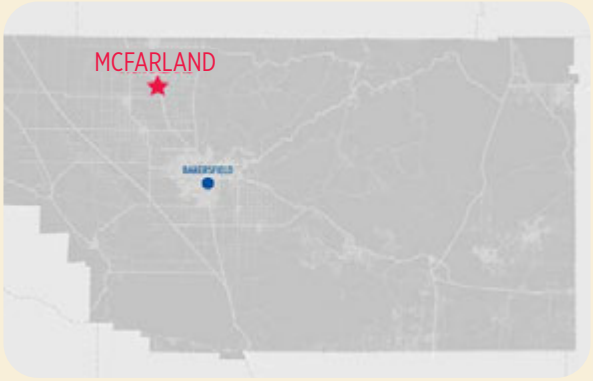
Image from Wikimedia

Image from City of McFarland (2020)

City of McFarland

City of McFarland Transit Division

The City of McFarland Transit Division oversees the administration and supervision of transit operations, files reports and claims for transit funding, plans existing and future services, and promotes and advertises transit services. The Transit Division also manages and operates the McFarland City Transit Bus. This service operates Monday to Friday from 8:00 a.m. to 4:15 p.m. and offers service to the general public upon request and through its Dial-a-Ride Title VI Program. As of May 2020, the City has one bus driver, so they are rotating its two buses and van.



The Transit Division has a two-mile radius service area, which allows drivers to pick up riders within 10 to 15-minutes of their request. Drivers receive requests directly. While no trips are denied, passengers under the age of 16 must be accompanied by an adult.

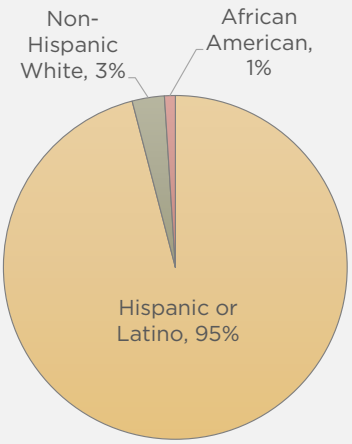
Most of the transit service users are elderly and/or people with disabilities. Parents also use the service to transport their kids to school.

Ending services at 4:15 p.m. is reportedly adequate to meet community transportation needs. For example, agricultural workers are an important subset of users and their activities generally end around 2:00 p.m. The City reported being open to absorption into a regional transit program if the same levels of service were maintained.

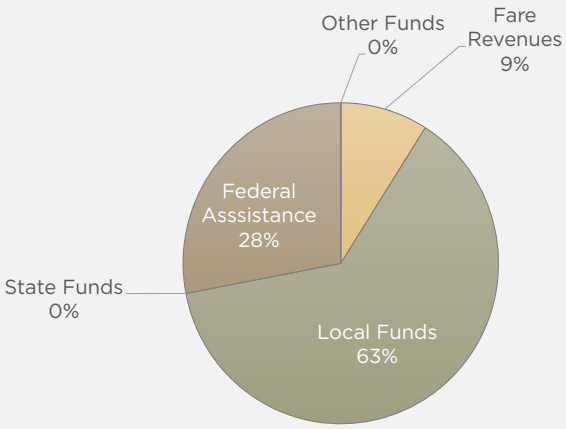
McFarland By The Numbers

Population
15,182

Demographics



Sources of Funds*



* https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2018/9R02-91027.pdf

Vehicles

3

Demand Response

Fares

	Adults	Children 3+	Seniors
Fares	$1.00	$0.50	$0.50

Future Planning in McFarland

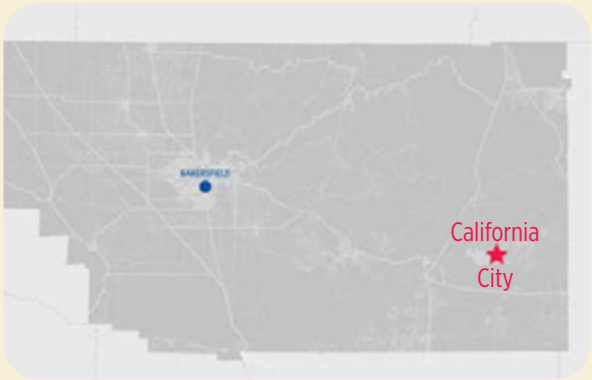
A planned electric charging facility will be located near Industrial Street and Sherwood, which will serve as a small transit hub to facilitate connections to the Kern Transit network. The facility will consist of a small transit depot and a waiting area. The facility is currently in the design stage and the transit station component is in the engineering phase. The expected completion date has been postponed to 2021 due to the impact of COVID-19. The City is applying for electric vehicle grants for the charging stations.

Strategy	Timeline	Funding Sources
Community Vanpool Program	Less than Two Years	5310, AHSC, LTF, STA
Volunteer Driver Program	One Year	5310, AHSC, LTF, STA
Expand Existing Programs for Low-Income Populations	One to Three Years	AHSC, LTF, STA, TNC Access for All
Fleet Conversion to Zero-Emission & Solar	Two to Five Years	LCTOP, SGR, Sustainable Transportation Planning Grant, TFCA

City of California City

California City Transit

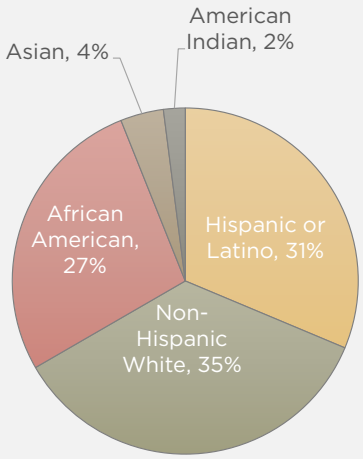
The City of California City offers a Dial-A-Ride service serves three areas from Monday to Friday: California City, Rancho Estates and Wonder Acres. California City service runs from 8:30 am to 4:30 pm, (though the service has modified during the COVID crisis to 7 am-4 pm), Rancho Estates runs from 9 am to 2:30 pm, and Wonder Acres service runs from 9 am to 2:30 pm.



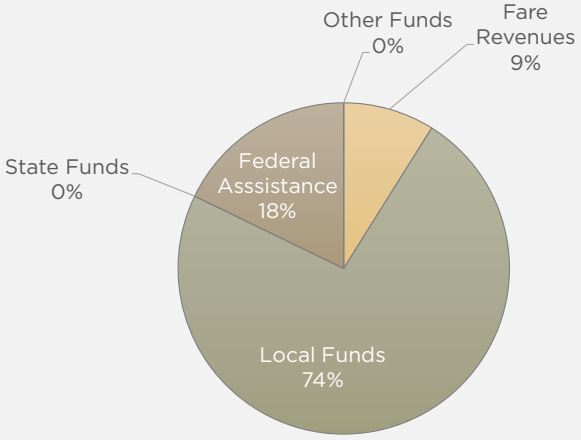
California City By The Numbers

Population
14,217

Demographics



Sources of Funds*



* https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2018/9R02-91027.pdf

Vehicles

3

Demand Response

(Two new, one reserve)

Fares

	General Public	Senior/ADA Certified	Children under 4'9"	Medicare card holders
Dial-A-Ride	$1.70 *(10-trip pass $17.00)*	$1.00 *(10-trip pass $10.00)*	$1.00	$1.00

Future Planning in California City

Farebox projections have decreased significantly during the COVID crisis; the city is currently only offering 10-15 rides per day due to the increase in service demand. The City has a plan with transit recommendations stretching as far back as 2012, and some of the recommendations have yet to be put into place. Those recommendations include improving service for the public and ensuring that the public is included in future town halls and communications. The City will be putting work into ensuring they meet future farebox standards, as well as reporting procedures for service, and a policy for submitting financial audits and reports in a timely fashion.

California City is interested in partnering with Kern Transit to operate future services within the City. Drivers are beginning to retire, and it is very difficult in California City to find qualified drivers. The Director of Public Works is beginning to work on a long-term plan for how to serve the City in the next few years. The City does not currently have any electric vehicles but is planning to purchase their next round of vehicles as electric, in the long term (8-10 years).

Strategy	Timeline	Funding Sources
Expand Role of Regional Transit System	Three to Five Years	5311, LTF, STA
Community Vanpool Program	Less than Two Years	5310, AHSC, LTF, STA
Shared Employer Sponsored Shuttle	One Year	Employer Funded, LTF, STA
Electric Vehicle Carshare Program	Less than Two Years	LCTOP, LTF, SGR, STA, Sustainable Transportation Planning, TFCA
Volunteer Driver Program	One Year	5310, AHSC, LTF, STA
Fleet Conversion to Zero-Emission & Solar	Two to Five Years	LCTOP, SGR, Sustainable Transportation Planning Grant, TFCA

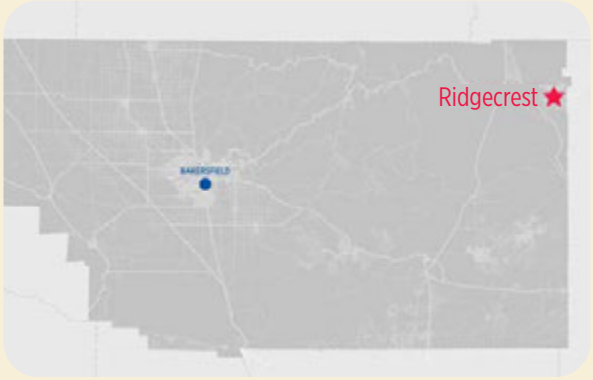
Image from Wikimedia


Image from Wikimedia

City of Ridgecrest

City of Ridgecrest Transit Division

Ridgecrest Transit provides a combination of traditional fixed-route service and demand response service to accommodate ADA passengers. Ridgecrest Transit operates Monday through Friday from 7:00 a.m. to 5:00 p.m. Service for the Randsburg/ Johannesburg route is limited to Fridays. Buses are used for fixed-route service, however, occasional detours are made to pick up and drop off passengers who qualify for the flexible service. While one-day advance notice is requested, the agency is usually able to accommodate same-day trip requests if they are within a three-quarter of a mile radius from the bus route. Transit ridership has generally increased in the rural areas (Inyokern, Randsburg and Johannesburg), while slowly declining within the city. This may be attributed to increased marketing in rural areas.



Ridgecrest Transit provides connections to the Eastern Sierra Transit Authority (ESTA) Mammoth Lake routes, Monday through Friday via its Inyokern route. These connections provide transportation from Ridgecrest to the ESTA southbound or northbound buses, as well as transportation from the ESTA buses to Ridgecrest. Current and Future Funding Streams[1]

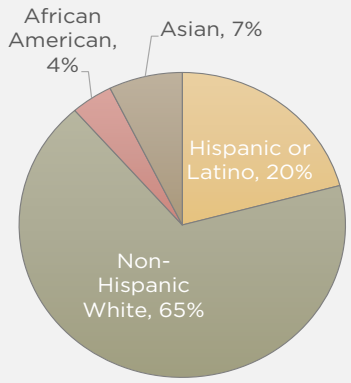
1 https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2018/9R02-91006.pdf

Ridgecrest By The Numbers

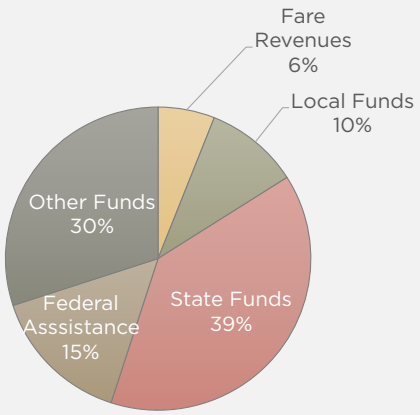
Population

28,940

Demographics



Sources of Funds*



* https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2018/9R02-91027.pdf

Vehicles

Buses

Fares

Fares	General Public	Seniors, Disabled, and Youth	Deviation	Children
Ridgecrest	$2.50 *(Monthly Pass $45.00)*	$1.25 *(Monthly Pass $35.00)*	$2.00	Free
County	$2.00	$1.00	-	Free
Inyokern/Crest	$2.50	$1.25	-	Free
Randsburg/Johannesburg	$8.00	$4.00	-	Free

Future Planning in Ridgecrest

The City plans to use smaller vehicles than those currently in the fleet due to capacity needs. In addition to the smaller, electric vans they will be purchasing, the City will retain two cutaways to allow flexibility for transporting residents in larger wheelchairs. Four of the agency's buses are used for fixed-route service and one is for both demand-response and fixed-route service. None of the current vehicles are electric, however, the City is ordering a hybrid gas vehicle and plans to order additional electric vehicles in the future.

The City is pursuing funding for solar charging stations and plans to install solar panels on the bus shade infrastructure. While the City was unsuccessful in securing CMAQ funds for this project, they have been told by Caltrans that there they are "in contingency" and are optimistic that funding will come through in FY22. The City is also considering using State of Good Repair funding and are compiling a Design Request for Proposals for when funding becomes available.

Ridgecrest has also applied for an affordable housing grant that will include a transit component. Transit improvements include a new bus stop, signage, and upgraded shelters at City Hall, and funding to increase the frequency of Kern Transit service to Ridgecrest. If the funding becomes available, it will need to be spent by FY2025.

With regards to a potential regional transit authority, concerns will likely be raised about the potential loss of TDA money that could otherwise be used for street maintenance.

Recommended Strategies

Strategy	Timeline	Funding Sources
Community Vanpool Program	Less than Two Years	5310, AHSC, LTF, STA
Partnerships with Rideshare Programs	One Year	AHSC, TNC Access for All
Volunteer Driver Program	One Year	5310, AHSC, LTF, STA
Expand Existing Programs for Low-Income Populations	One to Three Years	AHSC, LTF, STA, TNC Access for All
Fleet Conversion to Zero-Emission & Solar	Two to Five Years	LCTOP, SGR, Sustainable Transportation Planning Grant, TFCA

Image from Wikimedia


Image from Wikimedia

City of Shafter

Shafter Transit Department

The City of Shafter's transit program serves the city of Shafter as well as three unincorporated areas just outside city limits, based on an agreement with Kern County. The City offers transportation service Monday to Friday from 7:30 a.m. to 6:00 p.m. Saturday service runs from 9:00 a.m. to 2:30 p.m. The program typically operates two vehicles on weekdays, and one on Saturdays. The fleet consists of four all electric Venus vehicles, which is a shuttle type vehicle, and five minivans. Due to issues with the Venus vehicles (such as the charge reportedly lasting half a day), the City recently purchased two electric vehicles from another company, Phoenix, which are due sometime in mid-2020. It is expected that the vehicles will be operational later in 2020. Two of the five minivans are reserved as backups.

The City of Shafter offers two transportation services: Shafter Dial-a-ride, and a hybrid Fixed-Route/Dial-a-ride service. Shafter Dial-a-ride provides a low-cost, on demand, door-to-door transportation service within Shafter city limits. Drivers are trained and units are equipped to accommodate elderly riders and those with limited mobility.

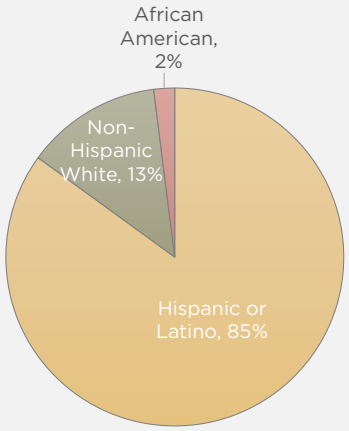
Shafter's Fixed-Route service outside of the city allows users to call in to request pick-ups along the route. The City's contract with the three unincorporated areas south-west of the city is based on ridership demand. Generally, service is provided four times a day, but only if calls are received from those areas. While this is generally a demand response service, it is considered a hybrid service because users in one of three areas are required to walk to a designated pick-up location.

Attracting and retaining drivers has been a problem for the City. Most drivers work part-time from 7:30 a.m. to 4:30 p.m. During the last fiscal year, the City converted the positions of a long-time employee to full-time. Since many of the riders are students, drivers must have a GPPV license, which is one level below a school bus driver's license. Many applicant drivers have found the test to be challenging and the process for receiving a license can last three to six months. In some instances, drivers who receive the license, which was paid for by the City, go to work for the school district instead due to higher wages.

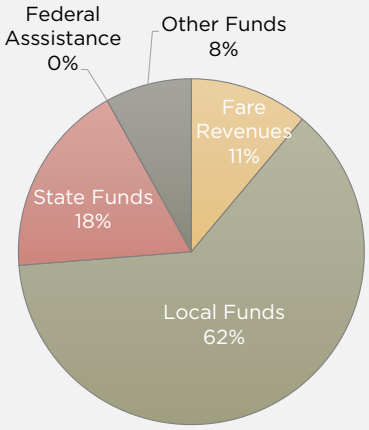
Shafter By The Numbers

Population
20,058

Demographics



Sources of Funds*



* https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2018/9R02-91027.pdf

Vehicles

4

Electric Vehicles

5

Gas Minivans

Fares

Fares	General Public	Seniors	Disabled	Youth (5-12)	Children (0-4)
Dial-a-ride	$1.50	$1.25	$1.25	$1.25	Free *(up to two with paying adult)*
Fixed Route/Dial-ride	$1.75**	$1.50	$1.50	$1.50	Free *(up to two with paying adult)*

*Frequent Rider Program offers one free ride with a ten-ride Frequent rider Card.

**The hybrid service fares are higher than Dial-a-ride because of greater distances

Future Planning in Shafter

Shafter's transport challenges are largely due to expansion of new development near Bakersfield. A large industrial development southwest of Shafter will attract nearly 5,000 employees, most of whom will come from Bakersfield. In addition, a new development west of State Route 99 includes more than 400 single-family homes. There are plans to expand this development to 4,000 units, which will double the population of the city, highlighting the potential need for a regional transit solution. The development is not expected to yield substantial demand for fixed route or paratransit services.

Offering transportation services to these newly developed areas will require coordinated efforts with other transit agencies, since so many of the employees are expected to travel to and from Bakersfield. The City plans to invest additional funding in the expansion of electric vehicle infrastructure. Many of the potential riders will not be low-income or seniors, which suggests their travel needs will be different to existing riders.

The city is currently meeting the required farebox recovery ratio (but may not have if the repairs for the Venus vehicles are included). Continuing to meet the farebox recovery ratio is becoming more challenging, however, because the part-time driver labor pool is becoming smaller.

The City reported it would enthusiastically embrace the idea of a region-wide transit system replacing each of the smaller city systems if service levels are maintained. A region-wide transit system would eliminate competition between cities for drivers and enable universal service policies.

Recommended Strategies

Strategy	Timeline	Funding Sources
Expand Role of Regional Transit System	Three to Five Years	5311, LTF, STA
Shared Employer Sponsored Shuttle	One Year	Employer Funded, LTF, STA
Volunteer Driver Program	One Year	5310, AHSC, LTF, STA
Inter-Agency Subsidized Transfer Program	One Year	5307, 5311, 5310, LTF, STA
Expand Existing Programs for Low-Income Populations	One to Three Years	AHSC, LTF, STA, TNC Access for All
Fleet Conversion to Zero-Emission & Solar	Two to Five Years	LCTOP, SGR, Sustainable Transportation Planning Grant, TFCA

Image from Wikimedia

City of Taft

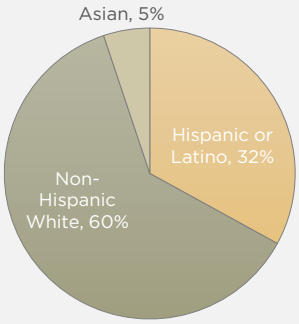
Taft Area Transit

Taft Area Transit (TAT) offers two types of transportation services: Dial-A-Ride (DAR) service and the Maricopa-Taft Route service. Dial-A-Ride is a curb-to-curb shared service. Though it primarily serves ADA-certified patrons and seniors aged 60 and older, the service is open to the general public. Rides must be reserved in advance. Seniors, individuals with a disability, and minors, are eligible for a fare discount. Seniors and individuals with disabilities can fill out an application for discounted fares. Individuals with disabilities must have a doctor sign off on the application. DAR service operates Monday to Friday from 7:15 a.m. to 5:30 p.m., and on Saturday from 10:15 a.m. to 2:30 p.m. The Maricopa-Taft Route runs three trips per day Monday to Friday throughout the cities of Taft and Maricopa.

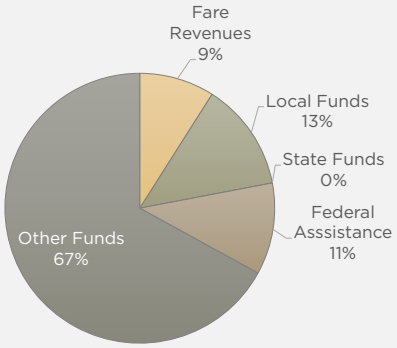
Taft By The Numbers

Population
9,396

Demographics



Sources of Funds*



* https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2018/9R02-91066.pdf

Vehicles

7

Type II DAR Vehicles

Fares

	General Public	Senior/ADA Certified	Youth	Children under 5	ADA attendant
Dial-A-Ride	$2.50 *(12-trip pass $25.00)*	$1.75 *(12-trip pass $17.50)*	$1.75 *(12-trip pass $17.50)*	Free *(per fare paying adult)*	Free
Maricopa-Taft Route	$2.00 *(12-trip pass $20)*	$2.00	$2.00	Free	Free

Future Planning in Taft

Prior to the COVID-19 pandemic, the farebox recovery ratio was at its highest. The average over the prior six to seven months has been about 11 percent. With the COVID-19 pandemic, farebox revenues have been reduced significantly.

TAT would like to better utilize the staff during the COVID crisis, a slow service period, and bolster efforts on marketing the service and promoting the service on social media. TAT has expressed a desire to create a marketing toolkit to run social media promotions, especially for services provided to students at Taft College.

One of TAT's key service populations are students with learning disabilities who attend Taft College and live in the school's dormitories. These students rely on TAT to get around town, go to school, and to go shopping. TAT also has a number of students who use the service to travel to other schools. TAT's ridership has decreased due to school closures resulting from the COVID-19 pandemic.

Recommended Strategies

Strategy	Timeline	Funding Sources
Farmworkers Vanpool Program	Less than Two Years	LTF, Private Partnerships, STA,
Shared Employer Sponsored Shuttle	One Year	Employer Funded, LTF, STA
Inter-Agency Subsidized Transfer Program	One Year	5307, 5311, 5310, LTF, STA
Expand Existing Programs for Low-Income Populations	One to Three Years	AHSC, LTF, STA, TNC Access for All
Fleet Conversion to Zero-Emission & Solar	Two to Five Years	LCTOP, SGR, Sustainable Transportation Planning Grant, TFCA

City of Tehachapi

Service Provided by Kern Transit

Kern Transit operates Tehachapi's Dial-A-Ride service. The service runs Monday to Friday from 5:45 a.m. to 7:00 p.m., and on Saturday from 7:30 a.m. to 5:30 p.m.

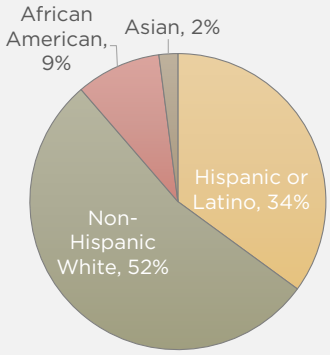
Tehachapi By The Numbers

Population*

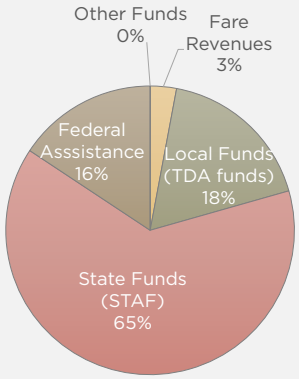
13,668

* Population information is derived from the 2019 California Department of Finance. Total population includes the prison population. The total number of civilians is roughly 9,609, not including released prisoners.

Demographics



Sources of Funds**



** https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2018/9R02-91027.pdf

Vehicles

Buses

Tehachapi does not own any buses, but two buses are dedicated to Dial-a-ride; vehicles go between county and city.

Fares

	General Public	Seniors
Fares	$2.00* *(Monthly pass $65.00)*	$1.00 *(Monthly pass $32.50)*

*$2.00 for general public is one-way

Future Planning in Tehachapi

Currently, dial-a-ride is the best option that Tehachapi offers. Tehachapi has seen a reduction in ridership since the outbreak of COVID-19. Kern Transit is currently providing services through Tehachapi to Bakersfield to Lancaster. Seven percent of all passenger trips are on Kern Transit. Kern Transit and the City of Tehachapi are discussing possible service expansion and are considering an express service from Tehachapi to Mohave/Edwards Air Force Base.

Tehachapi has not met the required farebox ratio of 10% for rural cities in the state of California. In order to meet the 10% farebox return ratio, the City of Techachapi has been using the City's general fund to meet the requirement. One recommendation may be to consider lowering the farebox return threshold for rural areas, particularly those areas that do not offer traditional transit services. The farebox ratio may need to be reconsidered for rural cities.

One consideration to offset low farebox revenues may be to utilize carpool and vanpool usage fees in lieu of farebox money to meet the 10% threshold. Vanpool utilization in Tehachapi is high, and a majority of the cars in the City's park and ride center are there due to individuals using carpool and vanpool services. SpaceX and the Air Force Base are supplying vans for individuals to use for vanpool as well. One solution may be that since Kern Transit is operating and is meeting the threshold, Kern Transit's farebox numbers could help count towards Tehachapi's threshold for farebox revenues.

Recommended Strategies

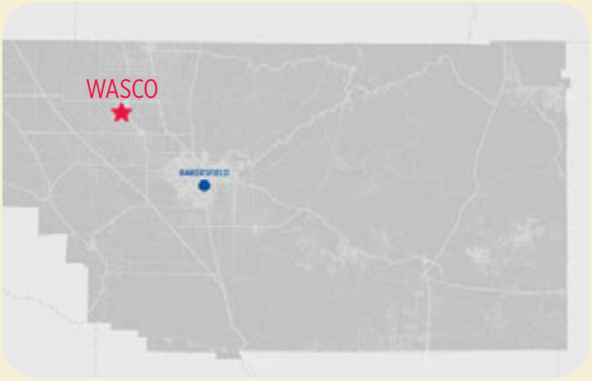
Strategy	Timeline	Funding Sources
Community Vanpool Program	Less than Two Years	5310, AHSC, LTF, STA
Shared Employer Sponsored Shuttle	One Year	Employer Funded, LTF, STA
Partnerships with Rideshare Programs	One Year	AHSC, TNC Access for All
Volunteer Driver Program	One Year	5310, AHSC, LTF, STA
Fleet Conversion to Zero-Emission & Solar	Two to Five Years	LCTOP, SGR, Sustainable Transportation Planning Grant, TFCA

Image from Wikimedia

City of Wasco

Wasco Dial-a-Ride

The City of Wasco's Dial-a-Ride service runs Monday to Saturday from 8:00 a.m. to 3:30 p.m. On Saturdays, there is no service between 11:30 a.m. and 1:00 p.m. Service is only provided within the city limits. Walmart is the main origin and or destination for almost a third of all trips.



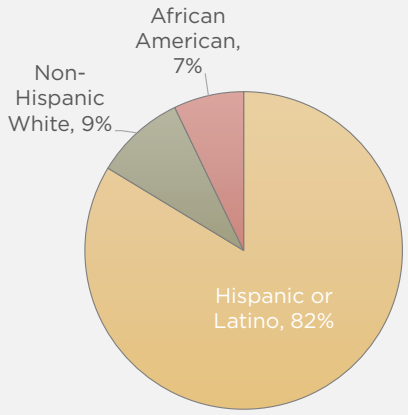
Riders call the driver's mobile phone, which are linked to vehicle radios, and the drivers coordinate the pick-ups amongst themselves. Drivers typically to pick up riders within 30 minutes.

The city has two full-time drivers but has been unsuccessful in recruiting an additional driver to address overtime hours. The bus fleet consists of two 16-passenger buses plus two backup vans, one of which is accessible. Ridership has been steady over the past three years with 25,000 to 26,000 trips per year. Most of the riders are seniors and/or people with disabilities who are doing shopping, conducting medical appointments, or attending city programs. There is a senior discount pass for those who are eligible. There are currently no taxis or TNCs operating in Wasco.

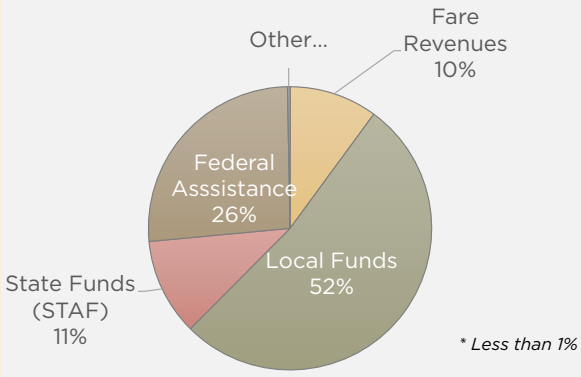
Wasco By The Numbers

Population
27,976

Demographics



Sources of Funds*



* https://www.transit.dot.gov/sites/fta.dot.gov/files/transit_agency_profile_doc/2018/9R02-91027.pdf

Vehicles

4

Demand Response

Fares

	Adults (within Wasco)	Adults (to State Prison)	Seniors*	Disabled	Youth (5-10)	Children (0-4)
Fares	$1.75	$2.00	$1.00	$1.00	$1.00	$0.25

Future Planning in Wasco

Elected officials have discussed the possibility of adding fixed-route service, but there are currently no plans to do so. The City does have LCTOP funds available for an electric vehicle, but has received permission to use this funding to install charging stations.

With regard to the potential for being absorbed into a regional Kern Transit system, the informants indicated that this would depend on a number of factors, such as whether availability of service would be maintained, whether the service would cost a similar amount to the current program, leaving funds for streets and roads, and whether the current drivers would be able to retain their jobs.

Recommended Strategies

Strategy	Timeline	Funding Sources
Expand Role of Regional Transit System	Three to Five Years	5311, LTF, STA
Shared Employer Sponsored Shuttle	One Year	Employer Funded, LTF, STA
Partnerships with Rideshare Programs	One Year	AHSC, TNC Access for All
Volunteer Driver Program	One Year	5310, AHSC, LTF, STA
Expand Existing Programs for Low-Income Populations	One to Three Years	AHSC, LTF, STA, TNC Access for All
Fleet Conversion to Zero-Emission & Solar	Two to Five Years	LCTOP, SGR, Sustainable Transportation Planning Grant, TFCA


KernTransit
120 Bakersfield
800-323-2396
www.KernTransit.org

6 Five-Year Capital and Implementation Plan

IMPLEMENTATION PLAN

The following table summarizes the Nelson\Nygaard team's plans for implementing the recommended strategies for Kern County regional transportation improvements. It provides a recommended lead agency for each of the strategies, together with an estimate of the time needed to implement the strategy.

Figure 6-1 Implementation Plan

Strategy	Agency Lead	Timeline
Expand Role of Regional Transit System	Kern Regional Transit	Three to Five Years
Farmworkers Vanpool Program	Kern COG	Less than Two Years
Community Vanpool Program	Kern COG	Less than Two Years
Shared Employer Sponsored Shuttle	KT in partnership with a designated large employer	One Year
Partnerships with Rideshare Programs	Individual cities	One Year
Electric Vehicle Carshare Program	Kern COG	Less than Two Years
Volunteer Driver Program	Kern COG	One Year
Inter-Agency Subsidized Transfer Program	KT/GET	One Year
Expand Existing Programs for Low-Income Populations	Kern COG	One to Three Years
Fleet Conversion to Zero Emission Vehicles & Solar Stops	Kern COG	Two to Five Years

2019 Federal Transportation Improvement Program

The Federal Transportation Improvement Program (FTIP) is a financially constrained list of transportation projects slated for federal funding. Projects include improvements to highways and intersections, as well as improvements to transit, rail, bus facilities, and bicycle and pedestrian infrastructure. The following alternative transportation projects are in the 2019 FTIP and will be financed by federal grants and local match funds. Project are funded over a five-year period.[1]

The apportionment of funds for alternative transportation services in Kern County signals the demand for more affordable and sustainable travel options. As noted in the table below, federal funds have been allocated to funding fuel-efficient and electric bus fleets, EV infrastructure, as well as commuter programs.

Figure 6-3 addresses the implementation and ongoing operating costs for each strategy, together with a listing of potential funding sources that can be

1 SCAG (2017). Federal Transportation Improvement Program. Retrieved from http://ftip.scag.ca.gov/Pages/default.aspx

Figure 6-2 Federal Funding Allocation for Kern County Alternative Transportation Projects (2019)

Program	Description	Location	Funding Summary	
			Local Funding Allocation/Match	Federal Funding Allocation
Congestion Mitigation and Air Quality Program (CMAQ)	Commute Rideshare Program	Kern County	$47,977	$370,303
Transit Program (Non-CMAQ)	Purchase of a 24-passenger cutaway CNG bus	Delano	24,000*	$136,000*
	Purchase of 24 replacement CNG buses	Bakersfield	$2,880,000*	$11,520,000*
	Purchase of 6 replacement CNG paratransit buses	Bakersfield	$135,000*	$540,000*
	Free transit fare trips during unhealthy air quality days	Bakersfield	$78,188	$603,470
	Purchase two replacement 40' electric buses	Bakersfield	$172,050*	$1,327,950*
	Provide commute service	Bakersfield and Santa Clarita	$40,000	$280,000
	Construct public transit electric vehicle charging station	McFarland	$66,878	$516,187
Estimate Totals			$233,000	$1,770,000

*Previous Allocation

accessed based on the type of strategy being recommended. Implementation and operating costs are ranked as follows:

Implementation Costs:

- Low – Below $25,000
- Medium $25,000 - $100,000
- High – Over $100,000

Ongoing Costs:

- Low – Below $50,000
- Medium - $50,000 - $100,000
- High – Over $100,000

Figure 6-3 Projected Capital and Operating Costs

Strategy	Implementation Costs	Ongoing Operating Costs	Funding Sources*
Expand Role of Regional Transit System	H	H	5311, LTF, STA
Farmworkers Vanpool Program	M	H	LTF, Private Partnerships, STA,
Community Vanpool Program	M	H	5310, AHSC, LTF, STA
Shared Employer Sponsored Shuttle	H	H	Employer Funded, LTF, STA
Partnerships with Rideshare Programs	L	M/H	AHSC, TNC Access for All
Electric Vehicle Carshare Program	H	H	LCTOP, LTF, SGR, STA, Sustainable Transportation Planning, TFCA
Volunteer Driver Program	L	M	5310, AHSC, LTF, STA
Inter-Agency Subsidized Transfer Program	L	M	5307, 5311, 5310, LTF, STA
Expand Existing Programs for Low-Income Populations	L - H	L – H	AHSC, LTF, STA, TNC Access for All
Fleet Conversion to Zero-Emission & Solar	M	L	LCTOP, SGR, Sustainable Transportation Planning Grant, TFCA

* Funding source acronyms = **5307**: FTA Urbanized Area Formula Program; **5310**: FTA Special Needs of Elderly Individuals and People with Disabilities Program; **5311**: FTA Formula Grants for Rural Areas; **AHSC**: Affordable Housing and Sustainable Communities; **LCTOP**: Low Carbon Transit Operations Program; **LTF**: LocaL Transportation Fund; **SGR**: State of Good Repair Program; **STA**: State Transit Assistance; **TFCA**: Transportation Fund for Clean Air

NEXT STEPS

Kern COG will need to work closely with the eight cities with the priority recommendations outlined for each city. Recommendations may be implemented over the course of the next few years as funding becomes available.

It is recommended that Kern COG adopt these plan recommendations and subsequently work with the Cities in the plan to develop an order of magnitude for implementation based on need and funding availability. In the near term, it is recommended that Kern COG staff consider developing a Plan that focuses on a more consolidated rural transit system led by Kern Transit and the County of Kern for the Cities in this plan that expressed interest in a county-wide system. Working towards a more consolidated system with the Cities that need additional support with transit operations will save money and resources all around. Kern COG should still continue to support those Cities whose transit systems are doing well, including Arvin and Taft, with funding resources needed in the future to help grow their systems, particularly in a post COVID era.


KernTransit
We Connect Kern County
DEPARTURES
CITY OF TEHACHAPI PARK AND RIDE
New Schedule effective February 25, 2019
100 LANCASTER to BAKERSFIELD
Westbound / Dirección Oeste
Bus Stop
Monday - Friday / Lunes a Viernes
AM
PM
Sat - Sun / Sáb-Dom
AM
PM
TEHACHAPI
Kmart - Mulberry St. 6:34 7:38 8:17 12:34 1:39 3:49 6:05 7:49 10:13 8:56 1:41 5:46 9:01
BAKERSFIELD
Kern Medical Center - Flower St. 7:24 8:28 9:07 1:24 2:29 4:39 6:55 -- -- 9:46 2:31 6:36 ←
Bakersfield College - Panorama Dr. 7:31 8:35 9:14 1:31 2:36 4:46 7:02 -- -- 9:53 2:38 6:43 --
Downtown Transit Center 7:43 8:47 9:26 1:43 2:48 4:58 7:14 8:39 11:03 10:05 2:50 6:55 9:51
Greyhound - 18th St. 7:48 8:52 9:31 1:48 2:53 5:03 7:19 8:44 11:08 10:10 2:55 7:00 9:56
Bakersfield Amtrak 7:53 8:57 9:36 1:53 2:58 5:08 7:24 8:49 11:13 10:15 3:00 7:05 10:01
100 BAKERSFIELD to LANCASTER
Eastbound / Dirección Este
Bus Stop
Monday - Friday / Lunes a Viernes
AM
PM
Sat - Sun / Sáb-Dom
AM
PM
TEHACHAPI
Kmart - Mulberry St. 4:13 6:15 8:50 9:30 10:45 11:45 2:00 3:41 6:35 4:45 9:30 1:35 4:35
MOJAVE
Carls Jr. - Inyo St. 4:43 6:45 9:20 10:00 11:15 12:15 2:30 4:11 7:05 5:15 10:00 2:05 5:05
Mojave Airport -- 6:52 -- -- -- -- -- -- -- -- -- -- --
ROSAMOND
Taco Bell - Eagle Way 5:00 9:37 10:17 12:32 2:47 4:28 7:22 5:32 10:17 2:22 5:22
Hummel Hall - 20th St. 5:06 9:43 10:23 12:38 2:53 4:34 7:28 5:38 10:23 2:28 5:28
LANCASTER
Mobil - Avenue J 5:23 10:00 10:40 12:55 3:10 4:51 7:45 5:55 10:40 2:45 5:45
Antelope Valley College - Entrance H 5:27 -- -- -- -- -- -- 5:59 10:44 2:49 5:49
Owen Memorial Park-AVTA 5:35 -- -- -- -- -- -- -- -- -- --
Antelope Valley Medical Center - 15th St. 5:43 -- -- -- -- -- -- 6:07 10:52 2:57 5:57
Metrolink - Sierra Hwy. 5:49 10:09 10:49 1:04 3:19 5:00 7:54 6:16 11:01 3:06 6:06
Senior Center - Jackman St. 5:53 10:13 10:53 1:08 3:23 5:04 7:58 6:20 11:05 3:10 6:10
Free transfer to Route 250 at Carl's Jr.
Free transfer to Route 250 at Carl's Jr.
800-323-2396
KernTransit.org


120 TAFT

APPENDICES


THE FOUR-WAY TEST
of the things we think, say or do
first...
Is it the TRUTH?
second...
Is it FAIR to all concerned?
third...
ROTARY
CLUB
ROTARY
DISTRICT
5240
CALIFORNIA, USA
ONE WORLD
ONE ROTARY
2019 - 2020

A Appendix A: Public Outreach

Two substantial public outreach efforts were conducted in January 2019 and October through December 2019. These efforts were led by the VMA's bilingual outreach team, with Nelson\Nygaard team members in a support role (except for presentations, which were led by Nelson\Nygaard team members). A representative from Kern Council of Governments was also available to answer specific questions and talk about current countywide projects.

During the Spring outreach, the team staffed seven pop-up events and two presentations in several communities throughout Kern County and disseminated surveys and fact sheets about the Kern Rural Transit Study. The events included an information table with project area maps (boards), fact sheets, surveys and sign-up sheets.

The Study's information table at the events made it possible for stakeholders to learn about the project, see graphics of service areas, ask questions and leave contact information in order to be added to a Kern COG mailing list for additional information on the study. The pop-up events served as an opportunity for the team to receive feedback from the community via survey and document informal comments.

List of Materials

The following collateral materials were made available at the information table and are included at the end of this Appendix:

- Kern Factsheet
- Kern Rural Transit Study Survey
- Community Project Map Board (24x36 on easel)
- Sign-up Sheets (voluntary/to receive updates on Projects)

Figure A-1 Outreach Activities, January 23 – 26, 2019

Date	Community	Event	Interested Stakeholders	Surveys Completed
1/23/19	Taft	Taft Chamber of Commerce "Sit 'N Sip"	15	9
1/23/19	Taft	Taft Public Library	9	9
	Taft	Taft College (A member from the Chamber of Commerce took surveys to the College for students to fill out and email in responses)		51
1/24/19	Mojave	Mojave Chamber of Commerce Community Meeting	25	16
1/24/19	Mojave	Mojave Elementary	6	4
1/25/19	McFarland	Clinica Sierra Vista-McFarland Health	3	3
1/25/19	Wasco	John L. Prueitt Elementary School	12	9
1/25/19	Bakersfield	Mercado Latino	15	11
1/26/19	Ridgecrest	Ridgecrest Farmer's Market	20	9
1/26/19	Tehachapi	Train Depot	5	2
		Total	110	123

Overview of Outreach Activities

Taft Chamber of Commerce – Taft, Wednesday, January 23

A presentation was given to members of the Taft Chamber of Commerce at the January 23rd "Sit N' Sip" gathering of the chamber. Approximately 15 members of the chamber were in attendance. A total of 9 surveys were collected.

Taft Public Library – Taft, Wednesday, January 23

The information table at the Taft Public Library was set up for 2 hours. Individuals were able to stop by, gather information and fill out a survey. A total of 7 surveys were collected from this location.

Mojave Chamber of Commerce – Mojave, Thursday, January 24

A presentation was given to approximately 25 members of the Mojave Chamber of Commerce at the January 24th Community Meeting. A total of 16 surveys were collected.

Mojave Elementary – Mojave, Thursday, January 24

The information table at Mojave Elementary was set up for 2 hours around the time school was dismissed, to greet parents picking their children from school. A total of 4 surveys were collected from this location.

Clinica Sierra Vista – McFarland, Friday, January 25

The information table at this health clinic was located inside the waiting room of the clinic for 2 hours. A total of 3 surveys were collected from this location, including 3 sign-ups.

John L. Prueitt School – Wasco, Friday, January 25

The information table at this elementary school in Wasco was located near the school gate where parents waited to pick up their student after school, per recommendation of the principal. The table was set up for an hour and a half, for two separate pick-up periods. A total of 9 surveys were collected, including 3 sign-ups.

Mercado Latino – Bakersfield, Friday, January 25

The information table set up at the Mercado Latino in Bakersfield was located in the central plaza where a majority of people pass through to enter the indoor shopping center. The table was set up for 3 hours and a total of 11 surveys were collected with no sign-ups. Several other visitors also stopped by to receive information and give verbal feedback but chose not to fill out a survey.

Ridgecrest Farmer's Market – Ridgecrest, Saturday, January 26

The information table set up at the farmer's market in Ridgecrest was set up for 2 hours and a total of 9 surveys were collected, including 6 sign-ups for project updates. Numerous visitors stopped by to leave verbal comments/ suggestions, but chose not to fill out a survey.

Tehachapi Train Depot – Tehachapi, Saturday, January 26

The information table set up at this train museum in Tehachapi was located in one of the main rooms of the museum. The table was set up for 2 hours and a total of 2 surveys were collected with no sign-ups. Management informed that this was a very slow day with a small number of visitors due to the cold weather.

Outreach staff presenting at Mojave Chamber of Commerce Meeting.

Outreach staff at information table at Clinica Sierra Vista in McFarland.

Outreach staff at information table at John L. Prueitt Elementary School in Wasco.

Outreach staff at information table at Bakersfield's Mercado Latino.

Outreach staff at information table at Ridgecrest Farmer's Market.

Outreach staff at information table at Mojave Elementary.

Summary of Verbal Comments Received

"Transportation needs are difficult to fill in Kern County since it is a large county with a variety of weather conditions."

"Schools have been impacted the most by population growth."

"As it stands, Kern transportation is very inconvenient and can take too long for basic errands."

"Students with disabilities require public transportation."

"There is a lack of rideshare options in rural areas."

"Most public transit is door-to-door and does not operate on a fixed route."

"Some communities just have on-demand transit, which is expensive and not ideal."

"Some of these rural communities have much higher populations during the day, with a lot of people living in an urban environment and driving to a rural community for work."

"There are not a lot of convenient stops for fixed route transportation in small towns."

"Last mile transportation is very difficult."

"No reliable taxi service in rural communities."

"Families in need move to small rural communities because of cheap housing and then have difficulty getting around because of the lack of transit options."

Public Outreach – Fall/Winter Summary

This second round of community outreach extended during the months of October through December and provided an opportunity to continue to engage the public in the process, answer project questions, receive valuable feedback and document informal comments. In total, the outreach team staffed six pop-up events, coordinated nine presentations and three briefings and/or meet-and-greet opportunities in several communities of Kern County.

Community members who attended the presentations received project fact sheets and were encouraged to share the information with other groups and organizations. Pop-up events included an information table with project fact sheets/materials and made it possible for interested community members to learn about the project, ask questions and leave contact information in order to receive updates and notifications from the project.

A list and description of outreach activities are summarized in Figure A-2.

Figure A-2 Outreach Activities, October through December 2019

Date	Community	Event
10/14/19	Wasco	Presentation to the Wasco Senior Center
10/14/19	Wasco	City Hall Pop-Up
10/14/19	Arvin	Meet and Greet with City Staff
10/15/19	Taft	Taft Community College Pop-Up
10/15/19	Taft	Transit Facility Pop-Up
10/15/19	Wasco	Presentation to Wasco City Council
10/15/19	Shafter	Presentation to Shafter City Council
10/16/19	Lake Isabella	Presentation to Rotary Club of China Lake Meeting
10/16/19	Shafter	Presentation to Shafter Chamber of Commerce Meeting
10/17/19	Tehachapi	City Hall Pop-Up
10/28/19	Lost Hills	Meet and Greets
10/28/19	Shafter	Shafter Fall Festival Pop-Up
11/3/19	McFarland	Menudo/Pozole Cook-Off & Silent Auction Pop-Up
11/12/19	Lost Hills	Presentation to Lost Hills Union School District Board of Trustees
11/18/19	Rosamond	Briefing with Rosamond Community Services District
11/22/19	Kernville	Presentation to Kernville Rotary Club
12/9/19	Arvin	Presentation to Arvin City Council
12/10/19	McFarland	Presentation to Greater McFarland Chamber of Commerce

Taft Community College Pop-Up Event

Overview of Activities

Wasco Senior Center – Monday, October 14

The Wasco Senior Center provides daily meals, social activities and serves as a hub for exchange of information on community services and events. The Outreach team gave an informal bilingual presentation to a group of predominately Spanish speaking seniors, explaining the purpose of the project and the need for community feedback. The presentation was followed by a robust discussion about the current state of transit in Wasco, along with the most pressing transportation needs for the community. A representative from the Kern COG shared information regarding the Medical Dial-A Ride program and the Reduced Fare Application and the Outreach Team documented the feedback from the discussion. Approximately 12 seniors were in attendance.

Wasco City Hall Pop-Up – Monday, October 14

Representatives from Nelson\Nygaard and the Kern COG staffed an information table at the Wasco City Hall Finance Department where residents visiting City Hall to conduct business could stop by and learn about the project and receive fact sheets. Additionally, they were able to speak with City staff to provide a brief update and discuss outreach opportunities within the community. Project materials were provided for placement on the city's information counter.

Meet and Greet with Arvin City Hall – Monday, October 14

The Outreach Team visited the Arvin City Hall to share information with staff regarding the project, outreach efforts and drop off fact sheets and Lotería posters. City staff indicated fact sheets will be placed on the main counter for interested residents to take and the Lotería posters will be displayed prominently.

Taft Community College Pop-Up – Tuesday, October 15

The Outreach Team coordinated with the Student Life Services Program to host an information table in front of the Taft Community College Administration Building. The Project team was able to engage with students to learn about transportation methods currently used

Taft Transit Facility Pop-Up Event

and desired mobility alternatives. A total of 19 interested students stopped by to receive information including a fact sheet with a list of possible alternatives for Kern County as suggested by other communities within the study area.

Taft City Hall @ Transit Facility Pop-Up – Tuesday, October 15

The Taft City Hall was undergoing renovation and staff were temporarily operating out of the Taft Transit Facility. An information table was made available in a breezeway of the Transit Facility. Project team members were able to provide arriving passengers with project information as well as leave materials at the Transit Service Office. A total of five interested passengers stopped by to receive information before leaving to their next destination.

Wasco City Council – Tuesday, October 15

A staff member from Nelson\Nygaard provided a Power Point presentation to the City Council and shared preliminary feedback received from the community. Council members were provided with project materials and were able to ask questions.

Shafter City Council – Tuesday, October 15

The Shafter City Council meets the first and third Tuesday of every month at 7:00 p.m. An Outreach Team member made introductory remarks on the project and information on community engagement efforts. Council members were provided with project materials and were informed of opportunities for community group presentations. Extra fact sheets and Lotería posters were left at city hall for posting. Approximately 14 community members attended the meeting.

Rotary Club of China Lake – Wednesday, October 16

The China Lake Rotary Club meets Wednesdays at 11:45 a.m. A representative from Nelson\Nygaard and from the Kern COG shared efforts by the County to engage participation from rural communities to make recommendations toward a Transportation Plan. Approximately 22 club members/guests attended the meeting. Local news publication, The Daily Independent, covered the special presentation and posted the story online.
Shafter Chamber of Commerce – Wednesday, October 16

Presentation to the Rotary Club of China Lake

The Shafter Chamber of Commerce meets every third Wednesday of the month at 3:30 p.m. Its membership includes representatives from local businesses, community organizations, local government and service institutions. The Outreach Team, Nelson\Nygaard and the Kern COG provided a presentation to the Board of Directors, explaining the purpose of the project and the need for community feedback. Chamber members were very receptive to the project and worked with the city staff to post the survey link to their website. Approximately, eight (8) board members attended the meeting.

Coffee with the Mayor and City Manager (City of Tehachapi) – Thursday, October 17

The City of Tehachapi hosted the Coffee with the Mayor and City Manager event as an opportunity for community members to visit with their local elected official and city staff member. Project team member from Nelson\Nygaard and the Kern COG attended the event to discuss on a one-on-one level the project, preliminary findings and importance of community feedback. Copies of fact sheets and the Lotería posters were provided. The project team was invited to make a presentation to the City Council.

Meet and Greets in Lost Hills – Monday, October 28

The Outreach Team visited the community of Lost Hills taking the opportunity to meet with several stakeholders including Lost Hills Union School District, the Lost Hills Recreation Center and Toro Loco Market to share information regarding the project, outreach efforts and drop off fact sheets and Lotería posters. Outreach spoke to District staff and expressed an interest in making a brief presentation to the board of trustees at their upcoming meeting. District staff suggested also reaching out to their Family Resource Center. At the recreation center, the Program Administrator provided a calendar of community events including upcoming meetings for the Lost Hills Community in Action Committee. Outreach will seek an opportunity to share project information with the Community in Action Committee membership. The Toro Loco Market is one of main local markets patronized by the community and is in the process of opening a larger store

McFarland 3rd Annual Menudo & Pozole Cook-off

next door. The Outreach Team stopped to speak with the manager to inquire about hosting a Pop-up event at their current or new location once available.

Shafter Fall Festival – Monday, October 28

The Youth Center is focused on encouraging Shafter's youth to live healthier lives through programs that focus on nutrition, recreation, education, and active healthy living. The Outreach team staffed an information table at their Fall Festival and Resource Fair where the project team was able to provide fact sheets and updated information to anyone at the Center. Unofficial comments regarding the transportation in the area were received.

McFarland Menudo/Pozole Cook-Off – Sunday, November 3

The McFarland USA Foundation hosts an annual Menudo and Pozole Cook Off and Silent Auction. The Outreach team gave an informal bilingual presentation to a group of predominately Spanish speaking seniors, explaining the purpose of the project and the need for community feedback.

Lost Hills Union School District Board of Trustees – Tuesday, November 12

The Lost Hills Union School District Board of Trustees meets every second Monday of the month at 4:30 p.m. in the School District's Board Room. Staff members from VMA Communications attended the meeting and addressed members of the Board of Education during public comments to share project information. Outreach staff was also able to speak, prior to the meeting, with a few community members and District staff in attendance. A representative from the District's Migrant Education program asked for materials and indicated they would be shared during a presentation to the group scheduled for the following day. Additionally, the coordinator for the District's Family Resource Center extended an invitation to host an informational table at their location. The resource center serves as a community support/community liaison providing various services for children and families within the Lost Hills Union School District.

Arvin City Council Presentation

Rosamond Community Services District – Monday, November 18

The Outreach Team scheduled and staffed a one-on-one briefing with the Rosamond Community Services District (RCSD) Director of Public Works. A representative from the Kern Council of Governments attended the briefing and provided an overview of what the County is hoping to achieve through the study. The briefing also served as an opportunity to receive an update on current and proposed RSCD projects.

Kernville Rotary– Friday, November 22

The Kernville Rotary Club meets Fridays at 12:00 p.m. Two members of the Outreach Team made a brief presentation to the Club, providing introductory remarks on the project and information on community engagement efforts. Rotary Club members were provided with project materials and were informed of opportunities for community group presentations. The members provided feedback and gave contacts of other groups recommended to reach out and provide presentations to. Approximately 12 members attended the meeting.

Arvin City Council – Monday, December 9

The Arvin City Council meets every second and fourth Tuesday of each month at 5:30 p.m. in the City Council Chambers located at 200 Campus Drive, Arvin. This month a Special Meeting was held in lieu of the Regular Meeting. VMA Communications made a PowerPoint presentation and provided a brief project update including preliminary findings from the first round of stakeholder outreach conducted. There were approximately 20 attendees including council members, city staff and community members. The council had no questions or comments regarding the project however wanted to share that the city is currently transitioning to use of electric buses. Copies of the project fact sheets (English/Spanish) were left on the information table inside the council chambers for the community.

Greater McFarland Chamber of Commerce – Tuesday, December 10

The Greater McFarland Chamber of Commerce (GMCC) is a non-profit organization with a primary focus on the needs of the business community and assisting positive economic growth

for the community. Staff members from VMA Communications attended the chamber's Regular Monthly Board Meeting and share project information with the GMCC Board members. A rich discussion ensued with the Chamber where they expressed a need for better signage for existing bus stops and a transit stop on the eastside. Currently the community has to cross over HWY 99 for access. The Chamber also shared that the City is in the construction phase of a new transit facility and would like to work with the Kern COG to secure funds to service the facility. The Chamber also expressed an interest in reaching out to Kern Transit to see how they can collaborate to share important transit service information with McFarland residents especially its Spanish-speaking community. There were approximately 10 attendees at the GMCC Board Meeting.

Summary of Comments Received

Community members who attended the presentations, visited during pop-up events and participated in briefings/ meet and greets were encouraged to provide feedback and comments to support the development of the Kern County Rural Alternative Transportation Plan. The following summarizes comments (paraphrased) received during the second round of outreach activities.

1. Would like to see more transportation options, for example, add routes to stores and other shorter trips. Bus stops are too far.
2. Would like additional hours added to transportation schedules.
3. Would like transportation to medical appointments.
4. There is a lack of service awareness. It is often difficult to determine whether the Amtrak is opened or closed.
5. More info on where to get or sign up for ID card.
6. Should consider ADA compliance for public transportation.

Ridgecrest Farmers Market

7. Would like to see later hours of service.
8. Would like to see Uber partnership/ Uber and Lyft availability.
9. There is lack of connections from California City to Bakersfield.
10. Bus service on Saturday's is currently only four hours and it should be longer.
11. We should try to take advantage of alternative modes of transportation, including Uber and Lyft.
12. Would like to see innovative programs, such as, electric scooters and bikes.
13. Would like to see a program with Kern Transit Project for the elderly/ disabled services.
14. Schedules and hours of operation of transit should be expanded.
15. Modes of rideshare and other transportation options should also be expanded beyond just Kern Transit, besides Dial-a-Ride GET.
16. More buses are needed in Wasco/ Shafter, near Frito Lay Warehouse area.
17. Would like to see other options for school-aged children.
18. More education is needed beginning at schools with informing the kids letting them know what is available and for who.
19. Education for churches needed to let the community know about programs.
20. More buses are needed to CSU Bakersfield, as there are a lot of students going to campus.
21. Uber is needed in these communities.
22. Interested in pilot program involving subsidized/discounted rideshare or taxi trips to and from key transit hubs to close First/Last mile gaps.
23. Interested in volunteer driver program.
24. Interested in expanding existing programs and services for low-income populations, including La Colonia migrant community with an approximate population of 300 people.

25. Interested in partnerships with colleges and other higher-education or technical campuses for campus commute shuttle.
26. I see the buses often, but I have no idea where the bus stops are.
27. Often the only signage for bus stops is the one at the stop itself.
28. Covers are definitely needed at the bus stops. It is very hot in the summertime.
29. More signage is necessary.
30. We recommend that you also reach out to the Chambers and the Exchange Club.
31. Although the population has increased, ridership has decreased.
32. We do have Uber here.
33. What do you envision ride-sharing to be? How would you define that? How would it affect our communities?
34. We have a Park & Ride but I'm not sure how it is used.
35. None of us have ever taken public transportation down to the Valley.
36. We are not the people taking the bus. You should talk to the people that are.
37. Sometimes there can be several miles between a person's house and the bus stop.
38. We have employees at the hospital that take the bus to work every morning.
39. It is nice to know that the system works for some people.
40. I have only seen one bus stop that's actually nice with walls and a cover.
41. For this valley, the most critical need is from here to Bakersfield and back. Anything that can be done to make it easier, less expensive, more visible.
42. Buses needed for health needs. A lot of people have Kaiser and they have to go all the way to Bakersfield to get there.
43. There are some bus stops that don't even have benches and most don't even have shelter. Even the bus stops at the hospitals.

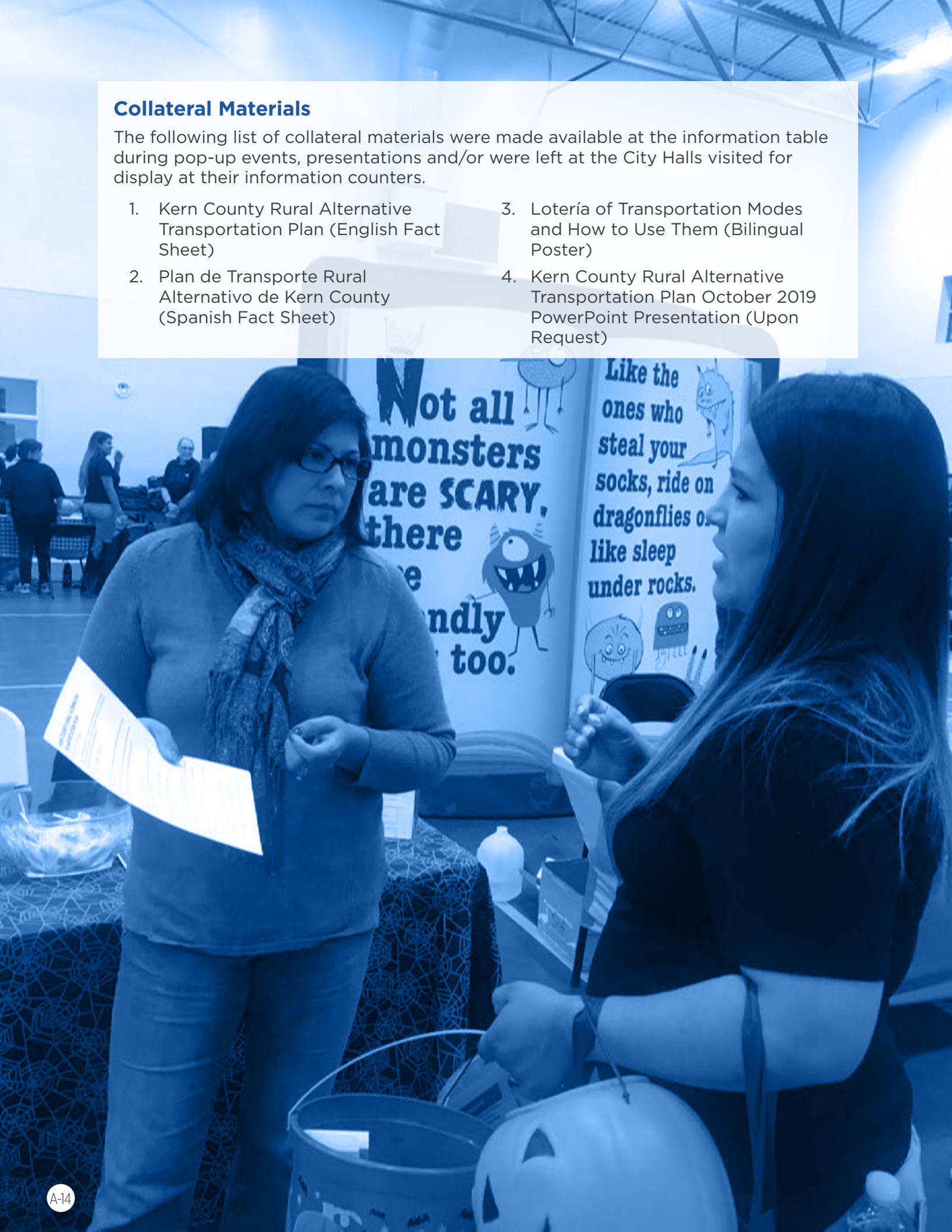
Taft Transit Facility
Pop-Up Event

44. Some stops are literally just a sign. When it's hot, it's very hot. What about when it rains? Or even snows?
45. I would never park at a Park & Ride facility.
46. There are a lot of people in places like this that have to move to places like Bakersfield, so we have easier access to places we need as we get older.
47. Educating people on the services would be very helpful.
48. Senior Center sends us Senior Ink which is a monthly newsletter that I think reaches about 3000 people.
49. We have people that go to the senior center to pick up food at our monthly food drives and then don't have transportation to help with the boxes they are carrying.
50. Poverty here is a huge part of our challenges.
51. Family resource center might also be helpful to reach out to. They help the kids that are in school. They will know who needs what and what those needs are.
52. Is the Rural Alternative Transportation Study connected to the current construction on Highway 46 in the Lost Hills area?
53. Would like to see more diverse bus schedules and routes that benefit college student, their hours and transportation needs.
54. Would like to see Uber and Lyft availability
55. Would like to see more transportation service options for seniors
56. There is a lack of community awareness of current transit services available.
57. Would like to see efforts to educate riders with bilingual (English/ Spanish) information including existing service schedules and programs

Collateral Materials

The following list of collateral materials were made available at the information table during pop-up events, presentations and/or were left at the City Halls visited for display at their information counters.

1. Kern County Rural Alternative Transportation Plan (English Fact Sheet)
2. Plan de Transporte Rural Alternativo de Kern County (Spanish Fact Sheet)
3. Lotería of Transportation Modes and How to Use Them (Bilingual Poster)
4. Kern County Rural Alternative Transportation Plan October 2019 PowerPoint Presentation (Upon Request)



1

Kern County Rural Alternative Transportation Plan (English Fact Sheet)

MATERIALS

KERN FACTSHEET

PROJECT PURPOSE

This project will make recommendations for improvements to public transportation services in rural communities in Kern County. In developing our recommended strategies to meet residents' mobility needs, we plan to apply good examples from other similar communities throughout the country.

PROJECT IMPROVE

A project to improvement public transportation cannot be successful without feedback from you: the public! During the winter of 2019, our team will be out learning about how you move around Kern County, listening to your perspective on how to best to improve transportation in your community. Please join us at one of the following **outreach events:**

Community	Date	Time	Event	Address
Taft	1-23-2019	9 AM	Chamber of Commerce Sit 'n' Sip	400 Kern Street Taft, CA
	1-23-2019	1 PM - 3 PM	Taft Public Library	27 Cougar Court Taft, CA
Mojave	1-24-2019	12 PM - 1 PM	Commerce Meeting at Mariah County Inn & Suites	1385 CA-58 BUS Mojave, CA
	1-24-2019	3 PM	Mojave Elementary	15800 O Street Mojave, CA
McFarland	1-25-2019	10 AM - 12 PM	Clinica Sierra Vista - McFarland Community Health Center	217 W Kern Avenue McFarland, CA
Wasco	1-25-2019	1:30 PM - 3 PM	John L. Prueitt Elementary School	3501 7th Street Wasco, CA
Bakersfield	1-25-2019	4 PM - 7 PM	Mercado Latino	2105 Edison Hwy Bakersfield, CA
Ridgecrest	1-26-2019	9 AM - 12 PM	Ridgecrest Farmers' Market	911 S. China Lake Blvd Ridgecrest, CA
Tehachapi	1-26-2019	1:30 PM - 4 PM	Train Depot	Tehachapi Depot Railroad Museum 101 W Tehachapi Blvd, Tehachapi, CA

The final report will be available by **December 2019.**

COUNTYWIDE TRENDS

Demographic Trends

- In the last ten years, the County's population increased from almost 800,000 residents in 2007 to about 900,000 residents in 2017.
- The majority of Kern County workers qualify as low-income (households that makes less than $35,000 per year)
- The populations of seniors, people with disabilities, and low-income households have change in the following ways, see table.

Kern County Sub-Populations	2012	2017	Percent Change
Seniors (65+)	76,100	89,200	**17%**
People with disabilities	96,700	94,600	**-2%**
Low-income households (Less than 35,000)	95,950	94,000	**-2%**

Source: U.S. Census Bureau, 2017-2014 & 2012-2008 American Community Survey 5-Year Estimates

Commute Trends

- Nearly 80 % of Kern County workers drive alone.
- Between 2012 and 2017, the County has seen almost a 10% drop in the share of commuters who ride public transportation (across all demographic groups).

PÁGINA INFORMATIVA DE KERN

2

Plan de Transporte Rural Alternativo de Kern County (Spanish Fact Sheet)

MATERIALS

PROPÓSITO DEL PROYECTO

Este proyecto hará recomendaciones para mejorar el servicio de transporte público en las comunidades rurales del Condado de Kern. Al desarrollando nuestras estrategias recomendadas para atender las necesidades de los residentes, nuestro objetivo es aplicar buenos ejemplos de otras comunidades similar en todo el país.

MEJORAR EL PROYECTO

Un proyecto para mejorar el servicio de transporte público no puede ser exitoso sin opines de usted: ¡el público! Durante el invierno del 2019, nuestro equipo estará informándose sobre cómo se moviliza usted en el Condado de Kern, escuchando su perspectiva sobre la mejor manera de mejorar el servicio de transporte en su comunidad. Por favor únase a nosotros en unos de los **eventos de divulgación:**

Comunidad	Fecha	Hora	Evento	Dirección
Taft	1-23-2019	9 AM	Chamber of Commerce Sit 'n' Sip	400 Kern Street Taft, CA
	1-23-2019	1 PM - 3 PM	Taft Public Library	27 Cougar Court Taft, CA
Mojave	1-24-2019	12 PM - 1 PM	Commerce Meeting at Mariah County Inn & Suites	1385 CA-58 BUS Mojave, CA
	1-24-2019	3 PM	Mojave Elementary	15800 O Street Mojave, CA
McFarland	1-25-2019	10 AM - 12 PM	Clinica Sierra Vista - McFarland Community Health Center	217 W Kern Avenue McFarland, CA
Wasco	1-25-2019	1:30 PM - 3 PM	John L. Prueitt Elementary School	3501 7th Street Wasco, CA
Bakersfield	1-25-2019	4 PM - 7 PM	Mercado Latino	2105 Edison Hwy Bakersfield, CA
Ridgecrest	1-26-2019	9 AM - 12 PM	Ridgecrest Farmers' Market	911 S. China Lake Blvd Ridgecrest, CA
Tehachapi	1-26-2019	1:30 PM - 4 PM	Train Depot	Tehachapi Depot Railroad Museum 101 W Tehachapi Blvd, Tehachapi, CA

El informe final estará disponible para **diciembre de 2019**

TENDENCIAS DEL CONDADO

Tendencias demográficas

- En los últimos diez años, la población del Condado creció desde casi 800,000 residentes en el 2007 hasta más o menos 900,000 residentes en el 2017.
- La mayoría de los trabajadores del Condado de Kern quilifican como de bajo ingresos (hogares que ganan menos de $35,000 anual)
- La población de personas mayores, personas con discapacidades, hogares de bajos ingresos han cambiado en las siguientes maneras, por favor vea la siguiente tabla.

Subpoblaciones del Condado	2012	2017	Cambio Porcentual
Personas Mayores (65+)	76,100	89,200	**17%**
Personas con Discapacidades	96,700	94,600	**-2%**
Hogares de Bajos Ingresos (menos de $35,000)	95,950	94,000	**-2%**

Fuente: Oficina del Censo de los EE. UU., Encuestas de la comunidad estadounidense 2017-2014 y 2012-2008, estimaciones a 5 años

Tendencias de Viaje:

- Casi 80% de los trabajadores del Condado De Kern manejan solos
- Entre el 2012 al 2017, el condado ha visto una caída de casi 10% en la cantidad de viajeros que viajan en transporte público (a través de todos los grupos demográficos)

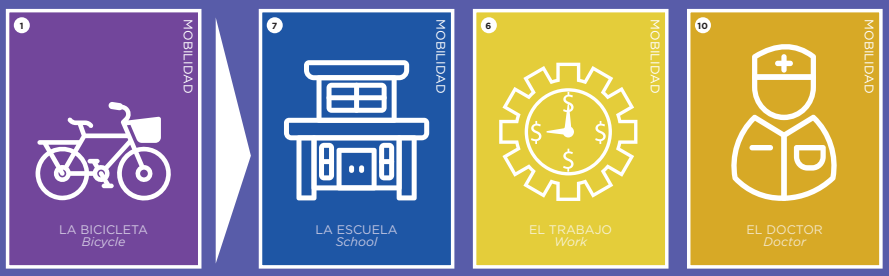
3

Lotería of Transportation Modes and How to Use Them (Bilingual Poster)

LOTERIA DE MEDIOS DE TRANSPORTE Y CÓMO USARLOS PARA LLEGAR A DESTINOS DIARIOS

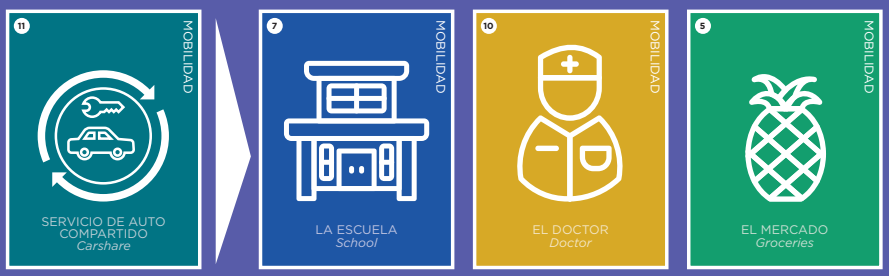
LOTERIA OF TRANSPORTATION MODES AND HOW TO USE THEM TO GET TO EVERYDAY DESTINATIONS

<2mi/3km >Viajes locales o viajes hacia/desde el autobús | Local trips to/from transit

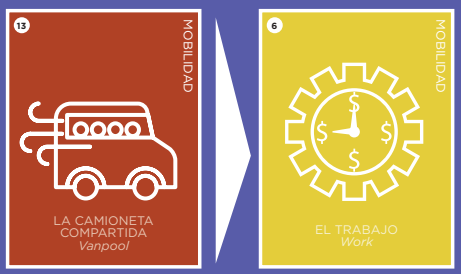


1-5 mi/Km >Viajes locales o viajes hacia/desde el autobús | Local trips to/from transit

>0.5 mi/km >Viajes locales especiales o recurrentes | Local, special, or recurring trips



<5 mi/km >Viajes especiales o de ida y vuelta | Special trips/round trips



<5-10 mi/km >Viajes recurrentes o de media a larga distancia
Recurring trips, medium to long distance trips

KernCOG

MOBILIDAD

4

Kern County Rural Alternative Transportation Plan

October 2019 PowerPoint Presentation

MATERIALS

PURPOSE:

Make recommendations for public transportation improvements in Kern County, focusing on rural areas outside of Bakersfield

Develop recommended strategies that meet residents' mobility needs by applying good examples from similar communities throughout the country

2

MATERIALS

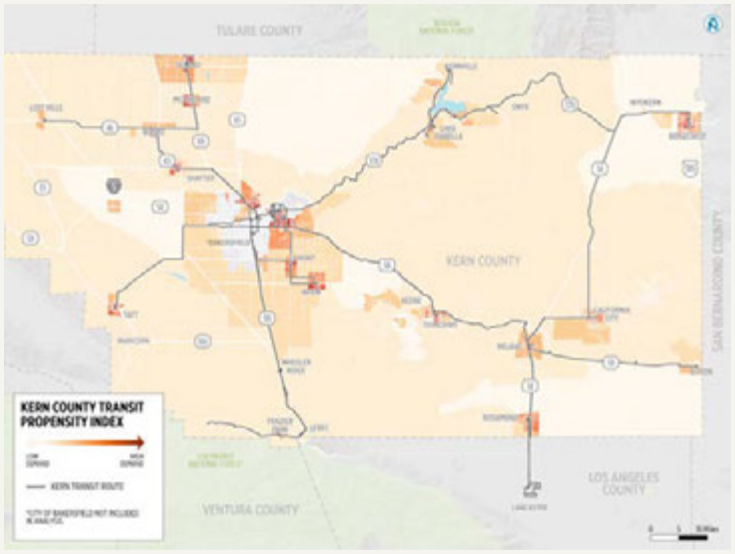
PROJECT UPDATE

• Stakeholder Interviews—first round	Completed
• Public Engagement—first round	Completed
• Existing Conditions Report	Completed
• Electric Vehicles Research	Drafted
• Five Year Service Alternatives	Initial Assembly
• Public Engagement—second round	Planned Oct '19
• Stakeholder Interviews—second round	Planned Oct '19

MATERIALS

Existing Transit Need

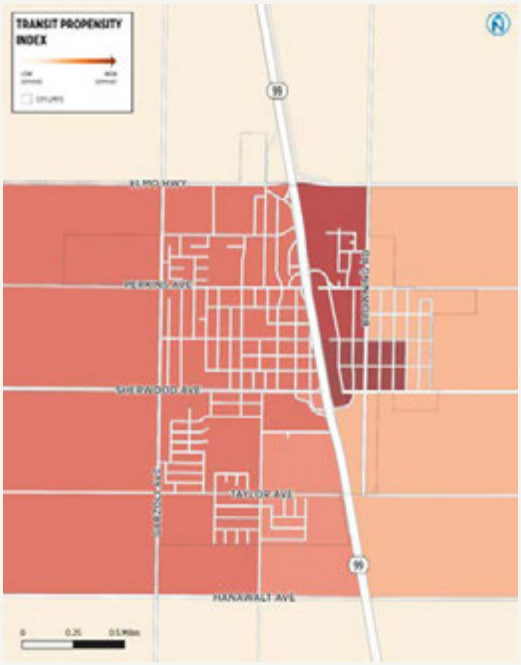
Transit Propensity Map



FACTORS	DETAILS
Low-income	<30,000 annual income, by household
Zero Vehicle	By Household
Seniors (65 and older)	By Individual
Persons with Disabilities	By Individual
Non-Citizen/ Foreign Born	By Individual

6

McFarland, CA



FACTORS	DETAILS
Low-income	<30,000 annual income, by household
Zero Vehicle	By Household
Seniors (65 and older)	By Individual
Persons with Disabilities	By Individual
Non-Citizen/ Foreign Born	By Individual

7

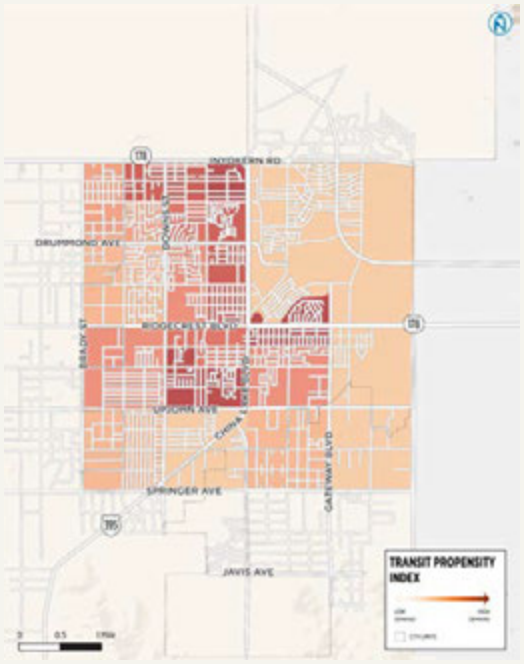
Mojave, CA

FACTORS	DETAILS
Low-income	<30,000 annual income, by household
Zero Vehicle	By Household
Seniors (65 and older)	By Individual
Persons with Disabilities	By Individual
Non-Citizen/ Foreign Born	By Individual

8

MATERIALS

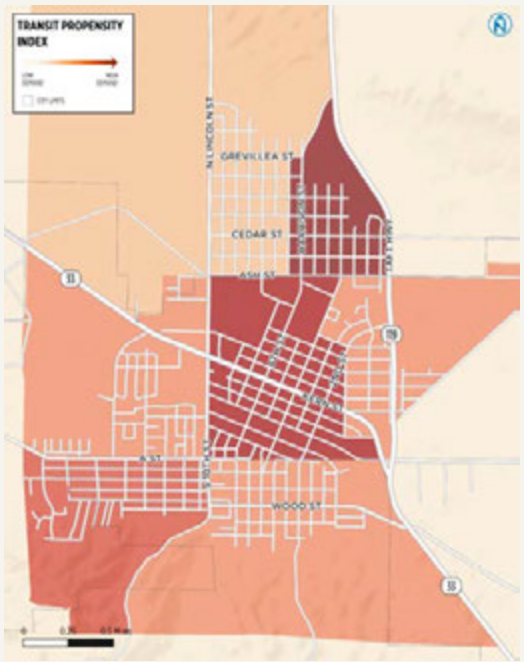
Ridgecrest, CA



FACTORS	DETAILS
Low-income	<30,000 annual income, by household
Zero Vehicle	By Household
Seniors (65 and older)	By Individual
Persons with Disabilities	By Individual
Non-Citizen/ Foreign Born	By Individual

9

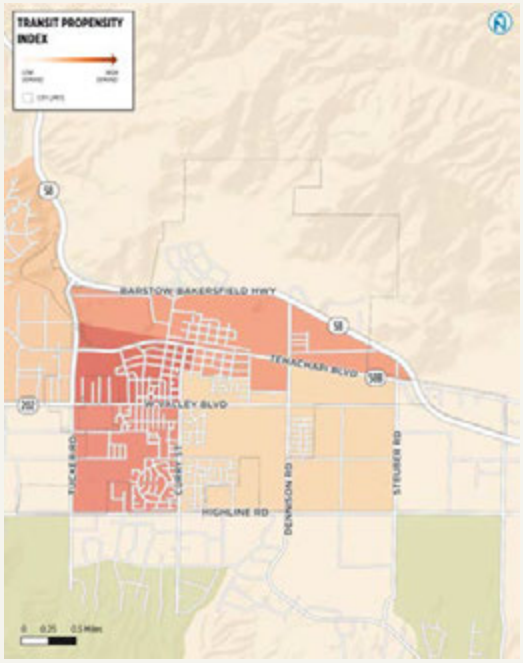
Taft, CA



FACTORS	DETAILS
Low-income	<30,000 annual income, by household
Zero Vehicle	By Household
Seniors (65 and older)	By Individual
Persons with Disabilities	By Individual
Non-Citizen/ Foreign Born	By Individual

10

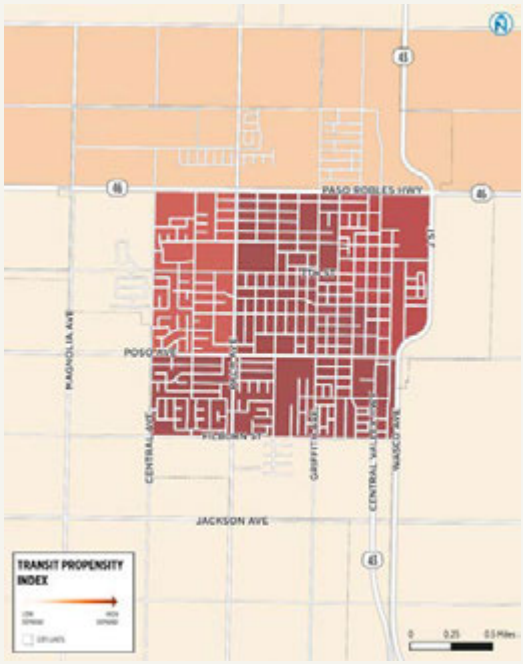
Tehachapi, CA



FACTORS	DETAILS
Low-income	<30,000 annual income, by household
Zero Vehicle	By Household
Seniors (65 and older)	By Individual
Persons with Disabilities	By Individual
Non-Citizen/ Foreign Born	By Individual

11

Wasco, CA



FACTORS	DETAILS
Low-income	<30,000 annual income, by household
Zero Vehicle	By Household
Seniors (65 and older)	By Individual
Persons with Disabilities	By Individual
Non-Citizen/ Foreign Born	By Individual

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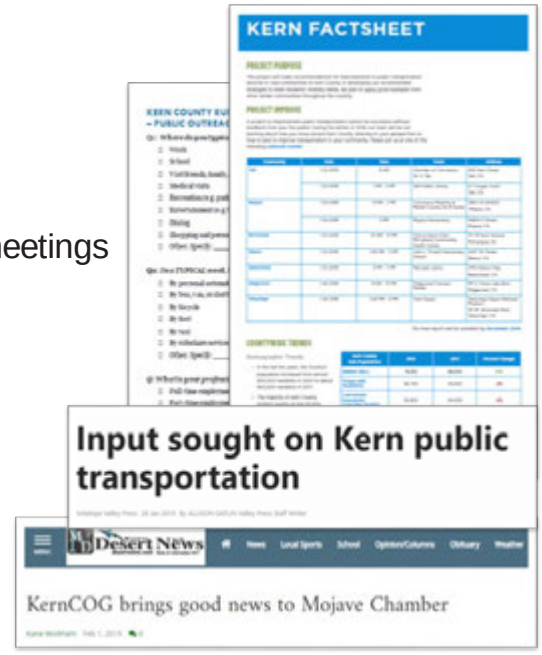
MATERIALS

MATERIALS

OUTREACH TO DATE

- Surveys (in progress)
- Project fact sheets
- Attendance at Chamber of Commerce meetings
- Tabling
  - Libraries
  - community centers
  - Schools



14

SAMPLE OF OBSERVATIONS

- Large distances
- Regional coordination
- New retail transit service
- Lack of service awareness
- Public transportation expectations
- Unreliable rural taxi service
- First-and-last mile very difficult
- Minimal bus stop amenities
- Limited bicycle and pedestrian facilities

NEXT STEPS

Continued Stakeholder Interviews

- Arvin
- Taft
- Tehachapi
- Wasco
- Shafter
- MacFarland
- California City*
- Ridgecrest*
- Kern Transit

MATERIALS


STAFF ONLY

Appendix B: Funding for Public Transportation

FEDERAL FUNDS FOR PUBLIC TRANSIT

Federal funding for public transit comes primarily through the U.S. Department of Transportation (U.S. DOT). Funding for the U.S. DOT is authorized by the Fixing America's Surface Transportation (FAST) Act, the first federal transportation authorization in over a decade to fund federal surface transportation programs through 2020. The FAST Act was signed into law in December 2015 and provides $305 billion in funding over fiscal years 2016 through 2020 for the U.S. DOT and its subsidiary agencies, including the Federal Transit Administration and the Federal Highway Administration (FHWA).

The following discussion of funding for public transit is based on the provisions of the FAST Act effective through September 2020. The FTA allocates funding for transit systems in urbanized and rural areas and for programs for older adults and individuals with disabilities. FTA allocates funds based on formulas or discretionary awards. Ten FTA funding programs that apportioned to urbanized areas or states by specific formula. Eight FTA programs are based on discretionary funding. In addition to FTA grant programs, the FHWA administers programs that provide the flexibility to transfer funds to FTA for transit projects.

FTA FORMULA FUNDS

Of the 10 FTA funding programs that are allocated by formula, FTA allocates funds to 9 programs based on formulas that include population and land area as criteria.[1] FTA allocated formula funds according to classification of an area as rural or urbanized.

All areas are defined as either urbanized or non-urbanized based on population and population density. The Census Bureau designates urbanized areas based on the most recent decennial census. While the

U.S. DOT has no direct role in the designation of these areas, they are critical to the administration of FTA and FHWA transportation programs. Urbanized Areas (UZAs) are important to the designation of a metropolitan planning organization and application of metropolitan planning requirements, designation of transportation management areas, application of air quality conformity requirements, and allocation of funding.

Under current definitions, the Census Bureau delineates UZAs according to population densities of census blocks and block groups and their proximity to an urban core – with the sum of the population for these geographic units equaling 50,000 people or more. Similarly, urban areas of less than50,000 people are designated as urban clusters (UCs). For the purposes of transit funding, all UZAs are considered "urbanized" while all areas outside of UZAs (including UCs) are considered "non-urbanized." For FTA funding allocations, FTA designates UZAs further in three groups according to population: small urban areas with population 50,000 to 199,999, large urban areas with population 200,000 to 999,999, and very large urban areas with a population 1 million and over. Funding formula allocation and restrictions on the use of funds differ by the size of the UZA according to these three groups.

The formula program that does not use population or land area as criteria is Section 5309 Fixed Guideway Modernization. Funds are allocated by a statutory formula to UZAs with fixed guideway systems that have been in operation for at least 7 years. The formula for allocating funds for this program contains seven tiers. The apportionment of funding for certain areas is specified in law. For other urbanized areas, funding is apportioned based on the latest available data on route miles and revenue vehicle miles on fixed guideway segments at least 7 years old, urban areas with population 50,000 to 199,999, large urban areas with population 200,000 to 999,999, and very large urban areas with a population 1 million and over. Funding formula allocation and restrictions on the use of funds differ by the size of the UZA according to these three groups.

The following list of sections from the FAST Act identifies the formula funding category and the basis for formula apportionments:

Section 5303 Metropolitan Transportation Planning

Congress appropriates federal funding to support a cooperative, continuous, and comprehensive planning program for transportation investment decision-making at the metropolitan area level. State departments of transportation are direct recipients of funds, which are then allocated by formula for planning activities.

FTA allocates 80 percent of funds to states as a basic allocation according to each state's UZA population for the most recent decennial census. FTA provides the remaining 20 percent to states as a supplemental allocation based on an FTA administrative formula to address planning needs in the larger, more complex UZAs. Generally, funds require a 20 percent local match, although FTA planning funds can be awarded as a consolidated planning grant with FHWA, which permits a 10 percent local match.

Section 5304
Statewide Transportation Planning

The Section 5304 program provides financial assistance to states for statewide transportation planning and other technical assistance activities (including supplementing the technical assistance program provided through the Section 5303 Metropolitan Planning Program). FTA apportions the funds to states by a statutory formula that is based on each state's UZA population as compared to the UZA population of all states according to the most recent decennial census.

Section 5305
Planning Programs

Funds may be awarded to states, local governmental authorities or MPOs for the purpose of developing transportation plans and programs; planning, engineering, design, and evaluation of public transportation project; and to conduct technical studies relating to public transportation.

Eligible activities are: Studies related to management, planning, operations, capital requirements, and economic feasibility; Evaluating previously financed projects; Peer reviews and exchanges of technical data, information, assistance, and related activities in support of planning and environmental analyses among metropolitan planning organizations and other transportation planners; Other similar and related activities preliminary to and in preparation for constructing, acquiring, or improving the operation of facilities and equipment.

Section 5307
Urbanized Area Formula Program

The Section 5301 Urbanized Area Formula is the FTAs largest funding program. This section authorizes the funding, and under certain circumstances, operating assistance for transit in UZAs (census defined area with population over 50,000)

FTA apportions Section 5307 funds based on legislative formulas. Different formulas apply to UZAs with a population of less than 200,000 (small UZA or small urban area) and to UZAs with a population of 200,000 or more (large UZA or large urban area). FTA allocates to UZAs with a population 1 million or more (very large UZA or very large urban area) based on the same formula as large UZA.

For the small UZAs with a population less than 200,000, FTA bases the formula solely on population and population density. FTA sets aside one percent of Section 5307 funds for Small Transit Intensive Cities. FTA apportions these funds to UZAs with a population less than 200,000 that operate at a level of service equal to or above the industry average level of service for all UZAs with a population of at least 200,000 but not more than 999,999. FTA allocates the funds based on level of service and performance in one or more of six categories: passenger miles per vehicle revenue mile, passenger miles per vehicle revenue hour, vehicle revenue miles per capita, vehicle revenue hours per capita, passenger miles per capita, and passenger trips per capita.

For UZAs with a population less than 200,000, FTA apportions Section 5307 funds to the governor of each state for distribution. The governor or designee may determine the suballocation of funds among the small UZAs or elect to obligate the funds in the amounts based on the legislative formula.[2]

For UZAs with a population of 200,000 or more, FTA bases the Section 5307

formula on bus vehicle revenue miles, as well as population and population density. An incentive payment is based on bus passenger miles divided by operating costs. An agency that provides transit using fixed guideway is eligible for additional formula funds based on fixed guideway vehicle revenue miles and fixed guideway route miles. An incentive payment is based on fixed guideway passenger miles divided by operating costs. FTA apportions funds directly to a designated recipient selected locally to apply for and receive federal funds.

Eligible purposes for use of Section 5307 funds include planning, engineering design, and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus- related activities such as replacement of buses, overhaul of buses, rebuilding of buses, crime prevention and security equipment, and construction of maintenance and passenger facilities; and capital investments in new and existing fixed guideway systems including rolling stock, overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software. All preventive maintenance and some Americans with Disabilities Act (ADA) complementary paratransit service costs qualify as capital costs. For most projects, up to 80 percent of project cost use federal funds. The federal contribution may be 90 percent for some projects that support ADA or the Clean Air Act.

Small UZAs with a population of less than 200,000 may also use Section 5307 funds for operating assistance up to 50 percent of the operating deficit (operating expenses less fare revenue). For UZAs with populations of 200,000 or more, operating assistance is not an eligible expense. FTA provides UZAs that reach or exceed the 200,000 population threshold for the first time after the most recent decennial census a transition period of several years to eliminate the use of Section 5307 funds for operating assistance.

In urban areas with a population 200,000 or more, at least 1 percent of the funding apportioned to each area must be used for transit enhancement activities such as historic preservation, landscaping, public art, pedestrian access, bicycle access, and enhanced access for people with disabilities.

Section 5310 Special Needs of Elderly Individuals and People with Disabilities Program

Section 5310 provides formula funding to states for the purpose of meeting the transportation needs of the elderly and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. FTA apportions $125,000 to each state and then apportions the balance based on each state's share of population for these groups of people.

Capital projects are eligible for funding. Most funds are used to purchase vehicles or provide preventive maintenance for transit fleets, but acquisition of transportation services under contract, lease or other arrangements, and state program administration are also eligible expenses. The maximum federal share is 80 percent. State or local funding sources may provide local share.[1]

Section 5311 Formula Grants for Rural Areas

The Section 5311 Non-Urbanized Area (rural) program provides formula funding to states for the purpose of supporting public transit in rural areas with a population of less than 50,000, where many residents often rely on public transit to reach their destinations. The program provides funding for state and national training and technical assistance

1 In Texas, the Governor has designated the Texas Transportation Commission as responsible for the allocation of small urban funds. The policy of the Commission is to allocate to each small urban area the amount originally apportioned by FTA formula.

through the RTAP as well. FTA bases eighty percent of the statutory formula on the rural population of the states and twenty percent of the formula on land area. No state may receive more than 5 percent of the amount apportioned for land area. In addition, FTA adds amounts apportioned according to the Growing States formula factors to rural areas. Each state prepares an annual program of projects, which must provide for fair and equitable distribution of funds within the state and must provide for maximum feasible coordination with transportation services assisted by other federal sources.

Funds may be used for capital, operating, and administrative assistance to state agencies, local public bodies, nonprofit organizations, and operators of public transit services. The maximum federal share for capital and project administration is 80 percent. Projects to meet the requirements of the ADA, the Clean Air Act, or bicycle access projects may be funded at 90 percent federal contribution. The maximum FTA contribution for operating assistance is 50 percent of the net operating costs. State or local funding sources may provide the local share.

FTA must make 15 percent of the Section 5311 funds available in each state for improvement of intercity bus services, also known as the Section 5311(f) program. The funds are to be used for planning, infrastructure, and operating needs related to the linkage of cities through intercity bus carriers unless the chief executive officer of the state certifies that the intercity bus service needs of the state are being met adequately. If all funds are not obligated to intercity bus improvements, the funds may revert to the general Section 5311 program for public transit in rural areas.

Section 5311(b) (3)
Rural Transit Assistance Program

The Rural Transit Assistance Program (RTAP) provides funding to assist in the design and implementation of training and technical assistance projects, research, and other support services tailored to meet the needs of transit operators in non-urbanized areas. FTA allocates $65,000 to each state and then allocates the balance of funds to each state based on an administrative formula using the non-urbanized population according to the most recent decennial census.

5311(c) (1)
Public Transportation on Indian Reservation Program

FTA refers to 5311(c) (1) as the Tribal Transit Program. The funds are drawn from the Section 5311 Non-urbanized Area Program. The funds are to be apportioned for grants to Indian tribes for any purpose eligible under Section 5311, which includes capital, operating, planning, and administrative assistance for rural public transit services and rural intercity bus service. The funds are not meant to replace or reduce funds that Indian tribes receive through the Section 5311 program but are to be used to enhance public transportation on Indian reservations and transit serving tribal communities.

Section 5311(c)(2)(B)
Tribal Transit Formula Grants

Funding for the Tribal Transit Program were sanctioned through Section 5311(j) of the FAST Act. Consisting of both a $30 million formula program (no local match required) and a $5 million competitive grant program (10% match required) the TTP maintains its separate status from the Formula Grants for Rural Areas Program.

Only federally recognized tribes are eligible recipients under the TTP. Non-federally recognized may still apply to

the state as a subrecipient for funding under the State's allotment.

5311(c)(2)(b) grants funding to Federally recognized tribes for the purpose of paying for rural tribal transit. The funds may be used for capital, operating, planning, and administrative expenses for public transit projects that serve rural tribal peoples. For example, permissible uses of funds include: capital projects; operating costs of equipment and facilities for use in public transportation; and the acquisition of public transportation services, including service agreements with private providers of public transportation services.

Section 5314 (a) Technical Assistance & Standards Development

This section authorizes the distribution of formula funding with the aim of aiding the development of technical assistance programs and actions that will enhance the service and operations of public transportation. Another goal of the funding is to bolster the development and support of transit workers.

Section 5314 (b) Human Resources & Training

Section 5314(b) allows the FTA to either enter contracts to provide human resources assistance or to provide funds with the goal of funding human resource and workforce development programs. The following are examples of activities and programs that are qualified for funding: employee development; outreach programs and events for increasing minority and female transit industry employment; research on public transportation personnel and training best-practices, and; training and assistance for minority business opportunities.

Section 5324 Public Transportation Emergency Relief Program

Section 5324 authorizes the FTA, via MAP-21 legislation, to aid public transit operators in the event of a declared emergency or major disaster. The program allocates funds to assist public transportation systems in paying for protection, repair, and/or replacement of assets including structures, technology, vehicles and other equipment that are susceptible to destruction or have been destroyed in the wake of disaster. Additionally, the program authorizes the funding of the following activities: operating costs of evacuation, rescue operations, temporary public transportation service, or reestablishing, expanding, or relocating service before, during or after an emergency.

Section 5337 State of Good Repair Grants

This section provides funds through statutory formulas to pay for the development and implementation of Transit Asset Management (TAM) plans but can also be triggered to provide capital assistance for maintenance, replacement, and rehabilitation schemes of high-intensity fixed guideway and bus systems all with the goal of maintaining public transit assets and ensuring their state of good repair.

Eligible recipients are state and local government authorities in UZAs (areas with a population above 50,000) with fixed guideway and high intensity motorbus systems that have maintained revenue service for at least seven years. Activities that qualify for funding include funding assistance to pay for development and implementation of TAM plans as well as projects to replace and rehabilitate the following: rolling stock; track; line equipment and structures; signals and communications; passenger stations and terminals; security equipment and systems; maintenance facilities and equipment;

operational support equipment, including computer hardware and software.

The federal share of eligible capital costs is 80 percent of the net capital project cost, unless the grant recipient requests a lower percentage.

Section 5339(a)
Grants for Buses and Bus Facilities Formula Program

This section authorizes the funding of replacement, repair, or acquisition of buses and related equipment as well as to build and enhance bus- and bus service-related facilities. The funds are primarily allocated according to a statutory formula, but also includes two discretionary components which are the Bus and Bus Facilities Discretionary Program and the Low or No Emissions Bus Discretionary Program.

Section 5340
Growing States and High-Density States Formula Program

FTA also apportions funds based upon Section 5340 Growing States and High-Density States formula factors. Under the Section 5340 formula, FTA makes available half of the funds under the Growing States factors and apportions based on state population forecasts for 15 years beyond the most recent decennial census. FTA then allocates amounts apportioned for each state to urbanized and rural areas based on the state's urban/rural population ratio. The High-Density States factors distribute the other half of the funds to states with population densities greater than 370 people per square mile.[3] FTA apportions these funds only to UZAs within those states.

FTA DISCRETIONARY FUNDS

Section 5309
Capital Program – Bus and Bus Facility

This section provides funding for new and replacement buses and related assets. Funds are allocated on a discretionary basis. Eligible recipients are public bodies and agencies such as states, municipalities, other political subdivisions of states (counties, townships, parishes, boroughs, etc.), certain agencies whose jurisdictions include more than one state, as well as public corporations, boards and commissions under state law. SAFETEA-LU changed the process of allocation of funds for private non-profits and operators who are now eligible sub-recipients of FTA grant funds.

Additionally, according to Section 5309 and the FTA website, "Private operators may now receive FTA funds as a pass-through without competition if they are included in a program of projects submitted by the designated public authority acting as the direct recipient of a grant." Congress often fully earmarks all available funding, however in the off chance that this does not occur, FTA has the ability allocate funds discretionarily.

Qualifying uses of funds include: the purchase of buses for fleet and service expansion, bus maintenance and administrative facilities, transfer facilities, bus malls, transportation centers, intermodal terminals, park-and-ride stations, acquisition of replacement vehicles, bus rebuilds, bus preventive maintenance, passenger amenities such as passenger shelters and bus stop signs, accessory and miscellaneous equipment such as mobile radio units, supervisory vehicles, fare boxes, computers and shop and garage equipment.

The maximum federal share for a discretionary grant is 80 percent, although recent FTA practice is to award funds that represent a lower federal share and higher state and local contribution.

Section 5309 Capital Investment Grants

A discretionary grant program, this section provides funding for transit capital projects including heavy, commuter, and light rail, streetcars, and bus rapid transit. FTA law requires transit agencies to show progress and complete a series of steps over a span of multiple years to earn CIG funding.

There are two avenues to acquire funding form the FTA, for New Starts and Core Capacity Projects the law requires two phases prior to acquiring a construction grant agreement—Project Development and Engineering. Whereas for Small Starts projects, the law requires completion of only one phase—project development. FTA rating of projects at various milestones in the project process is also required in adherence with statutory criteria with the aim of evaluating project justification and local financial commitment.

5311(c) (1) Public Transportation on Indian Reservation Program

FTA refers to 5311(c) (1) as the Tribal Transit Program. The funds are drawn from the Section 5311 Non-urbanized Area Program. The funds are to be apportioned for grants to Indian tribes for any purpose eligible under Section 5311, which includes capital, operating, planning, and administrative assistance for rural public transit services and rural intercity bus service. The funds are not meant to replace or reduce funds that Indian tribes receive through the Section 5311 program but are to be used to enhance public transportation on Indian reservations and transit serving tribal communities.

Section 5314 National Research Program

FTA's National Research Programs include the National Research and Technology Program (NRTP), the Transit Cooperative Research Program (TCRP), the National Transit Institute (NTI), and the University Transportation Centers Program (UTC).

Clean Fuels Grant Program

In 1998, TEA-21 established the Clean Fuels Grant Program. The program was developed to assist non- attainment and maintenance areas in achieving or maintaining the National Ambient Air Quality Standards for ozone and carbon monoxide (CO). Additionally, the program supports emerging clean fuel and advanced propulsion technologies for transit buses and markets for those technologies. Although the program was authorized as a formula grant program from its inception, Congress did not fund the program in annual appropriations. SAFETEA-LU changed the grant program from a formula-based to a discretionary grant program (49 U.S.C. 5308). The program, however, retains its initial purpose.

The Clean Fuels Grant Program is available to an entity designated to receive federal urbanized formula funds under Section 5307, in accordance with the applicable metropolitan and statewide transportation planning processes. SAFETEA-LU amended the term "recipient" to now include smaller urbanized areas

with populations of less than 200,000. All recipients must meet one of the following criteria: (1) be designated as an ozone or CO non-attainment area or (2) be designated as a maintenance area for ozone or CO.

Eligible activities include purchasing or leasing clean fuel buses and constructing new or improving existing facilities to accommodate clean fuel buses. The federal share for eligible activities undertaken for the purpose of complying with or maintaining compliance with the Clean Air Act under this program is limited to 90 percent of the net (incremental) cost of the activity. The FTA administrator may exercise discretion and determine the percent of the federal share for eligible activities to be less than 90 percent. Funding for clean diesel buses is limited to not more than 25 percent of the amount made available each fiscal year to carry out the program.

FTA COMPETITIVE FUNDS

Section 3005(b)
Pilot Program for Expedited Project Delivery

This program enables the FTA to choose no more than eight Capital Transit Projects (CTPs) for expedited grant awards. The criteria for CTP eligibility are that the projects must be supported through public-private partnership(s), workers employed by a public transportation agency must maintain and operate service, and have a federal share not exceeding 25-percent of the project capital cost.

FTA accepted Expressions of Interest in the Pilot Program for Expedited Project Delivery through November 13, 2018.

Section 5307(h)
Passenger Ferry Grant Program

Section 5307(h) funds are allocated on a competitive basis to agencies and bodies with the purpose of enhance and rejuvenate public ferry programs being operated in urban areas. Age and condition of existing ferry boats, terminals and related infrastructure, project readiness and benefits to riders (such as increased reliability and connectivity to other modes of transportation) are all factors that contribute to the awarding of funds.

The federal share is not to exceed 80 percent of the net project cost for capital expenditures. The federal share may be 90 percent for the cost of vehicle-related equipment attributable to compliance with the Americans with Disabilities Act and the Clean Air Act.

Section 5312
Public Transportation Innovation

This section aids in the funding of research and development of innovative processes and technologies with the goal of bettering service and meeting the growing needs of transit users. Eligible recipients are determined per each competition, and may include universities, public transportation systems, state DOTs, non-profit and for-profit entities, amongst others.

Section 5312(i)
Transit Cooperative Research Program

The Transit Cooperative Research Program (TCRP) is program that acts as an action-oriented research funding program that aims at developing near-term solutions for transit challenges. Essentially, TCRP operationalizes research and best practices with regards to transit operations, adoption of technology adapted from related industries, and customer service enhancements. This program is crucial to the development of the transit industry as it provides a means for agencies to remain competitive against new and sometimes fleeting industry disruptors like Transit Network Connectors (Uber, Lyft) and service growing population densities and mobility demands.

Funds are allocated by congress annually. There is no minimum matching requirements. TCRP products, such as transit security guidelines, new transit paradigms, transit industry best practices, exploratory idea transit practice and testing prototypes, and new planning and management tools, as well as, rail and bus certification programs, all help develop and equip a quality transit workforce to meet new challenges and opportunities.

Section 5339(b)
Buses and Bus Facilities Program

Through this program, funds are disbursed to states and other direct recipients for the purposes of replacing, rehabilitating, and procuring buses and associated equipment. Funds are also made available for the construction of bus related facilities including technological changes or innovations to modify low or no emission vehicles or facilities.

Funding for 5339(b) is provided through formula allocations in conjunction with competitive grants. To be qualify for this program the recipient must operate a fixed-route bus service or distribute funds to fixed-route bus operators; state

or local government authorities; federally recognized Indian tribes (eligible via 5307 and 5311). Subrecipients that are public entities or nonprofit organizations involved in public transportation may obtain funding from grant recipients.

The federal share of eligible capital costs is 80 percent of the net capital project cost, unless the grant recipient requests a lower percentage. The Federal share may exceed 80 percent for certain projects related to the ADA, the Clean Air Act (CAA), and certain bicycle projects.

Section 5339(c) Low or No-Emission Vehicle Program

The Low or No Emission program (also known as Lo/No) provides funding for the purchase or lease of low- and zero-emission transit vehicles for state and local government authorities. Funding is also available for the acquisition, construction, and leasing of facilities needed to support the vehicles. Through the FAST Act, $55 million per year is available through 2020.

Section 20005(b) Pilot Program for Transit-Oriented Development Planning

Section 20005(b) enables a pilot program for increasing TOD support which ultimately galvanizes the FTA's vision of integrating land-use and transportation planning and provides local level support for new fixed-guideway development or core capacity transit capital investment. Compulsory to receiving funding, transit agencies must explore mediums for improving economic development and ridership numbers, cultivate intermodal connection and accessibility, interconnect with the private sector, improve transit access for non-automobile modes, investigate infrastructure shortcomings/improvements, and enable mixed-use development near transit stations.

Section 20157 Commuter Rail Positive Train Control Grants

Section 3028 of the FAST Act authorized the distribution of funds via Section 20157 to states, local governments and transit agencies operating commuter rail systems for the purpose of installing positive train control systems that are required under 49 U.S.C. 20157 (2017 - $197 million in grants for PTC implementation).

The federal share of eligible capital costs is 80 percent of the net capital project cost, unless the grant recipient requests a lower percentage.

Access and Mobility Partnership Grants

In September 2018, FTA announced the availability of $6.3M in grant funding for capital projects that enhance mobility and access for coordinated transportation projects that improve access to healthcare opportunities; the purpose of the funding being to bridge the gap for individuals with limited transportation options and to spur further coordination between transportation and healthcare providers. Under the initiative, there are two funding opportunities for 2018, including the Innovative Coordinated Access and Mobility (ICAM) Pilot Program, and the Human Services Coordination Research (HSCR) grants. The ICAM Pilot Program is designed with a maximum federal funding share of 80%, with 20% of funds from local match. Competitive projects under the HSCR program have a maximum federal share of capital costs at 80% and 50% of operating costs, with the remainder being local match.

Eligible activities under the ICAM Pilot Program include capital projects that improve the coordination of non-emergency medical transportation (NEMT) services. Activities under HSCR include innovative strategies to provide more effective and efficient transportation services for older adults, individuals with disabilities, and those with low-income.

Better Utilizing Investments to Leverage Development (BUILD) Transportation Grants Program (formerly TIGER)

The BUILD grants program is the U.S. DOT's answer to what was formerly known as TIGER grants, established by The Consolidated Appropriations Act of 2018. The Act appropriated $1.5 billion for BUILD transportation grants, with any one maximum award being $25 million for a single project. There is a $5 million minimum for urban projects, and a $1 million minimum for rural projects. The BUILD program funds investment in transportation infrastructure, including transit, that contribute to America's energy independence. The FTA is the administering agency for BUILD projects that directly impact public transportation.

Human Trafficking Awareness and Public Safety Initiative

This initiative activates funding to be used for supporting awareness as well as providing technical assistance to combat human trafficking. The program also supports FTA's operator assault and crime prevention efforts as they relate to crime on or near public transit. The goal of the program is to make better use of the transit industry's ability to impact and combat human trafficking and other public safety concerns.

Integrated Mobility Innovation (IMI)

IMI is a program that is meant to allow funding for innovative business approaches that illustrate pioneering and operative practices, demonstrate public-private cooperation in developing technology that can enhance public transportation usefulness, maximize system efficiency, improve quality, encourage safety and better the overall transit user experience.

FTA's IMI 2019 offers a total of $15 million for projects demonstrating innovation in three different categories: Mobility on Demand; Strategic Transit Automation Research, and; Mobility Payment Integration. Overall, a successful project would maximize system efficiency through innovative mobility solutions in its respective category.

Mobility on Demand (MOD) Sandbox Program

Establishes a fund of approximately $65 million to support the advancement of transportation technology. A major goal of the program is to keep transportation user interface and connectivity methods current. Transit industry technology earns support through this program.

Public Transportation on Indian Reservations Program; Tribal Transit Program 5311(j)

The Tribal Transit Program (TTP) continues to be a set-aside from FTA's Formula Grants for Rural Areas program, but currently consists of $30 million in formula grants and $5 million in competitive grants. A 10% local match is still required under the formula program. The TTP grants are funded through Section 5311(j) of the FAST Act, authorizing Public Transportation on Indian Reservations for Fiscal Years 2016-2020. Tribes that are federally recognized may apply for the funding, which can be used for capital, operating, planning, and administrative expenses related to public transit projects that meet the needs of rural tribal communities.

Safety Research and Demonstration Program (SRD)

SRD is one aspect of a research push by the US DOT which offers technical and financial support for transit agencies to minimize and/or do away with safety hazards especially through means of innovative and safer designs, systems, or technologies. Former program targets emphasized collision avoidance and mitigation, and separately, transit worker safety protection.

The funding is both for the assessment of budding safety solutions with an emphasis on

practicality and effectiveness, as well as transformationally improve safety standards and guiding principles. Applicants must prove partnership with at least one transit agency to qualify demonstration projects for FTA funding. FTA will then measure the enduring quality of those relationships as part of its scoring and evaluation of all applicants.

The federal share of project costs under this program is limited to 80 percent. Applicants may seek a lower federal contribution. The applicant must provide the local share of the net project cost in cash, or in-kind, and must document in its application the source of the local match.

Zero Emission Research Opportunity

FTA's Low and No Emission (Low-No) Vehicle Deployment Program is proof that the interest of agencies providing public transportation is to procure and operate innovative and efficient models. The purpose of ZERO is to support the industry as it examines the potential of larger fleets of vehicles running on electric battery and hydrogen fuel-cell technologies. FTA has provided more than $150 million since the late 2000s to push the research and development as well as deployment of more efficient, clean public transit vehicles.

Eligible applicants and recipients under this program are limited to nonprofit organizations leading a consortium of entities. All consortia must include at least one provider of public transportation. Eligible activities and projects include research, innovation and development, demonstration, deployment, and evaluation, as defined under 49 U.S.C. Section 5312(c), (d), and (e). Projects will build on successful research, innovation, and development to facilitate the deployment of low- or no-emission vehicles, zero-emission vehicles, or associated advanced technology. Local match (or share) is required. FTA share may not exceed 80 percent of project costs.

OTHER MAJOR SOURCES OF FEDERAL FUNDING FOR PUBLIC TRANSIT

In addition to FTA grant programs, there are other sources of funding for transit from a variety of federal agencies. In most cases other sources of funding for transit are available only to the extent that transportation is supportive of the primary purpose of the federal agency. However, the FHWA does administer programs that provide the flexibility to transfer funds to FTA for transit projects. Four programs are highlighted below.

EPA Clean Diesel National Grants

EPA provides competitive grant funding for use in converting diesel fleets and non-vehicle engines to clean diesel under the Diesel Emissions Reductions Act (DERA). 2020 request for applications will begin December 2019.

The following U.S. entities are eligible to apply for Clean Diesel National Grants: Regional, state, local or tribal agencies/consortia or port authorities with jurisdiction over transportation or air quality, OR; Nonprofit organizations or institutions that represent or provide pollution reduction or educational services to persons or organizations that own or operate diesel fleets or have the promotion of transportation or air quality as their principal purpose.

Eligible diesel vehicles, engines and equipment include: School buses, OR; Class 5 – Class 8 heavy-duty highway vehicles, OR; Locomotive engines; Marine engines, OR; Nonroad engines, equipment or vehicles used in construction, handling of cargo (including at ports or airports), agriculture, mining or energy production (including stationary generators and pumps).

Congestion Mitigation and Air Quality Improvement Program

Under the Clean Air Act as Amended in 1990 (Clean Air Act), urbanized areas are classified by the Environmental Protection Agency (EPA) as non-attainment areas if air pollution levels exceed the national Ambient Air Quality Standards on a continual basis. Depending upon the level of pollution and the frequency the standards are exceeded, urbanized areas are classified according to increasing pollution levels as either marginal, moderate, serious, severe, or extreme, with marginal being the lowest level of pollution and extreme being the highest. Cities meeting the standard, but with concern that the standards may be exceeded, are classified as maintenance areas. Vehicle emissions are significant contributors to the ozone pollution. Vehicle emissions increase with traffic congestion and the number of vehicle trips and vehicle miles traveled.

The Congestion Mitigation and Air Quality Improvement Program (CMAQ) has the objective of improving the nation's air quality and managing traffic congestion. CMAQ projects and programs are often innovative solutions to common mobility problems and are driven by Clean Air Act mandates to attain national ambient air quality standards. Eligible activities under CMAQ include transit system capital expansion and improvements that are projected to realize an increase in ridership; projects to demonstrate travel demand management strategies and shared ride services; pedestrian and bicycle facilities and promotional activities that encourage bicycle commuting. Programs and projects are funded in air quality non-attainment and maintenance areas for ozone, CO, and small particulate matter (PM-10) that reduce transportation-related emissions.

CMAQ funds are distributed according to a formula based on population and

severity of pollution. The federal share can fund up to 90 percent of transit vehicle-related equipment attributable to compliance with the Clean Air Act, up to 80 percent of other capital projects, and 80 percent of the operations costs for demonstration of services. Demonstration projects can be funded for up to three years.

National Highway System

The National Highway System (NHS), established in 1995, provides funding for a wide range of transportation activities (23 U.S.C. 103(b)). Eligible transit projects under the NHS program include fringe and corridor parking facilities, bicycle and pedestrian facilities, carpool and vanpool projects, and public transit facilities in NHS corridors, where they would be cost-effective and improve the level of service on a particular NHS limited access facility

Surface Transportation Program

The Surface Transportation Program (STP) provides the greatest flexibility in the use of funds. These funds may be used (as capital funding) for public transit capital improvements, carpool and vanpool projects, fringe and corridor parking facilities, bicycle and pedestrian facilities, and intercity or intracity bus terminals and bus facilities. As funding for planning, these funds can be used for surface transportation planning activities, wetland mitigation, transit research and development, and environmental analysis. Other eligible projects under STP include transit safety improvements and most transportation control measures.

STP funds are distributed among various population and programmatic categories within a state. Some program funds are made available to metropolitan planning areas containing urbanized areas over 200,000 population; STP funds are also set aside to areas with a population under 200,000 (small urban areas) and under 50,000 (rural). STP funds are programmed typically by the local MPO.

Transportation and Community and System Preservation (TCSP) Program

TEA-21 established an FHWA program "to investigate and address the relationships between transportation and community and system preservation and identify private sector-based initiatives." SAFETEA-LU continued the program with funding levels of $25 million annually. Eligible recipients are local governments, MPOs, and transit agencies.

The purposes of the TCSP program are to improve transportation efficiency; reduce transportation's environmental impacts; reduce the need for future investments in infrastructure; provide access to jobs; and encourage private sector development that supports these initiatives. The program includes a research program to investigate these relationships; funds to integrate transportation and community and system preservation plans and practices; and funds to address transportation efficiency and community system preservation.

Two types of grants are awarded through this program: planning and implementation. Planning grants are designed to research, plan, and develop strategies to meet the purposes of the TCSP. Priority for planning grants is given to applicants that demonstrate a commitment of non-federal resources to the proposal, including involvement of non-traditional partners. Implementation grants are designed to carry out projects that meet the purposes of the TCSP. Priority for implementation grants is given to applicants that promote cost-effective and strategic investments in transportation infrastructure that minimize adverse impacts of the environment and promote innovative private sector strategies.

There is no local share requirement under this program. Activities are eligible for full federal funding. The TCSP program research and grant components require dedication of a portion of the awarded funds toward an evaluation component for the program.

State and Local Funding

State Transit Assistance (STA) Program

One of two state-level programs established by the Transportation Development Act (TDA) of 1971, the State Transit Assistance (STA) Program can be used for both transit operating and capital expenses. STA program funds are generated by a state sales tax on diesel fuel. STA distributes funding to transit operators based on a formula whereby 50% of funds are allocated based on population and 50% of funds are allocated according to transit operator revenues from the prior fiscal year.

LocaL Transportation Fund (LTF)

The Local Transportation Fund (LTF) is the second program established by the Transportation Development Act (TDA) of 1971. This fund is derived from the 1/4 cent of the general sales tax collected statewide. The sales tax collected in each county is returned to the county where the tax was generated. Each regional transportation planning agency (RTPA) is responsible for allocating LTF money within their jurisdiction. Specifically for transit, LTF funds may be used for public transit planning, operations, and capital projects.

State of Good Repair (SGR) Program

The State of Good Repair Program (SGR) provides funding of approximately $105 million annually for transit infrastructure repair and service improvements. Funds are derived from the new Transportation Improvement Fee on vehicle registrations due on or after January 1, 2018. Managed by Caltrans, program funds are distributed to eligible agencies using the State Transit Assistance Program formula, which distributes half of funds according to population and half of funds according to transit operator revenues from the prior fiscal year. Funds can be used for transit capital projects to maintain or repair existing transit vehicle fleets or facilities. Funds can also be used for purchasing new transit vehicles. Regional entities working with local transit operators must forward Caltrans a list of project submittals proposed to be funded by the SGR program. Eligible regional entities can sub-allocate funds to public transit operators which submitted the required project information. Recipients are required to submit annual status and expenditure reports on all activities completed for each project having received SGR funds.

Solutions for Congested Corridors Program (SCCP)[2]

The SCCP is a competitive grant program that makes $250 million available annually for projects that reduce congestion throughout the state. Eligible uses include improvements to state highways, local streets, rail and public transit facility, bike and pedestrian facilities, and preservation/restoration work of critical local habitat or open space. For the 2020 program, matching funds are not required; however, if included, they will be considered as part of the evaluation process.

Greenhouse Gas Reduction Fund (GGRF): Transit and Intercity Rail Capital Program (TIRCP)[3]

The TIRCP is one of several programs funded by the GGRF. The TIRCP is a competitive grant program that awards funding to transit and rail capital improvements that modernize California's rail (intercity, commuter, and urban), bus, and ferry systems to reduce emission of greenhouse gases. The program receives 10% of the annual Cap-and-Trade Auction revenue. The California Department of Transportation,

2 https://catc.ca.gov/programs/sb1/solutions-for-congested-corridors-program; https://catc.ca.gov/-/media/ctc-media/documents/programs/sccp/2020129-adopted-2020-sccp-guidelines-a11y.pdf
3 https://dot.ca.gov/programs/rail-and-mass-transportation/transit-and-intercity-rail-capital-program

in collaboration with the California State Transportation Agency (CalSTA), administers the program. For the 2020 program,[4] there is no match requirement but if such funds are included in the grant application, it is considered in the evaluation of project benefits.

Greenhouse Gas Reduction Fund (GGRF): Low Carbon Transit Operations Program (LCTOP)[5] [6]

The LCTOP, funded by the GGRF, is a noncompetitive formula program that provides operating and capital funds to transit agencies to "reduce greenhouse gas emission[s] and improve mobility, with a priority on serving disadvantaged communities." For transit agencies with a disadvantaged community in their service area, at least 50% of the funds received must result in a direct benefit to that area. LCTOP funding is generated using 5% of the auction proceeds from the Cap-and-Trade Auction and is distributed based on STA funding, with 50% of funding going to regional agencies and the other 50% going to transit agencies.

Greenhouse Gas Reduction Fund (GGRF): Affordable Housing and Sustainable Communities Program (AHSC)[7][8]

The AHSC, also funded by the GGRF, is a competitive program that provides grants and/or loans to reduce greenhouse gas emissions and benefit disadvantages communities, with the goal of increasing accessibility to affordable housing, employment and key destinations. Specifically for transit, improvements can include transit station improvements/amenities, connecting bike/pedestrian infrastructure, or traffic signal priority. AHSC funding is generated using 20% of the auction proceeds from the Cap-and-Trade Auction. No match is required for this program.

SB 1376 TNC Access for All Act

In an effort to test and improve Transportation Network Companies (TNC) accessibility and to foster local models that improve access to transportation for individuals with disabilities, Senate Bill (SB) 1376: TNC Access for All Act was signed into law in September 2018. Pursuant to SB 1376, the California Public Utilities Commission (CPUC) will require TNCs to collect a ten cent ($0.10) fee on each TNC trip in California beginning on July 1, 2019. Fees will be directed to the TNC Access for All Fund, which supports the expansion of on-demand transportation for wheelchair uses who require a wheelchair accessible vehicle (WAV). The per-trip fee is passed directly on to customers taking TNC trips that originate in preselected geographic areas. Access Funds are distributed proportional to the percent of fees originating from that geographic area on a quarterly basis. Geographic areas were determined based on the demand for WAVs within the area and the outcome of CPUC-facilitated workshops.

Caltrans Sustainable Transportation Planning Grant[9][10]

Caltrans developed the Sustainable Transportation Planning Grant to promote a balanced,[11] comprehensive multimodal transportation system in California that encourages transit, bicycling, and walking. The grant, which consists of the Sustainable Communities and Strategic Partnerships Programs, may be used for a wide range of

4 https://calsta.ca.gov/-/media/calsta-media/documents/tircp-2020-formal-draft-guidelines-91319-final.pdf
5 https://dot.ca.gov/programs/rail-and-mass-transportation/low-carbon-transit-operations-program-lctop
6 https://dot.ca.gov/-/media/dot-media/programs/rail-mass-transportation/documents/lctop/202002-lctop-fy19-20-guidelines-a11y.pdf
7 https://www.octa.net/Projects-and-Programs/Funding-Programs/State-Funding/State-Funding-Programs/
8 https://innovation.luskin.ucla.edu/sites/default/files/Final%20081915.pdf
9 https://www.sacog.org/sites/main/files/file-attachments/caltrans_sustainable_communities_grant_8-28_rpp.pdf?1567007890
10 http://www.localassistanceblog.com/wp-content/uploads/2019/08/Final-FY-20-21_STP-Grant-Guide-1.pdf
11 https://cal.streetsblog.org/2017/04/25/projects-throughout-state-awarded-sustainable-transportation-planning-grants/

transportation planning projects that address local and regional transportation needs and issues. Although Caltrans has removed grants dedicated for transit planning, transit-related projects are still eligible for funding. Eligible transit uses are restricted to planning efforts, including data collection and conceptual drawing/design. A local match is required.

Transportation Fund for Clean Air (TFCA)[12]

In 1991, the California state legislature authorized the Air District to impose a $4 surcharge on cars and trucks registered within the Air District's jurisdiction to provide grant funding to eligible projects that reduce on-road motor vehicle emissions. 40% of collected fees are available to each county with the remaining 60% administered by the Air District through a separate process. Eligible uses for transit include vehicle purchases, provision of service, traffic signal priority, bus stop relocation, rail-bus integration, and demonstration projects for public transit. Matching funds are not required but are considered in the evaluation process.

12 https://www.sfcta.org/sites/default/files/2020-03/1%20TFCA%20Call%20for%20Projects%20Memo%20and%20Attachments%20FY2021.pdf

Figure B-1 Transportation Funding Guidelines

Name of Funding Source	Type of Funding	Transit Uses	Match Needed?
State Transit Assistance (STA) Program	Formula Funding	Operating and capital expenses	No
Local Transportation Fund (LTF)	Formula Funding	Planning, operations, and capital expenses	No
State of Good Repair Program (SGR)	Formula Funding	Capital: Maintain and repair existing fleets and facilities, new vehicle acquisition	No
Solutions for Congested Corridors Program (SCCP)	Competitive Grant Program	Capital: Rail, public transit, bike, and pedestrian facilities	No, but considered in evaluation
Transit and Intercity Rail Capital Program (TIRCP)	Competitive Grant Program	Capital: Rail, bus, and ferry projects	No, but considered in evaluation
Low Carbon Transit Operations Program (LCTOP)	Formula Funding	Operating and capital expenses	No
Affordable Housing and Sustainable Communities (AHSC) Program	Competitive Grant Program	Capital: Transit station improvements/amenities, connecting bike/pedestrian infrastructure, or traffic signal priority	No
TNC Access for All Act	Competitive Grant Program	Expenses related to on-demand transportation for wheelchair users	No
Sustainable Transportation Planning Grant	Competitive Grant Program	Planning efforts, including data collection and conceptual drawing/design	Yes
Transportation Fund for Clean Air (TFCA)	Competitive Grant Program	Operating and capital expenses that focus on emission reduction	No, but considered in evaluation

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