

Kern County Regional Plan Part 2

August 2024

SUBMITTED TO :

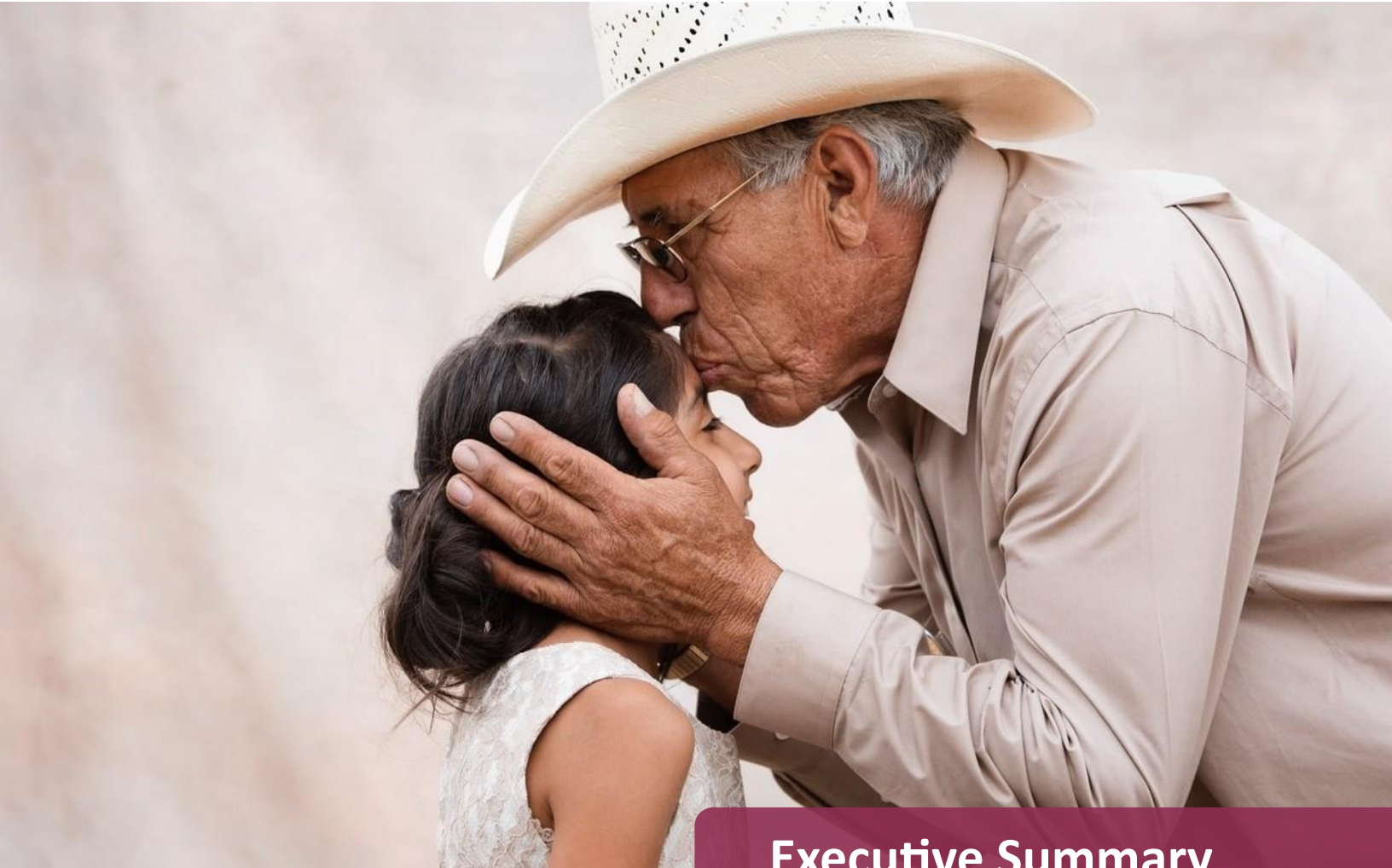


Governor's Office of
Planning and Research



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Executive Summary

Overview

The Regional Plan Part 2 builds on the baseline economic assessment outlined in the Kern High Road Transition Collaborative’s Regional Plan Part 1 by providing a comprehensive strategy for creating new, high-quality jobs in six priority industries that are closely aligned with the objectives of California Jobs First. This strategy, which seeks to grow the Kern County region’s economy and improve the wellbeing of all residents, including historically disinvested communities, focuses on a mix of tradable and locally serving industries that will collectively support the state’s transition to a carbon-neutral economy.

Vision and goals

California Jobs First is a statewide initiative to support the creation of regionally centered economic development strategies. It includes a Planning Phase, during which each region—including the Kern County region—engages local stakeholders in the creation a of strategic

plan for inclusive economic growth, and an Implementation Phase, during which each region may request funding to support specific projects aligned with its published strategy.

The Kern County region’s response to California Jobs First is led by the Kern High Road Transition Collaborative (KHRTC), a collective of members from disinvested communities, labor, business, government, and other community stakeholders such as economic development, philanthropy, education, and workforce development partners. The KHRTC also includes the Governance Council, a body of locally elected representatives that cover the South, North, East, West, and Central subregions of the Kern County region and approves California Jobs First documents, such as the Regional Economic Transition Plan. The day-to-day tasks of administering California Jobs First funding, supporting other governance bodies, and engaging with community members are conducted by the Kern Coalition, a group comprising four locally based nonprofit organizations and the Kern Community College District (acting as fiscal agent) that share a vision for “a diversified, sustainable, equitable, and thriving economy that eliminates intergenerational poverty and empowers Kern County residents from every background to access economic opportunity” (Kern Coalition 2024).

In addition to these standing bodies, the Kern High Road Transition Collaborative also strives to incorporate community input through interviews with nonprofit, public, and private sector leaders and recurring community meetings, hosted across each subregion of the county, that are open to the public.

Regional snapshot and SWOT

The regional economic overview outlined in the Regional Plan Part 1 assessed the current status of the Kern County region’s economy, labor market, and industries; climate and environment; and public health—as well as the potential strengths, weaknesses, opportunities, and threats facing the region.

The Regional Plan Part 1 noted that the Kern County region’s diverse and expanding economy benefits from competitive advantages in several areas, including a growing and relatively young population; a strategic location close to large cities, coastal ports, and inland transportation arteries; and a wealth of natural resources that have formed the basis of the oil and gas and agricultural industries.

At the same time, however, a lack of affordable housing stock, persistently low wages, and high rates of un- and under-employment make it difficult for the region to attract and retain skilled workers. Residents are also facing immediate challenges due to environmental degradation and pollution, long-term challenges linked to climate change, and persistent public health challenges that are exacerbated by disparities in access to high-quality, affordable healthcare.

The Regional Plan Part 2 seeks to address some of these challenges through economic development centered around the tradable and locally serving industries identified in this document. However, this strategy is not intended to singlehandedly address all issues facing the Kern County region. The Kern Coalition is just one of many stakeholders in the region—alongside the private sector, local government, nonprofits, and community-based organizations—that must collaborate to help the Kern County region create equitable prosperity over the coming years and decades.

Regional strategies

The regional economic development strategy outlined in this document is made up of a three-part approach comprising target sector strategies, sector-neutral and economic mobility strategies, and additional regional and community development strategies that fall outside the scope of California Jobs First funding but nonetheless play a vital role in ensuring that all residents of the region can enjoy a high quality of life.

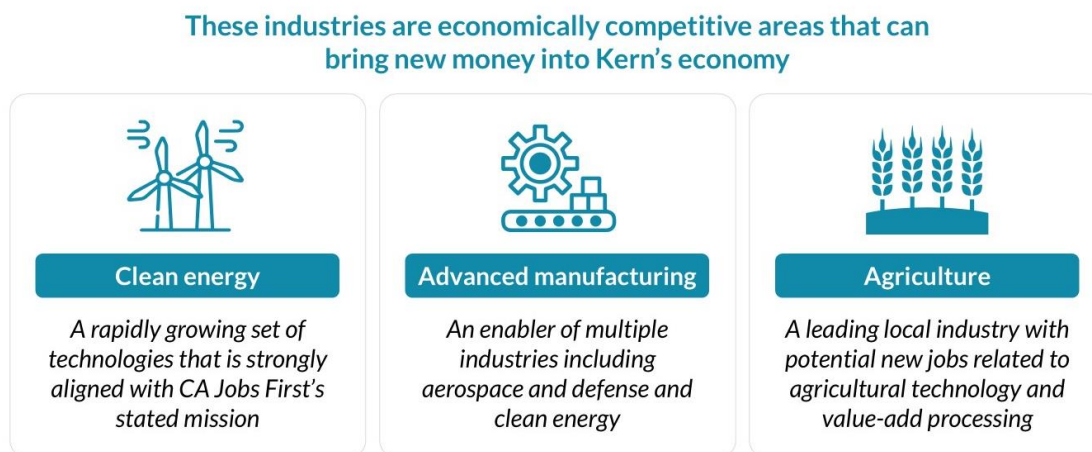
Target sector strategies cover the Kern County region’s **tradable industries**, or industries that bring outside money into the local economy by selling goods and services to customers outside of the county. Within tradable industries, this document differentiates between **priority tradable industries**, i.e., industries that are relevant across multiple subregions of Kern County, and **opportunistic tradable industries**, i.e., industries that may be relevant to specific subregions but are less likely to provide a significant number of high-quality jobs across the entirety of the county. Priority tradable industries include:

- **Clean energy**, which is experiencing significant growth driven by both market demand and state and federal policy initiatives for a transition to clean energy. Clean energy technologies can help the Kern County region leverage its natural resource advantage and enter a fast-growing market, while also mitigating the local effects of

climate change and diversifying the economy so it becomes less reliant on oil and gas.¹

- **Advanced manufacturing**, which can bolster the value chains of other important industries like agriculture, clean energy, and aerospace by fostering local production. Advanced manufacturing can help the Kern County region reduce reliance on external suppliers, promote homegrown innovation, and foster collaboration among local businesses, research institutions, and workforce development programs, resulting in a more dynamic and resilient economy.
- **Agriculture**, the largest source of employment in the Kern County region and an industry in which the region has held a longstanding competitive advantage. Expanding existing agriculture employment to include value-additive processing and agricultural technology can help the region adapt to coming environmental challenges and regulatory changes while maintaining its role as a crucial source of food production.

Figure 1 Tradeable industries



In addition to the priority tradable industries outlined above, the Kern Coalition is also highlighting several opportunistic industries relevant to one or more subregions. These are **aerospace and defense**, which is critical to the economy of East Kern and offers high potential for future growth in skilled jobs; **carbon management**, which could provide

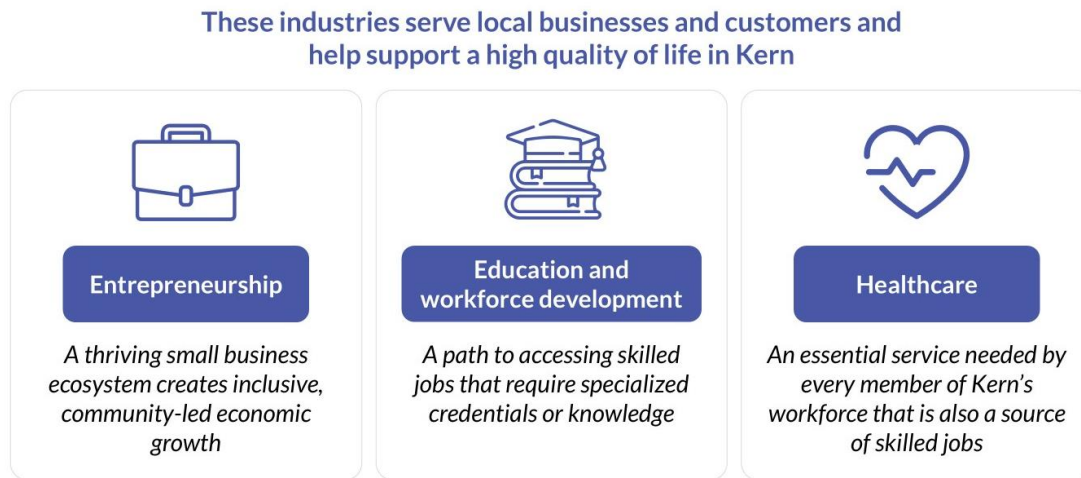
¹ Note that, while this report discusses several potential technologies, nothing in this report should be construed as preferring or recommending a specific technology; those judgements should be made by sector investment experts during the project selection phase.

opportunities for displaced oil and gas workers; **hospitality and tourism**, which offers opportunities to diversify the Kern County region's economy in specific areas like Lake Isabella; and **transportation and warehousing**, which is growing rapidly in the region and could provide near-term jobs for severely disinvested communities struggling with chronic unemployment.

The second component of the regional economic development strategy, sector-neutral and economic mobility strategies, covers Kern County's **locally serving industries**. Locally serving industries are those that circulate money within the local economy by selling goods and services to customers inside of the county; typically, these industries are essential for a high quality of life. Priority locally serving industries include:

- **Entrepreneurship**, which is important given that small businesses are a leading source of new job creation, a driving force behind competition and diversification, and a promising pathway to economic mobility for disinvested communities.
- **Education and workforce development**, which is essential to ensuring that people gain the necessary skills, knowledge, and competencies to succeed in the labor market and contribute to a dynamic and resilient economy through higher salaries and taxes.
- **Healthcare**, which is a foundational service needed by every member of the region's workforce, especially those currently facing suboptimal health outcomes due to a shortage of healthcare workers and facilities.

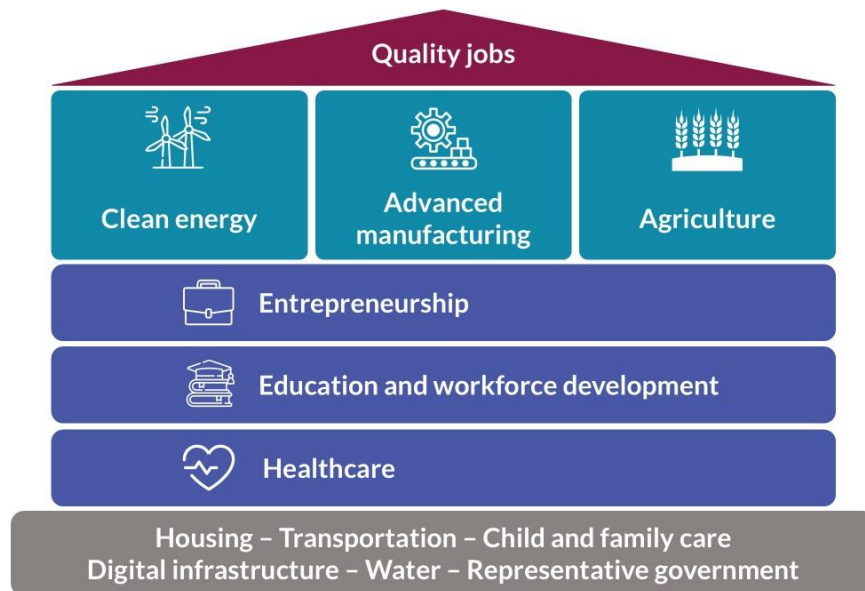
Figure 2 Locally serving industries



Finally, the third component of the regional economic development strategy, **additional regional and community development strategies**, highlights needs that fall outside the scope of California Jobs First’s funding priorities but are vital to the Kern County region’s long-term economic development. These priorities—**housing, transportation, child and family care, digital infrastructure, water infrastructure, and representative governance**—will help attract high-quality employers to the region and ensure that residents have access to the day-to-day services and resources they need to thrive on the job.

These three components of the regional economic development strategy—target sector strategies, sector-neutral and economic mobility strategies, and additional regional and community development strategies—collectively form a supportive framework for sustainable, equitable economic growth. The tradable industries can be thought of as the pillars of this plan, while the locally serving industries are the cross-cutting enablers that provide support to each pillar, and the regional and community development strategies serve as the foundation. Locally serving industries enable the pillars of tradable industries by ensuring that there is a healthy local economy of consumers, living in strong communities, whose basic needs are being met—from inclusive healthcare to quality K–12 education.

Figure 3 Framework for sustainable, equitable economic growth



A path forward

The Kern County region’s approach to maintaining its governance structure and engaging communities and stakeholders during and after the Catalyst and Implementation phases will be informed by the state’s forthcoming operating plan for California Jobs First.

In the near term, i.e., 2024–2026, the Kern Coalition will maintain collaboration across the Regional Conveners, Governance Council, and Kern High Road Transition Collaborative. In addition to these three entities, sector investment coordinators will also support the Coalition by providing the sector-specific expertise required to review potential projects.

The Kern Coalition is currently building out the tools and support required to ensure that the project proposal, review, and selection processes are equitable, transparent, and accessible to residents across the Kern County region. Strategies in this area include but are not limited to conducting outreach to industry leaders, nonprofits, and community members across subregions; translating requests for proposals into English, Spanish, and Punjabi; and providing technical assistance for individuals or groups developing proposals. Proposed projects will be encouraged to explain plans for community engagement within

the proposal, and all projects will be monitored throughout implementation to identify and address community concerns as they arise.

Finally, the Kern Coalition would note that the results of our Governance Council’s vote on whether to approve this report are include as an addendum to the report, along with specific comments and suggestions from the Council that have not been addressed here – in addition to separate addenda containing subregional economic strategies for the West Kern (Taft), North Kern (Shafter), and East Kern (CA City and the Kern River Valley). The Coalition would further note that it has exceeded the State’s guidelines for stakeholder engagement, with more than 50 community meetings held across the County and more than 30 interviews in the last three months alone with community and environmental justice advocates, public officials, industry leaders and other stakeholders.

Acknowledgements

The authors of this report, [Dalberg Advisors](#), would like to thank all the members of the Kern High Road Transition Collaborative – the five convening organizations and their representatives on the Kern Coalition, the members of the Governance Council, and the many other partner organizations who contributed to this report in so many valuable ways. We would also like to thank the people of Kern County – more than 800 of whom took the time to attend one or more of the 50+ community meetings that the Kern Coalition organized. We hope that this work helps brings new opportunities for shared prosperity across Kern County.



Chapter 1: Vision and Goals

California Jobs First

California Jobs First, formerly known as the Community Economic Resilience Fund (CERF), is a statewide initiative to support equitable, sustainable economic growth through the creation of high-quality jobs (California Economic Resilience Fund, 2022). Since its inception in 2022, California Jobs First has taken a locally based, community-and-worker-informed approach to strengthening economic resilience during the state’s transition to a carbon-neutral economy. This “high road” approach favors businesses that invest in their workforces, pay living wages, and provide new opportunities to historically disinvested populations, including low-income residents and communities of color (High Road Strategy Center).

California Jobs First comprises two phases: a Planning Phase, during which each region engages local stakeholders in the development of a strategic plan for inclusive economic growth, and an Implementation Phase, during which each region may request funding to support specific projects aligned with its published strategy. The Planning Phase, which spanned from October 2022 to September 2024, was structured around a two-part Regional Plan.

Figure 4 California Jobs First Planning Phase



The first portion of the two-part Regional Plan, Regional Plan Part 1, presented a snapshot of the Kern County region's current socioeconomic landscape that included a review of the local economy, labor market, climate and environment, and state of public health, among other topics. The Kern Coalition submitted the initial version of the Regional Plan Part 1 to California Jobs First in January 2024 and received comments from the state that were addressed via an updated report known as the Addendum to the Kern County Regional Plan Part 1 ("the Addendum"). California Jobs First approved the Addendum in June 2024; it is available online in English, Spanish, and Punjabi (Kern Coalition).

The second portion of the Regional Plan—this document, the Regional Plan Part 2—builds on the information provided in the Regional Plan Part 1 to provide a forward-looking economic development strategy that prioritizes a set of industries aligned with California Jobs First's focus on equity, sustainability, job quality and access, and economic competitiveness and resilience.

Kern High Road Transition Collaborative

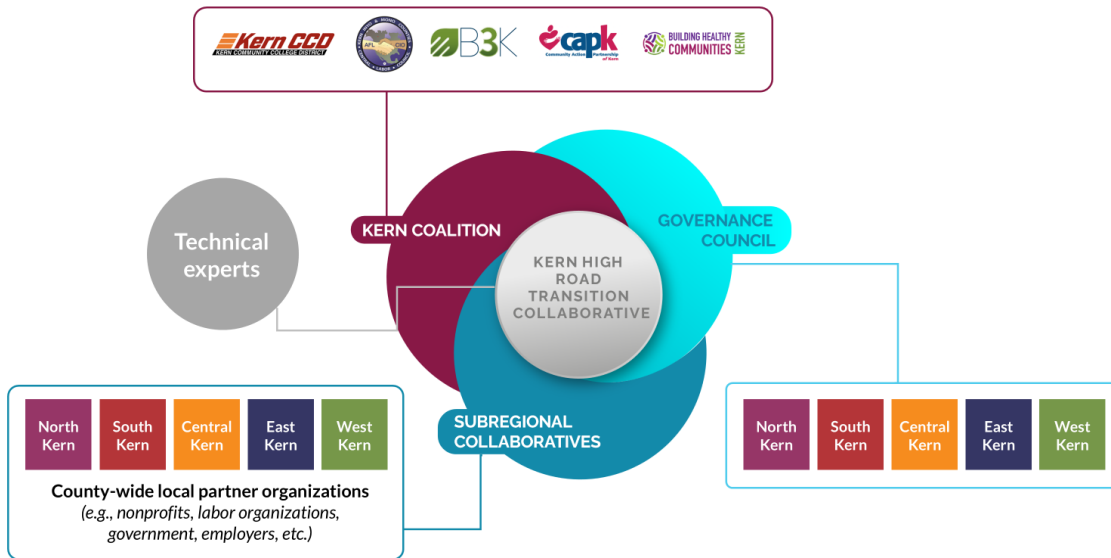
The Kern Coalition ("the Coalition") was formed in July 2022 as a group of local organizations designed to respond to the state grant opportunities provided by California Jobs First. The Coalition consists of five coordinating organizations: four locally based nonprofit organizations (B3K Prosperity, Building Healthy Communities Kern, Community

Action Partnership of Kern, and the Kern Inyo Mono Central Labor Council) and the Kern Community College District undertaking the role of the Coalition’s fiscal agent (see Annex for more information).

To ensure that this effort includes economic development entities and community members and involves transparent decision-making processes, the Coalition established a participatory governance structure, the Kern High Road Transition Collaborative (KHRTC). The KHRTC is comprised of members of disinvested communities and representatives from other community stakeholders including organized labor, the business sector, and government, as well as partners working in economic development, philanthropy, education, and workforce development, organized by the Kern County region’s subregions (North, South, Central, East, and West). The KHRTC also includes a Governance Council, a body of locally elected representatives that represents each of the five subregions and approves California Jobs First documents, such as the Regional Economic Transition Plan.

During the planning phase, the Kern Coalition facilitated governance meetings, supported and developed the regional economic and transition plan, and implemented the community outreach and engagement plan through participatory activities. The Governance Council assisted with outreach to the respective subregions and provided individual and collective feedback on the Kern Coalition’s progress, including valuable input on the content of this report. In addition, the Coalition engaged over 40 county-wide local partner organizations (nonprofits, labor organizations, government, employers, etc.), encouraging them to share their expertise and help initiate and nurture partnerships that are essential to the long-term success of California Jobs First (Kern Coalition). The Coalition also subcontracted local community-based organizations (CBOs) to help with community outreach.

Figure 5 Kern High Road Transition Collaborative governance structure (Planning Phase)



During the process of producing the Regional Plan Part 1, the Kern Coalition articulated a set of guiding principles for KHRTC that adapted California Jobs First’s overarching aspirations to the local context in the Kern County region (see Annex for more information). Since then, the Coalition has continued to refine the KHRTC’s vision, mission, and target outcomes:

Vision: *A diversified, sustainable, equitable, and thriving economy that eliminates intergenerational poverty and empowers Kern County residents from every background to access economic opportunity.*

Mission: *The Kern Coalition advances local efforts to accelerate workforce development and bolster industries to create high-quality jobs that improve the financial, social, and environmental wellbeing of all residents, especially those from disinvested communities.*

Target outcomes: *The Kern Coalition will (i) build long-term partnerships with community-based organizations that represent the Kern County region’s diverse residents and (ii) elevate the voices of disinvested communities that have been excluded from past economic development planning in order to (iii) empower local communities to co-create solutions with local employers, (iv) increase the number of high-quality*

jobs available across a range of diversified industries, and (v) develop a climate-forward economy that is adaptable, resilient, and sustainable.

Figure 6 Kern High Road Transition Collaborative mission, vision, and outcomes



The High Road economy targets five interrelated outcomes that will help Kern County address systemic barriers.

The KHRTC’s vision, mission, and target outcomes reflect the principles of the high road economy as outlined by the California Workforce Development Board. The High Road in Workforce Development framework, developed by Professor Joel Rogers of the University of Wisconsin-Madison, refers to an economic development approach that emphasizes the creation of high-quality jobs, i.e., “jobs that provide family-sustaining wages, health benefits, a pension, worker advancement opportunities, and collective worker input and are stable, predictable, safe, and free of discrimination” (California Workforce Development Board).

In a high road economy, residents from disinvested communities have accessible opportunities to achieve economic mobility. California Jobs First’s definition of “disinvested” recognizes the wide range of communities facing “challenges resulting from inequitable land use and zoning policies, exclusionary economic development processes, underinvestment, and a lack of meaningful engagement with community residents in planning and policy decisions” (Community Economic Resilience Fund 2022). In addition to focusing on the needs of disinvested communities, which in the Kern County region include many low-income rural communities, undocumented communities, and communities of color, the

KHRTC also seeks to provide high-quality jobs accessible to individuals of all backgrounds, including those facing challenges related to physical or mental illness, disability, substance use disorders, justice involvement, homelessness, or other debilitating circumstances.

Community engagement

California Jobs First’s focus on developing regionally centered, equitable pathways to economic mobility, in collaboration with a diverse range of stakeholders, informed the Kern High Road Transition Collaborative’s structure and approach. The composition of the KHRTC’s coordinating organizations (the Kern Coalition) and Governance Council reflects this focus, as does the KHRTC’s approach to gathering input from communities spanning the South, North, East, West, and Central subregions of the Kern County region.

As noted earlier, the Coalition consists of five coordinating organizations: the Kern Community College District (KCCD), which serves as the Coalition’s fiscal agent, and four locally based nonprofit organizations—B3K Prosperity (B3K), Building Healthy Communities Kern (BHC South Kern), Community Action Partnership of Kern (CAPK), and the Kern Inyo Mono Central Labor Council (KIM CLC). KCCD brings a workforce development and education lens in line with its mission to provide outstanding educational programs and services that are responsive to diverse students and communities; B3K brings an inclusive economic development perspective informed by in-depth analyses of opportunity industries and engagement with industry, community and local government; BHC South Kern brings a public health focus grounded in its work advocating for health equity through power building, partnerships, and narrative change rooted in inclusion and race; CAPK brings an understanding of the challenges facing low-income communities informed by decades administering programs that aim to meet children, families, and individuals at their point of need; and KIM CLC brings the voice of organized labor through its long history of representing the interests of working people at the state and local level.

Figure 7 Kern Coalition Regional Conveners



The Governance Council similarly represents the varied subregions of the Kern County region. Residents elected its 17 members—five from Central Kern and three each from the North, South, East, and West subregions—to vote on economic and workforce development proposals that will be submitted to the state at the end of the Planning Phase. Governance Council members bring varied professional backgrounds to their roles; many hold leadership positions within nonprofits and local government that keep them in continuous dialogue with a range of communities in their subregions. Members also have extensive experience in community engagement, including working as community organizers and volunteers, helping represent farm worker communities, and participating in a range of grassroots efforts to support the economic development and overall wellbeing of disinvested residents across the Kern County region.

Figure 8 Governance Council members by subregion



Finally, the Kern High Road Transition Collaborative comprises five subregional collectives representing East, North, West, South, and Central Kern, which are open to community members as well as locally based public, private, and nonprofit organizations. Members of subregional collaboratives attend open public meetings, provide input, and can serve on advisory and / or subcommittees.

In addition to its inclusive structure, the Kern Coalition has strived to engage residents directly in California Jobs First’s Planning Phase via a series of subregional community meetings that have spanned the creation of Regional Plans Part 1 and 2. In the lead-up to submitting the Regional Plan Part 1 to the state, the Kern Coalition held over 30 public events from June 2022 through July 2024, including 26 public meetings hosted in different subregions, five updates, and one webinar. These events sought to explain the California Jobs First process, understand how residents define “quality jobs,” explore the types of opportunities residents want to see in their communities, and ascertain the landscape of barriers to and opportunities for attaining and maintaining high-quality employment. To develop the Regional Plan Part 1, the Kern Inyo Mono Central Labor Council and the Central Valley Worker Center Coalition partnered with UC Merced to conduct a phone survey of a randomly selected sample of Kern County residents and workers. This provided insights into workforce development and training needs. UC Merced also supported and leveraged the Dolores Huerta Foundation Community Needs Assessment Survey, “a door-to-door community needs survey of a randomly selected sample of residents in Wasco, Arvin, Lamont, and East Bakersfield, which collected input on priorities and challenges” (Addendum to the Regional Plan Part 1 2024).

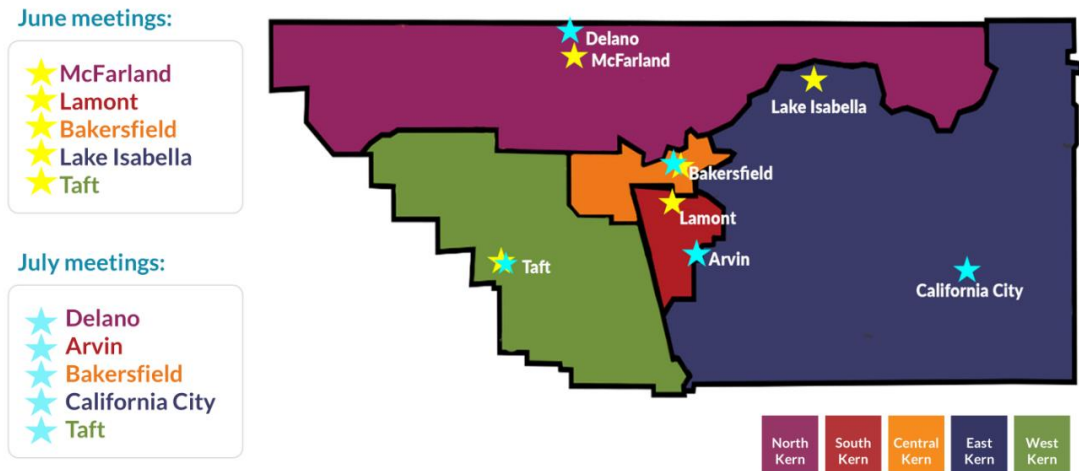
Between April 2024 and August 2024, during development of the Regional Plan Part 2, the Coalition undertook multiple outreach efforts to ensure that community voices were included in the report. These included:

- **Interviews:** The Coalition conducted over 30 interviews with nonprofit, private sector, and public sector organizations in the Kern County region to hear their thoughts on the challenges to and opportunities for growth and job creation across industries, subregions, and communities (see Annex for the full list of interviews conducted).

Each of these constituencies brought important perspectives to the table. Nonprofit organizations including labor groups and community-based organizations shared insights into the lived experiences of the region's residents today, especially those from historically disinvested communities who are un- or underemployed. Private sector employers shared their experiences with facing constraints to their businesses as well as areas where there may be near-term opportunities for high-quality job growth. Finally, public sector stakeholders discussed efforts already underway in the Kern County region and drew linkages between the Coalition’s work and the many strategic plans already in place at the city or county level.

- **Subregional meetings:** The Kern Coalition organized two rounds of meetings in each of the Kern County region’s five subregions to collect community feedback in June and July 2024; over 800 residents participated in these meetings.

Figure 9 Subregional meetings



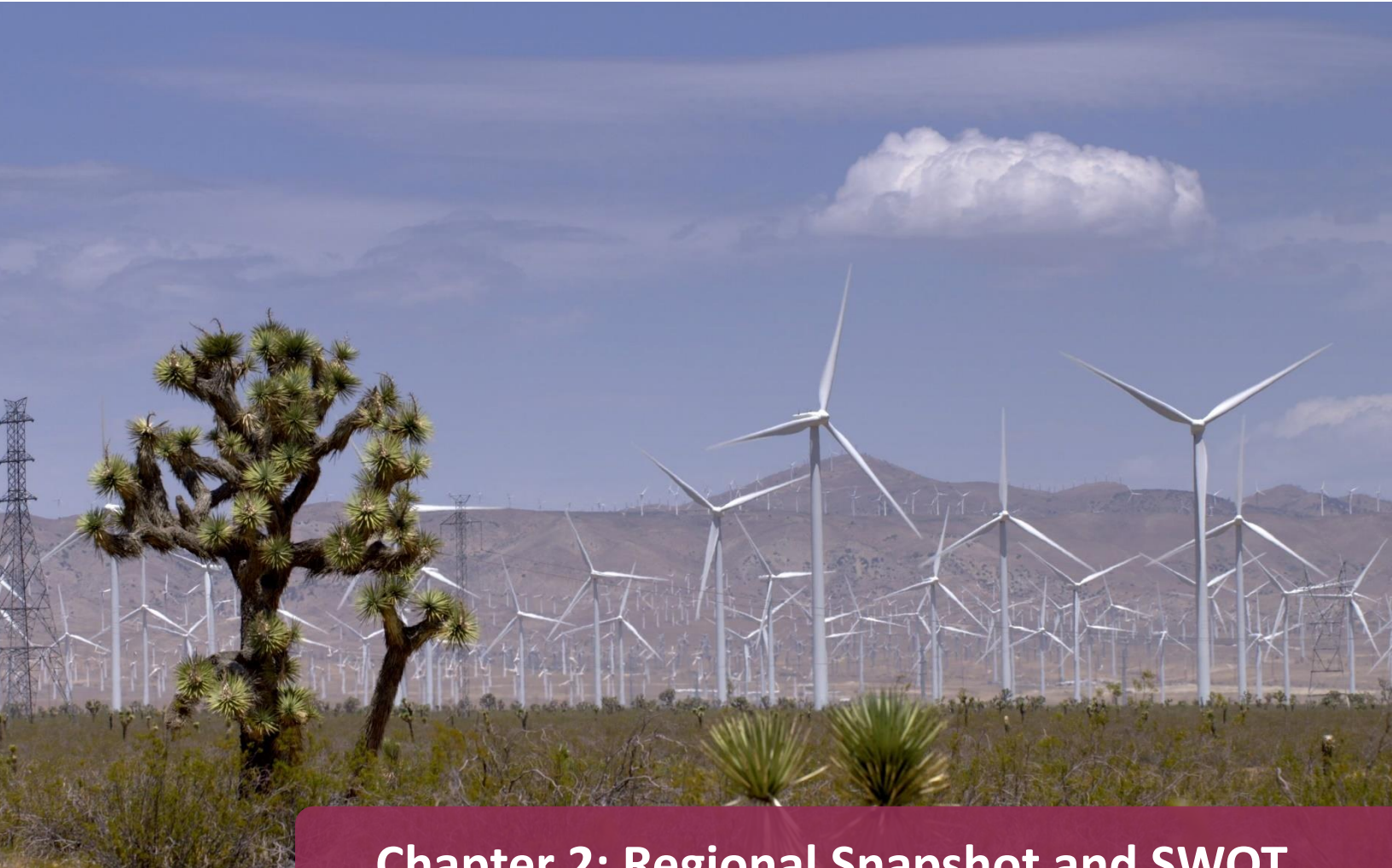
The first round of meetings occurred in June 2024 in the cities of Lake Isabella (East Kern), Lamont (South Kern), Taft (West Kern), McFarland (North Kern), and Bakersfield (Central Kern); in total, 330 people attended. During these meetings, the Coalition shared progress on the California Jobs First process and sought feedback on potential priority industries via a survey, offered digitally and via paper copy, and through real-time comments.

The Coalition held a second round of meetings in July 2024 in California City (East Kern), Arvin (South Kern), Taft (West Kern), Delano (North Kern), and Bakersfield (Central Kern), with 477 participants in total. In addition to providing an update on the California Jobs First process, these meetings allowed the Coalition to share its emerging priority industries, explain how they were identified, and solicit feedback.

The Coalition took several steps to promote equity and inclusion at the June and July 2024 subregional meetings. As noted, meetings were held in each of Kern County’s five subregions; in all regions but West Kern, for which Taft College served as the site for both rounds of meetings, the Coalition went to different locations in June and

July in an effort to reach new participants. In addition, the Coalition scheduled meetings after regular work hours (6:00–7:30 p.m.), offered in-person and virtual participation opportunities, and recorded and uploaded the recordings and notes to the Coalition’s website for those who could not attend. Moreover, it compensated people for their time and effort in attending the meetings (e.g., with food vouchers) and offered childcare and food on site. All written materials were translated into English, Spanish, and Punjabi and simultaneous translators were available for both in-person and virtual attendees. The Coalition was also able to attract residents thanks to the help of partner community-based organizations and Governance Council members, who conducted outreach in their local communities.

- **Standing feedback mechanisms:** The Coalition manages a dedicated email address where people can reach it at any time (KernCERF@kccd.edu). It also maintains a presence on social media (Facebook, X, Instagram, LinkedIn) and circulates a newsletter.



Chapter 2: Regional Snapshot and SWOT

Note: All data points referenced in Chapter 2 are drawn directly from the [Addendum to the Regional Plan Part 1](#). For underlying citations, please refer to the published Addendum.

Summary

The Kern County region's economic assets include its strategic location, wealth of natural resources, and a climate and terrain compatible with several clean energy technologies. The region's economy is increasingly diversified across several well-established and growing industries; the largest employment sectors include oil production, government, trade, agriculture, and education / health services. As a result, in 2022, the region's economy ranked 14th out of 58 counties in California in terms of gross domestic product (GDP).

However, the Kern County region's GDP has been decreasing since the initial onset of the **Covid-19 pandemic in 2020**. The industries that experienced the most severe declines during the pandemic were arts and entertainment (-41%), accommodation and food

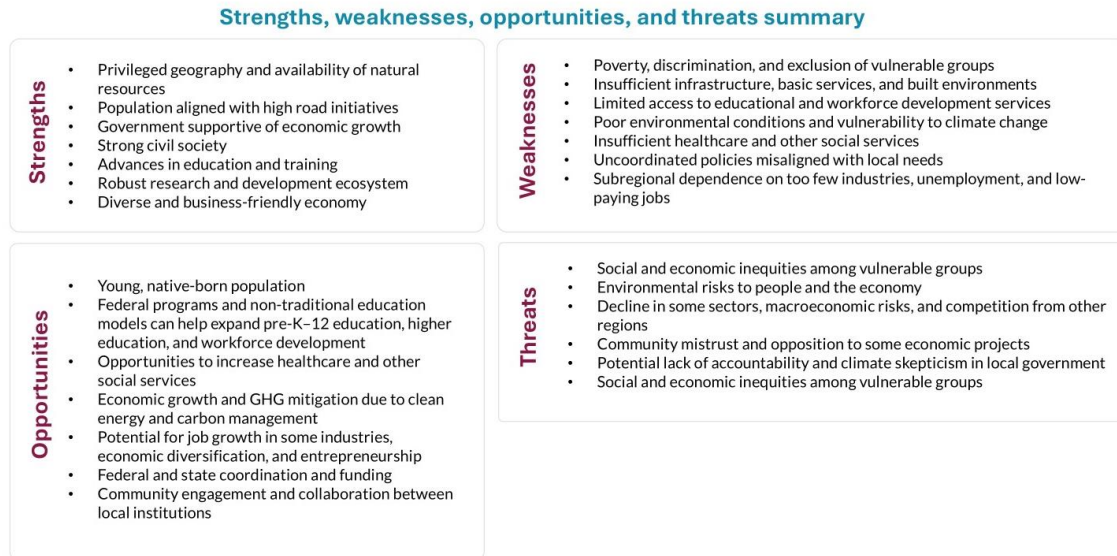
services (-21%), oil and gas extraction (-17%), and educational services (-16%). Ongoing issues including a lack of affordable housing, unequal broadband access, workforce shortages, and supply chain disruptions continue to hamper the region's economy. In addition, the increasing frequency of extreme weather events in the region, compounded by locally generated pollution and emissions, create unsafe working conditions that disrupt economic production and harm workers. In addition, all of the top five employment sectors in the Kern County region—principally those in agriculture and food preparation and service-related occupations—offer relatively low average wages that fall below the region's living wage standard.

As a result, the Kern County region includes multiple areas that meet California Jobs First's definition of disinvested communities. The region also ranks among the lowest in California in terms of overall health outcomes. Residents experience serious disparities in their health and working conditions; these conditions for people employed in agricultural and domestic work are typically at the lower extreme. Despite ongoing efforts by a range of dedicated stakeholders, education, workforce development, and healthcare services remain inaccessible or unaffordable for many residents.

Despite these challenges, the Kern County region has potential for inclusive economic growth. Some demographic dynamics are positive (e.g., a young and diverse population), and the State of California Employment Development Department estimates that 44,600 new jobs will be created by 2030, mainly in trade, transportation, and utilities; educational and health services; and leisure and hospitality. The region is actively seeking to expand the economic footprint of environmentally sustainable industries that offer high-quality jobs, and multiple stakeholders are engaged in efforts to expand the education and training required for residents to access these jobs.

Strengths, weaknesses, opportunities, and threats summary:

Figure 10 SWOT analysis summary



Regional snapshot

Economy, labor market, and industries

The Kern County region has a growing and diverse economy. In 2022, Kern County’s \$43.8 billion GDP ranked 14th out of 58 counties in California. Over the past five years, the region experienced notable job growth, especially in education and health services (+22.4%). This trend is expected to continue. By 2030, considerable job growth is predicted across trade (both wholesale and retail), transportation, and utilities (+14,100 jobs), education and health services (+8,100), and leisure and hospitality (+7,500), among other industries.

The region is also experiencing demographic trends favorable for economic growth. Unlike California as a whole, which has faced population decline in recent years, the Kern County region’s population has grown considerably; from 2000 to 2019, the population increased by 37%, promoting economic and labor market growth. In addition, the median age of the Kern County region residents is the third lowest of California counties; a sizable proportion of the population is under five years old. It is also highly diverse—Latinos make up over half the population and immigrants comprise one-fifth. Another notable demographic trend is

workforce turnover as older, foreign-born workers increasingly are being replaced by younger native-born individuals entering the labor market.

The Kern County region has competitive advantages in several industries due to its geographic characteristics and favorable policies. The region is competitive thanks to its strategic location between the major metropolises of Los Angeles and San Francisco—relatively close to coastal ports and accessible by major inland transportation routes. Other strengths include a robust R&D ecosystem, particularly in engineering, that centers around California State University Bakersfield and military and aerospace research institutions conduct, as well as land-use policies that enable streamlined permitting processes. As a result, the Kern County region is competitive in natural resources, wholesale and resale trade, transportation, and construction. Other important industries include technology, advanced manufacturing, business services, entrepreneurship, defense, aerospace, transportation, logistics, and energy more broadly.

Recent shocks, such as the Covid-19 pandemic, tested the resilience of the Kern County region's economy, which continues to face challenges and rely on polluting industries. The onset of the Covid-19 pandemic caused large GDP declines in sectors like arts and entertainment (-41%), accommodation and food services (-21%), and oil and gas extraction (-17%); agriculture (+20%) and utilities (+15%), meanwhile, grew during this period. Although Bakersfield recovered quickly, the region is still struggling; in 2022, Kern suffered a 3.3% decrease in GDP, the state's eighth largest decline. Moreover, the economy's heavy reliance on oil production—the region ranks seventh nationally in terms of oil produced—contributes to climate and public health issues (see below for details).

The region also faces several long-term threats to its competitiveness. Challenges include a lack of affordable housing, particularly for lower-income households, that limits the region's ability to attract and retain skilled talent, as well as a disproportionate distribution of jobs that leads to a mismatch between areas where residents live and work. Broadband access, while generally high, remains unequal, particularly in high-poverty areas. Supply chain disruptions pose a substantive challenge for the Kern County region's agricultural sector, leading to product shortages and increased costs for both farmers and consumers, while transportation bottlenecks and workforce shortages affect multiple industries.

In addition, residents face significant challenges including un- and underemployment and wages that are insufficient to cover the cost of living. Around 51% of the region's population grapples with unemployment, underemployment, and / or poverty. In 2023,

families with two adults and two kids in the Kern County region would need an hourly wage of \$38.14 for a sole breadwinner or \$25.02 for two working adults to avoid chronic housing and food insecurity; however, only one of the region's top ten occupations (in terms of number of jobs) offers a wage over this threshold. In addition, 36% of workers in the Kern County region report that their employer does not offer healthcare coverage. As a result, in 2022, Kern's household poverty rate grew from 16.5% to 17.9%, significantly higher than statewide rate of 12.2%.

Several industries in the Kern County region present opportunities for job creation but also pose potential challenges. Agriculture (including farming, fishing, and forestry), one of the region's main sources of employment, provides more than 80,000 jobs, but the average wages of many of those jobs are below the county's living wage standard for a household with two working parents and two children. Warehousing is growing, but the sector is associated with greenhouse gas emissions and workers are exposed to occupational risks and receive low wages. Likewise, workers in key local services like healthcare frequently earn below a living wage, while those in education need specific credentials to access high-quality jobs. Finally, low-carbon energy can help create economic growth and jobs, but residents expressed in community meetings that they are divided on their support for carbon management projects for a variety of reasons, including concerns around environmental impacts, its job creation potential, and its dependence on subsidies.

These opportunities and challenges play out differently in each of the Kern County region's subregions. The economic landscapes of these five diverse subregions are unique:

- **East Kern:** With military installations as its economic anchor, East Kern also focuses on diversification into sectors like aerospace products, services, research, and testing; natural resources and clean energy; outdoor recreation and tourism; logistics and distribution; and healthcare.
- **West Kern:** Long reliant on the oil industry, West Kern is transitioning to carbon management and storage technologies while exploring opportunities to repurpose legacy oil wells (e.g., as gravity storage and geothermal energy storage). Agriculture continues to be an essential sector, though its growth patterns vary.
- **North Kern:** Primarily agricultural, North Kern faces climate challenges like drought and extreme heat. It is embracing proposals for bioenergy with carbon

capture and sequestration (BECCS), while also venturing into logistics and distribution.

- **South Kern:** Also primarily agricultural, South Kern is investing in low-carbon energy and community improvements, such as electric buses, microgrid infrastructure, and educational centers.
- **Central Kern:** With a diverse economy including agriculture, oil, manufacturing, and distribution, Central Kern is exploring low-carbon energy development and low-carbon solutions like microgrids.

Existing federal and state policies provide some level of worker protection, but conditions and access to quality jobs in the region can still be improved. For instance, workers have the legal right to join unions, file grievances, and have a safe workplace. In addition, California has passed legislation aimed at preventing illnesses related to heat exposure in agriculture and oil and gas, as well as mandating a minimum wage, paid sick leave days, field sanitation, and wildfire smoke standards; however, local initiatives to raise labor standards have been limited and improvements in working conditions in Kern County region industries have often been led by federal and state policy changes or union-driven collective bargaining agreements. Moreover, earning disparities persist for Latino, Black, and Asian workers and those without college or high school education. Residents report that they are unable to access quality jobs and / or training and education opportunities due to language barriers, past involvement in the justice system, lack of legal status, lack of a driver's license, lack of transportation, and lack of childcare options.

In recognition of these challenges, the Kern County region is striving to grow a more resilient economy capable of creating quality jobs that leverage the County's demographic strengths. To create quality jobs, the region needs to support industries and sub-industries that hold significant promise for good job growth and employment. It should also seek to ensure that new jobs provide living wages and key benefits. In the agriculture sector, for example, California could implement incentives such as the USDA's Farm Labor Stabilization and Protection (FLSP) Pilot Program that provides subsidies to farm employers that improve working conditions and increase benefits. Finally, the region must ensure that its population is educated and healthy in order to reap the benefits of a young and diverse workforce. For example, 30% of new positions in high-growth industries will need some level of college and 30% will require a minimum of a bachelor's degree.

Climate and environment

Climate change is a high risk in the Kern County region, posing particular dangers for disinvested communities. By 2050, the region is predicted to face record heat, catastrophic wildfires and wildfire smoke, excessive drought, epic floods, and the worst air quality in the nation. The Kern County region’s population is very vulnerable to climate change—ranking as the sixth most vulnerable county in the state and in the 94th percentile of vulnerability nationally. Groups that will be particularly affected include fieldworkers, low-income earners, people with disabilities, and those with English language barriers, as well as Latino, Black, and Asian populations and other people of color.

Climate change is also expected to disrupt economic production and negatively impact workers. While climate change will affect all of California, its effects on the Kern County region may be particularly severe due to the region’s reliance on agriculture and the oil and gas sector. Reduced water supply threatens to affect the production of crops like pistachios, grapes, carrots, and oranges, leading to unemployment and lost wages and potentially exacerbating food insecurity. Today, farmworkers are already reporting work interruptions caused by extreme heat and floods. In the future, the transition to sustainability under climate change and increased environmental flows will require the fallowing of nearly 900,000 acres with respect to current conditions, which will lead to a 2.3% decline of Kern County’s economy by 2040. The transition from fossil fuels to low-carbon energy development and carbon management may also contribute to short- or medium-term disruptions in the labor market as jobs in oil and gas transition to a carbon-neutral economy.

Economic activity that generates toxic air contaminants and fossil fuel byproducts is one of the main sources of pollution and greenhouse gas (GHG) emissions in the Kern County region. Kern County’s air pollution levels are the second highest of the 3,108 counties in the United States, contributing to health issues like asthma, cardiovascular disease, lung cancer, COPD, heart attacks, and cancer. The main sources of the roughly 27 million metric tons of GHG emissions the county generated in 2012 include the fossil fuel industry (40%), electricity production for users inside and outside the county as well as local consumption of outside electricity (22%), transportation (17%), agriculture, forestry, and land use (8%), and industrial production (7%). At the same time, pesticide-laden runoff from agricultural lands pollutes groundwater wells, contributing to the region’s water quality ranking among the worst in California. As a result, 48% of the region’s census tracts are designated as Disadvantaged Communities (DACs) according to SB 535, meaning that they are burdened

by multiple sources of pollution while simultaneously having access to limited economic resources.

On a positive note, residents are actively seeking solutions to address pollution and climate change. Over 90% of the residents of the Kern County region express concern for the environment and support immediate government and business action. In particular, residents expressed a desire for greater public investment in high-quality jobs in sustainable farming (83%), reforestation (81%), renewable energy (77%), retrofitting buildings (76%), public transportation (73%), zero emission fleets (62%), zero emission trucks/vans (60%), zero emission passenger vehicles (59%), and high-speed rail (53%).

The region has an opportunity to leverage public support to create sustainable economic growth. The Kern County region can diversify its economy and promote the growth of emerging industries like clean energy, while working to improve the environmental performance of other key industries, such as agriculture, logistics / warehousing, and industrial production. This could help Kern County adapt to climate change, improve residents' health, and create quality jobs in line with the principles of the High Road economy.

Public health

Currently, many Kern County residents are facing several significant health issues that are exacerbated by disparities in access to quality, affordable healthcare. Kern County ranks 56th out of 58 counties in California for Health Factors (i.e., things that influence length and quality of life and can be modified, such as education or the environment) and 53rd for Health Outcomes (i.e., current physical and mental well-being). 27% of residents are in poor or fair health, compared to 18% of Californians overall. In addition, life expectancy is lower and rates of infant mortality are higher in the region compared to the entire state. Some ethnic and racial groups experience worse outcomes than average—for example, African Americans have a life expectancy of 72.3 years compared to 77.5 for the whole population of the county and an infant mortality rate of 7.7 deaths per 1,000 live births, higher than the county average of 5.3. Poor health outcomes are driven by a lack of healthcare infrastructure and services. For instance, there is one primary care physician for every 2,040 residents in the Kern County region, compared to one physician per 1,250 Californian residents on average; this leads to a high number of preventable hospitalizations, at a rate of 4,914

hospitalizations per 100,000 Medicare enrollees in the region—compared to 3,598 hospitalizations per 100,000 Medicare enrollees across California.

Issues related to mental health, drug misuse, and homelessness also pose significant challenges for many residents. The Kern County region's residents report having 4.7 poor mental health days in the past 30 days, compared to 3.7 poor mental health days for Californian residents on average; the region also has higher suicide rates than the state (14 per 100,000 residents in Kern County compared to a rate of 11 per 100,000 residents in California). In addition, the region ranks 53rd out of 58 California counties for drug-induced deaths—with a death rate double that of the state. The region also experienced a major uptick in homelessness between 2018 and 2021, a period that saw the unhoused population grow by 143% due in part to residents' struggles with high housing costs and a lack of transition and supportive housing options, as well as untreated mental health conditions, and substance abuse. Health issues affecting younger residents are also prevalent in the region, including child maltreatment and adolescent births (25.9 births per 1,000 females ages 15–19, compared with the state rate of 17.0).

On-the-job exposure to industry-specific risks exacerbate the poor health of some residents. Stark disparities exist in the health and working conditions of residents of the Kern County region—especially in the agricultural and domestic work sectors, which have the lowest legal standards in the United States labor market and a high degree of noncompliance. Some of the largest employment sectors in the region are among the least healthy and riskiest. Agricultural workers face hazardous conditions like extreme heat, lack of rest breaks, poor sanitation, and pesticide exposure, resulting in a higher incidence of heat-related deaths and illnesses such as heart attacks and strokes; they also experience abuses like wage theft that can lead to stress and poverty, which in turn can affect their health. The warehousing and storage industry had in 2022 one of California's highest rates of non-fatal occupational injury and illness—an average of 6.2 out of 100 California warehousing workers experienced injury or illness causing them to be unable to perform regular work. Meanwhile, the region's workers in truck transportation (3.0) and building services (2.8) had injury rates higher than the state averages (2.5 for both sectors). Employees in agriculture, warehousing, and oil and gas die at earlier median ages and have higher annual mortality rates than average for the Kern County region.

The Kern County region must continue efforts to address health disparities among residents and decrease workplace-related risks. In addition to efforts to increase the

affordability, accessibility, and quality of local healthcare service, the region can also improve health outcomes by enforcing existing regulations.

Strengths, weaknesses, opportunities, and threats (SWOT) analysis

Strengths

Privileged geography and availability of natural resources:

- The Kern County region covers a large geographic area, has access to major ports and transportation networks, is close to several state and national parks, and is near Los Angeles, making it competitive in logistics and distribution and as a potential hub for manufacturing.
- The region has natural resources that enable specialization in extractive industries as well as oil reserves that position the region as a leader in fossil fuel energy production.
- The Kern County region is also a major producer of solar and wind energy due to its noteworthy wind resources, sunshine, and solar projects, while its unique geology makes it a potential location for carbon capture projects.²

Population aligned with high road initiatives:

- The Kern County region's young population (nearly 30% under age 18) provides opportunities to train and prepare young people entering the workforce, while its language diversity (a large percentage of the workforce is bilingual) enriches its social fabric.
- Public, private, and nonprofit stakeholders in the Kern County region have demonstrated widespread support for sustainable and high road initiatives.

Government supportive of economic growth:

² This language is copied verbatim from the Addendum to the Regional Plan Part 1. However, community members have expressed differing opinions regarding (i) the Kern County region's suitability for underground carbon storage and (ii) the safety and economic viability of carbon management as a whole.

- The government has invested in energy resilience, carbon capture programs,³ and workforce training programs, which could facilitate economic development.
- The county receives federal and state funding for infrastructure, water management, economic development, and public safety projects.
- The Kern County region has clearly defined a set of priority industry sectors based on thorough economic and workforce development assessments and is taking action to address these sectors' specific workforce needs and challenges.

Strong civil society:

- A diverse and longstanding network of community-based organizations in the Central Valley region of Kern County is capable of reaching vulnerable populations.
- There are growing partnerships between local governments and community-based organizations.

Advances in education and training:

- The region has invested in career and technical education and work-based learning (e.g., nursing programs); local public universities and colleges are preparing local residents for the workforce.
- The Kern Regional K-16 Education Collaborative is working to improve student progress from high schools to postsecondary education and ultimately the workforce (e.g., dual enrollment programs).

Robust research and development ecosystem:

- The Kern County region's innovative ecosystem benefits from the convergence of academic institutions, military bases, research facilities, and relevant industries, including the aerospace industry.

³ This language is copied verbatim from the Addendum to the Regional Plan Part 1. However, carbon capture's ability to create jobs and spur economic development is unproven (e.g., the California Resource Corporation's TerraVault project [will create just five jobs](#) once the facility is operational).

Diverse and business-friendly economy:

- The diverse array of industries active across the subregions of Kern County bolsters the region's resilience to economic downturns.
- Several industries and sectors in the Kern County region have experienced considerable job growth in recent years, including private education and health services; trade, transportation, and utilities; government; and leisure and hospitality.
- Technological advancements, particularly in ag-tech, enhance productivity and efficiency in the Kern County region's agricultural sector.
- The region is widely perceived by private and public sector leaders as more "business-friendly" than other regions in California; positive start-up activity and organizing efforts, including networking, coworking, education, and exposure, contribute to an expanding entrepreneurial foundation.

Weaknesses

Poverty, discrimination, and exclusion of vulnerable groups:

- Generational poverty and trauma pose roadblocks to prosperity. The isolation of some small, incorporated, rural communities presents barriers to accessing services, training, job opportunities, and healthy food. Some incorporated towns like East Kern's California City face similar challenges; there are few community-based organizations in the subregion to advocate for and provide support to residents.
- The region has a history of racism and discrimination, including against the LGBTQI+ population; the historical practice of redlining has disproportionately affected the Black community.
- The immigrant population in the Kern County region is marginalized due to language barriers, discrimination, and uncertain work status, particularly for Indigenous populations who do not speak English or Spanish. The exclusion of undocumented workers from public safety net programs and lack of immigration

reform and pathways to legal status leave many Kern residents vulnerable to immigration enforcement, difficulty finding employment, and family separation.

- In addition, resources across the region for the formerly incarcerated are insufficient.

Insufficient infrastructure, basic services, and built environments:

- Physical infrastructure is lacking or in disrepair, including streets, streetlights, sidewalks, sewer systems, water systems, and drainage systems. Some communities also lack sufficient public institutions such as libraries, senior centers, and community and cultural centers.
- The public transportation system is inadequate to serve public needs due to insufficient geographic coverage, frequency and hours of operation, and accessibility. Poor connectivity hinders transportation among sub-regions, and the relatively low number of commercial air links (compared to peers) limits the convenience of air travel.
- Energy insecurity in areas like Central Kern, characterized by fluctuating prices and reliability issues, impacts both residents and the economic stability of industry.
- Insufficient new housing development, particularly in East Kern, poses challenges in attracting and retaining skilled workers. Affordable housing is becoming increasingly hard to find as rents are rising quickly and some communities are facing housing shortages.
- The region's digital divide is prominent. There are stark racial disparities between immigrant and U.S.-born households in terms of home access to high-speed internet, access to a computer, or both. While universal broadband coverage is available in Bakersfield, the ongoing challenge is access and subscription rates.

Limited access to educational and workforce development services:

- Some schools are difficult to get to due to low walkability and public transit coverage.

- There are not enough professionals and academics in the region to provide high-level education training to the local population; a shortage of college course offerings makes it difficult for students to meet degree requirements. The region also lacks research capacity and research centers.
- Young people in the Kern County region are not yet entering skilled trades and careers in the numbers needed to sustain and grow the local economy. The region faces a “brain drain”—young people who leave the region for educational opportunities often do not return due to a lack of suitable employment or local amenities.
- General shortages of tech or digital skills talent, along with low levels of overall educational attainment, create barriers to credentialed and skilled employment. Moreover, information about trade sectors and vocational training programs is not readily available, while recruitment efforts are insufficient.

Poor environmental conditions and vulnerability to climate change:

- The Kern County region’s air quality ranks among the worst of any county in the nation. Its water quality is among the worst in the state and many residents do not have access to clean drinking water. Environmental pollution and ineffective policies contribute to negative health outcomes among vulnerable communities.
- Ongoing health and employment risks due to fast-changing climate conditions can place severe financial strain on members of the farmworker community.

Insufficient healthcare and other social services:

- Many residents (particularly BIPOC and undocumented workers) still lack access to healthcare, due to a lack both of insurance coverage and of healthcare facilities and medical practitioners. The county hospital needs additional investment and there is a funding mismatch for nursing programs in the region.
- Childcare is inaccessible for too many families due to high cost, limited availability of services and childcare providers, and lack of childcare options that provide flexible scheduling. There are also insufficient resources for individuals with disabilities.

Uncoordinated policies misaligned with local needs:

- Economic development initiatives across the region have historically lacked a unified vision and measurable goals capable of uniting a wide range of stakeholders, inhibiting long-term, coordinated action and implementation.
- Federal and state funding is frequently misaligned with local needs and priorities. Minority stakeholders often feel marginalized in decision-making processes, impeding efforts to tailor strategies to their specific needs.

Subregional dependence on too few industries, unemployment, and low-paying jobs:

- Some subregions heavily depend on a single industry, such as oil production in West Kern and agriculture in North and South Kern, leaving them susceptible to economic fluctuations.
- Job growth has been concentrated in locally serving and public sectors rather than tradable sectors. The Kern County region continues to grapple with a high unemployment rate (10.2% as of February 2024); certain sectors, including mining, logging, manufacturing, and information, have seen declines in employment, underscoring vulnerabilities in specific industries.
- Many dominant industries in the Kern County region, such as agriculture and logistics, offer mostly low-wage jobs, exacerbating economic disparities and limiting upward mobility. Low union density in the region correlates to lower wages, fewer benefits, and poorer workplace conditions for workers.
- Access to capital and other essential resources is limited, hampering both the establishment and growth of startups. Inclusive entrepreneurship support is in nascent stages of development and has not historically integrated with mainstream economic development efforts.

Opportunities

Young, native-born population:

- The demographic shift to more second- and third-generation immigrants provides pathways to opportunities and avoids barriers to success faced by undocumented residents or residents with undocumented parents.
- The relative surge in the younger population of the Kern County region means larger high school and college-age cohorts will be able to take advantage of college and training programs aligned with the specific occupational skill demands of targeted sectors.

Federal programs and non-traditional education models can help expand pre-K–12 education, higher education, and workforce development:

- Head Start provides a model to offer school readiness programming to pre-K children at a low cost. The Kern County region can also design nontraditional education pathways to reach additional populations, open college satellite campuses, and expand nursing education programs at the region’s community colleges and university.
- More language courses are needed—particularly English instruction for adults and promoting bilingual speakers, especially for Indigenous speakers.
- Having more training programs such as paid internships and fellowships, on-the-job training, accessible training with stipends, and resume workshops would be beneficial, particularly for displaced workers and seniors.

Opportunities to increase healthcare and other social services:

- Interest is strong in expanding the region’s healthcare sector. More primary care physicians and mental healthcare providers are needed, as are medical infrastructure and affordable access to care.
- Childcare centers are a potential area of growth. According to the National Workforce Registry Alliance, encouraging BIPOC women to start in-home childcare businesses can both help close the gap in supply for childcare and boost economic empowerment for a historically underrepresented and vulnerable group.

Economic growth and GHG mitigation due to clean energy and carbon management:

- The Kern County region’s shift toward low-carbon energy presents opportunities for job creation, economic diversification, and new investment. Energy storage solutions can help address issues with intermittent service in low-carbon energy sources.
- Carbon capture projects offer opportunities for economic development and job creation. Carbon management is critical to achieving the county’s emissions targets;⁴ moreover, the California Air Resources Board (CARB) Scoping Plan points to the region’s ability to reduce carbon emissions as a major factor in achieving the state’s climate objectives. Properly plugging and decommissioning idle or orphaned oil wells can also create jobs (approximately 6,842 jobs across California, though subject to change as technologies and carbon capture business models evolve) and protect the environment.

Potential for job growth in some industries, economic diversification, and entrepreneurship:

- Employment opportunities are expected to grow over the coming decade in trade, transportation and utilities, education and health services, leisure and hospitality, and professional and business services. Investments in agricultural practices and technology can enhance climate resilience, upgrade existing jobs, upskill existing workers, and create new job opportunities in sustainable farming methods.
- Further diversifying the economy can improve economic stabilization by reducing reliance on volatile industries. For example, interest is strong in growing the arts and cultural resources of the Kern County region, while the tourism industry can help attract visitors and create job opportunities in specific communities.
- Some regions recommended establishing and promoting a circular economy by supporting local businesses, creating local jobs, and retaining local workers. Creating incubators and accelerators and increasing access to capital can support the development of new businesses.

⁴ This language is copied verbatim from the Addendum to the Regional Plan Part 1. However, carbon capture’s ability to create jobs and spur economic development is unproven and its role in achieving emissions targets is disputed.

Federal and state coordination and funding:

- Proactive partnerships with state and federal entities can benefit the Kern County region by aligning strategies and leveraging policy trends to support its development objectives.
- State and federal investments, such as through the Infrastructure Investment and Jobs Act, can help develop necessary infrastructure in the region, provide jobs, and boost economic development. Other funding opportunities include pursuing the EDA-approved Comprehensive Economic Development Strategy (CEDS) and the Transformative Climate Communities funding. Technical assistance grants from the Kern Coalition can provide support to small rural organizations and communities.

Community engagement and collaboration between local institutions:

- Promoting inclusive economic development as well as engaging diverse communities in leadership and tailoring strategies to address their needs can help ensure broader prosperity.
- Local organizations can serve as neutral conveners and play a key role in effective governance by bridging boundaries to facilitate joint action on common agendas. The increasing number of collaborative spaces in the Kern County region creates opportunities for organizations in the nonprofit sector to share information and resources.

Threats

Social and economic inequities among vulnerable groups:

- Low educational attainment levels for Black, Indigenous, and people of color (BIPOC) and undocumented populations will perpetuate local economic inequities. The high cost of higher education will prevent many residents from obtaining college degrees and credentials necessary for some higher paying economic sectors in the Kern County region.

- The lack of healthcare access for the BIPOC and undocumented populations will perpetuate local health inequities while the lack of an economic safety net for the undocumented population will perpetuate local economic inequities.
- Wages in the Kern County region, especially for Black and Indigenous populations, are not sufficient to meet basic household needs. Without a wage increase in the region, poverty and income inequity will persist—and grow.

Environmental risks to people and the economy:

- Natural and climate disasters such as excessive heat, wildfires, flooding, and droughts impact the health and wellbeing of residents, especially disadvantaged populations, as well as the local economy.
- Climate change could transform Kern County's agricultural sector and water resources. Groundwater shortages impact communities, the agriculture industry, and other economic sectors.

Decline in some sectors, macroeconomic risks, and competition from other regions:

- Dependence on sectors facing job declines (notably mining, logging, manufacturing, construction, and information), though not the largest sectors in terms of workforce, could nonetheless pose risks to the Kern County region's economic stability. Mining and logging are expected to experience the greatest decline, potentially reshaping employment trends.
- Persistent supply chain disruptions, particularly in the agricultural sector, may impede economic growth.
- Over-reliance on oil and gas extraction leaves the county vulnerable to fluctuations in energy prices and the national shift toward low-carbon energy. Legislative efforts aimed at carbon neutrality and environmental regulations impact traditional industries like oil production.
- Inflation and an economic downturn could hamper economic progress, stymie job growth, and negatively impact local income levels. Federal Reserve decisions on interest rates can impact affordability and economic growth in the county.

- Competition from nearby regions with similar competitive advantages may lure business opportunities or investment away from the Kern County region and lead to a race to the bottom, whereby companies relocate to regions with the lowest wages and fewest regulations, putting downward pressure on worker benefits and environmental protections.
- Finding tech or digital skills talent is an ongoing challenge; the region reportedly has greater difficulty in hiring tech talent compared to other markets.

Community mistrust and opposition to some economic projects:

- Many residents and local organizations distrust the local government and are wary of working or collaborating with their elected representatives.
- Some low-carbon energy projects and warehouse developments face opposition from residents concerned about environmental or health impacts.

Potential lack of accountability and climate skepticism in local government:

- A lack of clear accountability mechanisms could hinder the successful implementation of economic development strategies.
- Some representatives and officials in local government do not acknowledge climate change, its magnitude, or the steps necessary to address it.



Chapter 3: Regional Strategies

Introduction

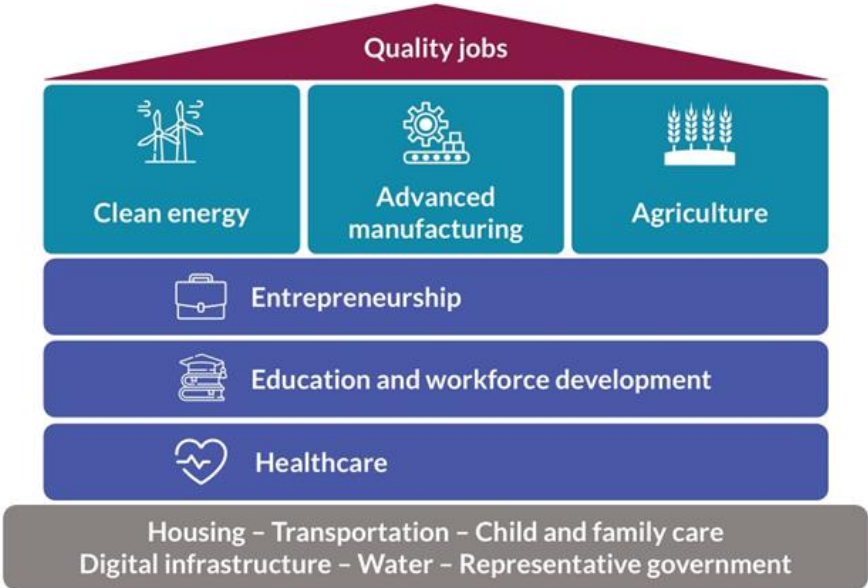
The regional economic development strategy outlined in this document is made up of a three-part approach: target sector strategies, sector-neutral and economic mobility strategies, and additional regional and community development strategies that fall outside the scope of California Jobs First funding but play a vital role in ensuring that all residents of the Kern County region can enjoy a high quality of life.

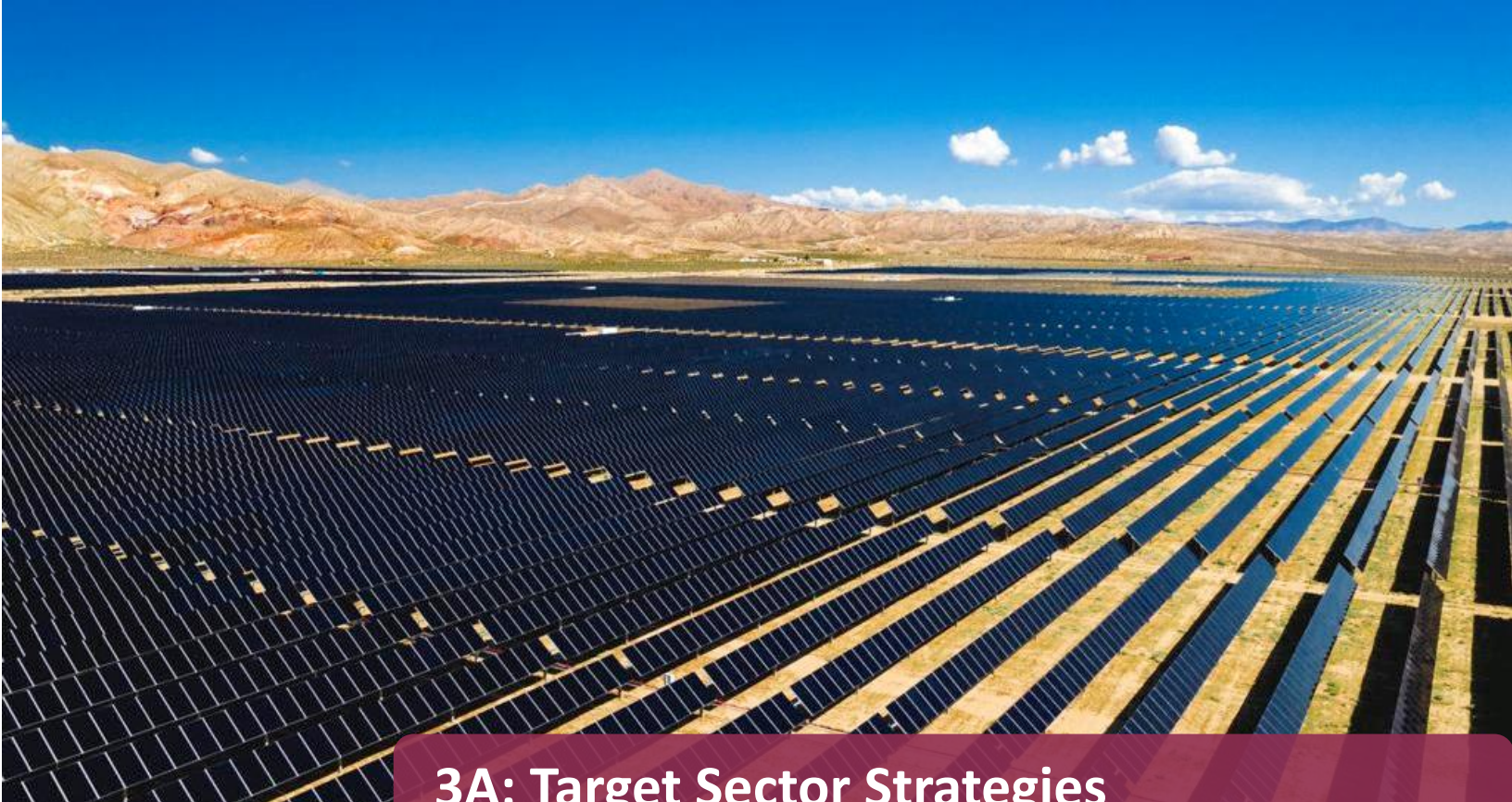
Target sector strategies cover the Kern County region's tradable industries—that is, industries that bring money into the local economy by selling goods and services to customers outside of the region. Within tradable industries, this document differentiates between priority tradable industries, i.e., industries that are relevant across multiple subregions of the Kern County region, and opportunistic tradable industries, i.e., industries that may be relevant to specific subregions but are less likely to provide a significant number of high-quality jobs across the region.

Sector-neutral and economic mobility strategies concern the Kern County region’s locally serving industries. Locally serving industries are those that circulate money within the local economy by selling goods and services to customers inside of the county; typically, these industries are essential for a high quality of life.

Finally, additional regional and community development strategies identify focus areas outside the scope of California Jobs First that are nonetheless essential to the long-term economic development of tradable and locally serving sectors as well as to residents’ overall wellbeing.

Figure 11 Framework for sustainable, equitable economic growth



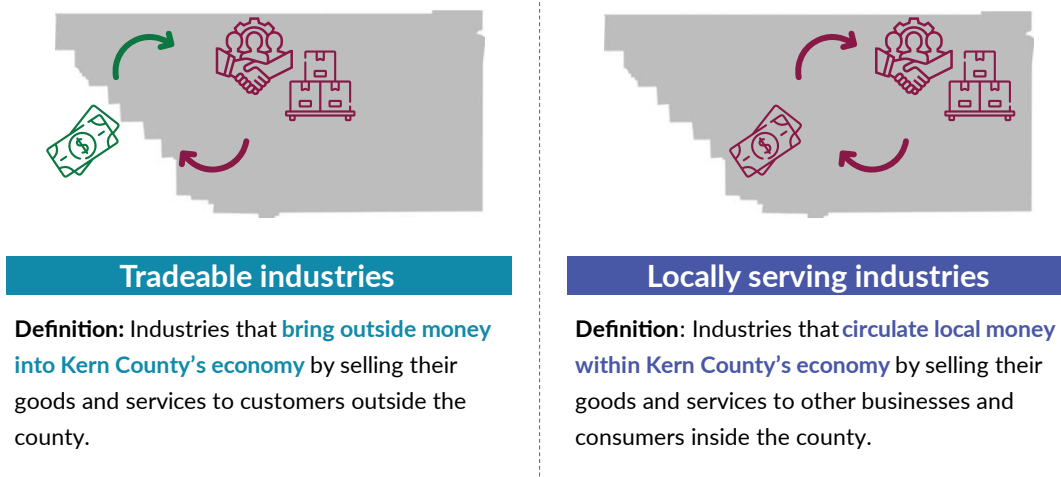


3A: Target Sector Strategies

Overview

This section contains strategies to support economic mobility in the Kern County region through the growth of high-quality jobs in prioritized traded industries. As noted above, this document discusses two broad categories of industries: tradable industries and locally serving industries. Tradable industries are industries that bring capital into the Kern County region's economy through the sale of goods and services outside of the county, including other regions of California, other states, and other countries, whereas locally serving industries circulate money within the region through provision of local goods and services by local residents, for local residents.

Figure 12 Definitions of tradeable and locally serving industries



Tradeable industries generally perform better in growth, job creation and wages, and are more resilient to economic downturns than locally serving industries (B3K Prosperity 2021). Examples of long-standing tradable industries in the Kern County region include oil and gas and agriculture, both of which currently employ a large share of the region's workers. Although total jobs in the Greater Bakersfield portion of the region grew by 24% from 2009 to 2019, traded sectors accounted for only 12% of the total growth—and those gains were driven primarily by agriculture, an industry with low median wages that is facing increasing economic and climate pressures (B3K Prosperity 2021).

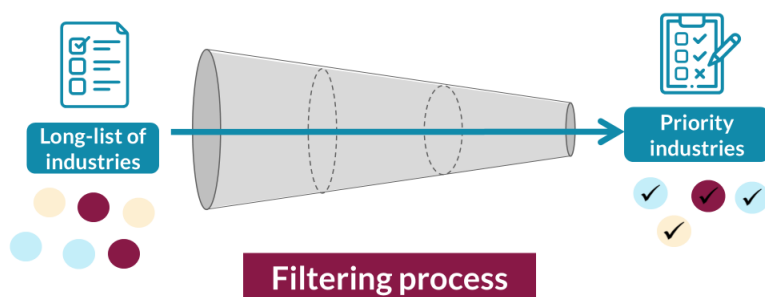
The process of identifying priority tradable industries drew on the analysis from Regional Plan Part 1, beginning with a long list of industries that we identified through desk research, stakeholder interviews, and subregional meetings held in June 2024. We then evaluated this long list using a set of economic and equity filters designed to ensure that priority industries would provide economically viable and competitive opportunities as well as high-quality jobs that are broadly accessible to residents of the Kern County region, regardless of their educational attainment, prior training, or current socioeconomic status.

- **Economic filters:** Economic analyses of potential tradable industries included assessments of competitive advantage, potential for job creation, and alignment with state priorities. We measured competitive advantage by location quotient, which is a measure of industry concentration by location, indicating a region's specialization in a given industry; we assessed potential for job creation based on

state projections of job growth; and we qualitatively evaluated alignment with state strategies through a review of relevant policies, with the goal of determining which industries and sub-industries may be competitive for future state or state-aligned funding.

- Equity filters:** Equity analyses included assessment of each industry’s impact on climate and the environment, public health, and economic equity. The climate and environmental impacts we considered included metrics tracking air pollution and quality, ground and surface water quality, and emissions. We measured public health impact based on worker safety and community disease risk factors like air pollution and exposure to toxins. Finally, we based our assessment of economic mobility on the prevalence of collective bargaining within a given industry and / or its accessibility to residents without English language skills or with low educational attainment.

Figure 13 Filtering process



1 Economic filter: To determine if an industry is likely to **advance Kern County’s economic development**, we evaluated its competitive advantage, potential for job creation, and alignment with state priorities

2 Equity filter: To determine if an industry is likely to **advance the wellbeing of disinvested communities**, we evaluated their impact on climate and the environment, public health, and economic mobility

Please refer to Annex III for a full overview of the economic and equity filtering process, rationale, and sources.

In addition to the desk research underpinning the economic and equity filters, we also sought input from key local stakeholders and community members via the interviews and subregional meetings described in Chapter 1: Vision and Goals. These conversations helped

us explore the major strengths, weaknesses, opportunities, and threats associated with existing and emerging industries and contextualize the findings of desk research. Subregional meetings were particularly valuable in this process, since they provided greater insight into the subregional and city-by-city nuances that will be essential to creating additional high-quality jobs across a range of different communities in the region.

Following desk research, interviews, and community input, we arrived at a shortlist of priority industries that (i) score relatively high on economic potential, (ii) score relatively high on equity potential, and (iii) are relevant across several areas within the region, as well as a longer list of opportunistic industries that may offer high-potential projects relevant to specific subregions but are not region-wide priorities.

Figure 14 Priority industries

Category	Industry	Definition	Rationale	Potential Limitations
Priority Industries Economically competitive areas for Kern County that offer pathways to quality job growth	Agriculture	The industry of cultivating soil, growing crops, and raising livestock for food, fiber, and other products	<ul style="list-style-type: none"> Economic importance to Kern County Workforce skill match 	<ul style="list-style-type: none"> Climate impacts Opportunities for career progression Regulatory barriers
	Clean Energy	Producing power from renewable sources such as solar and wind, aimed at reducing environmental impact and greenhouse gas emissions	<ul style="list-style-type: none"> Potential for job growth Environmental impacts Alignment with State strategies Job quality Community support 	<ul style="list-style-type: none"> Educational attainment requirements Limited long-term jobs
	Manufacturing	The production of goods through the use of labor, machines, tools, and chemical or biological processing, encompassing a wide range of sectors	<ul style="list-style-type: none"> Potential for job growth Potential for industry clustering Job accessibility Community support 	<ul style="list-style-type: none"> Competition from outside Kern County Regulatory barriers Environmental impacts

Figure 15 Opportunistic industries

Category	Industry	Definition	Rationale	Potential Limitations
Opportunistic Industries Opportunistic industries are less likely to be a county-wide source of high-quality jobs, but could still provide quality employment in some specific locations and scenarios	Aerospace and defense	Development, production, and maintenance of aircraft, spacecraft, and defense systems, including both commercial aviation and military applications.	<ul style="list-style-type: none"> Regional specialization Potential for job growth Workforce education requirements 	<ul style="list-style-type: none"> Environmental considerations Competition from outside Kern County
	Transportation and warehousing	The movement of goods and people by various modes of transportation (such as trucks, trains, ships, and airplanes) and the storage of goods in facilities like warehouses and distribution centers.	<ul style="list-style-type: none"> Job accessibility Projected job growth 	<ul style="list-style-type: none"> Environmental impacts Job quality Public health impacts
	Carbon management	Reducing and managing carbon dioxide emissions through technologies and practices aimed at capturing, storing, and reducing carbon to mitigate climate change.	<ul style="list-style-type: none"> Environmental impacts Alignment with state priorities Job opportunities for oil and gas workers 	<ul style="list-style-type: none"> Community feedback Potential environmental risk Limited job creation
	Tourism and hospitality	Services related to travel, lodging, food and beverage, recreation, and entertainment, providing experiences and accommodations for travelers and visitors	<ul style="list-style-type: none"> Potential for small businesses 	<ul style="list-style-type: none"> Limited applicability across the county

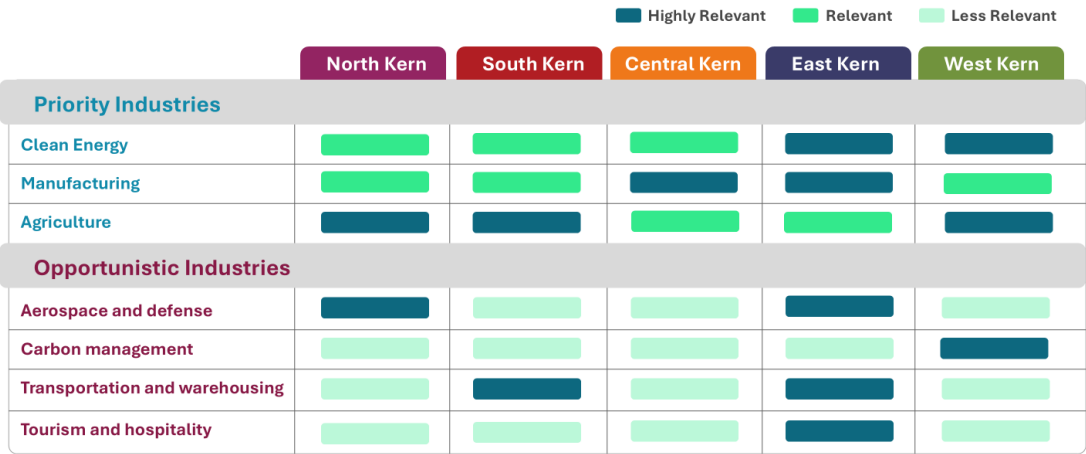
The priority tradable industries emerging from this analysis are clean energy, advanced manufacturing, and agriculture. We prioritized clean energy for its competitive advantage in the Kern County region, positive impact on the environment, and strong alignment with state priorities (U.S. Bureau of Labor Statistics 2023; International Renewable Energy Agency 2024). Advanced manufacturing—as a cross-cutting aspect of other industry verticals like agriculture, clean energy, and aerospace and defense—offers opportunities for inclusive employment that keeps industry value chains within the region, bolstering economic resilience. We selected agriculture because of its large presence in the region and employment of disinvested communities, such as undocumented immigrants, as well as its significant potential for advancing innovation in agricultural technology.

As noted elsewhere, however, the prioritized tradable industries highlighted in this report do not represent an exclusive or exhaustive list of the diverse industries that will contribute to the region’s economic future. While many other industries and areas of need are equally important and essential to inclusive economic growth, this document looks specifically at those industries that are well-aligned with California Jobs First’s stated priorities.

The key opportunistic industries (summarized at the end of this chapter) for the region are aerospace and defense, carbon management, transportation and warehousing, and hospitality and tourism. The aerospace and defense industry is critical to the economy of

East Kern and offers high potential for future growth; however, it poses serious environmental risks and may require highly specialized skill sets (California Open Data Portal accessed 2024; EPA accessed 2024; Department of Ecology State of Washington accessed 2024). Carbon management could offer a direct transition for oil and gas workers and have the potential for rapid growth, but job opportunities could be limited and industry growth faces some community hesitancy due to possible environmental impacts and dependency on subsidies. The transportation and warehousing industry is growing rapidly within the Kern County region, but provides generally low-quality jobs with limited opportunity for growth, while producing significant pollution (California Energy Commission 2024). Finally, hospitality and tourism present opportunities for small businesses and entrepreneurship, but likely are relevant only in specific areas of the county like Lake Isabella.

Figure 16 Industry relevance by subregion⁵



This section of the document is organized into three sub-sections, each focused on one of the priority tradable industries. Within each sub-section, we have provided additional context surrounding the industry and potential strategies to initiate or expand its role in the Kern County region’s economy. Each industry opens with an overview of its **definition and rationale**, including how the industry is likely to develop and how it can contribute to Kern County’s overall economic resilience. The document then moves to a **strategy overview** outlining the potential supporting strategies that can be leveraged to support the growth of

⁵ “Highly relevant”, “Relevant”, and “Less relevant” are subjective designations based on (i) the extent to which a given industry is already present in a subregion and / or (ii) the extent to which a given industry could quickly develop or expand in a subregion given its geography, workforce, ability to access key inputs, etc.

high-quality jobs within that industry. The remainder of each industry-specific subsection explores how the industry aligns with the overall objectives of California Jobs First, including its **alignment with job quality and access, equity, and climate**, its links to **workforce development**, its **alignment with state strategies**, and, finally, a brief overview of **strategy implementation**, including a high-level summary of the workplan, partnerships, and resources required.

Priority industries

Priority industries are tradable industries that score consistently well on both economic and equity potential indicators and are widely relevant across several areas in the Kern County region.

Clean energy

Definition and rationale

Industry development

The clean energy sector in the Kern County region is experiencing significant growth, driven by both market demand and policy initiatives at the local, state, and federal levels. Current trends indicate a strong shift toward renewable energy sources such as solar and wind power, aligning with California's ambitious climate goals. Several key factors—including favorable policies and the region's abundant natural resources—support the projected growth of this sector.

A non-exhaustive list of clean energy technologies primed for growth or inception in the region includes:

- **Solar:** Solar photovoltaic (PV) systems convert sunlight directly into electricity using solar cells. This zero-emission technology generates electricity without directly producing greenhouse gases. Solar energy jobs are growing at the fastest rate in the renewable energy sector, accounting for more than a third of the renewable energy workforce. Kern is well-positioned to lead this growth given its abundant natural sunlight resources.

- **Wind:** Wind energy harnesses the power of wind, using turbines to generate electricity without directly producing greenhouse gases. In addition, wind technicians in the Kern County region earn above the national average for wind technicians. In terms of natural resources, the Kern County region has a total wind power capacity of 4GW and more turbines than the entire northeast U.S. (Chapman 2018). One risk to monitor is the recent national decline in wind power generation, which decreased in 2023 for the first time since the mid-1990s despite the addition of 6.2 gigawatts (GW) of new wind capacity (U.S. Energy Information Administration 2024). This may impact the Kern County region if its wind power capacity has reached its threshold and is already fully built out.
- **Geothermal energy storage (GeoTES):** GeoTES is a specific form of geothermal energy storage that uses abandoned oil wells for renewable energy storage (whereas traditional geothermal storage utilizes geothermal formations). The Kern County region has a unique competitive advantage in this subsector as the region's abandoned oil infrastructure can be retrofitted to employ a substantial amount of oil and gas workers, therefore allowing developers to build upon existing infrastructure rather than starting from scratch.
- **Biofuels:** Biofuels are derived from biomass, including plant materials and animal waste, which is then converted into liquid fuel such as ethanol or biodiesel. As an agricultural hub, the region can produce biofuel from crop residues and energy crops; it is home to the state's largest biofuel plant, which generates diverse job opportunities along its value chain.

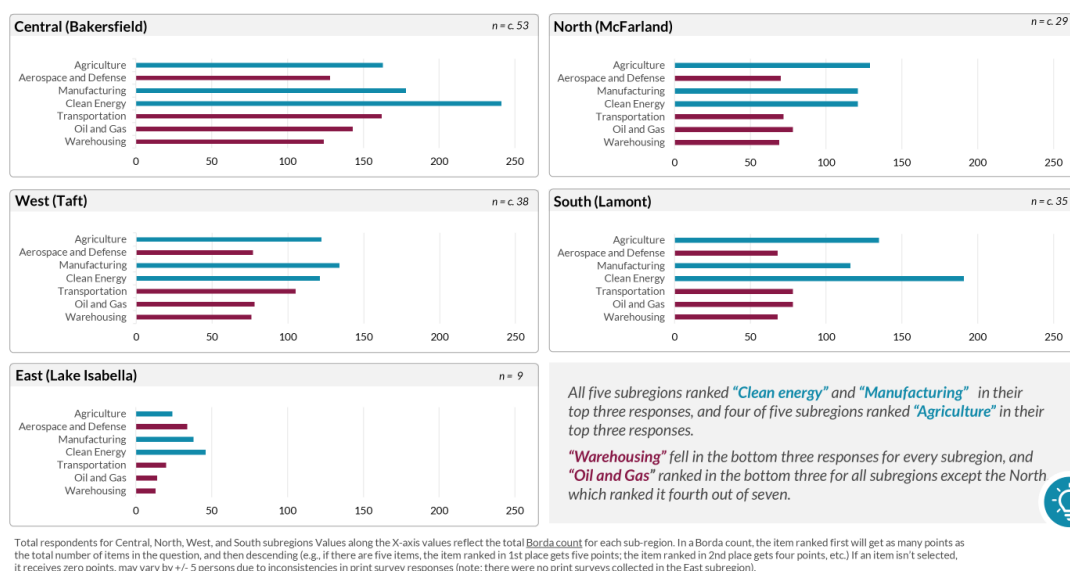
Local market signals

The announcement of new large, private solar and wind projects in the area, including Camino Solar Project and Alta Wind Battery Energy Storage, has led to expectations that clean energy jobs will grow rapidly in the region (Avangrid 2023; Bureau of Land Management 2024). Clear policy alignment with state and federal policies also underscores the Kern County region's prioritization of the clean energy sector. California's Renewable Portfolio Standard (RPS) and tax incentives for renewable energy projects have catalyzed investments in the sector (California Energy Commission 2024). Locally, initiatives like the Kern County Energy Action Plan provide a framework for sustainable development, highlighting the region's commitment to transitioning to a clean energy economy. These

policies not only attract new investments but also create a conducive environment for the expansion of existing clean energy businesses.

Additionally, community engagement across all subregions showed strong support for growth in clean energy jobs. When community members were asked to rank their preferences for job growth in existing industries, clean energy was the most preferred option in the list at the regional level—56% of respondents ranked it as their first or second option, and it was among the top three most-preferred options in all subregions.

Figure 17 Communities’ preferences on existing industries by subregion



Value chain and infrastructure

The Kern County region’s proven track record of success in clean energy, as well as recent infrastructure upgrades, create an optimal environment for maintaining growth. Existing clean energy projects like Alta Wind Energy Center, Rosamond Solar Project, and Crimson Solar Project contribute to further industry growth and value chain clustering by establishing a proven foundation for renewable energy development and encouraging supportive regulatory and community environments that attract additional investments and innovation in the sector. Previous projects in the region, such as the Tehachapi Renewable Transmission Project, have directly contributed to critical elements of local infrastructure, including energy transmission systems. Future infrastructure investments will need to focus on:

- Upgrading and expanding the existing electrical grid infrastructure to handle increased load from new renewable energy sources. This includes building new transmission lines and substations, as well as enhancing grid resilience to manage intermittent energy generation from solar and wind projects.
- Investing in large-scale electricity storage systems to store excess energy generated during peak production times and release it during periods of high demand or low production. This ensures a stable and reliable energy supply, mitigates the variability of renewable energy sources, and enhances grid stability.
- Implementing advanced grid management systems that use real-time data and analytics to optimize energy distribution, improve efficiency, and integrate diverse energy sources. This enables better demand response, automated fault detection, and quick recovery from outages, supporting the seamless integration of renewable energy.

Innovation ecosystem

Although the Kern County region’s existing innovation landscape is limited compared to other regions in the state and nation, strategies for growing the clean energy industry focus on leveraging existing R&D resources and the region’s emerging focus on energy. Federal and state programs like the California Energy Commission’s Electric Program Investment Charge (EPIC), the DOE’s Office of Energy Efficiency and Renewable Energy (EERE) grants, and California Climate Investments could inject millions of dollars into renewable energy R&D, further developing the Kern County region’s competitive advantage in renewable energy growth.

Regional Assets

The region's abundant natural resources, including vast solar and wind potential, present a significant advantage for existing clean energy sectors; meanwhile emerging clean energy technologies, including biofuels and GeoTES, can build upon existing regional features, including the outputs from oil and gas extraction and agricultural production. Growing local expertise in energy production and a skilled workforce further bolster the sector.

The Kern County region has established itself as a clean energy hub, attracting major industry players, developers, and employers in the renewable energy sector. The region is

home to some of the largest wind and solar farms in the United States, including the Tehachapi Wind Resource Area and the California City Solar Park, and generates 60% of the state's green energy, contributing significantly to the state's clean energy goals (KVPR 2022).

Major energy companies like Terra-Gen, Aera Energy, and the California Resources Corporation have all invested in projects in the region, bringing large-scale wind, solar, and battery storage projects to the region. Many of these projects are piloting new types of clean energy, such as the National Renewable Energy Laboratory's (NREL) geological thermal energy storage (GeoTES) or Aera Energy's Direct Air Capture Hub (YaleEnvironment 360 2024, Aera Energy 2024). This diverse landscape of energy players highlights Kern's attractiveness as a center for innovation in the clean energy sector.

Many of these industry leaders have also fostered critical partnerships with educational institutions. For example, NREL has partnered with the Kern College Community District (KCCD) to establish the California Renewable Energy Laboratory (CREL), a coalition of public and private partners seeking to create a secure energy future, and Centers of Excellence, which provides workforce development opportunities on specific clean energy topics ([NREL 2024](#)).

The region's potential as a clean energy hub is supported by state policies, like California's Renewable Portfolio Standard (RPS), and the Kern County region's streamlined permitting process, which reduces barriers for developers. By combining these regulatory advantages with its natural resources in wind and solar and a forward-thinking approach to workforce development, Kern County is positioning itself as a leader in the clean energy transition and attracting businesses and developers seeking to capitalize on the region's potential.

Economic diversification and resilience

Building clean energy capacity further diversifies the region's energy production, mitigating the regional economy's dependence on oil and gas production, which is already facing market instability given the growing wave of commitments to creating a carbon neutral economy. Moreover, recommended clean energy strategies focus on diversification beyond solely wind and solar energy production to include frontier technologies—such as

direct air capture of CO₂, GeoTES, and biofuels—that could leverage the region’s existing infrastructure and capabilities.⁶

The Kern County region's clean energy sector has the potential to enhance the region's economic and community resilience in several additional ways. Developing local renewable energy sources reduces dependence on external energy supplies, enhancing energy security and resilience against supply disruptions. Renewable energy projects help mitigate the impacts of climate change by reducing greenhouse gas emissions, and the deployment of renewable energy infrastructure can be designed to withstand extreme weather events, improving resilience to climate-related disruptions. Additionally, promoting clean energy fosters sustainable development practices that improve the quality of life for residents, including cleaner air, reduced environmental impact, and improved public health outcomes.

Supporting strategies

Our clean energy strategy envisions the Kern County region as a leading hub for clean energy innovation, advanced manufacturing, and production with support from a highly skilled workforce. Our proposed strategy aims to make the clean energy industry a source of quality jobs that are accessible to all residents in the region. The following three objectives and seven supporting strategies aim to bring that vision to life by expanding the region’s current foothold in the industry and positioning its competitive advantages for the future.

1. Expand: Grow the number of jobs supported by existing clean energy technologies.

Research indicates that while the Kern County region has some of the largest solar and wind farms in the country, related jobs are often temporary construction positions. Strategies supporting this objective aim to expand permanent, high-quality jobs along the supply chain.

Supporting strategies:

⁶ These frontier technologies are in early stages of development; as with carbon management, their costs, scalability, and employment generation capabilities are not yet known. In addition, many environmental justice groups and community members have deep concerns about how these technologies will be developed and deployed that the Kern County region should seek to understand and address during the project selection phase.

1a. Help existing employers expand operations: Collaborate with the region’s clean energy employers to grow their local operations, such as developing more end-use products like microgrids and continuing to develop solar and wind projects. This may include working with companies to identify new opportunities or promoting incentives (e.g., cost savings through subsidies).

1b. Develop local advanced manufacturing: Work with manufacturing companies to support fabricating wind and solar components in the region, as well as assembly / support for these components. (See also: Advanced Manufacturing section.)

2. Initiate: Position the Kern County region to be competitive in frontier technologies.

Research and interviews⁷ suggest strong potential for the region to attract additional clean energy industries by helping to develop and pilot advanced technologies (e.g., direct air capture, GeoTES, and biofuels). Strategies supporting this objective would further invest in the enabling environment (e.g., in infrastructure and access to a stronger talent pool) to attract new employers.

Supporting strategies:

2a. Leverage state and federal programs to support R&D: To expand clean energy pilots, compete for public funding such as the California Energy Commission’s Electric Program Investment Charge (EPIC), which invests more than \$130 million annually into projects that advance the environmental sustainability, reliability, and affordability of the electric system. The Kern County region has yet to receive any major funding from federal programs at the scale of EPIC.

2b. Invest in workforce retraining and upskilling: Expand workforce development programs tailored to skills needed for emerging clean energy sectors, with a focus on absorbing former oil and gas workers. This could include partnerships with local education institutions and industry stakeholders and targeted outreach to former oil and gas workers to build upon their existing skillset.

⁷ Please refer to the References and Annex III for a full list of sources and stakeholders consulted as part of the research and interview process.

2c. Create community-public-private partnerships: Facilitate community, government, and private sector interactions to identify opportunities for investing in frontier technologies and attracting greater investment.

3. Adapt: Leverage existing infrastructure and capabilities for the future. Research indicates that the Kern County region has a high wind and solar energy production capacity and an increasing number of decommissioned oil wells. Initiatives supporting this strategy would adapt the region’s existing infrastructure and workforce to clean energy solutions that utilize the same capabilities (e.g., geothermal energy storage, gravity electricity storage).

Supporting strategies:

3a. Accelerate current pilots: Invest in enabling factors to scale current pilot programs by providing additional funding (including potential state and federal funding) and technical support.

3b. Attract additional investment: Highlight and promote success stories of new pilots, proposals, and developments to attract further investment in the Kern County region’s clean energy sector.

Alignment with job quality and access, equity, and climate

Job quality and access

Clean energy jobs are generally high quality, offering relatively high pay, healthcare and retirement benefits, stability, and opportunities for collective worker input (Urban Institute 2024). Analysis by the Urban Institute shows that a larger share of jobs in energy efficiency and renewable energy generation are high quality than in the overall labor market. Further, clean energy jobs—especially those in renewable energy generation and green construction—are highly accessible to individuals with less than a four-year degree; only 39% of high-quality renewable energy generation jobs and 37% of green construction jobs require a bachelor's degree or higher. Fifty-seven percent of high-quality renewable energy generation jobs have high union coverage while also requiring less than a bachelor's degree. Notably, women and BIPOC tend to be under-represented in the highest-quality clean energy jobs, indicating that successful strategies for growth will need to include incentives and opportunities to boost employment for these groups.

Proposed strategies aim to retain existing high-quality jobs while also working to create new jobs in both existing clean energy areas and frontier technologies. Newly created jobs are expected to maintain the high level of quality offered by existing clean energy opportunities.

Equity

The clean energy strategy in the Kern County region is designed to provide substantial indirect and direct community benefits, particularly to disinvested communities. Given the region's economic history and significant environmental challenges, the clean energy sector presents an opportunity for transformative change, addressing both economic disparities and environmental justice.

Job creation and training are central to this strategy. The clean energy sector offers a pathway to high-quality, sustainable jobs. By developing tailored training programs and providing clear pathways for necessary education or skills (strategy 2b), our strategy ensures that members of disinvested communities can access these opportunities. These efforts will include partnerships with local educational institutions and targeted outreach to former oil and gas workers, leveraging their existing skills for clean energy roles. The strategy includes culturally sensitive training programs at accessible times and locations, covering relevant skills such as solar panel installation, energy efficiency audits, and clean technology maintenance.

Health and environmental benefits are also a significant focus. Clean energy projects will contribute to better air quality and reduce greenhouse gas emissions, directly benefiting communities that suffer from poor air quality and related health issues. This is particularly critical in the Kern County region, where air pollution is ranked worst in the state, contributing to suboptimal public health outcomes, particularly for communities of color and disinvested communities (American Lung Association 2024). Transitioning to clean energy reduces reliance on fossil fuels, which are major contributors to air pollution and health problems such as asthma and other respiratory issues.

Continuous monitoring will be needed to ensure that the strategy serves historically marginalized and disinvested groups effectively.⁸ The impact of clean energy projects on

⁸ Throughout this report, marginalized groups refer to both communities and individuals who have been impacted by structural racism, classism, xenophobia, misogyny, and other forms of prejudice, oppression,

disinvested communities—in terms of job creation, income levels, and health outcomes, among other metrics—will need to be regularly monitored. Ongoing input and the changing needs of the community will shape how the community provides feedback and the programs adapt. Financial support and incentives—such as grants, scholarships, and financial incentives for training and education programs targeted at these communities—will help ensure participation and success.

The adoption of frontier clean energy technologies could potentially help reduce energy prices. Innovations such as advanced energy storage solutions, smart grid technology, and next-generation solar and wind technologies can enhance the efficiency and reliability of energy production and distribution. For example, advanced energy storage allows for better management of energy supply and demand, reducing the need for expensive “peaking” power plants, or plants that grid operators call on at times of particularly high electricity demand, and minimizing energy wastage. Smart grid technology optimizes the flow of electricity, reduces transmission losses, and integrates renewable energy sources more effectively, leading to lower operational costs. By employing these frontier technologies, the Kern County region could not only achieve greater energy efficiency but also lower the overall cost of clean energy production, which eventually benefits consumers and businesses by supporting affordable, clean, and reliable energy.

Climate

Building the clean energy sector in the Kern County region inherently supports the energy transition needed to reduce reliance on the cause of climate change: fossil fuels. Coal, oil, and gas are the largest contributors to global climate change by a large margin, accounting for over 75% of global greenhouse gas emissions and nearly 90% of all carbon dioxide emissions (International Renewable Energy Agency 2024, United Nations 2024).

Moreover, improving air quality has substantial public health benefits, particularly for disinvested communities that often bear the brunt of pollution—often by living closest to high-polluting industrial activity (WHO 2022). Reducing air pollution can lower the incidence of respiratory and cardiovascular diseases, leading to better overall health outcomes for residents. The Kern County region’s air quality is among the worst in the nation, which likely contributes to the region’s higher-than-average rate of deaths from respiratory diseases

and discrimination. This includes but is not limited to the Kern County region’s BIPOC community, immigrant community, justice impacted community, and LGBTQIA+ communities, among others.

(American Lung Association 2024). By replacing fossil fuel– based power plants with renewable energy sources, the county can significantly decrease pollutants such as particulate matter, nitrogen oxides, and sulfur dioxide, which are major contributors to poor air quality. This is especially important in areas with historically high levels of pollution and limited access to healthcare. By focusing on job creation and economic opportunities in the clean energy sector, particularly for disinvested communities, the Kern County region can address economic disparities while improving public health.

Workforce development

The proposed strategy (strategy 2b) places a strong emphasis on workforce retraining and upskilling, ensuring that the local labor force is well equipped to meet the demands of emerging clean energy jobs. This approach could address talent recruitment and development while fostering strategic collaboration among businesses, educational institutions, labor organizations, and other stakeholders.

The approach focuses on matching skills to available jobs by supporting comprehensive workforce development programs tailored specifically to the needs of the clean energy industry. By mapping the current skillsets of the local workforce, particularly those transitioning from the oil and gas sector, our strategy can design targeted training modules that build on existing competencies while addressing any gaps. These training programs could combine classroom instruction with hands-on experience in critical areas such as solar and wind energy installation, maintenance, energy storage systems, and advanced manufacturing for clean energy technologies. This alignment ensures that graduates are job-ready and possess the skills that employers are seeking. For example, the partnership between the National Renewable Energy Laboratory (NREL) and the Kern College Community District (KCCD) has created numerous opportunities for students to collaborate with industry employers via internships, classwork, events, and more, and learn skills that meet the needs of the industry. In addition, Bakersfield College created a 21st Century Energy Center whose learning topics include technical skills desired by employers (Bakersfield College 2024).

Addressing talent and recruitment challenges involves targeted outreach efforts to attract individuals from the oil and gas sector, as well as other industries, into the clean energy workforce. Research shows that the clean energy transition will require energy employers to recruit and retain a wider and more diverse talent pool to find the people and skills needed. For example, in addition to traditional petroleum engineers, companies will need

talent with digital, analytic, software, and economic capabilities to fill new clean energy roles. Research shows workers with these capabilities and backgrounds in computer science, economics, and business are actually more diverse than the pipelines for more traditional roles like petroleum engineering (Blair 2023). Nationally, the oil and gas extraction workforce is largely white men—around 85% of workers identify as white and 28% identify as Hispanic or Latino (U.S. Census 2024). In the Kern County region, the oil and gas industry has historically provided high-paying, moderate-to-high skill level jobs that are accessible to workers with low levels of education. Facilitating the transition to clean energy will require a balance to maintain the accessibility of jobs for people with a range of education levels while also further diversifying the workforce and retraining current energy sector workers to fill gaps in skills needed for clean energy.

Recognizing the valuable skills and experience of former oil and gas workers, our strategy aims to create pathways that facilitate their transition into renewable energy roles through tailored training. Additionally, inclusive recruitment practices will ensure diverse participation from underrepresented communities, leveraging local CBO networks to reach potential candidates. Strategic collaboration with local education institutions, industry stakeholders, labor organizations, and workforce development agencies is essential to the success of any initiative. These partnerships will help develop and deliver training programs that align with industry needs, provide support services such as job placement and apprenticeships, and ensure that training programs are responsive to current and future labor market demands. This cohesive approach to workforce development helps ensure equitable access to high-quality jobs for all members of the community.

Alignment with state strategies

Growing the clean energy sector in the Kern County region strongly aligns with several key statewide strategies. The region’s focus on expanding renewable energy projects directly supports California’s overarching climate goals, including those outlined in the California Climate Scoping Plan and the California Climate Adaptation Strategy. By increasing the production of clean energy from solar, wind, and other renewable sources, the Kern County region contributes significantly to the reduction of greenhouse gas emissions. This not only helps meet the state’s ambitious targets for emissions reductions but also mitigates the impacts of climate change, aligning with broader adaptation and resilience objectives.

Moreover, the development of the clean energy sector in the Kern County region enhances air quality and public health, which are critical components of the state's

environmental strategies. By replacing fossil fuel–based power generation with renewable sources, the county reduces pollutants that contribute to poor air quality. This supports state efforts to improve air quality and public health outcomes, particularly in regions like Kern County that face significant air pollution challenges.

Advanced Manufacturing

Definition and rationale

Industry development

Rather than a standalone industry, like the other priority industries (agriculture, clean energy), advanced manufacturing cuts across most industries as a critical step in the value chain for most industries. Our analysis identified the key subsectors that represent the region’s existing strengths and its industries with strong manufacturing components: agriculture, clean energy, and aerospace and defense manufacturing. As a cross-cutting element of all three, manufacturing responds to many of the market signals associated with those industries.

Local market signals

The aerospace manufacturing industry in the Kern County region aligns with several market trends and local, state, and federal policies, though it faces significant challenges. While traditional aircraft manufacturing has declined, niche subclusters in high-altitude navigation, defense, and space vehicles continue to support the sector. Relocations within the region, meanwhile, have maintained the economic cluster but have resulted in job losses.

Market trends show increasing competition from aerospace hubs in states like Colorado, Florida, New Mexico, and Texas, which offer more favorable policies and incentives than California. The state’s relatively low competitiveness is reflected in its relatively low location quotient for advanced manufacturing (U.S. Bureau of Labor Statistics 2023). Because California’s manufacturing competitiveness is currently waning, a successful advanced manufacturing strategy in the Kern County region will require strong collaboration with the State of California to enhance the statewide competitive advantage and ease of doing business for developers.

Community engagement indicated strong desire for additional manufacturing jobs; advanced manufacturing scored among the top three most preferred existing industries in all subregions and was consistently referenced in open response questions.

Value chain and infrastructure

The proposed strategy for the advanced manufacturing sector in the Kern County region aims to bolster the value chains of agriculture, clean energy, and aerospace by fostering local manufacturing for these industries. This approach not only strengthens the existing sectors but also creates high-quality jobs and drives economic growth.

Investments in advanced manufacturing will support the growth and clustering of businesses within these value chains by ensuring that production, design, testing, and installation of equipment occur locally. By localizing activities like solar photovoltaic (PV) cell production, high-value food manufacturing, and aircraft manufacturing, our strategy can create synergies among businesses, enhance efficiency, and reduce costs associated with supply chain logistics. This clustering effect will make the Kern County region more attractive to manufacturers, as they can benefit from proximity to suppliers, customers, and a skilled workforce.

To achieve these outcomes, it is crucial to improve enabling infrastructure, particularly in terms of water, power, and transportation access. The strategy includes diagnosing and addressing gaps in essential infrastructure, such as grid capacity and transportation networks. Enhancing these critical infrastructure elements will not only meet the current demands of manufacturers but also anticipate future growth needs. Employers and community members have highlighted these areas as pivotal during interviews and subregional meetings, indicating strong local support for these improvements.

Reducing barriers to employer entry is also essential for attracting and retaining advanced manufacturing jobs. Our strategy seeks to address these barriers by supporting incentive programs and policies for new employers to locate or re-locate in the Kern County region. By making it easier for manufacturers to set up operations in the region (e.g., efficient permitting processes, cost reductions through tax incentives), our strategy can enhance the county's competitiveness and attract more businesses to the region.

Innovation ecosystem

Strengthening R&D capacity is a key component of our strategy. Establishing R&D hubs related to aerospace and clean energy will incentivize local innovation and production. These types of end-to-end innovation hubs serve as centers for the design, production, testing, and installation of advanced manufacturing equipment. By fostering a robust R&D environment, our strategy looks to attract high-tech manufacturing firms to the Kern County region.

Regional assets

The region boasts a wealth of assets that can be leveraged to strengthen the development of the advanced manufacturing sector, particularly in the areas of aerospace, clean energy, and agriculture. One of the key regional assets is its robust infrastructure, which includes a well-developed transportation network of highways and railroads. This network facilitates the efficient movement of goods and materials, making it easier for manufacturers to access markets and suppliers. The region's natural resources also play a crucial role in supporting the manufacturing sector. The region is rich in renewable energy resources, including wind and solar power, which provide a sustainable and cost-effective energy supply for manufacturing operations. The availability of abundant land further supports the development of large-scale manufacturing facilities and renewable energy projects.

The Kern County region's strong agricultural base provides unique opportunities for the integration of advanced manufacturing technologies into the agriculture sector. The expertise and experience of the local agricultural workforce, combined with new technologies in ag-tech and automation, can lead to increased productivity and the creation of high-quality jobs.

The region also has a wealth of academic institutions and workforce development programs that support advanced manufacturing across several industry groups and work towards building a pipeline of skilled labor tailored to meet industry needs. Various academic and vocational training centers have developed specialized programs focused on advanced manufacturing, engineering, and automation technologies. For example, San Joaquin Valley College (SJVC) in Delano offers a variety of vocational programs, including electrical and aviation technology training ([SJVC 2024](#)). Bakersfield College offers several Industrial Automation degree programs, including certificates, Associates degrees, and Bachelors degrees ([Bakersfield College 2024](#)).

Workforce development initiatives in the Kern County region are also supported by local economic development agencies, such as the Kern Economic Development Corporation (KEDC), which works to align training programs with the needs of industries like aerospace, clean energy, and agriculture. In 2022, the Kern EDC formed the Manufacturers' Alliance of Kern (MAK) to bring together 400+ industry leaders and increase regional manufacturing growth. At the same time, employers such as Grimmway Farms and Bolthouse Farms, while primarily agricultural companies, are integrating advanced technologies in food processing, packaging, and logistics, presenting an opportunity in the overlap between agriculture and advanced manufacturing in the region. (Kern EDC 2024)

Altogether, the region offers a combination of favorable infrastructure and land use policies, a strategic geographic location, and investments in a talent pipeline. These factors create a strong foundation for expanding advanced manufacturing and opportunities in related industries across the region.

Economic diversification and resilience

The advanced manufacturing sector in the Kern County region presents significant opportunities for growth, diversification, and resilience, particularly by vertically integrating supply chains in agriculture, clean energy, and aerospace. By establishing a thriving advanced manufacturing industry, the region can create a more robust and dynamic economy that is better equipped to withstand economic fluctuations and external shocks. By localizing the production of goods and components necessary for agriculture, clean energy, and aerospace, the region can reduce its reliance on external suppliers and mitigate the risks associated with global supply chain disruptions. This vertical integration not only ensures a steady supply of essential goods but also fosters innovation and collaboration among local businesses, research institutions, and workforce development programs.

Supporting strategies

Our strategy envisions a thriving advanced manufacturing industry in the Kern County region that unlocks high-quality jobs in end-stage industries such as aerospace, clean energy, and agriculture. By leveraging the region's existing strengths, our strategy aims to attract advanced manufacturing companies that can provide sustainable, well-paying employment opportunities. The following objective and six supporting strategies support employers and the workforce to bring this vision to life.

1. **Upgrade: Increase the Kern County region’s ability to attract and retain manufacturing jobs.** Stakeholder and subregional interviews indicated that attracting new manufacturing jobs, especially advanced manufacturing, is a high priority for residents and a good long-term strategy to grow high-quality jobs in existing industries like aerospace, clean energy, and agriculture. Strategies supporting this objective would boost the county’s overall competitiveness in the eyes of manufacturers.

Supporting strategies:

1a. Create a regional advanced manufacturing competitiveness task force: Aggregate local expertise to identify and address relevant constraints for investments in manufacturing, with a focus on agricultural, energy, and aerospace and defense manufacturing.

1b. Improve enabling infrastructure (electric capacity, transportation, etc.): Diagnose and address gaps in essential infrastructure, with a particular focus on grid capacity and transportation access, which employers and community members highlighted in interviews and subregional meetings.

1c. Strengthen research and development capacity: Establish hubs for research and development related to existing industries, including aerospace and clean energy, to incentivize localized design, production, testing, and installation of equipment.

1d. Reduce barriers to employer entry: Develop programs to incentivize new employers to locate or re-locate in the Kern County region..

1e. Encourage innovation in green manufacturing: Explore opportunities to mitigate the environmental impacts of manufacturing, including through the integration of clean energy and implementation of best practices.

1f. Invest in workforce training and upskilling: Provide trainings and opportunities for hands-on experience in manufacturing to prepare the workforce to enter newly created positions. Target training opportunities at disinvested communities and provide incentives for participation; address accessibility barriers, such as by running trainings in Spanish as well as English. Refer to Chapter 3B and 3C for more strategies on education and workforce development.

Alignment with job quality and access, equity, and climate

Job quality and access

The advanced manufacturing sector in the Kern County region offers the potential to create high-quality jobs that provide family-sustaining wages, healthcare and retirement benefits, career advancement opportunities, and consistent scheduling. However, it is important to recognize the broader context: manufacturing jobs need to improve on a national level. According to the Bureau of Labor Statistics, the average hourly wage for manufacturing jobs is \$19.90, which is below the MIT living wage calculation of \$21.44 an hour for a single adult (U.S. Bureau of Labor Statistics 2023; Living Wage 2024). Additionally, unionization rates in manufacturing have dropped significantly from 15% in 2000 to 9% in 2020 (U.S. Bureau of Labor Statistics 2020). The proposed strategic initiatives aim to elevate job standards and ensure equitable access for all community members, particularly those from disinvested communities.

Career advancement opportunities are a crucial component of the strategy. By investing in workforce training and upskilling programs (strategy 1f), our strategy aims to provide workers – including future workers currently in K-12, collegiate, or vocational programs -- with the skills needed to eventually compete for higher-level positions within the manufacturing sector. These programs will offer clear pathways for career progression, allowing workers to move into more specialized and better-paying roles. Our strategy aims to provide culturally sensitive training sessions at convenient times and locations, covering essential skills such as computer literacy, machinery operation, and technical expertise. Financial incentives will encourage workers to participate in these upskilling opportunities.

The strategy also emphasizes equitable access for members of disinvested communities. Historically, manufacturing has been a significant employer of individuals with limited education and English language skills. To support these communities, our strategy uplifts inclusive recruitment practices that reach out to underrepresented groups. Tailored training programs will be essential in helping these individuals gain the necessary skills and education to access high-quality manufacturing jobs (strategy 1f).

Equity

The advanced manufacturing sector strategy for the Kern County region is designed to provide substantial direct and indirect benefits to disinvested communities, ensuring that

economic growth translates into broader social and economic inclusion. Advanced manufacturing has the potential to create high-quality jobs that can uplift historically marginalized groups, offering them pathways to economic stability and prosperity.

The strategy explicitly targets the needs and interests of disinvested communities, recognizing that these groups often face barriers to accessing high-quality employment opportunities. By focusing on inclusive recruitment practices and tailored training programs, our strategy aims to ensure that members of these communities can effectively participate in and benefit from the growth of the manufacturing sector (strategy 1f). Historically, manufacturing has been a significant employer of individuals with limited education and English language skills. Less than 0.5% of manufacturing workers reported needing an educational certificate, making the industry highly accessible for those without degrees (U.S. Bureau of Labor Statistics 2023).

One of the core components of the strategy is to invest in workforce development programs that are accessible and relevant to disinvested communities (strategy 1f). These programs will offer culturally sensitive training at convenient times and locations, covering essential skills such as computer literacy, machinery operation, and technical expertise. Additionally, our strategy sets out to provide financial incentives, such as paid training programs, one-time cash bonuses, and wage increases upon certification, to encourage participation and completion of these training programs.

Our strategy also recognizes the importance of addressing systemic barriers that have historically excluded marginalized groups from high-quality jobs. The strategy includes collaborating with educational institutions and industry stakeholders to develop clear pathways for attaining necessary education or skills. This includes offering scholarships, mentorship programs, and apprenticeships that are specifically designed to support individuals from disinvested communities.

The strategy also emphasizes the importance of ensuring that the benefits of economic development extend beyond direct employment. This includes supporting local businesses that provide goods and services to the advanced manufacturing sector, thereby stimulating additional economic activity in disinvested communities. By fostering a thriving advanced manufacturing ecosystem, our strategy aims to create a ripple effect that benefits the broader community.

Climate

Our advanced manufacturing sector strategy in the Kern County region aims to significantly limit the impacts of economic development activities on the natural environment. Recognizing that industrial emissions, most of which can be attributed to manufacturing, constitute 22% of California's total emissions and that manufacturing plants have been associated with surface and groundwater pollution, our strategy prioritizes sustainability and environmental responsibility.

To avoid exacerbating the effects of climate change, the strategy emphasizes the adoption of cleaner technologies and practices. Investments in advanced manufacturing technologies, such as energy-efficient machinery and renewable energy sources (strategy 1d), will reduce greenhouse gas emissions. Encouraging the use of electric and hybrid machinery and promoting energy efficiency standards within advanced manufacturing plants will contribute to a substantial decrease in emissions. Developing systems for water recycling and waste reduction will help manage the environmental footprint of advanced manufacturing activities. Encouraging the implementation of circular economy principles, wherein waste materials are reused or recycled in the production process, will also minimize environmental impacts.

Addressing public health needs is a critical component of the strategy, particularly for disinvested communities that often suffer disproportionately from industrial pollution. By transitioning to cleaner advanced manufacturing practices (strategy 1d), our strategy aims to reduce the release of harmful pollutants into the air and water, thus improving overall public health outcomes. The strategy also recognizes the importance of engaging with disinvested communities in the planning and implementation phases. This engagement will include public consultations and partnerships with local community organizations to ensure that the voices of those most affected by industrial activities are heard and considered. Programs aimed at educating and training community members in sustainable manufacturing practices will empower them to contribute to and benefit from the transition to a greener economy.

Workforce development

To match skills to available jobs, the strategy emphasizes targeted workforce development programs (strategy 1f). These programs will be designed through partnerships among employers and local educational institutions, including community colleges and technical

schools, to offer training and certification courses tailored to the specific occupational needs of advanced manufacturing employers. By focusing on skills such as precision machining, robotics, and quality control, these programs will prepare workers for high-demand roles in sectors like aerospace, clean energy, and agriculture. For example, the Kern Economic Development Center’s Manufacturers’ Alliance of Kern (MAK), which brings together 400+ manufacturers, could partner and support workforce development programs, providing staff to help provide direct training or keep close collaboration with educational institutions to ensure they stay up to date on the latest job market needs.

Our strategy invests in inclusive recruitment efforts through outreach, engagement, and education initiatives designed to speak to specific subregions and communities of the Kern County region, conducted in partnership with community-based organizations. This could include job fairs, apprenticeship programs, and partnerships with industry associations to highlight the opportunities available in the region’s advanced manufacturing sector. Special attention will be paid to recruiting individuals from disinvested communities, helping to ensure equitable access to high-quality jobs.

The strategy also includes the development of innovation hubs and incubators, which will serve as centers for research, development, and entrepreneurship (strategy 1c). By connecting manufacturers with local innovation resources, these hubs will help accelerate the adoption of new technologies and processes, driving competitiveness and growth within the sector. For example, the Kern EDC and its partners could follow the example of other cities, such as the Advanced Manufacturing Innovation Center in St. Louis, Missouri, which provides the space and equipment for ideas incubation and prototyping (AMICSTL 2024). This could also be hosted by educational institutions like the Kern Community College District and vocational training centers such as Delano Adult School, among others.

Community-based organizations, labor unions, and worker organizations will also play a crucial role in this strategy. These organizations may include the Kern Chambers of Commerce, the International Association of Machinists and Aerospace Workers (IAMAW), and the Kern, Inyo, and Mono Counties Building and Construction Trades Council. Collaborative efforts will ensure that training programs not only meet industry standards but also address the needs and rights of workers, promoting safe working conditions and opportunities for career advancement.

Agriculture

Definition and rationale

Industry development

Agriculture is the Kern County region’s leading industry in terms of employment, providing jobs for more than 80,000 county residents, or about 15% of total jobs (U.S. Bureau of Labor Statistics 2023). Agriculture jobs have continued to increase during the last decade despite environmental and regulatory hurdles, but job quality remains a key concern and a primary focus of the proposed strategy.

Local market signals

As one of the nation’s top food producers, the Kern County region continues to depend on agriculture as a critical element of its economy. Agriculture has driven tradable industry job growth in the region for the last decade, growing twice as fast as the national agricultural industry cluster and adding nearly 12,700 more jobs than expected (U.S. Bureau of Labor Statistics 2023). Despite the cluster's thriving status, regulatory and water challenges remain ongoing concerns. Additionally, while the sector is expanding, agricultural jobs are low-paid, limiting their impact on efforts to provide higher-quality, family-sustaining employment for the region’s residents.

Value chain and infrastructure

The Kern County region is currently home to jobs all along the agricultural value chain; the supporting strategies encourage not only job growth but also job diversification to include higher-skilled, more productive positions. Underlying the shift away from the region’s current focus on animal and crop production is the need to address challenges associated with traditional agricultural roles, such as low wages and limited job growth. By investing in related industries like food processing, distribution, and agricultural technology, the strategy aims to enhance the overall value chain and create higher-quality employment opportunities. This includes improving infrastructure such as advanced cold storage facilities, transportation networks, and processing plants. Additionally, investments in research and development centers can foster innovation in agricultural practices and technologies.

To increase its competitiveness in agricultural technology, the Kern County region will need to make additional investments in R&D and other innovation infrastructure. Additionally, the region will need to continue considering investments in enabling infrastructure factors, including irrigation and water infrastructure, logistics and transportation infrastructure, and facilities for value-added agriculture production.

Innovation ecosystem

Agriculture technology is a key opportunity for the region, facilitated by investments in R&D and coordination with nearby educational institutions. While agriculture tech may have potential for high-quality job creation, its presence in the region has been limited until now. This is likely due to gaps in research and innovation capacity; the proposed strategy addresses these gaps directly through targeted investments.

Regional assets

The Kern County region stands as one of California's most productive agricultural areas, supported by several key regional assets. Its climate, with hot summers and mild winters, provides optimal growing conditions for a wide variety of crops including grapes, almonds, and citrus. This climate enables extended growing seasons and minimizes frost risk, making it ideal for both perennial crops and high-yield annuals. The region's fertile soil, nourished by alluvial deposits from the Sierra Nevada, is another critical factor. The rich, well-drained soils support Kern's production of high-demand crops, such as carrots; in fact, the Kern County region accounts for more than 80% of the nation's carrot production (California Grown 2024, Valley Ag Voice 2021)

The region's natural advantages are complemented by its deep-rooted agricultural expertise. Generations of farmers have built a wealth of experience and innovation in crop cultivation, water management, and sustainable farming practices. Local colleges support this knowledge base by conducting research and providing farmers with the latest advancements in ag-tech, pest management, and soil conservation, e.g., the University of California Cooperative Extension (UCCE) Kern County off-campus programs in crops, dairy, and farm management (UCCE 2024).

The region's robust transportation infrastructure is another critical asset, facilitating the efficient distribution of agricultural products to national and international markets. Major highways, such as Interstate 5 and Highway 99, intersect the region, enabling fast ground

transport of fresh produce to key ports like the Port of Los Angeles and Port of Long Beach. These ports serve as gateways for exporting agricultural goods globally, enhancing Kern's role in global food supply chains (Kern EDC 2024).

Economic diversification and resilience

Many agricultural subsectors, including crop and animal production, are highly susceptible to climate-related instability, which can lead to unpredictable disruptions and economic challenges. To mitigate these risks, the strategy focuses on increasing the number of technology-based, higher-skilled positions within the agricultural sector. By shifting workers toward these more stable and advanced roles, the strategy aims to better shield them from the volatility associated with traditional agricultural jobs. This transition not only enhances job security but also fosters a more resilient workforce capable of adapting to technological advancements and market shifts, ultimately contributing to greater stability and long-term growth within the sector.

Supporting strategies

Our strategy envisions the Kern County region as a leader in agriculture technology and expands its output to include more value-added food products. By investing in higher-skilled jobs, the strategy seeks to enhance the efficiency and sustainability of local farming practices. This approach will not only diversify the region's agricultural portfolio but also create new competitive market opportunities and boost economic resilience. The following two objectives and six supporting strategies aim to accomplish this by upgrading existing jobs and expanding into new areas for growth.

- 1. **Upgrade: Transition workers to higher-skilled jobs in the agriculture industry.** Interviews and research suggest that although somewhat higher-skilled, higher-quality jobs already exist in agriculture (e.g., machinery operation), workers and employers report that too few people are successfully accessing appropriate training. Strategies supporting this objective aim to help workers overcome these barriers and access existing higher-quality jobs in agriculture.

Supporting strategies:

- 1a. **Increase awareness of existing and emerging skilled jobs:** Communicate with farmworker communities about opportunities and incentives for upskilling and

moving into higher-quality jobs, in collaboration with community-based organizations as trusted community messengers to engage and educate farmworkers.

1b. Train employees for roles involving technology: Provide culturally sensitive trainings at accessible times and locations covering relevant English-language and/or technical skills (e.g., computer literacy, machinery operation).

1c. Provide financial support for workers pursuing training, retraining, or upskilling: Work with employers to create or expand paid training opportunities that allow employees to gain new skills while working

2. **Expand: Bring in new high-quality jobs in technology and value-added food products.** Interviews and research suggest that crop and animal production, which make up most agriculture jobs in the county, offer relatively limited opportunities for growth in high-quality jobs when compared with other portions of the agricultural value chain. Strategies supporting this objective aim to attract new subsectors of agricultural jobs to the Kern County region, diversifying the sector while also securing high-quality employment.

Supporting strategies:

2a. Develop the infrastructure to make the region an agriculture technology hub: Create an environment conducive to agricultural innovation by partnering with research institutions and companies and making it easier to pilot new technology in the Kern County region. For example, Fresno’s F3 Innovate is supporting industry R&D with research institutions across the nation to advance climate-smart ag-tech, workforce development in ag-tech, and overall supporting inclusive innovation in the Central Valley.

2b. Support producers in adopting technology and beneficial new advances: Work with agricultural producers and training partners to help employers adopt new technologies and innovation that increase worker productivity and improve the efficiency and sustainability of resource use while also maintaining or increasing crop yields.

2c. Provide financial incentives for employers to shift jobs: Incentivize employers either to shift their operations toward value-added food processing (i.e., increasing the value of raw crops through the addition of ingredients or processes that make them more readily usable by consumers) or to increase agricultural technology innovation and integration; monitor to ensure the impact of incentives.

3. **Regenerate: Leverage the Kern County region’s existing agricultural expertise to gradually incorporate regenerative practices into existing farms and foster new co-ops dedicated to sustainable methods.** Interviews suggest a strong desire to adapt agricultural practices to simultaneously improve public health (e.g., by decreasing the use of natural fertilizers and reducing tilling that increases the risk of exposure to *Coccidioides immitis*, the fungus that causes Valley Fever) and achieve carbon drawdown (e.g., by enhancing the natural ability of soils and ecosystem to sequester carbon through practices like cover cropping and crop rotation).

Supporting strategies:

3a. Educate farmers on how to incorporate regenerative practices into their existing operations. Topics could include soil health and biology, cover cropping and crop diversification, and no-till or reduced tillage farming, and water management practices like keyline design or swales that can help farmers continue to produce on their existing acreage in the face of climate change.

3b. Support establishment of new co-ops that focus on regenerative farming. Provide trainings in conjunction with existing economic development stakeholders to help residents with existing skill sets learn how cooperative business structures work in practice, including profit-sharing and decision-making processes, and explore options to brand and market their food.

Alignment with job quality and access, equity, and climate

Job quality and access

The agricultural sector strategy in the Kern County region prioritizes the creation and enhancement of family-sustaining jobs that offer healthcare and retirement benefits, career advancement opportunities, access to training, consistent scheduling, safe working conditions, and opportunities for collective worker input and representation. By focusing on

these elements, the strategy aims to elevate the overall quality of jobs within the sector, ensuring that they meet the needs of workers and their families.

The proposed strategies emphasize creating new high-quality jobs through the integration of advanced agricultural technologies and automation (strategy 2). These roles are designed to be safer, more stable, and better compensated than traditional fieldwork positions. Tailored training programs and clear pathways for attaining necessary education or skills are essential components of this strategy, ensuring that these new opportunities are accessible to all workers, particularly those from disinvested communities.

Equity

The agricultural sector strategy in the Kern County region provides substantial community benefits, particularly for disinvested communities. Agriculture is a significant employer of people from these communities, especially migrant farmworkers with limited education and English language skills. Only 0.6% of agricultural workers reported needing an educational certificate, highlighting the sector's role in providing employment opportunities to those who might otherwise face significant education and credentialing barriers to entry in other industries.

Recognizing the unique challenges faced by disinvested communities, the proposed strategy focuses on creating pathways for workers to move into higher-skilled, higher-quality jobs (strategy 1). This includes targeted outreach to and communication with farmworker communities about opportunities and incentives for upskilling and moving into better positions. By providing culturally sensitive training programs at accessible times and locations, our agriculture workforce strategy aims to equip workers with the skills needed to transition into more advanced roles. Financial incentives—such as paid training, one-time cash bonuses, and wage increases upon certification—are also part of the strategy to motivate workers to pursue further education and training. These efforts help ensure that the benefits of economic development are equitably distributed, allowing all members of the community to share in the prosperity generated by the agricultural sector.

The needs and interests expressed directly by disinvested communities underlie our selection of agriculture as a target sector strategy. By focusing on upskilling and retraining, the strategy aims to improve the economic prospects of people in these communities, reducing their exposure to the physical risks associated with traditional agricultural work and providing them with more stable, higher-paying jobs.

Climate

Agriculture, while a cornerstone of the region’s economy, poses significant environmental and public health challenges. The sector is responsible for 40% of California's water usage, and agricultural runoff contaminates both surface and groundwater. Agriculture contributes 8% of the state’s greenhouse gas emissions, including substantial emissions of methane and nitrous oxide (California Air Resources Board 2023). These environmental impacts are compounded by public health concerns, such as pesticide exposure, heat exposure, air pollution, and water contamination, which disproportionately affect agricultural workers and surrounding communities.

Our target sector strategy aims to limit the negative impacts of agricultural economic development on the natural environment and public health. By focusing on mechanization and technological advancements (strategy 2), our strategy plans to transition workers out of the fields and into higher-skilled, less hazardous jobs. This shift not only reduces the direct health risks associated with fieldwork, such as exposure to pesticides and extreme heat, but also decreases the environmental footprint of agricultural practices.

Mechanization and the adoption of precision farming technologies (strategy 2) can lead to more efficient use of water and fertilizers, minimizing runoff and reducing contamination of water sources. Improved irrigation systems and advanced water management techniques will enhance water use efficiency, helping to conserve this critical resource. Additionally, the integration of renewable energy sources, such as solar and wind power, into agricultural operations will help reduce greenhouse gas emissions, contributing to climate change mitigation. Furthermore, sustainable water management in agriculture aligns with several state strategies, such as the Sustainable Groundwater Management Act (SGMA) and the Irrigated Lands Regulatory Program (ILRP), as outlined later in this chapter.

To further address public health needs, particularly in disinvested communities, the strategy includes pathways for retraining and upskilling workers into safer, more stable positions within the agricultural value chain (strategy 1). By moving workers into roles involving technology operation and maintenance, our strategy can provide them with higher-quality jobs that offer better working conditions and health benefits. This approach not only improves individual livelihoods but also strengthens community health outcomes by reducing exposure to harmful environmental conditions.

Workforce development

Our strategy aims to invest in both the skills of agricultural employees and the value of jobs offered by employers to holistically support a transition to better-quality jobs. For example, our strategy calls for investing in workforce development programs tailored to the needs of the emerging agricultural technologies and value-added food production sectors (strategy 1b, 1c). This strategy emphasizes the importance of upskilling and retraining workers, particularly those transitioning from fieldwork, to equip them with the skills necessary for higher-quality, higher-paying jobs in the agriculture sector.⁹

To match skills to available jobs, the strategy focuses on increasing awareness of existing and emerging skilled positions within the agricultural sector (strategy 1a). This involves communicating with farmworker communities about the opportunities and incentives for upskilling and moving into higher-quality roles, such as machinery operation and technology-based positions. Providing culturally sensitive training at accessible times and locations is a key component, ensuring that workers can acquire relevant English-language and technical skills, such as computer literacy and machinery operation, without significant disruption to their current employment. For example, this could build on the existing work Wonderful Company is investing in to strengthen the Kern agricultural workforce, which has seen declining interest among youth. Wonderful offers a dual-enrollment with high schools to revitalize a younger workforce and expose them to exciting jobs in high-tech agriculture jobs. (Wonderful education 2024).

Addressing talent and recruitment challenges is another critical aspect of the strategy. By offering financial incentives for workers to pursue training, upskilling, or retraining (strategy 1c), our strategy aims to motivate more individuals to engage in these programs. These incentives could include paid training sessions, one-time cash bonuses, or wage increases upon certification. This approach not only encourages workers to improve their skills but also helps employers retain a skilled workforce capable of meeting the demands of modern agricultural operations. Additionally, by improving the quality of agricultural jobs and

⁹ While this strategy focuses on transitioning workers to higher-skilled roles within the agriculture industry, the expanding use of technology will likely decrease the overall number of agricultural jobs available. As a result, some agriculture workers may need to transition out of the industry entirely and into new roles in other industries, including those highlighted in this report (e.g., advanced manufacturing, entrepreneurship, etc.). It is important to note that undocumented workers may face unique challenges when transitioning to new roles within or outside of the agriculture industry. Potential projects should seek to mitigate these challenges to the extent possible under current federal immigration policies.

increasing the opportunities for workers to access trainings, our strategy aims to attract more new workers to broaden the industry’s labor pool—of which the vast majority in the region are undocumented immigrants—thereby promoting more equitable access for all residents.

Strategic collaboration among businesses, training and education institutions, labor organizations, and community groups is essential to the success of this strategy. The strategy plans to partner with local education institutions and industry stakeholders to develop and deliver targeted training programs (strategy 1b). These partnerships will help ensure that the target community is aware of and motivated to engage with training resources, and that the curriculum is aligned with the needs of the agricultural sector. For example, partnerships between employers and adult education providers could develop specialized training programs in sustainable farming techniques and agri-business management, focusing on areas such as precision farming, irrigation efficiency, and crop science to ensure a pipeline of skilled workers capable of helping the agriculture industry advance the state’s carbon-neutral goals.

Moreover, the strategy aims to create an environment conducive to agricultural innovation by facilitating collaborations with research institutions and technology companies (strategy 2). By creating a more attractive regulatory environment and a high-skill workforce, our strategy aims to invest in the enabling factors that can attract more businesses to the region and create a hub for agricultural technology. This, in turn, will help generate new high-quality jobs and diversify the local economy.

Alignment with state strategies

Our agricultural sector strategy is designed to align with California’s overarching state strategies, addressing critical climate and environmental challenges while promoting sustainable development and economic resilience. Central to this strategy is the emphasis on agricultural technology, which is pivotal in enhancing efficiency, reducing environmental impact, and ensuring sustainable growth.

The adoption of ag-tech and precision agriculture aligns with the California Climate Adaptation Strategy and the California Climate Scoping Plan by reducing greenhouse gas emissions and improving resource efficiency. Precision agriculture technologies, such as soil moisture sensors, automated irrigation systems, and drone monitoring, enable farmers to optimize water usage, reduce fertilizer and pesticide application, and enhance crop yields.

These technologies support the state’s goals for reducing emissions and conserving water resources, contributing to more sustainable agricultural practices.

The strategy also supports the Sustainable Groundwater Management Act (SGMA) by advocating for advanced irrigation systems and water recycling technologies. By promoting precision irrigation and real-time water monitoring, the strategy ensures sustainable water management, aligning with SGMA’s objectives to safeguard groundwater resources. This approach not only conserves water but also mitigates the risk of water shortages, ensuring long-term agricultural productivity and sustainability.

This approach also aligns with ongoing state regulatory programs such as the Irrigated Lands Regulatory Program (ILRP) and, more locally, the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS). By supporting sustainable water management in agriculture and reducing groundwater pollution, the strategy aligns with ILRP and CV-SALTS and ensures long-term the viability of the Kern County region’s agriculture. This alignment reinforces the region's commitment to environmental stewardship while enhancing the economic resilience of its agricultural sector.

The strategy addresses the California 30x30 Initiative’s goals by promoting practices that enhance biodiversity and soil health. Advanced agricultural technologies facilitate the adoption of integrated pest management and organic farming practices, reducing the reliance on chemical pesticides and fertilizers. This alignment with the 30x30 Initiative helps protect natural ecosystems, enhance soil health, and promote sustainable land use practices, contributing to the state’s conservation goals.

Another significant aspect of the strategy—air quality improvement—aligns with state efforts to reduce air pollution. The adoption of low-emission agricultural equipment and precision agriculture techniques reduces the release of harmful pollutants into the air, contributing to better air quality and public health. This alignment with state air quality standards is crucial for the Kern County region, where agricultural activities can significantly impact local air quality.

Finally, there are also many opportunities for the Kern County region’s agricultural industry to leverage federal investments such as Biden’s Build Back Better Act, which dedicated a total of \$555 billion to various types of clean energy and climate investments. The region could leverage Build Back Better funds to modernize infrastructure such as

irrigation systems and precision agriculture technologies, or clean energy for farming operations such as electric tractors (White House 2021).

Opportunistic industries

Aerospace and defense

The aerospace and defense industry encompasses the development, manufacturing, and testing of aircraft, spacecraft, and defense systems. The industry has a significant presence in Eastern Kern, with Edwards Airforce Base, Mojave Air and Space Port, and Naval Air Warfare Station China Lake (NAWS China Lake).

We included this industry as “opportunistic” because environmental concerns surrounding it and competition from outside the Kern County region limit potential opportunities for job growth, especially in positions accessible to disinvested communities. Opportunities are also highly concentrated in Eastern Kern.

However, the sector offers significant economic opportunities, with fewer than 8% of workers requiring an educational certificate for high-quality jobs (U.S. Bureau of Labor Statistics 2023).

Carbon management

Carbon management in the Kern County region focuses on technologies and strategies to reduce carbon emissions, particularly through carbon capture, utilization, and storage (CCUS). Given the strong oil and gas industry presence and geology, the Kern County region could leverage its infrastructure, natural resources, and expertise for carbon management initiatives.

We included carbon management as opportunistic due to its potential for harmful environmental impacts, reliance on continued fossil fuel operations, and potential public health risks. In addition, many residents raised concerns about the significant role that existing oil and gas producers would play in any future CCUS efforts.

However, CCUS also has the potential to eliminate up to 90% of CO2 emissions associated with oil and gas production, making it a significant climate mitigation tool.¹⁰ Economically, CCUS projects could create construction jobs that are accessible to individuals with lower educational attainment and show substantial overlap with the existing oil and gas workforce. Further data are needed to assess the quality and long-term sustainability of these jobs, but the sector could offer opportunities to retain well-paying positions in the region’s evolving energy landscape.

Transportation and warehousing

The transportation and warehousing industry—encompassing the movement and storage of goods—plays a vital role in the regional economy. This sector is anticipated to experience significant employment growth through 2030.

Transportation and warehousing are included as opportunistic industries because of their negative environmental impacts, harmful public health impacts (particularly on disinvested communities), worker safety concerns, and relatively poor labor conditions, standards, and thus, lack of alignment with the state’s climate and environmental priorities. The transportation sector accounts for half of California's greenhouse gas emissions; truck transportation also emits harmful pollutants such as nitrogen oxide and diesel particulate matter. Warehouses, often located near minority and low-income communities, exacerbate this issue by attracting high volumes of truck traffic, leading to adverse climate and health effects. Public health concerns are notable—mechanics and technicians face unsafe working conditions and a high fatality rate. Warehousing workers also experience a high rate of non-fatal injuries, primarily due to overexertion and incidents involving powered industrial trucks. These jobs are often accessible to disinvested community members given the industry’s low educational requirements and high union membership rate. However, the low wages and below-standard working conditions of these jobs often keep disinvested community members in cycles of poor career advancement and suboptimal health outcomes. If transportation and warehousing projects are considered, therefore, it will be important to evaluate their potential effects on neighboring communities (pollution, traffic,

¹⁰ It is important to note that these potential benefits, the distribution and use of oil and gas – as opposed to its production – would continue to emit significant amounts of CO2, meaning mitigation of emissions at source of production is not a holistic solution.

etc.), their ability to comply with all applicable environmental and labor regulations, and their potential to integrate green technologies.

Hospitality and tourism

The tourism and hospitality industry in the Kern County region focuses on attracting visitors to the region's scenic and recreational areas, offering opportunities for small businesses and hospitality services. This sector is particularly relevant to specific communities like the Kern River Valley, where outdoor activities and natural attractions drive tourism.

Tourism and hospitality can bolster local economies by creating jobs and supporting small businesses such as hotels, restaurants, and recreational services. However, its impact is primarily limited to areas with strong tourist appeal, such as the Kern River Valley. While this industry can provide economic benefits and enhance the quality of life in these subregions, its overall influence on the Kern County region's broader economic landscape is more localized and specific.

The Kern Coalition, in partnership with relevant local partners, can define location-specific strategies tailored to specific cities in the Kern County region. Since these strategies will be highly localized, they are not included in this report.



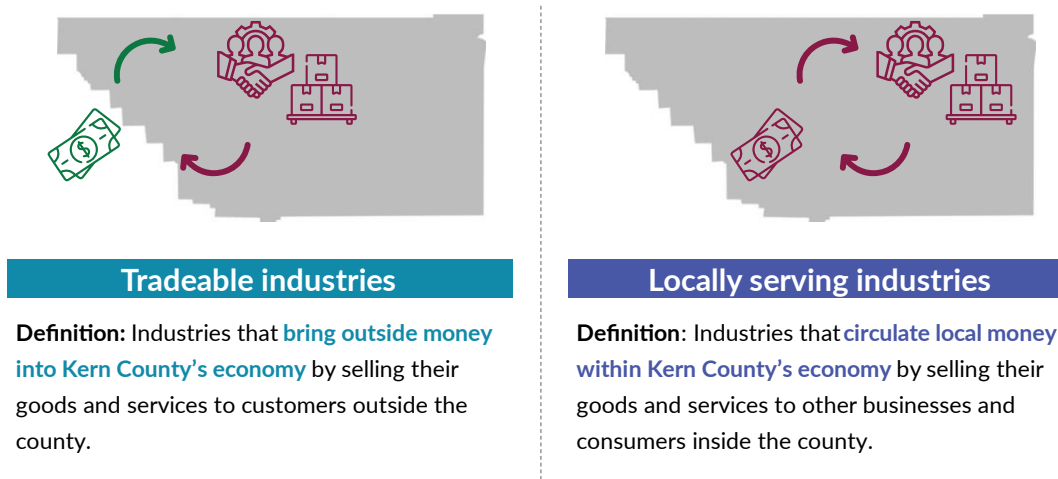
3B: Sector neutral & economic mobility strategies

Overview

This chapter contains strategies to support economic mobility and high quality jobs in the Kern County region that are not tied to a specific tradable industry. We refer to these industries as “locally serving” and “sector neutral.” Locally serving industries like healthcare, education, retail, and hospitality typically circulate local money within the region’s economy by selling goods and services to businesses and consumers inside the county. Locally traded industries do not directly generate new external sources of revenue for the local economy in the way tradable industries do; however, they are an essential part of ensuring a high standard of living for all residents and enabling working-age adults to access the critical services they need to participate fully in the workforce. In the context of California Jobs First, locally serving industries may also be considered “sector neutral” since the goods and services they provide (e.g., K–12 and post-secondary education) establish a cross-cutting foundation that supports the region’s ability to develop a competitive workforce across multiple tradable industries. In fact, in the Kern County region, locally serving industries e

supported more job growth than tradable industries between 2009 and 2019 (B3K Market Assessment).

Figure 18 Definitions of tradeable and locally serving industries



We selected the following three locally traded industries based on widely-shared priorities across our stakeholder engagement process. As noted earlier, stakeholder engagement and community feedback were critical to the development of this report; at multiple subregional meetings, we heard a common call to invest in entrepreneurship, education, workforce development, and healthcare in the region. These prioritized locally serving industries do not represent an exhaustive list of essential industries or areas of need—there are many others, some of which will be highlighted in the section on regional and community development strategies.

This section of the report is organized into three sub-sections, each focused on one of the prioritized locally serving industries. Within each sub-section, we have provided additional context surrounding the industry and potential strategies to strengthen its crucial services within the Kern County region. The discussion of each industry opens with an overview of key **challenges and opportunities**, including what regional assets are already engaged in addressing the issues. A **strategy overview** follows, outlining the potential supporting strategies that can be employed to ensure that services within that industry are more comprehensive, accessible, and affordable. The remainder of each industry-specific subsection explores how the industry aligns with the overall objectives of California Jobs First, including its **alignment with job quality and access, equity, and climate concerns**, its

links to **workforce development**, its **alignment with state strategies**, and, finally, a brief overview of **strategy implementation**, including a high-level summary of the workplan, partnerships, and resources required.

Entrepreneurship

Challenge and opportunity

In this report, “entrepreneurship” generally refers to small businesses across various industries. The threshold for “small business” varies by industry and standard, but generally businesses of 500 or fewer employees are considered small businesses. Due to their prevalence and need for support in the Kern County region (as reiterated throughout our stakeholder engagement process), this report focuses on small and micro-businesses of 1–10 employees. Thus, throughout this report, we use the terms “entrepreneurs” and “small business owners” interchangeably to refer to residents seeking to launch, sustain, or grow a business of 1–10 employees.

Cultivating a strong entrepreneurship and small business ecosystem is a proven path to spurring inclusive regional economic growth. Small businesses play an important role in a regional economy as (i) the leading source of new job creation; (ii) a driving force behind competition and diversification; and (iii) a promising economic mobility pathway that disinvested communities can turn to. According to the Small Business Administration, small businesses account for two-thirds of new job creation in the country, far outpacing large enterprises of 500 employees or more (Brown 2018). Small businesses put money back into the local economy and create resilience to shocks. Moreover, increasing the rate of minority entrepreneurship helps reduce race and gender wealth gaps (Barr 2015).

Entrepreneurship offers a vital pathway to economic prosperity for communities traditionally marginalized within the formal job market, such as undocumented immigrants and justice-involved individuals. A recent study found that foreign-born immigrants are 80% more likely to start a business than U.S.-born citizens (Dizikes 2022). Running or supporting a small business, often informally, can be a natural or accessible way for undocumented immigrants to earn income (though the legal ramifications for expanding as a sole proprietor are unclear) (Rogers 2022). Historically marginalized communities often face significant barriers to employment in tradable sectors due to legal restrictions and intersecting systems of discrimination. By investing in an accessible and inclusive small business ecosystem, the Kern County region can help people from these communities create

their own opportunities, gain financial independence, and contribute to the local economy. This approach not only empowers people but also diversifies the economic landscape, promoting resilience and inclusivity in communities often overlooked by traditional employers in tradable industries. For example, in parts of East Kern that have struggled to attract major employers, residents and the local economy would both greatly benefit from more people having the tools and support to begin their own locally serving business.

Across the country, women and entrepreneurs of color are leading a boom in new business and job creation. In 2021, almost half of all new businesses in the United States were formed by women, and the number of Black entrepreneurs starting businesses tripled from 2019 to 2021, making Black women the fastest growing demographic of entrepreneurs in the U.S. (Pardue 2022). Overall, the number of paid workers employed by minority-owned businesses has grown dramatically since 2019 (Bates 2022).

Residents of the Kern County region are eager to experience these benefits, but entrepreneurs face significant barriers as they seek to access support and master the financial and legal fundamentals of business ownership. Entrenched disparities such as lack of personal, family, and community wealth and/or established credit track records, as well as discriminatory lending practices, continue to limit the ability of individuals from disinvested communities to thrive as entrepreneurs (LISC). In the Kern County region, Latina women are the fastest growing demographic of entrepreneurs but face significant hurdles: across the state, 63% of Latino-owned businesses use personal savings or credit cards to start their businesses, and are 60% less likely than the average applicant to receive loan approval. Currently, lack of equitable access to capital and support has created an estimated \$451 billion opportunity gap for Latino businesses in California (Latino Community Foundation). In addition, participants in meetings across different subregions of the Kern County region cited access to capital as a barrier. People are forced to take out high-interest loans to cover the considerable costs of opening a business and obtaining permits; they would like to see affordable loans with flexible requirements.

Although technical assistance is available on how to obtain affordable capital from reputable institutions, small business owners and potential entrepreneurs in the region face barriers to accessing this support. Entrepreneurs—especially those from remote and disinvested communities—face challenges in accessing technical assistance to develop a robust business plan that will qualify them for loans. Community members from South, North, and West Kern shared at subregional meetings that they need trainings, internships,

process guides, and information on how to grow their businesses; they also suggested that more research should be conducted on why businesses fail in the region. Stakeholder interviews in the region suggest that there is a sufficient supply of organizations looking to support and fund entrepreneurs, but that these organizations struggle to effectively reach and engage with residents. Stakeholder engagement suggests that residents are not aware of these programs, despite their proven efficacy; and even if residents are aware of these programs, they often cannot access them due to a range of accessibility barriers (e.g., time, distance, language).

Many entrepreneurs and small business owners struggle to thrive in the formal economy. For example, an interview with the Hispanic Chamber of Commerce indicated that unwillingness and inability to correctly file taxes remains a major barrier preventing immigrant-owned small business owners from accessing government support (e.g., during the Covid-19 pandemic) or private capital (e.g., through bank loans). Thus, while entrepreneurship is able to offer quality jobs for migrant and undocumented residents (who struggle to finding quality work elsewhere), the barriers to accessing capital for starting or maintaining a small business are currently difficult for this population to overcome.

Regional assets

The Kern County region features a robust ecosystem of local services designed to support entrepreneurs, though many community members report being unaware of these services or unable to access them successfully. Throughout our stakeholder engagement, members of the public, nonprofit, and private sectors identified many services—from technical assistance to one-on-one mentoring—that are offered to small business owners in the region. The following proposed strategy therefore focuses on enhancing the quality, coordination, centralization, and accessibility of the resources already available in the Kern County region. Previous reports, such as the 2021 B3K Market Assessment, have conducted stakeholder mapping that can serve as a starting point for taking stock of the available resources in the Kern County region.

Another regional asset is the county’s ease of starting a business, as regulatory hurdles was not identified as a major barrier for entrepreneurs. Navigating the processes for various permits, licenses, and compliance requirements can be time consuming and costly; however, stakeholders reported that regulation is not a major barrier, though policies have historically provided overly narrow criteria for what qualifies as a “start-up” (in terms of age and revenue). Overall, community members and interviewees consistently described the

Kern County region as having a business-friendly environment—one that is supportive of small businesses, from lenders eager to fund to public policies supporting permitting.

In addition, Kern County boasts an array of organizations that support entrepreneurs. Various Chamber of Commerce organizations, including identity-based ones like the Hispanic Chamber of Commerce or Black Chamber of Commerce, provide a range of trainings for small business owners. Similarly, the Kern Women’s Business Center offers targeted support for women entrepreneurs, providing business training, financial literacy programs, and one-on-one mentoring. Local government initiatives such as the Kern Economic Development Corporation (KEDC) also play a pivotal role by offering resources, networking opportunities, and economic data to help small businesses thrive.

Supporting strategies

The strategy envisions a region with a thriving small business and entrepreneurial ecosystem that supports a diverse, resilient, and inclusive local economy. The proposed strategy aims to ensure that small business ownership and employment are quality jobs for disinvested community members who may not be able to find quality jobs at large enterprises, as well invest in entrepreneurship as the leading source of new job creation. The following three objectives and seven supporting strategies aim to ensure that the resources currently available for entrepreneurs are adequate in their quality and range of offerings, are accessible to all residents setting out to open a business and provide affordable options to access capital and technical assistance.

- 1. Adequacy: Ensure that programs and services meet the needs of small business owners and are delivered through culturally competent approaches.** Interviews suggest that while many organizations and initiatives seek to support small businesses, their offerings are relatively fragmented and do not operate at the scale needed to achieve regional change. Strategies supporting this objective would improve alignment across nonprofit and public sector actors to identify unmet needs in the Kern County region’s small business ecosystem, including the needs of rural populations, undocumented communities, and other groups facing logistical and systemic barriers.

Supporting strategies:

- 1a. Improve coordination between technical assistance providers and expand their reach to include stronger local presence in remote areas:** Create structured spaces

of collaboration and cross-sharing (e.g., co-ops, co-working spaces, working groups, resource coordinators, etc.) to help public and nonprofit organizations learn from one another's experiences, identify service gaps, and avoid duplicating one another's efforts.

1b. Expand and strengthen industry-neutral trainings on key business functions:

Build on and extend existing trainings that help business owners expand their ability to run crucial internal functions like finance and accounting, navigate external requirements like taxes and permitting, and improve strategic decision-making around marketing and pricing.

1c. Create industry-specific programs and services: Improve or expand technical assistance for small business strategies that are identified as priorities by members of disinvested communities (e.g., technical assistance program for owners of at-home childcare businesses).

2. **Accessibility: Ensure that small business owners are aware of existing programs and services and able to successfully access them.** Interviews and subregional meetings suggest that many entrepreneurs are unable to utilize the resources that already exist within the region. Strategies supporting this objective would help residents identify, enroll in, and complete available programs.

Supporting strategies:

2a. Conduct outreach and engage communities across subregions: Engage residents across different communities, subregions, languages, and industries using locally based programs and / or staff to connect small business owners to available resources and encourage other residents to consider starting a business.

2b. Centralize information about the full range of available programs and services: Invest in websites, notice boards, ads, publications, or other tools to help small business owners easily find information about technical assistance, financial support, and mentorship and networking programs relevant to their needs. This strategy would be carried out in partnership with trusted community-based organizations throughout the region that are well positioned to lead the centralization of and outreach around available resources. During subregional meetings, community members across South, West, and Central Kern expressed the

need for a centralized repository of information, technical assistance, and service—and even suggested designating physical locations for this purpose, such as neighborhood hubs, a business alliance, or a local economic development agency.

2c. Address common barriers to participation¹¹: Take steps to help disinvested communities access available resources (e.g., provide trainings in multiple languages, hold trainings at more accessible locations and during more convenient hours, provide support for transportation and childcare, conduct outreach and education to promote entrepreneurship as an accessible pathway regardless of immigration status; etc.). This resonated with community members, particularly those from North and Central Kern who cited that the main barriers to accessing entrepreneurship resources are people’s language and immigration status and those from rural communities who cited distance as a major barrier. These communities also mentioned that having specific resources to help high school graduates open a business would be helpful.

4. Affordability: Unlock additional sources of funding to support entrepreneurs from disinvested communities. Research suggests that while minority entrepreneurs are fastest-growing demographic segment of people opening new businesses, they also face outsized challenges in accessing funding. Strategies supporting this objective would increase the amount and variety of funding available to these entrepreneurs.

Supporting strategies:

3a. Increase the number of community lenders serving residents of the Kern County region: Small business and economic development centers can engage not only community development finance institutions (CDFIs) located in the region, but also those operating in nearby counties or at the state level.

3b. Create learning partnerships among impact-orientated lenders: Develop groups and collaboratives (e.g., learning consortiums, a managed community of practice, etc.) to help CDFIs, banks, investment funds, and other lenders exchange knowledge and best practices and enhance the lending capacity of existing programs.

¹¹ Overcoming accessibility barriers is an objective across all sector-neutral strategies and will be further discussed in Chapter 3C.

Economic diversification and resilience

Small businesses create resilience to shocks in local economies by encouraging activity across a variety of industries and promoting competition and innovation within industries.

Small businesses reduce the Kern County region’s dependence on a few major industries and diversify the local economy in ways that protect it from market fluctuations in response to climate crises. As proven by the Covid-19 pandemic, small businesses can be more adaptable and responsive to changing environments. In 2021, in the midst of the pandemic, the formation of new businesses rose to historic peaks in the United States. While big business was forced to make layoffs, small businesses offered an opportunity for recovery and growth. (Newman 2021)

Our strategy therefore invests in basic services to build a robust small business ecosystem that can nurture economic diversification in the Kern County region.

For example, an overarching need in the fragmented technical assistance landscape is better coordination across public, private, and nonprofit sources of support. Our strategy encourages actors in the region that support small businesses—from local and subregional community-based organizations to statewide resources—to work together in partnership to provide technical assistance targeted to specific industries and demographic groups. For example, if undocumented entrepreneurs are prevalent in the food services industry, efforts can be made to centralize and align resources that help food and restaurant entrepreneurs navigate the small business set-up landscape, regardless of their legal status.

Alignment with job quality and access, equity, and climate

Job quality and access

Small businesses and entrepreneurship typically create high-quality jobs for historically disinvested communities. Several interviews indicated a perception that many hiring managers in the Kern County region tend to prioritize candidates whom they already know or with whom they are connected in some way. Similarly, small businesses often hire from within their own neighborhoods and communities, creating new networks of hiring opportunities for disinvested groups. Research shows that Black and brown entrepreneurs continue to be the engines of employment within their communities; investing in the expansion of their businesses presents an important opportunity to support broader employment growth in disinvested communities (Fairlie 2010).

Furthermore, entrepreneurship supports an accessible pathway for quality jobs and economic mobility, especially for disinvested communities. Small businesses can create significant wealth for both owners and employees, helping bridge wealth gaps for disinvested (e.g., Black and brown residents) and under-resourced (e.g., rural) communities. Research by the Small Business Administration (SBA) indicates that successful small business owners accumulate substantial wealth over time, often surpassing the median wealth of their peers who remain in traditional employment (Gaskin 2020). This trend holds true in the Kern County region, where Latina-founded small businesses account for one in three businesses in Bakersfield (Goss 2019). According to a recent study, 89% of the state's Latina-owned businesses are very small (i.e., run by women without any additional employees) and these women earn over a third of what women-owned businesses on average earn in a year, indicating a promising economic mobility pathway for women in the economy and workforce.

Equity

Our strategy focuses on equity by helping people in disinvested communities start and grow their own businesses. Disinvested communities benefit both directly and indirectly when they are not solely dependent on third parties to generate employment. Our strategy aims to expand the amount and access to funding available through local CDFIs and other financial programs that offer low-interest loans and grants to small business owners, particularly those from historically disinvested communities. By reducing financial barriers, our strategy seeks to fund and empower a more diverse range of entrepreneurs, contributing to a more resilient and diversified local economy. Additionally, our strategy aims to increase people's awareness of and access to existing resources through centralized information hubs and outreach programs that connect entrepreneurs with the technical assistance, mentorship, and funding opportunities they need to succeed.

Furthermore, our strategy to support entrepreneurs in Kern County can indirectly address public health needs, particularly for disinvested communities, by fostering businesses that provide essential services (e.g., local healthy food options). Encouraging the growth of locally-owned healthcare businesses, wellness centers, and mental health services within underserved areas and owned by underrepresented groups can directly increase access to quality care and culturally competent care.

Moreover, supporting entrepreneurs who address public health through related innovations in food access, clean water, or environmental health will improve the overall health of the community. For example, small businesses focused on providing healthy, affordable food in food deserts or those promoting and implementing environmentally sustainable business practices help improve public health outcomes.

Climate

These strategies also help the Kern County region successfully transition to a carbon-neutral economy. Research shows that social entrepreneurs can serve as activators of equitable health ecosystems, addressing disparities and social, economic, and environmental drivers of health that account for 80% of health outcomes (Fakeye, et al 2024). In addition, there are many opportunities for the region’s entrepreneurs to learn and implement sustainable business practices. For instance, the California Green Business Network—a coalition of cities and counties that Kern County and / or its municipalities can join—works with small businesses to create a vibrant green economy. Thus, our strategy works to unlock these direct and indirect climate and environmental outcomes by investing in the foundations for inclusive entrepreneurship.

Workforce development

Workforce development is an essential need in the Kern County region’s entrepreneurship ecosystem; many small businesses report facing challenges in the day-to-day running of their business. Small businesses particularly struggle with business fundamentals and participation in the formal economy (e.g., correctly filing taxes). Many small businesses in the region lack access to essential resources and training, which hampers their ability to grow and compete. This creates a pressing need for targeted workforce development initiatives that equip entrepreneurs with the foundational skills and knowledge required to navigate the complexities of registering and running a successful business. Our strategy aims to bridge this gap by offering comprehensive, end-to-end support—from starting to scaling up a business (with a focus on the beginning stages, given the substantial need).

Our small business and entrepreneurship strategy matches skills to available jobs by creating hiring networks and entry points into the local economy, especially within historically disinvested communities. It enables entrepreneurs to access technical assistance needed to build their skillset and formulate a bankable business plan to sustain growth. It also connects entrepreneurs to mentorship networks so that they can benefit

from the experience and connections of other business owners in the region. In addition, for individuals aiming to gain experience and eventually transition to employment at a larger company, small businesses offer a valuable introduction to the job market. Especially for undocumented immigrants and justice-involved individuals, small businesses serve as a training ground, where they can gain crucial experience while building professional networks.

This strategy facilitates strategic collaboration among businesses and training and education providers by seeking to coordinate the fragmented entrepreneurship space.

The strategy aims to identify organizations looking to help and / or finance small businesses, centralize access to and information about them, and facilitate synchronization among them—from chambers of commerce to economic development corporations to affinity- and identity-based networks. It does this by pooling and targeting resources—by industry and stage of business development—to help entrepreneurs access capital and scale up their business. For example, an entrepreneurship center such as the Center for Innovation and Entrepreneurship of Kern County or the state-run Office of the Small Business Advocate could host a resource board which compiles financing resources (CDFIs such as Kern’s AltaOne Federal Credit Union) and technical assistance training (Chambers of Commerce, Kern Women’s Business Center).

Alignment with state strategies

Our strategy aligns well with many state strategies to support small businesses and entrepreneurs from disinvested communities, such as:

- **Assembly Bill (AB) 2019** turned California’s longstanding small business participation goals into state law: a minimum of 25% of all contracts from each state agency must now be assigned to certified small businesses and 3% to disabled veteran business enterprises (DVBES). This bill went into effect on January 1, 2023. AB 1574 and AB 2974 also include small business legislation requirements (CalOSBA 2024).
- **The California Office of the Small Business Advocate** is a state-run initiative to carry out commitments from AB 2019 and provide comprehensive, end-to-end support for small businesses across the state. CalOSBA supports outreach and engagement efforts through advocacy, sharing resources, and building resilience through programs and their Technical Assistance Network, which supports growth and business sustainability. As part of our stakeholder engagement, we interviewed a

representative from CalOSBA to align our strategy with the needs it sees in the Kern County region and the Central Valley writ large.

- **The State Small Business Credit Initiative (SSBCI)** is a federal program that provides funding and support to states, territories, and tribes for small business financing programs. The program was created in 2010 and reauthorized and expanded by the American Rescue Plan Act of 2021. The program aims to help small businesses, especially those facing social and economic disadvantages, access capital and technical assistance, and create jobs and growth in their communities. During the 2021 ARPA revival of SSBCI, California received \$1.181 billion—or roughly 10%—of the program’s \$10 billion re-authorization package. Several state agencies are working together to implement SSBCI in California: the California Pollution Control Financing Authority (CPCFA), the California Infrastructure and Economic Development Bank’s (IBank), the Small Business Finance Center, and the California Office of the Small Business Advocate (CalOSBA).

In addition, our entrepreneurship strategy aligns with other Kern County regional strategies and recommendations. For example, the 2021 Comprehensive Economic Development Strategy (CEDS) identifies a decline in locally serving entrepreneurship in the region as a weakness, and sets out to “[create] a business environment conducive to entrepreneurial and small business development.” CEDS found that foundational entrepreneurship and business supports are not scaled to the needs of the Kern County region, and should be integrated into mainstream economic development.

Finally, the Kern County region can tap into several ongoing federal initiatives that support small businesses and entrepreneurship. For instance, the New Markets Tax Credit is a federal program that encourages private sector investment in “qualified active low-income community businesses,” which can be either for-profit or nonprofit enterprises. Given the program’s popularity and impact to help finance small business leaders from disinvested communities, the Brookings Institution published a paper calling to make the act permanent.

Education and workforce development

Challenge and opportunity

Our strategy refers to education and workforce development as generally encompassing all types of formal education, training, and support that people access to find and retain a quality job. Education refers to both K–12 education and postsecondary education. Workforce development generally refers to all postsecondary trainings, programs, and services (e.g., career counseling, job-search assistance, and wraparound supports) that prepare workers to access and thrive in high-quality careers. It also includes working with employers and aligning education and training programs with their evolving needs (Perez-Johnson 2021).

One important component of education and workforce development is English as a second language (ESL) education. Proficiency in English has become an important prerequisite for many high-quality jobs in today’s economy. A recent study on the role English plays in personal and career development found that English proficiency is essential at every stage of life, from the classroom to the workplace. The researchers concluded that it is “imperative that the educational system be changed to meet the demands of a rapidly evolving economy, and that appropriate steps be taken to provide mandated training in communicative English in order to place young people in jobs that pay a living wage.” (Akther 2022).

More broadly, higher levels of education and workforce development are crucial enabling factors in making high-quality jobs attainable. Education and workforce development allow individuals to gain the necessary skills, knowledge, and competencies to succeed in the labor market and contribute to a dynamic and resilient economy. For one, education enables better-quality jobs and higher earnings: data shows a clear and strong correlation between educational attainment and median weekly earnings, and a negative correlation between educational attainment and unemployment (U.S. Bureau of Labor Statistics 2023). Studies show that nearly all jobs in the U.S. that pay at least \$35,000 a year require a high school diploma, and nearly 75% of those jobs require postsecondary schooling or training (Georgetown University Center on Education and the Workforce).

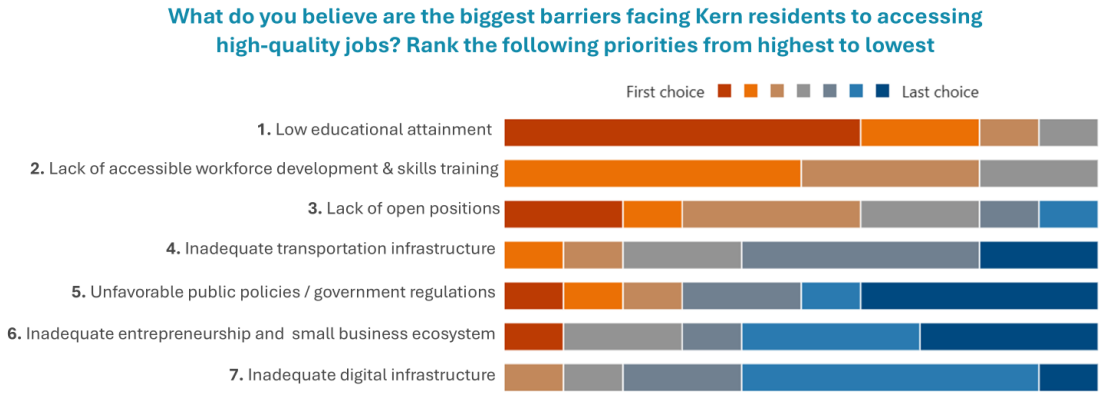
Furthermore, an educated workforce can be and engine of regional economic growth. Higher education tends to lead to higher salaries, and the more people earn, the more tax dollars they contribute over time. Studies find that investing in education increases the strength of states’ economies and ability to attract high-wage employers (Berger 2013).

Emerging industries in the Kern County region prioritized in this strategy tend to require educational and training credentials. For instance, around 60% of clean energy jobs will require training beyond a bachelor’s degree.

However, the Kern County region has a history of low educational attainment that contributes to ongoing, systemic challenges of under- and unemployment. In a recent study of US metropolitan areas, Bakersfield was ranked one of the nation’s least educated cities (147 out of 150). Statewide, the Kern County region has among the largest share of residents lacking a high school degree or equivalent, and the smallest share with a bachelor’s degree or above. (B3K 2021).

Throughout our engagement, stakeholders continually prioritized low educational attainment as one of the greatest barriers to accessing high-quality jobs in the Kern County region. As the figure below illustrates, the majority of our interviewees ranked low educational attainment as the “biggest barrier facing Kern residents to accessing high-quality jobs.” Many of the same respondents indicated that improved education rates and providing youth with support from graduation to employment were the biggest needs in helping residents obtain better jobs—given the widespread acknowledgement that employers will continue to require basic qualifications of high school diploma or GED.

Figure 19 Barriers to access quality jobs identified by the community by importance



Across our stakeholder engagement process, community members continually raised the challenges non-English speakers face in accessing necessary resources and work. Perhaps surprisingly, research shows that young adults struggle the most—more than half of the region’s 25- to 35-year-olds with a high school diploma or less reported limited English

proficiency (B3K 2021). This “prime-age” adult population is also experiencing high rates of being out of work, as outlined in the education and workforce development strategy in Chapter 3B.

“We need to offer trainings in Spanish and support English language learning. When everything is done in English, Spanish speakers drop out of high school and then cannot access job training. We have looked for areas to assist with English language learning, especially with farm workers.” – Kern County workforce development expert

The metropolitan Bakersfield area¹² persistently has the second highest rate of “disconnected” youth in the U.S. Disconnected youth (or opportunity youth) are teenagers and young adults between the ages of 16 and 24 who are neither working nor in school. Measure of America, which reports data on disconnected youth across the most populous U.S. metropolitan areas, found that from 2015 to 2022 Bakersfield consistently ranked 98 out of 100 cities studied in terms of proportion of disconnected youth (1 being lowest proportion, 100 being highest; Lewis 2023). Youth report barriers such as (i) disruptive and frequent moving within the region, given the nature of parents’ farmworker jobs, and (ii) fewer resources outside of Bakersfield (Boone 2015). While 12% of Latinos in California hold a bachelor’s degree, just 5% of Latinos do in the Kern County region—ranking at the very bottom of a nationwide analysis (National Journal 2024).

In addition to youth, one-fifth of prime-age adults in the Kern County region are “out of work,” compared to the national rate of 14.4%. Among those seeking employment, many residents face challenges in attaining relevant skillsets and balancing work and family obligations (e.g., childcare). Nearly 70% of the region’s residents who are out of work hold a high school diploma or less; nationally, the proportion among out-of-work adults is 55%.

Regional assets

The Kern County region’s strong network of educational resources can be built upon and leveraged to support better outcomes for struggling youth and adults. The region is home to a network of vocational and technical training centers that provide comprehensive educational pathways from K–12 to vocation training to higher education. These institutions play a critical role in equipping residents with the skills necessary for the evolving job

¹² Measure of America used data from 100 of the most populous cities in the country. Thus, data at the Kern County level is lacking; we are using Bakersfield as a proxy that makes up around 75% of the County’s population.

market, particularly in industries like agriculture, energy, and healthcare. Previous reports, such as the 2021 B3K Market Assessment, have conducted stakeholder mapping in the education and workforce development ecosystem that our strategy builds upon.

The region’s education system demonstrated its strength and resilience through the Covid-19 pandemic. The Kern County region’s public K–12 education system was able to weather the disruption of Covid-19 and remote learning—the high school graduation rate of Kern County’s class of 2021 dipped just 2% below that of pre-pandemic years (The Bakersfield 2022).

The Kern County region's workforce development infrastructure includes partnerships with local schools and businesses, which offer apprenticeships, internships, and on-the-job training programs. These collaborations help align educational outcomes with job market needs, ensuring that graduates are prepared for high-demand jobs. Additionally, community organizations and non-profits provide targeted support for underrepresented groups, including tailored training programs and job placement services. Interviewees indicated that the region already has apprenticeship programs that offer paid training for individuals from disinvested communities – these programs just need to be scaled and bolstered. For example, the North America’s Building Trades Unions (NABTU) sponsors comprehensive apprenticeship readiness programs (ARPs) focusing on women, people of color, and transitioning veterans. The program in kern, administered by the local Building Trades Council, teaches NABTU’s nationally recognized Multi-Craft Core Curriculum (MC3) (NABTU 2024).

The following strategy therefore aims to centralize, coordinate, and strengthen the many initiatives underway to support education and workforce development across the region. In addition, this strategy aligns with strategies to grow the tradable industries prioritized in Chapter 3A, such as supporting technical training for the region’s youth to go into wind and solar plant management and working directly with employers to support school-to-employment pipelines.

Supporting strategies

Our strategy envisions a region where all residents are equipped and empowered to access high-quality jobs, regardless of age, experience, or identity. This strategy aims to (i) coordinate a robust ecosystem of education and workforce development resources that enables residents to pursue their work of choice, and (ii) provide high-quality jobs in the

field of education and workforce development. The following four objectives and seven supporting strategies aim to ensure that Kern’s education and workforce development programs are adequate in their quality and coverage of offerings, accessible to all residents, and affordable for residents to pursue and complete.

1. **Workforce: Strengthen and expand the Kern County region’s education workforce to provide quality K–12 education.** Research shows that a shortage of teachers is straining local education systems (KCSOS). Strategies supporting this objective would improve the foundational K–12 education that prepares students for high-quality jobs.

Supporting strategies:

1a. Recruit and retain K–12 educational professionals: Invest in making employment in the region’s public schools more competitive (e.g., introducing subsidized programs that allow residents to earn professional credentials for no out-of-pocket costs, contingent upon continued employment in the region’s school systems) and in ensuring educational professionals are well-compensated

1b. Promote careers in education: Collaborate with local schools and colleges to create pipeline programs for teaching professions starting in high school or earlier. Community members, particularly in North and South Kern, seconded this strategy and suggested expanding existing initiatives in this regard, such as dual enrollment and Kern County’s Regional Occupational Center / Center for Technical Education and Career (ROC / CTEC) programs.

1c. Strengthen the capabilities of educational professionals: Support opportunities for teachers and other educational professionals to hone their skills through continuing education or certification programs, including programs supporting innovative and advanced curriculum design or instruction techniques.

2. **Adequacy: Ensure that there are programs and services available to all residents, regardless of educational attainment, native language, etc., delivered through culturally competent approaches, and accessible to residents from all subregions within Kern County.** Interviews and research suggest that levels of workforce participation are low in the Kern County region despite multiple education and workforce development initiatives already in place. Strategies supporting this objective

would ensure that existing programs and services meet resident’s needs while also addressing the root causes of low workforce participation.

Supporting strategies:

2a. Centralize information about the full range of available programs and services:

Invest in websites, notice boards, ads, publications, or other tools to help students or potential employees easily find information about scholarships, stipends, free- or low-cost trainings, and other assistance, financial support, and mentorship and networking programs relevant to their needs. Attendees of the South Kern subregional meeting agreed with this strategy and suggested disseminating information on programs and services using existing mechanisms, such as parent teacher association (PTA) meetings.

2b. Strengthen and diversify K-12 curriculum and programs:

Ensure curriculum offerings provide advanced learning opportunities in a range of subjects (e.g., Advanced Placement and Honors classes) so Kern County region students can explore interests beyond traditional industries and successfully compete with students from other districts during the college admissions process.

2c. Strengthen the “bridge” between high school and post-secondary programs:

Hire staff to work with schools, colleges, and vocational training centers to connect youth and working-age adults to the support(s) they need to transition from high school into further education or job training. This was particularly salient for residents of Central Kern, who mentioned the need for training programs for high school graduates.

3. **Accessibility: Ensure that residents are aware of existing programs and services and able to successfully access them.** Subregional meetings indicated that many residents who are aware of and interested in education or training programs still struggle to start or complete these programs. Strategies supporting this objective would help residents identify, enroll in, and complete available programs.

Supporting strategies:

3a. Help community members navigate the landscape of available programs and services:

Create or strengthen resources that help community members find the

right programs and / or secure available financial support. This requires close partnerships and collaboration with community-based organizations, labor organizations, and educational institutions to engage with hard-to-reach and remote populations across the Kern County region (e.g., via promotoras / community navigators).

3b. Address common barriers to participation: Initiate or expand programs that help disinvested communities access available resources (e.g., provide classes in multiple languages, at more accessible locations, at more convenient times; provide support for transportation and childcare; etc.). Community members across subregions shared that language, transportation, and schedules are the main barriers to accessing education services and trainings; they suggested addressing them through offering programs in multiple languages and providing childcare. Participants from Central Kern also recommended that opportunities should be created that are specifically designed for vulnerable populations like undocumented migrants.

5. Affordability: Increase opportunities for paid training. Interviews suggest that many students cannot pursue education or training because they need income to support themselves and their families. Strategies supporting this objective would increase options for paid training.

4a. Expand apprenticeship programs and similar opportunities: Partner with schools and training organizations to expand the reach of existing programs and create similar opportunities across the skill spectrum and across multiple industries. Residents in all subregions mentioned cost as one of the key barriers and asked for more paid trainings, cost waivers, and apprenticeships.

Economic diversification and resilience

Improved and expanded education and workforce development are essential for economic resilience. By equipping the workforce with a diverse skillset, the community can better adapt to dynamic market needs, ensuring long-term stability and growth, especially in an era marked by rapid technological advancements and the aftermath of Covid-19. Specifically, education and workforce development can advance economic resilience by creating:

- **Enhanced workforce adaptability:** Effective workforce development programs reskill displaced workers and help them transition into new roles, building resilience in the face of boom-and-bust cycles and economic shocks. For example, given that the state of California has one of the most ambitious commitments to phase out oil and gas by 2045, the Kern County region faces an important workforce transition; this strategy supports former oil and gas workers leveraging their skillset to find employment in adjacent, “cleaner” energy industries.
- **Increased regional competitiveness:** A well-trained workforce can attract and retain businesses and industries, mitigating the effects of economic downturns and making the region more resilient to economic shocks.
- **Adapting to technological changes:** As technology and automation continue to evolve, the skill requirements for jobs are changing. Workforce development programs help workers acquire new skills and adapt to these changes, ensuring that they remain employable and can contribute to a forward-looking economy (Perez-Johnson 2021).

Thus, our strategy aims to support education and training as the foundation of a diverse and resilient local economy that allows residents to thrive in pursuing the career of their choice. Our education and workforce development strategy supports economic resilience by promoting lifelong learning and adaptable skills. This helps create a dynamic workforce that can pivot across industries as needed, reducing dependency on any single industry and fostering innovation. For example, employers collaborating with colleges throughout the region can develop specialized training programs in emerging industries such as renewable energy and advanced manufacturing. Retraining programs for workers transitioning from declining industries, such as oil and gas, to growing industries like clean energy, will help maintain employment levels and economic stability.

Alignment with job quality and access, equity, and climate

Job quality and access

Improved and expanded education and workforce development enables better job quality and access. By equipping individuals with relevant skills to better match employer’s needs, these programs enhance the overall competitiveness of the labor force, leading to better family-sustaining wages, job security, and opportunities for career advancement. This focus

on job quality reduces unemployment and underemployment and unlocks economic growth for a diverse range of industries that can support high-quality, accessible jobs.

Among working-age adults, white and Hispanic cohorts represent the largest share of those out of work in the Kern County region, consistent with their larger proportion of total residents (B3K 2021). Meanwhile, people of color are less likely to be highly educated in the region; as the table below shows, Black, Native, mixed race, and Hispanic residents of the region are the least likely to have a bachelor’s degree; each of these demographic group’s educational attainment in the region also falls below statewide figures for that group (Kern County Public Health 2023).

Figure 20 Higher education attainment by race/ethnicity

Bachelor’s Degree or Higher: in Kern County, there are lower levels of residents who identify as any race or ethnicity with a bachelor’s degree compared to state or national levels.

Adults with a Bachelor’s Degree or Higher, by Race/Ethnicity

	Kern County	California	United States
Asian	38.1%	54.4%	55.6%
White, not Hispanic or Latino	25.4%	45.4%	37.3%
White	18.5%	38.0%	35.5%
Native Hawaiian and Other Pacific Islander	16.3%	20.4%	18.2%
Black or African American	15.4%	27.7%	23.3%
Two or More Races	13.6%	27.3%	28.7%
American Indian and Alaska Native	10.1%	15.6%	15.5%
Some Other Race	9.1%	11.6%	14.0%
Hispanic or Latino	9.0%	14.9%	18.4%

Source: U.S Census Bureau. American Community Survey Five - Year Estimates, 2017 - 2021

Research indicates that young girls and women face unique challenges in completing education and finding high-quality work. The following are manifestations of gender inequity in the Kern County region’s education system:

- Women in the region are substantially more likely than men to be out of work at all education levels and ages. In addition, a higher share of out-of-work adults are caring for children in the region than nationally. This suggests that a disproportionate

childcare burden may be hindering women’s labor market participation in the region (B3K 2021).

- Research shows that women with less than a high school or college education are at higher risk of being a victim of domestic violence than those with a college degree. One of the risk factors for domestic violence is a lack of education of either the victim or perpetrator, or a disparity in educational attainment between the partners.
- The poverty rate of single women and their families is greatest among those who have less than a high school diploma. In the Kern County region, 31% of women without a high school education are living in poverty, compared 5% of those with a four-year college degree or higher (see table below). Stated another way, a woman in the region without a high school education is six times more likely to live in poverty than a woman with a bachelor’s degree or higher (Kern Community Foundation 2020).

Figure 21 Education and earnings by gender

Educational Attainment, Earnings, and Poverty of Kern Women

Educational Attainment	Median earnings (Women)	Median earnings (Men)	Percent of women living in poverty
Did not graduate high school	\$16.776	\$26.395	31%
High school graduate	\$20.229	\$35.542	22%
Some college or a 2-years degree	\$29.195	\$42.238	18%
Bachelor’s degree	\$47.158	\$67.288	5% (includes bachelor’s degree or higher)
Graduate or professional degree	\$76.610	\$82.188	
All Educational levels	\$25.922	\$37.326	20%

Note: These figures are for Kern County women who are 25 years and over
 Source: U.S. Census Bureau, 2018 American Community Survey 1 Year Estimates

Equity

Our strategy aims to bridge the racial and gender gap in access to education by ensuring quality educational opportunities for all residents, regardless of background. Targeted support and resources—such as mentorship programs, scholarships, and financial aid—will be provided specifically for underrepresented groups, helping people from these communities navigate educational pathways and access career opportunities, especially in

fields where they are historically underrepresented. Additionally, our strategy will engage with stakeholders, local leaders, and residents throughout the region to help support outreach about available educational resources. The strategy will foster a supportive network that encourages underrepresented groups to participate in educational and training programs, and more broadly to engage with the many resources available in the Kern County region.

Catering to the needs of immigrant communities across the region and supporting ESL education will be important components of bridging this education and training gap. While these are important considerations throughout the region, the prevalence of immigrant residents and lack of English proficiency varies by subregion. Roughly 40% of the population in Valley Central and Valley North, for example, have limited or no English proficiency, compared to just 4% in the mountain region (see table below).

Moreover, California is home to the largest population of immigrant farmworkers in the country, a third of which are members of Indigenous communities from Southern Mexico and speak only Indigenous languages like Mixteco, Zapoteco, or Triqui. The lack of language interpreters for these farmworkers puts their health and safety at risk every day. In a UC Davis study, farmworkers described how they sign contracts they cannot read, attend safety trainings they cannot understand, and handle chemicals without comprehending warning labels. Thus, expanding ESL services and making them more accessible to disinvested immigrant populations is crucial for workers' safety and wellness (Uliasz, et al 2018).

Climate

In addition, our strategy indirectly supports climate mitigation by investing in the education and workforce development needed for the just energy transition. In the Kern County region, the oil and gas industry has provided high-paying, moderate-to-high-skill-level jobs that are accessible to workers with low levels of education. However, the employment numbers at the region's oil and gas cluster have been declining at a rate that exceeds job losses in this sector for the rest of the country (CEDs 2021). In California, the oil and gas industry is shrinking along with associated construction jobs, propelled by the state's carbon neutrality commitment that calls for a 96% drop in demand for oil and a 94% drop in gas by 2045 (Office of the Governor Gavin Newsom 2022). Investment is needed in accessible workforce development in other industries that can provide quality jobs. The sooner the workforce is able to transition out of the oil and gas industry, the faster the

regional economy will be able to move toward the 2045 state commitment and achieve the positive environmental and health outcomes that accompany a carbon neutral economy.

In addition, our education and workforce development strategy addresses public health needs by equipping residents with the skills needed to secure high-quality jobs that may offer healthcare benefits or pay enough to allow residents to afford essential healthcare out of pocket. For residents in disinvested communities, gaining access to stable employment with healthcare coverage directly impacts their ability to afford and access necessary medical care, leading to healthier individuals and communities.

Moreover, expanding training opportunities for healthcare professionals, particularly from disinvested communities, helps address healthcare shortages and ensures that culturally competent care is available to these populations. By aligning education and workforce development with the needs of the healthcare sector, the strategy enhances public health outcomes across Kern County, particularly for residents who have historically faced barriers to both education and healthcare access.

Workforce development

This entire sector-neutral strategy is dedicated to workforce development in the Kern County region. The region’s communities and stakeholders universally called for better coordination of and access to workforce development programs. Given the strong need, we decided to include workforce development itself as a sector-neutral industry. Thus, this entire strategy speaks to how the Kern County region can match skills to available jobs, address talent and recruitment barriers, and facilitate strategic collaboration among businesses, training and education institutions, and labor organizations.

One part of our strategy focuses on creating new jobs and retaining and recruiting education professionals. Increasing the education workforce is essential to providing lower student-teacher ratios to foster meaningful connections with a growing youth population, which has lasting effects into the rest of their lives. Our strategy invests directly in improving important aspects of education careers, such as increasing compensation for teachers, as well as increasing access to the profession for potential teachers through stipends or subsidized programs that allow residents to obtain professional credentials without out-of-pocket costs (contingent upon their continued employment in the Kern County region’s school system).

Alignment with state strategies

The Kern County region is already leveraging state programs that align with our strategy’s vision of promoting the accessibility of quality careers for disinvested students. For example, California’s K–16 Education Collaboratives Grant Program, launched in 2022, aims to address longstanding equity challenges in higher education and workforce participation by providing new pathways to career opportunities for students in their local communities. The Kern County region subsequently formed the K16 Regional Educational Collaborative, which includes the Kern County Superintendent of Schools, Kern Community College District, West Kern Community College District, CSU Bakersfield, and UC Merced. The collaborative brings together partners to develop pathways in health care, education, and engineering / computing; it focuses on fostering inclusive institutions that are better able to serve historically underrepresented students, streamline pathways to degrees, facilitate student transitions, and increase student access to resources supporting basic, digital, and financial needs. In 2022, the Collaborative received an \$18 million grant from the state to undertake this work (Kern County Superintendent of Schools 2022)

In addition, several state-run youth programs for at-risk students provide structured spaces for mentoring and support that the region can leverage to connect youth. One sustainability-focused program is the California Conservation Corps (CCC), which offers young adults the opportunity to work on environmental projects and respond to natural and man-made disasters. Corps members are paid a monthly stipend of \$2,800. This program also aligns with the State’s ambitious climate goals. Another example is the Grizzly Youth Academy, a partnership between the California National Guard and the Grizzly Challenge Charter School, which provides an opportunity for youth between the ages of 16 and 18 who have dropped out of high school or are at risk of dropping out.

Healthcare

Challenge and opportunity

The Kern County region faces suboptimal health outcomes across residents’ lifespans. The region suffers 33% more infant deaths per capita than the U.S. average (Kaiser 2022). The teen birth rate is double that of the state and 1.5 times greater than the national rate. Adults in the region have a higher-than-average rate of chronic respiratory disease and resulting mortality—greater than 38 deaths per 100,000 people. Finally, the life expectancy for

residents of the region is 76.9 years, four years below the state’s average and lower than the national average (Frias 2018).

Figure 22 Maternal and infant health

Maternal & Infant Health Measures

	Kern County	California	United States
Teen Birth Rate (per 1,000)	22	11	15
Low Birthweight	7.8%	7.3%	8.5%
Preterm Births	9.6%	9.1%	10.5%
Infant Mortality	5.6	4.0	5.6

Source: CDC Wonder Natality

These outcomes are exacerbated by the acute shortage of healthcare workers the Kern County region faces—which compromises the quality and quantity of services available. The region’s resident-per-health-professional ratio is higher than that of the state as a whole. Lack of sufficient numbers of health professionals impedes access to healthcare for rural residents—many of whom must seek care outside their community, if they are able to travel, as well as wait longer for a limited number of available of appointments (Kern Community Foundation 2020). Stakeholders report that Covid-19 exacerbated this shortage, due to a mass exodus of overworked healthcare professionals who were able to find better-quality jobs outside of the Kern County region.

Figure 23 Shortages of healthcare providers

Ratios of Population, by Provider Type

	Kern County	California	United States
Primary Care Physicians	1,564:1	1,038:1	959:1
Dental Care	2,141:1	1,297:1	1,631:1
Optometry Care	10,291:1	5,247:1	5,811:1

Source: NPPS NPI 2022

“We are desperate for people. Filling these jobs is integral for intergenerational public health. I think we're going to see our population get sicker before we can help them.”
– Public health expert in the Kern County region

The Kern County region’s vast geography creates healthcare deserts in areas outside of Bakersfield. A high percentage of hospitals are located within metropolitan Bakersfield; an additional few are located in outlying areas such as Tehachapi, Delano, Ridgecrest, and the Kern River Valley area. Residents living outside of these areas must seek healthcare services outside their community, and are often forced to travel to Bakersfield or Los Angeles County. Unfortunately, these individuals are also more likely to live in a household without a vehicle, which they need to access care (Kern Public Health 2023).

Due to these barriers, a large proportion of disinvested community members are not accessing healthcare or insurance coverage. Year after year, across our stakeholder engagement and in key informant interviews, as well as in the annual community and population needs assessment conducted by Kern County, community members raise the issue of lack of access to care. The issue contributes to the racial health gap, as challenges in access to care are geographically associated with communities in which a larger proportion of people of color live. These communities also tend to have higher rates of uninsured adults and children. Thus, while the region’s residents are more likely than the national average to be publicly insured, these benefits are unevenly distributed across subregions and disinvested groups, such as Black and brown communities (Kaiser 2022).

Regional assets

The Kern County region's healthcare landscape is anchored by major providers such as Adventist Health, Dignity Health, Kern Health Systems, Kern Medical, Ridgecrest Regional, and federally qualified health centers (FQHCs) such as Clinica Sierra Vista and Omni Family Healthcare. These institutions not only offer critical healthcare services but also serve as sources of employment and training hubs for healthcare professionals in the region (Employment Development Department, State of California). The presence of public health organizations and regular assessments of community health needs underscores the region's commitment to improving the quality and accessibility of healthcare.

The region offers some competitive advantages for healthcare professionals. Psychiatrists have the highest median wage among all occupations in Bakersfield (at \$95.58 per hour); pediatricians, dentists, pharmacists, nurse practitioners, and physician assistants are also in

the top ten occupations with the highest median hourly wage. Across the Kern County region, the private health care industry in aggregate earned one of the highest total quarterly wages in the fourth quarter of 2023 (BLS 2023). Bakersfield generally features a good location quotient for some of these occupations, as well. For example, Bakersfield's location quotient of 1.12 for psychiatrists indicates that the concentration of psychiatrists in this metropolitan area is 12% higher than the national average).

The region's healthcare infrastructure relies on partnerships with educational institutions that provide training programs. These programs are essential in addressing the region's healthcare workforce needs, especially given the challenges of rural healthcare delivery and the need for specialized care services. For example, Employers' Training Resources, part of the Kern County Administrative Office, has partnered with educational institutions to offer workforce trainings for nursing programs and healthcare in general for past two years, as well as medical front / back office training. Meanwhile, the ongoing expansion of telehealth services has improved access for residents in remote areas and highlights the region's adaptation to modern healthcare trends.

Supporting strategies

Our strategy envisions a county where accessible, high-quality, and affordable healthcare is available to all residents, enabled by robust and effective pipelines that prepare local residents for high-quality healthcare careers. This strategy aims to establish a healthcare system that both provides accessible care to workers and their families and supports high-quality healthcare jobs. The following objectives and supporting strategies aim to ensure that the region's healthcare providers offer care that is adequate in quality, coverage, and cultural competence; accessible to all residents; and affordable for all residents.

1. **Workforce: Invest in the healthcare workforce.** Interviews and research suggest an acute shortage of healthcare workers has led to insufficient primary and specialist services. Strategies supporting this objective would invest in recruiting and retaining healthcare workers to ensure that the county has enough healthcare staff to provide essential services.

Supporting strategies:

1a. Fund employment of new healthcare workers: Implement incentive programs such as loan repayment and tuition reimbursement to attract and retain healthcare professionals and community health workers from disinvested communities.

1b. Promote careers in healthcare: Collaborate with local schools and colleges to create pipeline programs for healthcare professions starting in high school or earlier.

1c. Improve the quality of existing jobs: Mitigate worker burnout in an overstretched healthcare system by investing in key aspects of quality jobs (e.g., fair compensation and benefits, predictable schedules, etc.).

2. **Adequacy: Close gaps in the Kern County region’s healthcare system.** Research suggests that the region’s healthcare system is struggling to provide comprehensive services that meet the needs of residents. Strategies supporting this objective seek to improve the quality and coverage of existing services and provide new services that are currently missing.

Supporting strategies:

2a. Expand mental and behavioral health services: Invest in life-saving mental and behavioral health services for all residents, including at-risk populations experiencing homelessness, justice involvement, substance abuse, etc. Community members in South and Central Kern supported this strategy and cited the need for mental and behavioral health services for youth, in particular. Other needed services that residents across subregions mentioned were dental care and general infrastructure, i.e., creating hospitals, clinics, and labs to reduce the waiting time for appointments and care.

2b. Strengthen collaboration between healthcare providers and grassroots groups: Improve healthcare professionals’ understanding of how disinvested communities experience the healthcare system by connecting them to local organizations that can suggest actionable solutions.

2c. Ensure culturally competent services: Promote culturally competent healthcare services responsive to cultural, linguistic, and social characteristics of diverse populations across the region—to combat the inherent bias that residents from minority and underserved populations often face from providers.

3. **Accessibility: Help community members access healthcare.** Several interviews and needs assessments show that subregions of Kern are “healthcare deserts”—i.e., residents outside Bakersfield are unable to find appointments within 30 days or access services without driving long distances. Strategies supporting this objective would invest in jobs that improve access to care for all community members.

Supporting strategies:

3a. Help community members navigate the healthcare system: Create or strengthen resources that help residents find the right providers and / or find available financial support (e.g., care navigators, community health workers, websites, notice boards, ads, publications, or other tools).

3b. Bring healthcare services to remote areas: Fund and expand initiatives that provide care, including preventative and community-based care, to hard-to-reach populations (e.g., pop-up mobile health clinics that visit places of work, telehealth services for rural areas, etc.). This requires partnering with and investing in community-based organizations that know how to best engage patients at the “last mile”.

3c. Address accessibility barriers: Initiate or expand programs that help disinvested communities receive high-quality health care by addressing language barriers, cultural sensitivities, and other needs. In the subregional meetings, residents brought up the need for more interpreters and medical providers offering care in Spanish; in West Kern in particular, the community also needs interpreters for Indigenous languages of Southern Mexico, probably given the strong presence of people coming from Oaxaca (a region where Indigenous languages are widely spoken).

4. **Affordability: Help community members afford healthcare.** Research shows that financial barriers prevent community members from receiving necessary medical care, contributing to the region’s poor health outcomes and widening health disparities. Strategies supporting this objective would help more people access free or subsidized care.

Supporting strategies:

4a. Promote universal access to insurance: Conduct outreach, education, and engagement efforts with at-risk residents who are not currently enrolled in affordable insurance plans such as Medi-Cal (for which all residents are eligible regardless of immigration status) and hold educational sessions on how to access insurance. In addition, advocacy efforts could be directed at lowering the Medi-Cal income limit to support more inclusive qualification and universal levels of service. At our community meetings, residents supported expanding coverage and cited cost as one of the main barriers to getting healthcare.

Economic diversification and resilience

Improved healthcare services leads to healthier communities, which in turn foster a more stable and resilient workforce and economy. Access to quality healthcare improves the overall wellbeing of the community, leading to higher life satisfaction and increased consumer spending. Healthy individuals are more likely to engage in community activities and invest in local businesses, driving local economic growth and quality of life. A robust healthcare system contributes to resilience by reducing the vulnerability of the workforce to health crises. In times of economic downturns or industry-specific busts, a healthy population can adapt more quickly to new opportunities and retraining programs, ensuring a faster recovery.

High-quality and accessible healthcare is an essential success factor for workforce participation and economic activity. Healthy workers are more productive and less likely to take time off due to illness, directly benefiting businesses and the economy. Furthermore, access to quality healthcare reduces long-term healthcare costs and improves overall quality of life, making the Kern County region a more attractive place for businesses and workers.

Our strategy therefore focuses on expanding the healthcare workforce to close acute gaps in the region's healthcare services. By addressing the talent shortage in healthcare, the strategy aims to create a robust workforce capable of meeting the community's needs and supporting economic resilience. Our strategy includes training for entry-level and specialist positions in healthcare, which currently lack sufficient talent, through investing in resource coordination and stronger pipeline programs in the region's schools.

In addition, our strategy supports healthcare as an emerging source of quality jobs to further diversify the economy. Our strategy emphasizes the development of healthcare infrastructure and the creation of training programs for high-demand medical professions.

Our strategy focuses on building partnerships with local healthcare providers and educational institutions to create a pipeline of qualified healthcare professionals. By doing so, our strategy ensures a steady supply of healthcare workers who can meet the growing demand for their services and support economic diversification.

Alignment with job quality and access, equity, and climate

Job quality and access

Our strategy focuses on creating accessible, high-quality job opportunities for underrepresented groups. The strategy calls for establishing training programs to fill gaps in entry-level and specialist positions in healthcare, specifically targeting residents from disinvested communities to better serve their communities and reach universal levels of service. The strategy supports partnerships between healthcare employers and local educational institutions to create clear pipelines and pathways for a high-quality career in healthcare. In addition to healthcare providers, our strategy also supports jobs as community healthcare workers and healthcare navigators, who are critical to helping seniors and residents with language barriers to navigate an inherently complicated and biased healthcare system.

Workforce and demographic data show that the majority of region’s healthcare workers are women, and that the region has struggled to provide sustainable working conditions. Improving the retention of current healthcare workers therefore serves as an important first step before investing in expanding recruitment (B3K 2021). The onset of Covid-19 exposed and exacerbated the overextended nature of frontline healthcare provision; healthcare workers faced long and unpredictable hours, high rates of burnout, and greater risk of exposure to illness and sexual harassment. The figure below summarizes the prevalence of women in STEM occupations in the region; women make up a clear majority (72%) in healthcare. Across the U.S., women make up 66% of entry-level positions in healthcare, but their presence decreases with seniority to only 30% of women in C-suite healthcare positions. While this is comparatively better than other industries, there is still significant room for improvement for the industry to better serve its majority female workforce, and thus better serve disinvested communities and other minorities. (Berlin 2020, WHO 2021)

Equity

Our strategy is centered on equity and meeting the public health needs of disinvested and underserved communities in the Kern County region. One of the core components of the strategy is bringing healthcare to where it is currently unavailable, whether through the deployment of mobile health clinics, expansion of telehealth, or other innovations to overcoming transportation and accessibility barriers. Through any of these means, the strategy ensures that residents in disinvested communities receive the care they need, including routine check-ups, vaccinations, and preventive care services.

Our healthcare strategy ensures that healthcare services are both accessible and of high quality for Kern residents. Our strategy focuses on investing in healthcare infrastructure, expanding services to underserved areas, and fostering a diverse and culturally competent healthcare workforce. For example, partnerships with local healthcare providers and educational institutions can create targeted training programs for bilingual healthcare professionals, addressing language barriers and improving care for the county's diverse population. Additionally, as part of our workforce development strategy, these interventions plan to support healthcare workers with continuous professional development opportunities, ensuring that they stay updated with the latest medical advancements and best practices.

Immigrant and undocumented farmworkers are among the region's most at risk of injury and illness—and least likely to be insured. Around half of farmworkers in California lack health insurance; undocumented farmworkers (who make up around 70% of the region's farmworkers) are even more likely to be uninsured (The Uninsured Project 2023). Our emphasis on culturally competent care, through the recruitment and retention of healthcare workers from diverse backgrounds, ensures that care providers understand and respect the cultural contexts of the communities they serve, leading to better patient outcomes and increased trust in the healthcare system.

Our strategy supports accessible and culturally competent care and navigation for Black and brown residents who face disparities in health outcomes. Data show that Black mothers in the Kern County region face very poor odds—Black women are nearly four times more likely to die from maternal complications than other races in the region. Black infants are 1.5 times more likely to die than infants of other races. In addition, the rate of underweight Black infants in the region is 1.2 times higher than the state average for Black infants, indicating the overall lack of an adequate and equitable care system in the region

that is able to address healthcare needs at all stages of life (Kern Black Infant Maternal Health Initiative).

Climate

Our healthcare strategy addresses public health needs by focusing on both improving healthcare access and creating high-quality jobs within the industry, especially for disinvested communities. By investing in the recruitment and retention of healthcare workers through potential incentives like loan repayment and tuition reimbursement, the Kern County region could fill critical gaps in primary and specialist services while promoting economic mobility. By targeting disinvested areas, the strategy ensures that healthcare workers are embedded in and reflective of the communities they serve, which improves the cultural competency of care. This not only helps address disparities in access but also builds trust between residents and healthcare providers.

Furthermore, the strategy enhances healthcare access through initiatives like mobile health clinics and telehealth services, bringing care directly to remote and underserved areas in Kern County. By breaking down barriers such as language, transportation, and cost, the strategy ensures that all residents can access the care they need. At the same time, the expansion of mental and behavioral health services in collaboration with grassroots organizations will directly address the urgent health challenges faced by marginalized populations. In doing so, the healthcare strategy supports both the immediate public health needs and the long-term health outcomes of Kern's most vulnerable residents, aligning healthcare with broader social equity and workforce development goals.

Furthermore, this strategy aims to enhance the capacity of healthcare providers to address and manage health issues exacerbated by climate change, such as increased heat-related illnesses and respiratory conditions from poor air quality. Overall, the strategy's cross-cutting focus on addressing gaps in the system, improving the coordination of community health programs, and investing in equitable access to care can support the region's ability to prevent and respond to climate-related health conditions and emergencies.

Lastly, our strategy supports implementing approaches to mitigate the environmental impact of the healthcare industry. Research shows that the healthcare industry in the United States has significant environmental and climate impact, contributing to various forms of pollution and resource consumption. Healthcare is responsible for about 4.4% of

greenhouse gas emissions globally and for 8.5% in the United States. Lastly, a large portion of healthcare's carbon footprint comes from its supply chain, including the production, transportation, and disposal of medical products and services. (Choi 2022, The Commonwealth Fund 2022) Efforts are being made to reduce these impacts, such as improving energy efficiency in hospitals, reducing waste, and sourcing more sustainable products. While not explicitly mentioned, our strategy supports implementing these best practices to reduce the carbon footprint of the healthcare industry.

Workforce development

Healthcare is an emerging source of potentially high-quality jobs in the Kern County region's economy. Stakeholder interviews emphasized the demand for healthcare professionals in the region, as well as the potential for high-quality jobs. Careers in healthcare offer pathways for advancement and good wages, but generally require some degree of educational certification and skills training, making them not as accessible as other careers. In addition, frontline healthcare workers experience high stress and burnout, which burdens the industry's majority female workforce in the region.

“There is a huge opportunity in healthcare especially since Covid. If residents can get through training, they can get hired, and these are often high-paying jobs which have not slowed down—we need registered nurses (RNs), certified nursing assistants (CNAs), and medical assistants (MAs).” – Kern County public health official

Our healthcare strategy therefore focuses on supporting recruitment and retention in the industry for historically disinvested residents. A diverse healthcare workforce is needed to meet the unique requirements of the region's diverse population. Recruiting and retaining healthcare workers from disinvested communities can help the region provide a baseline of quality, culturally-competent, and accessible care. By implementing targeted recruitment efforts and offering retention incentives such as competitive salaries, professional development opportunities, and supportive work environments, our strategy aims to build a sufficient and well-compensated healthcare workforce. For example, employers could partner with local colleges to offer specialized healthcare training programs and paid apprenticeships for students from surrounding rural communities. This initiative would help recruit local talent and provide career pathways for disinvested residents while addressing healthcare shortages in underserved areas outside of Bakersfield.

In addition, our strategy suggests that the Kern County region invest in training programs to bridge mismatches between the workforce’s skills and the jobs needed in the region’s healthcare landscape. Our strategy includes more training for entry-level and specialist positions in healthcare, for which there is currently a talent shortage, by investing in the coordination of resources and strengthening of school pipeline programs. This includes partnerships with local educational institutions, such as community colleges and vocational schools, to develop curriculum and training programs tailored to the healthcare industry’s needs, and with community-based organizations that can train community health workers and navigators (i.e., promotoras). Several organizations are already doing this, which can be further strengthened and invested in to ensure it is equitably offered and accessed. For example, the Bakersfield Adult School’s Health Careers Center offers professional training, industry-recognized certifications, and clinical work experience as significantly reduced costs (Bakersfield Adult School 2024).

By focusing on these strategic areas, our healthcare workforce development plan aims to build a resilient and adaptive system that can meet current and future demands. Ensuring that residents from historically disinvested communities have opportunities for well-paying, stable careers in healthcare not only enhances individual economic outcomes but also strengthens the overall health and resilience for all subregions and communities in the Kern County region. This multifaceted approach ensures that our healthcare system is well equipped to provide high-quality care while contributing to the broader goal of economic diversification and stability.

Alignment with state strategies

The State of California supports accessible healthcare and universal levels of service through numerous strategies, investments, and commitments, many of which have goals and activities that overlap with those of this strategy. For example:

- **California Department of Health Care Strategic Plan 2023-2025:** This broad strategic plan sets out to deliver resilient healthcare facilities, actionable healthcare data, more affordable healthcare, and a healthcare workforce that reflects California’s diversity.
- **2024 Care4All legislative package:** The 2024 legislative session featured 13 health-related bills and budget items, supported by a coalition of over 70 organizations. These acts aim to put patients over profits and industry interests by making it easier

to get and keep health insurance, helping improve access to mental healthcare and other key benefits, regardless of immigration status—a crucial reform for the Kern County region’s population.

- **State Health Equity Plan:** The California Department of Public Health has been working in collaboration with local health jurisdictions, community-based organizations, and other key partners to develop and implement a State Health Equity Plan. These efforts aim to advance health equity and improve community health, especially for populations experiencing significant disparities across health outcomes.
- **Support for immigrants and undocumented residents:** In 2022, California was the first state to offer universal access to healthcare coverage regardless of immigration status. As part of the California Blueprint, the state expanded Medi-Cal to include an estimated 764,000 undocumented immigrants. (The Office of Governor Newsom 2022)

Strategy implementation

Successful implementation of the tradable (Chapter 3A) and sector neutral (Chapter 3B) strategies necessitates strong partnerships across all sectors, from local government agencies to educational institutions to industry leaders and employers. Each type of partner plays an important role in helping the Kern High Road Transition Collaborative bring this strategy to life. For example, local government agencies provide regulatory support, incentives, and infrastructure development; educational institutions deliver specialized training and workforce development programs tailored to the needs of the targeted industries; and trusted community-based organizations and local leaders can help lead outreach and engagement, particularly in disinvested and under-resourced communities.

Partners who have been engaged in this work to date include a range of local public, private, and nonprofit organizations. Public sector partners include city governments of Arvin, Bakersfield, Delano, Wasco and others; private sector partners include AltaOne, Desert Valleys FCU, and Mojave Air and Space Port; nonprofit organizations include the African American Network of Kern County, various chambers of commerce, the California Rural Legal Assistance Foundation, and the Dolores Huerta Foundation.

To bring these strategies to fruition, the Kern County region will need additional funding and resources outside of California Jobs First. Required resources include funding for program development and expansion, technical assistance, infrastructure improvements, and outreach efforts. These resources can be sourced from federal and state grants, local government funding, private sector investments, and philanthropic and impact investment institutions. Possible funding sources include other state and federal initiatives to support workforce development, as well as philanthropic capital. Examples of federal funding include the U.S. Department of Labor’s Workforce Innovation and Opportunity Act (WIOA) and the bipartisan infrastructure law. State funding includes the California Workforce Development Board (CWDB) and the Employment Development Department (EDD) that funds projects to accelerate employment strategies for California jobseekers. Private foundations include the Gates Foundation, the Ford Foundation, among other major philanthropic funders of U.S. economic mobility initiatives. Private sector investments can come from sources including commercial and impact-oriented investors as well as community development finance institutions like the Reinvestment Fund.

The Kern Coalition will take the lead in managing the strategy, with the support of partner organizations and guidance from the Governance Council. This role includes coordinating efforts among supporting partners and the Sector Investment Coordinators, overseeing the day-to-day implementation of programs, and ensuring alignment with state and regional goals. The Kern Coalition will also be responsible for monitoring progress, evaluating outcomes, and making necessary adjustments to the strategy, in consultation with the Governance Council. Meanwhile, the Governance Council will continue to provide guidance, working with its subregions to ensure that projects are driven and vetted by local communities. Supporting partners of the Kern Coalition will continue to work closely with it and host initiatives that are relevant to target communities, helping to lead and guide outreach and engagement efforts.

A high-level workplan and budget to implement this strategy require phased efforts to establish the necessary resources and partnerships, launch initial California Jobs First-funded projects, and then scale success stories. A high-level example of a five-year workplan follows these stages:

- **Year 1: *Prepare*** resources needed, beginning with a budget and detailed workplan, then establish the initial partnerships, infrastructure, and funding sources required to launch prioritized California Jobs First-funded projects (e.g., setting up forums for

regular interaction between industry leaders and the workforce with enabling partners)

- **Year 2: *Launch*** selected California Jobs First-funded projects (e.g., partnerships with the private sector to provide ag-tech workforce trainings and incentives for upskilling, or launching a community of practice for small business lenders)
- **Year 3: *Expand*** projects based on initial feedback and data, especially from disinvested communities
- **Year 4–5: *Scale*** successful projects, continue to build capacity within local institutions and employers, and monitor and evaluate outcomes. Adjust strategies as necessary to ensure continued alignment with regional goals and the needs of disinvested workers

To mitigate potential risks for tradable industries, the strategy emphasizes diversifying the local economy and workforce and maintaining close communication with policymakers and industry leaders. By focusing on balanced investment across clean energy, advanced manufacturing, and agriculture, as well as opportunistic industries, this strategy aims to create a resilient and diversified economy and workforce in the Kern County region that can withstand risks such as market fluctuations and unexpected economic shocks, such as Covid-19. Regulatory changes pose another risk, particularly in clean energy, where shifting policies can impact project viability. To mitigate this, the Kern Coalition can maintain close communication and alignment with policymakers and stay adaptable to new legislative environments. In addition, workforce shortages in specialized fields such as clean energy manufacturing and ag-tech could impede progress in these industries. The strategy addresses this risk by prioritizing proactive investment in education and training programs to build a robust talent pipeline—partnering with local educational institutions to align offerings with evolving industry needs. Lastly, implementation of these strategies should include regular risk assessments and adaptive planning to promptly address emerging challenges and sustain momentum in developing the region's tradable industries.

Potential risks for locally traded industries include economic downturns, shifts in the market demand, and regulatory or policy changes impacting program delivery. In the event of an economic downturn, local industries may experience a reduction in consumer spending, leading to lower revenues and potential job losses. This could also limit the ability of local actors to invest in community initiatives, such as entrepreneurship, education, and

healthcare programs, and thus reduce overall economic and community health. Our strategy focuses on building strong partnerships with local businesses and financial institutions to secure economic buffers, such as low-interest loans or emergency funds, to sustain operations during downturns. Additionally, implementing workforce development programs to reskill workers could help mitigate unemployment from economic shocks and ensure a quicker recovery. To mitigate regulatory or policy changes, the Coalition can maintain close communication with various state government agencies to stay informed about potential changes and advocate for supportive policies. By leveraging partnerships, securing diverse funding sources, and implementing a well-structured workplan, the strategy aims to build a resilient and inclusive locally serving industry ecosystem across the Kern County region.



3C: Additional Regional & Community Development Strategies

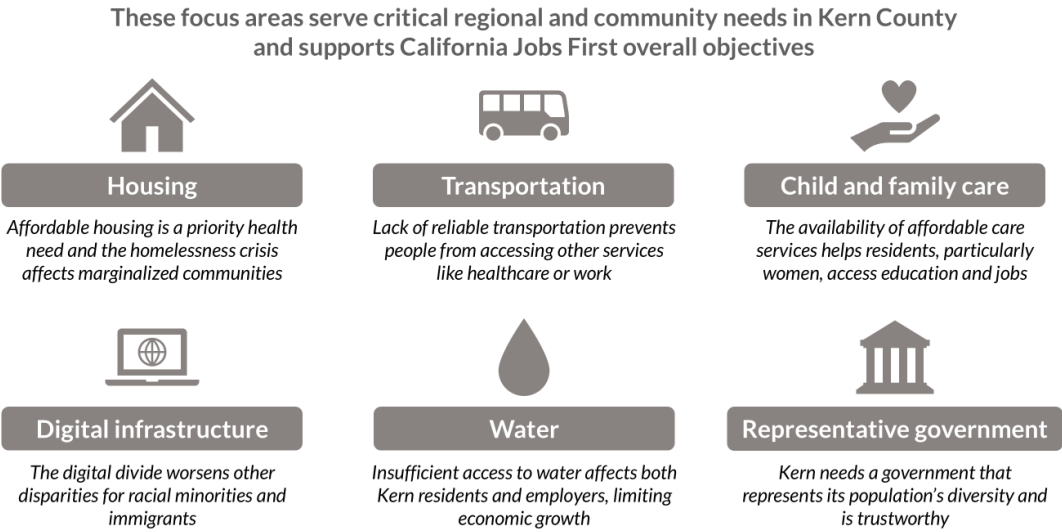
Introduction

The focus areas outlined in this chapter highlight critical regional and community needs in the Kern County region that are outside the scope of the California Jobs First initiative but play an important role in supporting its overall objectives. Addressing these needs will help bridge gaps in access and equity, foster sustainable economic growth, and improve residents' quality of life. While these focus areas do not directly generate new jobs in the tradable and locally serving industries outlined in this document, they are nonetheless crucial to every industry's long-term wellbeing, as well as the overall health and prosperity of the people who comprise the region's economy.

Each of the focus areas outlined in this section plays an essential role in supporting the growth of high-quality jobs that are accessible to disinvested communities. Given the cross-cutting nature of these community development needs, some have already been alluded to in previous strategies in Chapters 3A and 3B. For example, across the locally serving industries outlined in Chapter 3B, we identified accessibility barriers related to transportation and childcare as ongoing challenges with an outsized impact on low-income residents and members of disinvested communities. Chapter 3C outlines the current landscape in the Kern County region, provides an overview of ongoing efforts at the county and state levels to address these barriers, and offers high-level suggestions for the path forward.

We selected focus areas based on needs identified during community engagement and key stakeholder interviews, backed up by further research; they are not intended to be exhaustive. Stakeholder engagement and collaboration were critical to the development of this report—over 30 interviews and 10 subregional meetings deeply informed its priorities and proposals. Across subregions, we heard a widespread call to address the needs outlined in this chapter. However, that does not mean these areas of need are exhaustive—many other needs are equally important and essential to building resilient communities, from improved food security to more accessible treatment for substance abuse to increased support for justice-involved individuals.

Figure 24 Additional regional and community needs



Housing

The shortage of affordable housing in the Kern County region exacerbates the ongoing homelessness and housing insecurity crises facing low-income families and marginalized communities. Stakeholders identified this as a key need throughout our engagement process and in previous surveys, such as the 2023 Kern Public Health Community Health Needs survey, in which respondents ranked access to affordable housing as number 1 out of 51 identified health needs. The 2023 Point-in-Time survey found that 0.2% of Kern County’s total population was experiencing homelessness, or roughly 1,800 people. Most unhoused residents were living in the Bakersfield Metro Area, which includes the unincorporated areas of Oildale, East Bakersfield, and Rosedale. The Kern County region’s homeless population is mostly white (77%), followed by Black residents (16%); other racial groups make up less than 4% of the homeless population. The survey also found the homeless population to be mostly male (67%); 23% identified as female, 0.4% as non-binary, and 0.1% as transgender (Ramos 2023).

Research shows that 77% of extremely low-income households in the Kern County region are spending more than half of their income on housing (by comparison, just 2% of moderate-income households spend more than half their income on housing). In fact, renters in the region need to earn 1.5 times the state minimum wage to afford the average monthly rent of \$1,257 (California Housing Partnership 2024). The Covid-19 pandemic only worsened Kern’s housing crisis, leading to rapidly increasing housing and rental prices (Kern Public Health 2023).

A range of public actors currently support affordable housing. Some examples include the following:

- The City of Bakersfield’s Economic & Community Development Department leverages tax credits, loans, federal and state grants, and various other funding sources to develop affordable housing.
- The Housing Authority of the County of Kern is an independent local government agency that provides safe, affordable housing through special programs.
- California’s Roadmap Home 2030 is a statewide plan that aims to create 1.2 million new affordable homes for low-income Californians and those experiencing homelessness, among other objectives.

Going forward, the Kern County region should continue to support the development of affordable housing units by leveraging federal, state, and local resources and expertise. As building new homes can be a lengthy and difficult process, local jurisdictions can also explore options to preserve, rehabilitate, and protect existing housing stock, adopting place-based strategies to prevent displacement and stabilize neighborhoods. Additional options for addressing housing costs and instability include rental and utility subsidy programs. Aligning with statewide initiatives like California’s Roadmap Home 2030 will help the region address the root causes of housing instability and ensure that all residents have access to safe and affordable housing.

Transportation

Residents relying on the Kern County region’s current public transportation system report ongoing challenges with its coverage, schedules, and accessibility. In the Kern Public Health Department 2023 Community Health Assessment, residents emphasized the lack of reliable, safe public transportation when citing barriers to obtaining healthcare and childcare. Due to the vastness of the county, as well as rising gas prices, residents outside of metropolitan Bakersfield are especially vulnerable to these challenges. The current landscape of public transport services includes the following:

- **Golden Empire Transit (GET)** is the primary public transportation provider for the Bakersfield metropolitan area. Interviewees have cited several quality and reliability issues with the GET system, such as changing routes, lack of connection to East Kern, and long transit times to Bakersfield from surrounding areas.
- **Dial-a-Ride services by Kern Transit (KT)** is offered in unincorporated rural communities across Lamont, Kern River Valley, Frazier Park, Rosamond, and Mojave. The service is a reservation-based, curb-to-curb transportation option that operates on a first-come, first-serve basis (Kern Council of Governments 2022).
- **CalVans** is a public vanpool system that serves Central California. However, this service is rarely utilized—in 2017, only 31 total vanpools were operated in the Kern County region (Kern Council of Governments 2022).

The limitations of the Kern County region’s current public transportation system are particularly challenging for disinvested and rural communities. Regions that are remote and disconnected from public transit tend to be home to lower-income communities and

communities of color. For example, many Latino and immigrant communities are concentrated in areas that lack sufficient public transportation options, exacerbating existing barriers around language, legal status, and systemic discrimination.

Research shows that the region’s public transportation is not fully meeting the needs of women and senior populations, both of whom are more likely to rely on public transit for their daily commutes and errands. Women and girls face safety concerns and changing routes that do not accommodate complex travel patterns (e.g., multiple destinations such as school, workplaces, and grocery stores), which are often essential in fulfilling family obligations. Furthermore, seniors and other populations with limited mobility in the Kern County region have especially limited access to public transportation. Surveys and focus groups conducted with senior residents for the Kern 2022 Regional Transportation Plan revealed that varied fare structures, trip priorities, and limited-service hours resulted in poor coordination among transport operators serving seniors and disabled residents (Kern Council of Governments 2022).

“The ones that can travel will, but a lot of our elderly community members do not have access [to transportation] or the funds, and then you just get what you get.” – Anonymous participant of the Kern 2023 Community Health Assessment

Several ongoing efforts are seeking to improve public transportation and physical connectivity across the county. Notably, California is building a mega high-speed rail; \$3.3 billion in federal funds have been invested to build the initial operating segment between Merced and Bakersfield. The system is set to run from San Francisco to the Los Angeles basin by 2029. The high-speed rail will significantly reduce travel time to and from Fresno (the center of the Central Valley) and can support job creation and other direct and indirect community benefits, as outlined the graphic below (High Speed Rail Authority).

At the regional level, the Kern 2022 Regional Transportation Plan includes a commitment to expanding public transportation / shared mobility services. Proposed short- and long-term actions include improving GET services within outlying neighborhoods of Bakersfield and promoting vanpools and volunteer driver programs (Kern Council of Governments 2022).

Going forward, the Kern County region can prioritize investments in expanding and enhancing public transportation in rural and disinvested communities. To support the other strategies outlined in this report, local transportation needs to be accessible, reliable,

and affordable, which will in turn better serve the needs of women, seniors, and low-income residents.

Child and family care

The burden of unpaid childcare continues to disproportionately fall on women, significantly limiting their ability to access education, training, and high-quality work. Women in the Kern County region are substantially more likely than men to be out of work at all education levels and ages; a greater share of women in the region are responsible for childcare compared to the national baseline. This disproportionate childcare burden impedes women’s labor market participation, which is already hampered by historic discrimination, pay gaps, and disproportionate representation in low-paying jobs. Addressing childcare needs is also essential to successful implementation of the education and workforce development strategy outlined in Chapter 3B, especially for young girls and women experiencing early and/or single motherhood.

“The inability to access childcare is the biggest barrier to staying in a job in Kern. Childcare is an issue across all groups, but especially Spanish-speaking communities. This is shown in the discrepancy between Bakersfield unemployment and Kern County unemployment because most Spanish-speaking communities are outside of Bakersfield proper.” – Public sector official

In fact, disinvested mothers in the Kern County region are most at risk for experiencing poverty. In general, the greater the number of children, the greater the poverty rate of single mothers and their families. In the region, 46% of single-mother families with one or two children live in poverty; this rate jumps to 71% for families with three or four children (Kern Community Foundation 2020).

The Kern County region is seeking to expand the quantity and quality of affordable childcare services by building more facilities and seeking out federal and state funding that supports childcare providers. Currently, there are relatively few public and private sector investments and resources that specifically support accessible and affordable childcare in the region, despite its widely regarded importance. One such resource is the Community Connection for Child Care (CCCC), a child development and family services

agency supporting the region. To expand the quantity and quality of available childcare, the region can follow the in footsteps of affordable childcare initiatives from other counties:

- Fund grants and financial incentives to support childcare centers. For example, Alameda County’s Social Services Agency provides unrestricted funding to support licensed childcare providers (Alameda County).
- Implement zoning and land use policies that incentivize the development of childcare centers in underserved areas. For example, some counties in Texas offer tax breaks and grants to developers who include childcare facilities in their projects. (Harper 2024).
- Utilize California state-subsidized childcare, from birth to four years old, for eligible parents (i.e., those employed and / or enrolled in school that also meet income eligibility requirements) (San Diego County).

As noted above, efforts to address the root cause of inaccessible childcare would not only lower costs of childcare but also help increase household income and economic mobility for mothers—especially young and single mothers who could benefit from “two-generation programs” that combine workforce and early childhood interventions with other supports (B3K 2021).

Going forward, the Kern County region can direct local and state investments toward expanding the availability and affordability of childcare services to support an inclusive economy, especially for young and single mothers. By increasing funding for childcare facilities, implementing regional initiatives such as zoning incentives, and encouraging employer-sponsored childcare benefits, the Kern County region can address staffing shortages and alleviate the childcare burden that disproportionately affects women of color and low-income families.

Further, as stated in our Chapter 3B entrepreneurship strategy, investment in childcare entrepreneurship not only can help expand services but also can create meaningful careers and wealth-building pathways for women of color in the Kern County region. An example of a successful investment childcare entrepreneurship is the San Francisco Children’s Council’s BizNest, which provides wraparound training, resources, and services for established, new, and prospective early educators and childcare providers. BizNest’s signature program, the

Family Child Care Business Incubator, has supported 1,037 prospective and established providers across 12 California counties (San Francisco Children’s Council).

Digital infrastructure

Residents seeking access to digital infrastructure in the Kern County region face ongoing disparities, particularly between East Kern and Greater Bakersfield. This divide leaves disinvested communities without reliable internet access, compromising their ability to use digital services related to education, work, healthcare, and more. While the percentage of digital households in the region—83% of households with access to a computer and 73% using broadband internet—is roughly in line with the U.S. average, it is critical to ensure that those left behind are not further disinvested. For example, only roughly 40–60% of households in the Kern River Valley had high-speed internet according to 2012–2016 Census data (Willis 2022, Goss 2019).

"Really it comes down to students who have access to technology and internet and students who do not." – Anthony Davis, the chief technology officer for the Kern County Superintendent of Schools (Willis 2022)

The digital divide only deepens the disparities faced by racial minorities and immigrants. This lack of connection further hinders educational opportunities and access to resources for young people of color and immigrant households. In 2021, 46% of immigrant households experienced the effects of the Kern County region’s digital divide, followed by 29% of Black residents and 23% of mixed race / other immigrant youth in grades K–12 (California Immigrant Data Portal, Hayes 2024).

In addition to households in the region, industries and businesses are also limited by the lack of quality broadband access. Without reliable broadband connectivity, rural areas in the region struggle to provide basic services and viable economic activity—stakeholders report that the lack of high-speed connectivity poses challenges to educational advancements, healthcare access, and precision agriculture. The Congressional House Energy and Commerce Committee recently held a field hearing in Bakersfield at which local leaders emphasized that high-speed internet is crucial for modern farming technologies, such as drones and autonomous tractors, which increase efficiency and yield (Energy and Commerce Committee 2024).

Many organizations in the Kern County region and across the state are working to narrow the digital divide. These efforts can be further leveraged or expanded via partnerships with local community leaders and organizations. Some examples are:

- Kern County Aging & Adult Services is a local service offering programs and training in digital literacy, either in-office or at-home.
- California Affordable Connectivity Program (ACP) is a state program that provides up to a \$30 discount on monthly internet bills to households with at least one member enrolled in programs such as free or reduced school lunches, SNAP, Medicaid, etc., or for households with income below 200% of the federal poverty line. ACP households are also eligible for a one-time \$100 discount when buying a laptop from participating providers (California Department of Social Services).
- As part of the state broadband initiative, the Kern County region was selected as one of 18 districts to create an open-access network to provide essential broadband infrastructure in unserved and underserved areas. The region is part of a \$6 billion investment in last-mile infrastructure.
- Private companies are expanding services for disinvested communities in the region. For example, SiFi Networks, a private provider, approached Kern County about making a \$400 million investment in improving quality broadband access—and thus creating “fiber cities” (Willis 2022). In addition, in June 2024, SpaceX launched its Starlink satellites to service Kern County. Starlink is a satellite internet service that uses a network of more than 3,000 satellites to provide high-speed broadband internet access to places around the world that traditionally lack reliable connectivity (Starlink).
- Many non-profits across Central California are working to bridge the racial digital divide. The Mixteco / Indígena Community Organizing Project (MICOP) is a key grassroots organization working to support, organize, and empower Indigenous migrant communities in California’s Central Coast region—including Indigenous migrant youth.

Going forward, the Kern County region can focus investments on improving the quality of digital infrastructure and expanding accessibility initiatives such as digital literacy programs to help ensure equitable access to economic opportunities. By partnering with

public sector initiatives and community-based organizations, the region can enhance connectivity and support the adoption of essential digital services, particularly in underserved communities. Bridging the digital divide is an important imperative to support the development of rural and disinvested communities.

Water

Limited access to water is an emerging threat to residents and employers in the Kern County region, including the agricultural producers that have historically formed the basis of much of the region’s economy. The region has historically drawn its water supply from groundwater wells, the Kern River, and precipitation—specifically, snowmelt from the Sierra Nevada mountains. As the effects of climate change continue to impact regional weather patterns, however, the region is facing the simultaneous risk of overdrawing its groundwater aquifers while also being deluged by rain from atmospheric rivers. Successfully capturing rainwater, as opposed to snowmelt, will require significant adjustments to the county’s water infrastructure, which was developed in the 1940s, expanded in the 1970s, and most recently updated in the 1990s.

In addition to modernizing the water infrastructure to adapt to climate change, the Kern County region’s residents and businesses need to collaborate to effectively utilize the natural resources available today and in the coming decades. Forthcoming policies, like California’s Sustainable Groundwater Management Act (SGMA), will require landowners to adjust their water consumption patterns to avoid over-drafting available groundwater reservoirs. This will include strategic fallowing of some agricultural land as well as adaptations in how growers and industries utilize water in their daily activities.

Several water-related initiatives are underway in the Kern County region, ranging from local government policies to infrastructure projects to community initiatives to help improve the quality and management of—and access to—water resources. Some of these initiatives include:

- Water Association of Kern County is a local nonprofit organization that conducts outreach and educational activities to inform citizens of the region about many water-related topics, including federal, state and local water projects; water quality; legislation and regulations; historical water agreements; water supply; endangered species; the Kern River; water banking; conservation; and water development. Members include major corporations, water districts, and water users.

- The State Water Project (SWP) is a water storage and delivery system of reservoirs, aqueducts, power plants, and pumping plants. The SWP, which extends for more than 600 miles (two-thirds the length of California) was planned and built, and is operated, by California Department of Water Resources.
- The Kern County Water Agency is the second largest participant in the SWP and serves as the contracting agency in the Kern County region. The agency leads a wide scope of water management activities, including water quality, flood control, and groundwater operations to preserve and enhance the region’s water supply.
- The Kern County Department of Public Works has set forth a series of performance standards for the region’s water systems.
- Cal Water, a utility company, has proposed infrastructure improvements in Bakersfield and the Kern River Valley. Its plan focuses on replacing aged water mains (pipelines) to enhance water system reliability.

Going forward, Kern County needs to invest in upgrading its water infrastructure and helping residents and businesses successfully navigate the transition to more sustainable water management practices. This could include tapping into state and federal funding for infrastructure and creating local initiatives or support services for businesses as they seek to improve their water usage or undertake collective actions—like strategically fallowing large portions of arable land—that maximize water conservation without compromising the county’s economic output.

Representative government

The Kern County region’s need for strong local government is a product of its geographically, racially, and ethnically diverse populations, many of which meet the state’s definition of disinvested communities. As of 2022, 55% of the region’s population is Hispanic, making it the third most populated majority-Hispanic county in California and the sixth largest in the United States. The Hispanic community itself comprises a wide range of nationalities and indigenous identities. Other parts of Kern County, like East Kern, have seen recent demographic changes as new residents, including residents of color, have moved into traditionally white, rural enclaves. These diverse and evolving populations, many of which are experiencing significant challenges, underscore the need for strong local governments

that are closely connected to the communities they serve – including in remote, rural, and unincorporated areas.

A handful of initiatives and organizations in the Kern County region are working to make local government more responsive to citizen concerns and to encourage citizens to be more engaged with their local government. Some examples are:

- Kern Community Foundation’s Nonprofit Strengthening Initiative includes a focus on community engagement that creates several opportunities for community members to get involved in civic engagement, philanthropy, and volunteerism.
- The Kern County Administrative Office publishes several budget, compliance, and accountability resources online for all citizens to view, such as the OpenKern Transparency Portal, which provides user-friendly access to Kern County’s financial data and expenditures.
- The Kern County Board of Supervisors unanimously approved a county budget of \$4.4 billion for fiscal year 2023–2024, which included \$2.7 million dedicated to improving election integrity. Changes requested by citizens to improve election integrity include funding a new ballot sorter and ballot drop box surveillance cameras, as well as new positions such as an assistant registrar of voters and a public information officer (Huh 2023).

Going forward, the Kern County region should continue to invest in local initiatives that improve resident’s awareness of and confidence in local government. This could include strengthening relationships with community-based organizations, which are tuned in to residents’ priorities and able to support two-way communication with local officials.



Chapter 4: A Path Forward

This chapter includes preliminary thoughts on how the Kern Coalition plans to maintain the Kern High Road Transition Collaborative’s governance structure beyond California Jobs First and engage communities and stakeholders during and after the Catalyst and Implementation Phases. However, it is worth noting that the following proposals are subject to the state’s operating plan for California Jobs First, currently under development. All procedures and mechanisms to select projects and engage community members outlined here will be updated as needed to reflect the state’s forthcoming guidance.

Going forward, the Kern High Road Transition Collaborative (KHRTC) intends to maintain its current governance structure to ensure that all stakeholders have access to relevant information throughout each stage of project selection, funding and implementation. Within the KHRTC, the Kern Coalition and Governance Council intend to work together to establish transparent decision-making processes, enable ongoing community engagement, and support equitable outcomes.

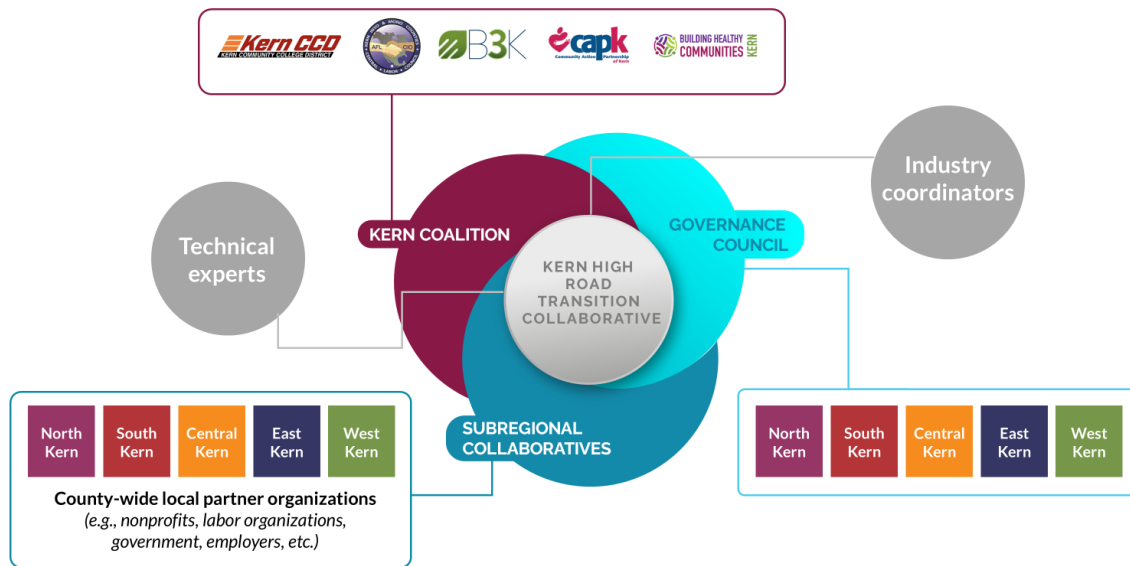
Structure

The Kern High Road Transition Collaborative’s Kern Coalition, Governance Council, and Subregional Collaboratives intend to continue to integrate perspectives from the Kern County region’s public, private, and nonprofit stakeholders.

- **Kern Coalition:** The five coordinating organizations that comprise the Kern Coalition will continue serving as the Kern County region’s conveners, with the Kern Community College District continuing its role as fiscal agent in charge of disbursing all California Jobs First funding.
- **Governance Council:** The Governance Council will vote on project proposals seeking Catalyst funding. Its role in the Implementation process will be determined by forthcoming state guidance. The Governance Council will serve as leads for the Subregional Collaboratives they represent with support from the sector investment coordinators. As representatives of the Kern County region’s five subregions, councilmembers will also help elevate community voices and concerns during project implementation.
- **Subregional collaboratives:** Subregional collaboratives will continue representing the unique needs and perspectives of Kern County’s five subregions and providing locally based expertise on research, equity, industry, labor, business, and workforce development. Subregional collaborative will also help the KHRTC initiate and nurture the cross-sector partnerships that will be essential for successful implementation.

In addition to the ongoing work of the Kern Coalition, Governance Council, and Subregional Collaboratives, the Kern Coalition plans to introduce a new source of support—sector investment coordinators—to identify potential projects, support community members as they develop proposals, and provide technical assistance to the Governance Council throughout the project review and approval process. Sector investment coordinators would be full-time contractors with expertise in relevant fields that are subcontracted by the Kern Community College District in its role as KHRTC’s fiscal coordinator.

Figure 25 Kern High Road Transition Collaborative governance structure (Implementation Phase)



Decision-making

1. **Project proposal:** The Kern Coalition will draft requests for pre-development investment proposals (RFPs) by industry and strategy as outlined in the Catalyst criteria developed by the Governance Council to source projects; it will leave space in those RFPs or create specific RFPs for projects that touch upon multiple industries or address cross-cutting barriers. The Kern Coalition’s RFP process will include proactive outreach (e.g., visits to subregions and meetings with industry leaders, private sector actors, non-profits, and community-based organizations) to solicit ideas and stimulate proposal submissions. Given their deep ties to the subregions they represent, Governance Council members will play a vital role in maintaining communication with key communities and constituencies in each subregion and in encouraging and enabling stakeholders to bring projects to the full Council.

The Coalition will ensure that RFPs are accessible to all Kern residents by publishing them through multiple channels (e.g., online, through partner organizations, etc.) and in English, Spanish, and Punjabi. To guarantee that lack of grant-writing experience is not a barrier to competing for California Jobs First funding, grant-writing and technical assistance will also be available for groups developing proposals.

All submitting organizations will be required to explain their plan for community engagement in their proposal, including how they would keep residents informed as the project progresses and, where feasible, how they would incorporate residents in decision-making and/or project implementation. For proposals that focus on program or service delivery, organizations are encouraged to partner with local non-profits and community-based organizations for project execution.

2. **Project review and selection:** The Kern Coalition will accept predevelopment proposals through a formal RFP process. Proposals will be forwarded to the Governance Council for review based on pre-established criteria that align with the California Jobs First requirements. Projects will be evaluated utilizing a review matrix to be developed by the Governance Council. Proposals meeting the matrix criteria will then be reviewed and final vote on whether to provide Catalyst funds to support the project will be made using a decision tree developed by the Governance Council. (As noted earlier, the Governance Council’s role in the Implementation funding process will be determined by forthcoming state guidance.) The Sector Investment Coordinators will support the Governance Council by forming a roster of subject matter experts with the technical, industry, and economic expertise to provide advice to Council members as they assess each project’s viability and potential impact (e.g., technical and economic feasibility, market conditions, potential for job creation, probable environmental effects, etc.). The Governance Council will hold the ultimate authority to approve or deny projects.

Illustrative selection criteria the Governance Council may consider include:

- Alignment with RFP
- Economic and technical feasibility
- Opportunity for transformational change (i.e., addressing systemic barriers and helping to pivot the economy toward equity, inclusion, and sustainability)
- Geographic representativeness
- Number and high-quality of jobs created
- Benefits to historically vulnerable or underserved communities

- Financial additionality (i.e., it would be impossible to implement the project without California Jobs First funding)
 - Environmental impact
 - Community support and involvement, centering their voices
3. **Project implementation:** The Kern Coalition will disburse funds and oversee project execution, including ensuring that funds are properly utilized and that implementing organizations respect agreed-upon milestones and deadlines. The Kern Coalition will be responsible for submitting updates and other required documentation to California Jobs First throughout the duration of the program. Where appropriate, the Kern Coalition will also conduct or commission monitoring and evaluation activities to assess the results and impact of funded projects.

Governance Council members, as community representatives, will support the Kern Coalition in this effort through formal and informal outreach (e.g., calls, meetings, visits) to aggregate community feedback on project implementation.

Community engagement

The Kern High Road Transition Collaborative intends to continue its current practice of keeping community members engaged in the next phase of the California Jobs First process. This includes keeping residents informed by publishing news and updates on the Coalition’s website and social media channels and sharing information via regularly established email communications. The Coalition will also maintain a dedicated email address for people to send inquiries, suggestions, etc.

In addition, the Coalition will establish formal mechanisms for residents and engaged stakeholders to submit any feedback related to project implementation (e.g., adherence to environmental regulations).

Resources

To effectively implement the next phases of the California Jobs First program, the Kern High Road Transition Collaborative (KHRTC) will require several resources—the most important being Catalyst funding allocated to the Kern Coalition through 2026. KHRTC will also require staff support to help draft RFPs, evaluate and select projects, oversee project execution, and

provide updates to California Jobs First. As noted above, the Kern Coalition may also need to subcontract other staff or organizations to provide technical assistance in grant writing and conduct monitoring and evaluation activities.



REFERENCES

- Advanced Manufacturing Innovation Center St. Louis (2024). “Workforce Integration.” <https://www.amicstl.org/workforce-integration>
- Aera (2024). “Aera’s Direct Air Capture Hub Awarded U.S DOE Funding to Bring Direct Air Capture Technology to Kern County and California.” <https://www.aeraenergy.com/aeras-direct-air-capture-hub-awarded-u-s-doe-funding-to-bring-direct-air-capture-technology-to-kern-county-and-california/>
- Alameda County Social Services. “Child Care.” <https://www.alamedacountysocialservices.org/about-us/Government-and-Community-Relations/programs-and-initiatives/child-care>
- American Health Care Association (2023). “Clean Energy Funding Opportunities for Health Care from Inflation Reduction Act of 2022.” <https://www.ahcancal.org/News-and-Communications/Blog/Pages/Clean-Energy-Funding-O>
- American Lung Association (2024). “What’s the state of your air?” <https://www.lung.org/research/sota/city-rankings/states/california/kern>
- Akther, Fatima (2022). English for personal and career development and its importance for better employment opportunities. *Journal of Languages, Linguistics and Literary Studies*. 2. 95-100. 10.57040/jlls.v2i3.258.

- Avangrid (2023). “Avangrid Announces Camino Solar, Its First Photovoltaic Project in California.” <https://www.avangrid.com/w/avangrid-announces-camino-solar-its-first-photovoltaic-project-in-california>
- B3K Prosperity (2021). “Market Assessment Data Book and Findings.” https://b3kprosperity.org/wp-content/uploads/2022/06/B3K-Market-Assessment-FINAL_031821-3.pdf
- Bakersfield Adult School (2024). “Health Careers.” <https://bas.kernhigh.org/apps/pages/healthcareers>
- Bakersfield College (2024). “21st Century Energy Center.” <https://www.bakersfieldcollege.edu/community/21st-century-energy-center.html>
- Bakersfield College (2024). “Industrial Automation.” <https://www.bakersfieldcollege.edu/academics/pathways/itt/industrial-automation/index.html>
- Barr, Michael (2015). “Minority and women entrepreneurs: Building capital, networks, and skills.” Brookings Institution.
- Bates, T., Farhat, J., & Casey, C. (2022). The Economic Development Potential of Minority-Owned Businesses. *Economic Development Quarterly*, 36(1), 43-56. <https://doi.org/10.1177/08912424211032273>
- Berger, Noah and Fisher, Peter (2013). “A Well-Educated Workforce is Key to State Prosperity.” Economic Policy Institute. <https://www.epi.org/publication/states-education-productivity-growth-foundations/>
- Berlin, Gretchen, et al (2020). “Women in healthcare: Moving from the front lines to the top rung.” McKinsey & Company Insights. <https://www.mckinsey.com/industries/healthcare/our-insights/women-in-healthcare-moving-from-the-front-lines-to-the-top-rung>
- Blair, Brenen; Claunch, Jim; Emmett, Emily (2023). “Creating the Workforce for an Oil and Gas Industry in Transition.” *Bain & Company*. <https://www.bain.com/insights/creating-the-workforce-for-an-oil-and-gas-industry-in-transition/>
- Boone, Matt (2015). “Special Report: Disconnected Youth in Kern County.” *Bakersfield Now*. <https://bakersfieldnow.com/news/local/special-report-disconnected-youth-in-kern-county>
- Brown, J. Mariah (2018). “How Important Are Small Businesses to Local Economies?” *Chron*. <https://smallbusiness.chron.com/important-small-businesses-local-economies-5251.html>
- Bureau of Land Management (2024). “BLM approves Alta Wind Battery Energy Storage project in California.” <https://www.blm.gov/press-release/blm-approves-alta-wind-battery-energy-storage-project-california>
- California Air Resources Board. “Current California GHG Emission Inventory Data.” <https://ww2.arb.ca.gov/ghg-inventory-data>

- California Department of Social Services. “Affordable Connectivity Program.” <https://www.cdss.ca.gov/acp>
- California Energy Commission (accessed 2024). “Renewables Portfolio Standard.” <https://www.energy.ca.gov/programs-and-topics/programs/renewables-portfolio-standard>
- California Energy Commission (accessed 2024). “Transforming Transportation.” <https://www.energy.ca.gov/about/core-responsibility-fact-sheets/transforming-transportation>
- California Grown (2024). “Kern County: Part of California’s Ag Heartland.” <https://californiagrown.org/blog/kern-county/>
- California High-Speed Rail Authority. <https://hsr.ca.gov/>
- California Housing Partnership (2024). Kern County 2024 Affordable Housing Needs Report. https://chpc.net/wp-content/uploads/2024/05/Kern_Housing_Report.pdf
- California Immigrant Data Portal. “Digital Divide Indicators.” <https://immigrantdataca.org/indicators/digital-divide>
- California Office of the Small Business Advocate (CalOSBA) (2024). “In Focus – Summary of Recent Legislation Impact SB/DVBE and State Strategies.” https://calosba.ca.gov/wp-content/uploads/InFocus_Legislative_Impacts_04-03-2024.pdf
- California Open Data Portal (accessed 2024). “Long-term Industry Employment Projections.” <https://data.ca.gov/dataset/long-term-industry-employment-projections/resource/5642307f-30c2-4ddb-b811-507b338e0b4d>
- California Workforce Development Board (accessed 2024). “The California High Road: A Road Map to Job Quality.” https://cwdb.ca.gov/wp-content/uploads/sites/43/2020/08/OneSheet_Job-Quality_ACCESSIBLE.pdf
- Chapman, Sophie (2018). “Kern County, CA, announced wind capital of the world.” Energy Digital. <https://energydigital.com/sustainability/kern-county-ca-announced-wind-capital-world>
- Choi, Alexius Jen (2022). “The environmental impact of healthcare.” The University of Melbourne. <https://pursuit.unimelb.edu.au/articles/the-environmental-impact-of-healthcare>
- The Commonwealth Fund (2022). “How the U.S. Health Care System Contributes to Climate Change.” <https://www.commonwealthfund.org/publications/explainer/2022/apr/how-us-health-care-system-contributes-climate-change>
- Community Economic Resilience Fund (2022). “Notice of Availability of Funds.” https://edd.ca.gov/siteassets/files/jobs_and_training/notices/docs/wssfp21-06.pdf
- Department of Ecology - State of Washington (accessed 2024). “Boeing Auburn Cleanup Site.” <https://ecology.wa.gov/spills-cleanup/contamination-cleanup/cleanup-sites/boeing-auburn-fabrication-site>

- Dizikes, Peter (2022). “Study: Immigrants in the U.S. are more likely to start firms, create jobs.” MIT News Office. <https://news.mit.edu/2022/study-immigrants-more-likely-start-firms-create-jobs-0509>
- Employment Development Department, State of California. “Major Employers in Kern County.” <https://labormarketinfo.edd.ca.gov/majorer/countymajorer.asp?CountyCode=000029>
- Energy and Commerce Committee (2024). “RECAP: Bakersfield, California, Field Hearing on Closing the Digital Divide.” <https://energycommerce.house.gov/posts/recap-bakersfield-california-field-hearing-on-closing-the-digital-divide>
- Environmental Protection Agency (accessed 2024). “Superfund site: Edwards Air Force Base.” <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Healthenv&id=0902725>
- Environmental Protection Agency (accessed 2024). “Superfund site: Jet propulsion laboratory (NASA) Pasadena, CA.” <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0903438>
- Fairlie, Robert W. and Robb, Alicia M (2010). “Disparities in Capital Access between Minority and Non-Minority-Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs.” U.S. Department of Commerce, Minority Business Development Agency. <https://www.mbda.gov/sites/default/files/migrated/files-attachments/DisparitiesinCapitalAccessReport.pdf>
- Fakeye, Maningbè Keita, et al. (2024). Public health and social entrepreneurs as activators of equitable health ecosystems. *Healthcare*, Volume 12, Issue 1. <https://doi.org/10.1016/j.hjdsi.2024.100735>
- Frias, Amber (2018). “Kern County’s life expectancy four years below state’s average.” KGET. <https://www.kget.com/news/kern-countys-life-expectancy-four-years-below-states-average/>
- Gallegos, Emma (2022). “Despite Disruptions From Remote Learning Kern County’s Graduation Rate Dipped Two Percent.” *The Bakersfield*. https://www.bakersfield.com/news/despite-disruptions-from-remote-learning-kern-countys-graduation-rate-dipped-only-2-percent/article_ef81ab12-85e9-11ec-b383-fb2f40c4cbea.html
- Gaskin, Philip and Duckett, Demetric (2020). “Leveraging Entrepreneurship to Close Racial Wealth Gaps.” Kauffman Foundation. <https://www.kauffman.org/currents/leveraging-entrepreneurship-to-close-racial-wealth-gaps-living-cities/>

- Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey, 1992-2017.
- Goss, Emma (2019). "Number of Latina entrepreneurs surging in Bakersfield." Bakersfield Now. <https://bakersfieldnow.com/news/local/number-of-latina-entrepreneurs-surging-in-bakersfield>
- Hayes, Joeseeph; Assan, Eric; and Gao, Niu (2024). "California's Digital Divide." Public Policy Institute of California. <https://www.ppic.org/wp-content/uploads/jtf-californias-digital-divide.pdf>
- Harper, Karen Brooks (2024). "Texas counties, cities embrace new child care center tax credit even though few providers quality." *The Texas Tribune*. <https://www.texastribune.org/2024/04/04/texas-child-care-tax-exemption/>
- High Road Strategy Center (accessed 2024). "What is the High Road?" <https://highroad.wisc.edu/building-the-high-road/>
- Huh, Jenny (2023). "Newly approved county budget to heighten public safety, election integrity in Kern." <https://www.kget.com/news/local-news/newly-approved-county-budget-to-heighten-public-safety-election-integrity-in-kern/>
- International Renewable Energy Agency (accessed 2024). "How to Transform the Energy System and Reduce Carbon Emissions." <https://www.irena.org/Digital-content/Digital-Story/2019/Apr/How-To-Transform-Energy-System-And-Reduce-Carbon-Emissions>
- Kaiser Permanente Kern County (2022). 2022 Community Health Needs Assessment. <https://community.kp.org/downloads/kern-chna-2022.pdf>
- Kern Black Infant Material Health Initiative (BIMHI). https://kernbimhi.com/?page_id=59
- Kern Coalition (accessed 2024). "About the Kern Coalition." Kern Community College District. <https://www.kccd.edu/kern-coalition/about.html>
- Kern Coalition (accessed 2024). "Kern Coalition – California Jobs First." Kern Community College District. <https://www.kccd.edu/kern-coalition/index.html>
- Kern Coalition (accessed 2024). "Kern County Regional Plan Part 1: Addendum to the UC Merced Community and Labor Center 2024 report for the Community and Economic Resilience Fund." Kern Community College District. <https://www.kccd.edu/kern-coalition/documents/Addendum%20to%20Regional%20Plan%20Part%201%20-%20Kern%20County.pdf>
- Kern Community Foundation (2020). Report on the Status of Women + Girls in Kern County. <https://www.kernfoundation.org/wp-content/uploads/2020/10/2020-Report-on-the-Status-of-Women-and-Girls-in-Kern-County.pdf>
- Kern Council of Governments (2022). 2022 Regional Transportation Plan / Sustainable Communities Strategy.

- Kern County Public Health (2023). 2023 Community Health Assessment (CHA).
- Kern County Superintendent of Schools. “Jobs are aplenty for Kern County teachers...” <https://teachkern.org/>
- Kern Economic Development Corporation (2024). “Doing Business Here.” <https://kernedc.com/doing-business-here-2023/>
- KVPR (2022). “Newsom boosts clean energy at Bakersfield summit, earns cold greeting from struggling Kern County.” <https://www.kvpr.org/business-economy/2022-10-31/newsom-boosts-clean-energy-at-bakersfield-summit-earns-cold-greeting-from-struggling-kern-county>
- Latino Community Foundation. “Latino Entrepreneurship Fund” <https://latinocf.org/latino-entrepreneurship-fund/>
- Lewis, Kristen (2023). *Ensuring an Equitable Recovery: Addressing Covid-19’s Impact on Education*. New York: Measure of America, Social Science Research Council.
- Living Wage (accessed 2024). “Living Wage Calculator for Bakersfield, CA.” <https://livingwage.mit.edu/metros/12540>
- McCann, Adam (2024). “Most & Least Educated Cities in America.” WalletHub. <https://wallethub.com/edu/e/most-and-least-educated-cities/6656>
- National Journal (2024). “The Five U.S. Cities With the Most Educated Latinos.” National Journal. <https://www.nationaljournal.com/next-america/workforce/five-u-s-cities-with-most-educated-latinos/>
- Newman, Daniel (2021). “The Startup Stage: Business Formation in 2021 on Pace to Break Record.” Economic Innovation Group. https://eig.org/the-startup-surge-business-formation-in-2021-on-pace-to-break-record/?mod=djemRTE_h
- North American Building Trades Union (2024). “Apprenticeships and Readiness Programs.” <https://nabtu.org/apprenticeship-and-training/apprenticeship-readiness-programs/>
- NREL (2024). “In California, NREL Helps Kern County Embrace Clean Energy in Partnership With Community Colleges.” <https://www.nrel.gov/news/program/2024/in-california-nrel-helps-kern-county-embrace-clean-energy-in-partnership-with-community-colleges.html>
- The Office of Governor Gavin Newsom (2022). “The California Blueprint: Cutting Costs and Expanding Access to Healthcare.” <https://www.gov.ca.gov/wp-content/uploads/2022/01/Healthcare-Fact-Sheet.pdf>
- Pardue, Luke (2022). “Survey: Entrepreneurs Seizing New Business Opportunities Amid the Great Resignation.” Gusto. <https://gusto.com/company-news/new-business-owner-survey-2022>
- Perez-Johnson, Irma and Holzer, Harry (2021). “The Importance of Workforce Development for Future-Ready, Resilient, and Equitable American Economy.” American Institute for Research (AIR).

<https://www.air.org/sites/default/files/WDEMP-Importance-of-Workforce-Development-Brief-April-2021.pdf>

- Ramos, Rick (2023). “For Immediate Release: BKRHC Releases 2023 Point-in-Time Homeless Count.” BKRHC Regional Homeless Collaborative. <https://bkrhc.org/for-immediate-release-bkrhc-releases-2023-point-in-time-homeless-count/>
- Rogers, Elizabeth (2022). “Is It Illegal for an Undocumented Immigrant to Start a U.S. Business?” *No/lo*. <https://www.nolo.com/legal-encyclopedia/is-illegal-undocumented-immigrant-start-us-business.html>
- San Diego County Office of Education. “Little Schoolhouse Child Development Center.” <https://www.sdcoe.net/special-populations/early-education/littleschoolhouse>
- San Francisco Children’s Council. “BizNest at Children’s Council.” <https://www.childrenscouncil.org/support-us/key-initiatives/biznest-at-childrens-council/>
- San Joaquin Valley College (2024). “Trades and Industrial Programs.” <https://www.sjvc.edu/program/trades-and-industrial/>
- Starlink Availability Map. <https://www.starlink.com/map>
- Uliasz, Alena, et al (2018). “Not Everyone Speaks Spanish! The Need for Indigenous Language Interpreters in California’s Agricultural Workforce.” University of California Davis Western Center for Agricultural Health and Safety. <https://aghealth.ucdavis.edu/news/not-everyone-speaks-spanish-need-indigenous-language-interpreters-californias-agricultural>
- University of California (2024). “UC Cooperative Extension - Kern County.” <https://cekern.ucanr.edu/>
- University of Toronto (2023). Post-pandemic Downtown Recovery: Downtown is for People. https://schoolofcities.utoronto.ca/wp-content/uploads/2023/04/CityResearchInsights_v2.3.pdf
- The Uninsured Project (2021). <https://www.itup.org/>
- Urban Institute (2024). “Who Has Access to Good Clean-Energy Jobs?” <https://www.urban.org/projects/clean-energy-job-access-race-gender>
- U.S. Bureau of Labor Statistics (2023). “Education pays.” <https://www.bls.gov/emp/chart-unemployment-earnings-education.htm>
- U.S. Bureau of Labor Statistics (2023). “Occupational Employment and Wage Statistics.” <https://www.bls.gov/oes/2023/may/oessrcma.htm>
- U.S. Bureau of Labor Statistics (2023). “Occupational Employment and Wage Statistics.” <https://www.bls.gov/oes/current/oes519199.htm>
- U.S. Bureau of Labor Statistics (2023). “Occupational Requirements Survey: Occupational Profiles.” <https://www.bls.gov/ors/factsheet/orsprofiles.htm>
- U.S. Bureau of Labor Statistics (2023). “Quarterly Census of Employment and Wages: Private, All Industry Aggregations, Kern County, California.”

https://data.bls.gov/cew/apps/table_maker/v4/table_maker.htm#type=11&year=2023&qtr=4&own=5&area=06029&supp=0

- U.S. Bureau of Labor Statistics (2020). “TED: The Economics Daily.” <https://www.bls.gov/opub/ted/2020/union-membership-rate-8-point-6-percent-in-manufacturing-23-point-4-percent-in-utilities-in-2>
- U.S. Bureau of Labor Statistics (2023). “Employed persons by detailed industry, sex, race, and Hispanic or Latino ethnicity.” <https://www.bls.gov/cps/cpsaat18.htm>
- U.S. Department of Treasury. “State Small Business Credit Initiative (SSBCI) Fact Sheet.” <https://home.treasury.gov/system/files/256/State-Small-Business-Credit-Initiative-SSBCI-Fact-Sheet.pdf>
- U.S. Energy Information Administration (2024). “Wind generation declined in 2023 for the first time since the 1990s.” <https://www.eia.gov/todayinenergy/detail.php?id=61943>
- Valley Ag Voice (2021). “Grapes Take the Lead in the Kern County 2020 Crop Report.” <https://www.valleyagvoice.com/grapes-take-the-lead-in-the-kern-county-2020-crop-report/>
- The White House (2021). “Build Back Better Framework.” <https://www.whitehouse.gov/briefing-room/statements-releases/2021/10/28/build-back-better-framework/>
- Willis, Brianna and Wright, Anthony (2022). “Company looks to close the digital divide with 'fiber cities' in Kern County.” TurnTo23 ABC. <https://www.turnto23.com/news/local-news/company-looks-to-close-the-digital-divide-with-fiber-cities-in-kern-county>
- Wonderful education (2024). “Programs.” <https://www.wonderfuleducation.org/>
- World Health Organization (2022). “Ambient (outdoor) air pollution.” [https://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)
- World Health Organization (2021). “The future we expect: women’s health and gender equality.” <https://www.who.int/news/item/28-06-2021-the-future-we-expect-women-s-health-and-gender-equality>



Annex I. Original mission, vision, and guiding principles

In this report, we updated and adapted the Kern Coalition mission, vision, and guiding principles included from the California Jobs First Regional Plan Part I Addendum, developed by the University of California Merced Community and Labor Center. The following is the original mission, vision, and guiding principles:

The Kern Coalition’s mission is to unify and bolster local efforts that advocate for the equitable attainment of good quality jobs that promote a resilient economy with positive health, social, and environmental outcomes in disinvested communities through diverse representation and direct investments leading to economic development strategies.

The vision of the Kern Coalition is to eliminate generational poverty and promote equitable, economic mobility for all in Kern County by ensuring investments dismantle systemic barriers. Economic inequity, environmental inequity, and health inequity are interrelated as all are rooted in systemic injustices that disproportionately affect marginalized communities. For example, low-income and communities of color are more likely to be exposed to environmental hazards and

have limited access to quality healthcare, education, and good quality job opportunities. And this ultimately impacts the health outcomes and life expectancy of people living in disadvantaged communities.

Principles to Achieving Inclusivity in the Regional Plan

- “Economic Equity: Focus on eliminating barriers for all people, regardless of race, gender, or nativity, so that they can contribute to and access the opportunities of a strong, resilient economy.”
- “Environmental Equity: Focus on projects that promote sustainability and do not cause harm to the environment.”
- “Health Equity: Focus projects that prioritize holistic health and the health of the community.”
- Workforce development is a crucial element in shaping the economic prosperity of any region, with the success of such efforts relying on the active participation and engagement of the community it seeks to serve. The Kern Coalition firmly believes that equity and inclusion must underpin all economic planning initiatives, making it essential to involve community stakeholders in workforce development endeavors. Through strategic partnerships with trusted community-based organizations, the Kern Coalition aims to uplift marginalized communities and ensure their voices are heard in shaping Kern County's economic future.

Creating Stronger Communities through Inclusion

Government support plays a crucial role in fostering community development. True transformative change is only possible when disenfranchised people are empowered to drive it. The Kern Coalition's implementation and development of its California Jobs First program endeavors to support all people, local governments, businesses, and community stakeholders in creating new economic plans that generate high-quality job opportunities that are accessible to all residents of Kern County. To achieve this ambitious goal, the Kern Coalition recognizes the indispensable need to actively engage with the community and understand their unique needs and aspirations.

Partnerships with Community-Based Organizations

To ensure that the voices of underrepresented and marginalized communities are heard, the Kern Coalition actively collaborates with trusted community-based organizations. These organizations have a proven track record of providing outreach and education to marginalized communities and ultimately driving resident participation to the sub-regional meetings.

Uplifting Under-Voiced Community Needs

By engaging the community in workforce development, the Kern Coalition aims to uplift the needs of under-voiced segments of the population. These individuals often face barriers to accessing quality jobs, affordable healthcare, and social safety nets, making them particularly vulnerable to economic crises like the COVID-19 pandemic.

Creating Inclusive Economic Recovery Plans

The COVID-19 pandemic exposed the stark inequality that exists in communities lacking access to quality jobs and essential services. By involving the community in workforce development initiatives, the Kern Coalition ensures that recovery plans consider the diverse needs of the population, providing a fair chance for all to thrive.

Community Readiness for a Sustainable Future

In addition to addressing immediate economic challenges, CA Jobs First also focuses on mapping and supporting local community readiness for a transition towards a carbon-neutral future. Engaging the community in discussions around sustainability and environmental responsibility fosters a sense of ownership and responsibility among residents. It encourages them to actively participate in shaping a greener tomorrow while providing benefits from new opportunities and industries emerging in the sustainable sector. Engaging the community in workforce development efforts is not just essential; it is a moral imperative. The Kern Coalition's commitment to equity and inclusion in economic planning drives its partnerships with community-based organizations, ensuring marginalized voices are heard and uplifted. By actively involving the community in shaping economic strategies and fostering inclusive economic recovery plans, the Kern Coalition paves the way for a more resilient, equitable, and sustainable future for all residents of Kern County.

The Kern Coalition is committed to working with a variety of stakeholder groups to ensure long-term success. As such, it will work with local organizations committed to advancing local climate initiatives that advance environmental justice and include balanced representation from labor, business, community, government, and other stakeholders, including, economic development, philanthropy, education, and workforce partners. Together, these partners will form the Kern Coalition to plan for strong economies and opportunities that lead to high quality jobs accessible to all.

CA Jobs First provides the platform to develop transformative collaborations that will leverage resources and community assets to ensure communities are equitably represented with a focus on environmental, economic, and health equity. Diverse representation of stakeholders within the subregional collaboratives are key to identifying gaps and opportunities resulting in transformative change.

Annex II. Stakeholder Engagement Process

Introduction

A key input to the development of this regional economic development strategy and report was engagement with communities and stakeholders across the Kern County region.

Throughout all stakeholder engagement, we designed our plan based on the following principles:

- Apply a listen-first approach to allow the interviewee to feel empowered to take up space and share perspectives openly with us, with trust that they will be heard without judgement
- Understand the underlying priorities, concerns, and motivating factors behind interviewee responses by asking thoughtful and specific follow-up questions
- Recognize each person may provide some lived experiences shared by groups they are a part of, but that no underserved community is a monolith
- Reduce the burden of work for the people engaged by optimizing for accessibility, simplicity, and efficiency to honor the time they are granting to us

In this annex, we overview the three main types of community input we conducted as part of this process: (i) one-on-one stakeholder interviews, (ii) subregional community meetings, (iii) partner organization engagement.

One-On-One Stakeholder Interviews

To inform the industry selection, strategy development, and considerations for job quality and access, equity, and climate, we interviewed a wide array of stakeholders across the Kern County economic development ecosystem, prioritized industry verticals, and experts on equity, justice, and mobility in general.

These interviewees spanned five categories of external stakeholders: (i) nonprofits and community-based organizations, ii) county and public sector officials, iii) industry associations and employers, and v) labor organizations. The following table summarizes the objectives for each category and the organizations interviewed. In total, we consulted

representatives from 34 organizations from June to July 2024. For confidentiality, the names and detailed content of these interviews are not disclosed as part of this report.

Figure 26 Summary table of stakeholder interviews

CATEGORY	OBJECTIVE	ORGANIZATIONS INTERVIEWED
NONPROFITS AND COMMUNITY-BASED ORGANIZATIONS	To identify, align, and respond to the voiced needs of disinvested and at-risk communities throughout the Kern County region	<ul style="list-style-type: none"> - The African American Network of Kern County - California Farmworker Foundation - Central California Asthma Collaborative - Community Interventions - Dolores Huerta Foundation - Kern Economic Development Corporation - Kern Hispanic Chamber of Commerce - Leadership Counsel for Justice and Accountability - Lideres Campesinas - Ridgecrest Chamber of Commerce - 3C Capital Fund, Inc. (3CCF)
COUNTY & PUBLIC SECTOR OFFICIALS	To align closely with State and regional economic development strategies, such as planning priorities, grant programs, and regulations	<ul style="list-style-type: none"> - Bakersfield City Manager Office - California Office of the Small Business Advocate (CalOSBA) - California State University - Bakersfield - City of Bakersfield, Economic and Community Development Department - County of Kern - CAO Office / The Kern, Inyo, Mono County Workforce Development Board - Kern Public Health Department - Kern Water Agency
INDUSTRY ASSOCIATIONS & EMPLOYERS	To support the growth of infrastructure, workforce, and quality jobs for targeted industries and to evaluate clear local market signals that align with market trends and local/state/federal policies	<ul style="list-style-type: none"> - California Resource Corporation - Clean Energy Systems - Grimmway Farms - Kern County Farm Bureau - Lockheed Martin - Southern California Gas Company - Wonderful Co
LABOR ORGANIZATIONS	To ensure our workforce development strategies and selection of priority and opportunistic industries is designed to created and uplift workers, especially those from disinvested communities	<ul style="list-style-type: none"> - IBEW Local #428 - Kern, Inyo, & Mono Counties Building & Construction Trades Council

Subregional Community Meetings

In addition to interviews, we conducted two rounds of five subregional community meetings that were open to all residents in the North, South, East, West, and Central Kern County region (resulting in 10 total meetings held from June – August 2024). The goal of these meetings was to listen, understand, and incorporate community knowledge and feedback from a diverse array of Kern residents to add nuance and community-based context to our strategy development.

The following table summarizes the process for each round of subregional meetings.

Figure 27 Summary of subregional meetings

ROUND	OBJECTIVE	KEY FINDINGS
June 2024 Subregional Meetings (330 participants)	Provide an update on the process and seek input on characteristics of quality jobs, barriers to access them, and priority industries for new jobs	<ul style="list-style-type: none"> Throughout Kern, participants consistently highlighted healthcare benefits and pay as key elements of quality jobs; they also express the need for better training and professional development; better labor standards and adherence to labor laws; and permanent, non-seasonal jobs In terms of barriers to access quality jobs, participants across the region mentioned finding employers and getting the right education where the main challenges To help people access quality jobs, participants emphasized education and training among possible solutions Across the county, participants were eager to see jobs in Technology and IT, Manufacturing, and Clean Energy, with some slight variance across sub-regions and demographic characteristics like age and race/ethnicity In terms of existing industries, participants consistently prioritized Clean Energy, Manufacturing, and Agriculture; across subregions, these industries were preferred over Oil & Gas and Warehousing
July 2024 Subregional Meetings (477 people)	Provide an update on the process, share emerging priority industries, and solicit feedback on strategies to create quality jobs in these industries	<ul style="list-style-type: none"> There is overall buy-in around priority industries, with nuances within subregions (e.g., interest in recreation in Lake Isabella and in warehousing in California City) CA Jobs First’s complex structure and lengthy process remains a source of frustration for community members who urgently want access to new job opportunities Community members shared significant concerns about (i) disproportionate power of legacy industries and (ii) inequities in local hiring practices

ROUND	OBJECTIVE	KEY FINDINGS
		<ul style="list-style-type: none"> • In clean energy, participants see an opportunity to manufacture clean energy components and electric vehicles, to reduce costs of energy, and to expand access to clean energy for residents overall, which would require training and an enabling ecosystem; there are also concerns about carbon capture • To develop advanced manufacturing, participants shared that Kern needs to develop infrastructure (water, roads, housing) and create a business alliance to attract employers, whereas the main barrier are high energy costs; they want the region to make sure jobs in this sector are quality jobs available for locals, even those who are undocumented • In agriculture, participants see a change to improve the quality of existing jobs by enforcing regulation (e.g., hours, use of pesticides); they expressed the need for trainings and upskilling to access more ag tech jobs and managerial roles • In terms of entrepreneurship, participants want to see access to capital, trainings, and internships; they suggested having a centralized repository of information on relevant resources and creating a local agency to coordinate efforts in this matter • Regarding education and workforce development, participants shared the need for trainings, apprenticeships, and programs like dual enrollment; they highlighted the importance of services that address language, cost, and transportation barriers and help specific populations such as farm workers or undocumented workers • In healthcare, participants noted the need to expand infrastructure (e.g., hospitals and dental and mental health care), coverage, and appropriate care in other languages (Spanish and Indigenous languages) • Other cross-cutting needs that were shared include childcare

Partner Organizations Engagement

Lastly, we discussed emerging findings with public, nonprofit, and private signatories to the Kern High Road Transition Council’s Cooperative Partnership Agreement Letter (CPAL) and subject matter experts. This took the form of a lunch-and-learn in July 2024 with local partners and technical experts. In addition, through one-on-one interviews, we also engaged with various members and organizations of the Kern Coalition’s Governance Council.

Annex III. Tradeable Industry Selection Process

The priority and opportunistic industries selected to be included in this report were a result of a filtering process. We began with a long list of industries and then conducted a two-step filtering process of economic and equity filtering.

Economic filtering process

First, to determine if an industry is likely to advance Kern County’s economic development, we evaluated its competitiveness, potential job growth, and expected job quality, among other factors. The following table overviews these three indicators and how we defined and rated them.

	Competitive Advantage	Potential for Job Growth	State Investment Priority
Definition	Location quotient measures a region’s relative specialization, i.e., the percentage of an industry it attracts. It estimates how easy it may be to attract similar employers to a particular region.	Potential for job growth is determined by projected employment data for a given industry at the county level.	State investment priorities identifies industries targeted for growth both in Kern County and at the state level. It estimates where public funds may be allocated in the future.
Ratings	<ul style="list-style-type: none"> • Low: LQ < 1 • Moderate: 1 > LQ > 2 • High: LQ > 2 <p>Where data is unavailable, qualitative data is included in rationale to provide context</p>	<ul style="list-style-type: none"> • Low: Below 30th percentile (<10.5%) • Moderate: 30th to 70th percentile (10.5%-20%) • High: Above 70th percentile (>20%) <p>Where data is unavailable, qualitative data is included in rationale to provide context</p>	<ul style="list-style-type: none"> • Low: Sector is not mentioned in any state priorities • Moderate: Sector is mentioned in previous economic development plans (e.g., CERF) • High: Sector is mentioned in multiple previous economic development plans (e.g., CERF)

Equity filtering process

Next, to determine if an industry is likely to advance the wellbeing of disinvested communities, we evaluated their effects on climate and the environment, and public health, and economic mobility factors.

	Climate & Environment	Public Health	Economic Mobility
Indicators	<ul style="list-style-type: none"> Impact on groundwater sources Effects on air quality Contributions to climate change through direct and indirect emissions 	<ul style="list-style-type: none"> Employee exposure to hazardous substances Employee exposure to extreme heat Rates of work-related injuries Community prevalence of respiratory illnesses (e.g., asthma) 	<ul style="list-style-type: none"> Accessibility for employees with low educational attainment Prevalence of union membership as a proxy for employee agency Potential for ongoing training and skill development
Rating	<ul style="list-style-type: none"> Positive impact: Industry actively contributes to climate adaptation or mitigation while limiting harmful impacts Minimal impact: Industry minimizes harm to the environment, but does not advance mitigation or adaptation efforts Negative impact: Industry has harmful effects on air, water, or climate 	<ul style="list-style-type: none"> No impact: Industry does not expose workers to bodily harm or injury or promote respiratory illnesses Minimal impact: Industry exposes workers to some bodily harms but it is not dangerous/widespread. Industry may or may not impact respiratory health Negative impact: Industry has widespread reports of risk for workplace exposure and injury and/or high likelihood of causing respiratory illness in the community 	<ul style="list-style-type: none"> Positive impact: Industry is highly accessible to those with low educational attainment and / or has high levels of union membership Minimal impact: Industry is somewhat accessible to those with low educational attainment and / or has moderate levels of union membership Negative impact: Industry is not accessible to those with low educational attainment and / or does not support union membership


Detailed Heat Maps

The following detailed heat maps show the rationale for each rating for each industry included in the filtering process.

Economic filtering findings

Industry	Economic Filters			Findings
	Location quotient	Potential for job growth	State priority	
Aerospace & defense	High	High	High	High potential: Several regional economic development plans emphasize aerospace and defense as a clear opportunity for Kern County given existing corporate and government installations. However, manufacturing, a key subsector of aerospace and defense, faces high competition from outside Kern
Agriculture	High	Medium	High	Medium potential: Agriculture is a current and historically strong industry in California but faces limited potential for future job growth due to the impacts of climate change as well as shifts in regulatory environment and labor markets. State investment priorities highlight agriculture tech as a particularly high potential opportunity.
Clean energy	High	High	High	High potential: Clean energy jobs in Kern county are expected to grow rapidly due to new large, private solar and wind projects, which enables emerging clean tech solutions such as solar + battery storage. Clean Energy remains a top priority for the State as it works towards ambitious climate goals.
Carbon management	High	Medium	High	Medium potential: Given its oil & gas prominence, Kern has a strong competitive advantage for CCUS and though plants themselves show low permanent job creation, there may be potential through related activities (e.g., business park that supports blue hydrogen). The State 2045 commitment includes a target of the amount of carbon removed or captured by 2030.
Manufacturing	High	High	High	Medium potential: Manufacturing overall is expected to grow significantly in Kern County, with semiconductors and microelectronics arising as a priority for state investment, however, these are also industries in which Kern County faces significant external competition
Oil & gas	High	Low	Low	Low potential: While construction on the whole is expected to grow in California, the oil and gas sector is shrinking along with associated construction jobs, and this shrinkage is happening faster in Kern than the national average. The State 2045 carbon neutrality commitment includes a near-total drop in demand for oil and natural gas.
Transportation	Medium	High	Low	Low potential: Jobs in transportation in Kern County is expected to grow rapidly by 2030. However, only few clean energy subsectors (e.g., electric vehicles) align closely with state funding priorities, whereas Kern's focus is on large-scale trucking to support warehousing.
Warehousing	Medium	High	Low	Low potential: Jobs in warehousing are expected to grow rapidly by 2030. However, warehousing is not highlighted in state funding priorities and is unlikely to contribute significantly to environmental goals

■ High
 ■ Medium
 ■ Low
 ■ Insufficient data



Equity filtering findings

Industry	Equity filters			Findings
	Climate & environment	Public health	Economic mobility	
Aerospace and defense	Low	Medium	High	Invest in new jobs: Aerospace and defense offers safe jobs that are fairly accessible to workers with low educational attainment, making it a promising area for growth assuming new projects include safeguards to protect groundwater.
Agriculture	Low	Low	High	Improve existing jobs: Agriculture remains a key industry in Kern that will continue to be a major employer for years to come, making it essential to invest in better working conditions and less environmentally damaging practices.
Clean energy	High	Insufficient data	Medium	Invest in new jobs: Clean energy has been a strong focus as CA commits to carbon neutrality and creating a better environment for all, with Kern leading with its renewable resources. Jobs are generally accessible to those with a high school diploma and support union membership. More data is needed regarding worker safety and health.
Carbon management	Medium	Insufficient data	Insufficient data	TBC: Carbon management has been prioritized by the state as part of its carbon neutrality commitment, especially given its direct overlap with the oil & gas workforce and infrastructure, making jobs accessible. However, environmental equity concerns include its 90% efficacy in capturing emissions, groundwater pollution, and dependence on oil & gas production. More data is needed regarding worker safety and health.
Manufacturing	Low	Low	High	Improve existing jobs: Manufacturing is expected to grow specifically in Kern, with an opportunity in electronics. However, jobs currently put workers, as well as surrounding communities, at high risk of injury and exposure to hazardous contaminants. Furthermore, industrial emissions make up 22% of CA's emissions.
Oil and gas	Low	Low	High	Support ongoing transition: While oil & gas has been a cornerstone of Kern's economy and jobs, its GHG emissions have been unsustainable and CA has mandated a near-total phase out by 2045 given the worsening climate change crisis. The industry also puts workers and communities at risk from its dangerous conditions and contaminants.
Transportation	Low	Low	Medium	Improve existing jobs: Transportation workers have an above average union membership and jobs are highly accessible. However, the sector accounts for 50% of CA's GHG emissions and had the second highest workplace fatality rate and third highest injury rate in the state, pointing to important needs that need to be addressed first.
Warehousing	Low	Low	Medium	Improve existing jobs: With its activities linked to transportation, warehousing also has an above average union membership and accessible jobs. However, it suffers similar dangers from contribution to GHG emission, pollution concentrated near low-income communities, and higher-than-average injury rates for workers.

■ High
 ■ Medium
 ■ Low
 ■ Insufficient data

Heat Map Sources

- US EPA, “Jet Propulsion Laboratory Superfund Site”
- US EPA, “Edwards Air Force Base Superfund Site”
- Washington State Department of Ecology. “Boeing Auburn Cleanup Site”
- Public Policy Institute of California, “Water Use in California’s Agriculture”, 2023
- US Geological Survey, “Agricultural Contaminants”
- California Air Resource Board, “GHGs Descriptions and Sources in California”
- IRENA, “How to Transform the Energy System and Reduce Carbon Emissions”, 2019
- MIT Climate, “How Efficient is Carbon Capture and Storage?”, 2021
- IPCC, “Carbon Dioxide Capture and Storage”, 2018
- California Air Resources Board, Current California GHG Emission Inventory Data”, 2023
- National Resources Defense Fund, “New Analysis Shows Widespread PFAS Contamination of Tap Water in CA”, 2024
- American Geosciences Institute, “Groundwater Protection in Oil and Gas Production”, 2018
- IEA, “Emissions from Oil and Gas Production in Net Zero Transitions”, 2023
- California Energy Commission, “Transforming Transportation”
- UC Davis Environmental Health Sciences Center, “Health Effects of California’s Warehouse Boom Raise Concerns Among Residents and Policy Makers”, 2023
- Environmental Defense Fund, “Warehouse Boom Places Unequal Health Burden on New York Communities”, 2023
- U.S. Bureau of Labor Statistics (BLS), Occupational Requirements Survey (2023)
- U.S. Bureau of Labor Statistics (BLS), Survey of Occupational Injuries and Illnesses (2022)

Occupational Safety and Health Administration (OSHA), industry profiles for Agriculture, Oil & Gas, Warehousing.

Brookings Institute, “US pesticide regulation is failing the hardest-hit communities. It’s time to fix it”, 2024

Food Empowerment Project, Environmental Racism, 2022

Donaghy et al, Fossil Fuel Racism in the United States, 2023

Environmental Defense Fund, Warehouse Boom Places Unequal Health Burden on New York Communities, 2023

Ritchie, Hannah. “What are the safest and cleanest sources of energy?” (2020)

U.S. Bureau of Labor Statistics (BLS), “Fast-growing occupations that pay well and don’t require a college degree” (2022)

International Renewable Energy Agency, “Renewable energy and jobs” (2023)

KCCD, “County of Kern Comprehensive Economic Development Plan” (2021)

U.S. Bureau of Labor Statistics (BLS), “A look at union membership rates across industries in 2020” (2020)

Dalberg conducted expert interview with Clint Cooper, Plant Manager at Clean Energy Systems (2024)

Zippia, “Warehouse Employee Education Requirements” (2024)

Occupational Safety and Health Administration (OSHA), “Carbon Monoxide Poisoning Fact Sheet”

Lazo, Alejandro, “Vital climate tool or license to pollute? The battle over California’s first carbon capture project” (2024)

Rickard, Justin. “NREL Helps Train the Future Carbon Management Workforce” (2023)

Dalberg Advisors interviews with public and private agriculture stakeholders (2024)

Kern County, Planning and Natural Resources Department. “Draft Environmental Impact Report: Carbon Terravault I” (2023)

IEA, World Energy Employment Report (2022)

U.S. Bureau of Labor Statistics (BLS), “Education and Training By Occupation” (2022)

Annex IV. Subregional Community Surveys

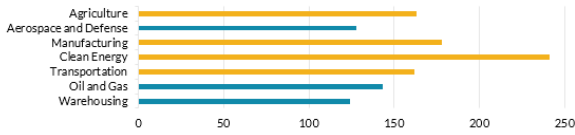
June 2024 Survey Results

As part of our June 2024 round of subregional community meetings, we conducted live surveys with participants through an online Menti (a live survey tool) or print paper option, available in English, Spanish, and Punjabi. The survey asked questions regarding participants’ priorities for aspects of a quality job, industries they would like to work in, barriers to finding quality jobs, interventions that would help finding quality jobs, and environmental and climatic concerns.

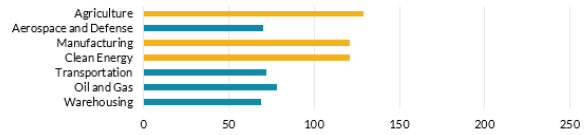
The following figures summarize the survey findings from each subregional community meeting. Values along the X-axis values reflect the total Borda count for each subregion. In a Borda count, the item ranked first will get as many points as the total number of items in the question, and then descending (e.g., if there are five items, the item ranked in 1st place gets five points; the item ranked in 2nd place gets four points, etc.) If an item isn’t selected, it receives zero points. Note that total respondents for Central, North, West, and South subregions may vary by plus or minus 5 persons due to inconsistencies in print survey responses.

Question 1: Prioritized industries for job growth

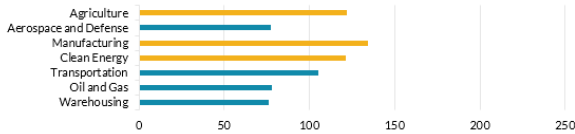
Central (Bakersfield) n = c. 53



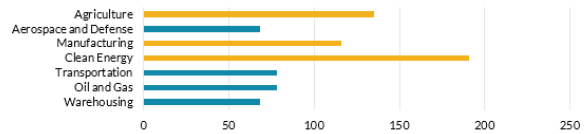
North (McFarland) n = c. 29



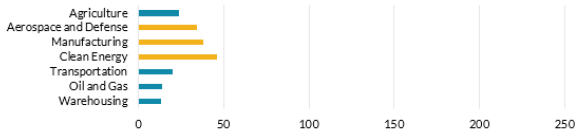
West (Taft) n = c. 38



South (Lamont) n = c. 35



East (Lake Isabella) n = 9

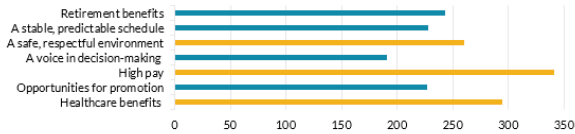


All five subregions ranked **"Clean energy"** and **"Manufacturing"** in their top three responses, and four of five subregions ranked **"Agriculture"** in their top three responses.

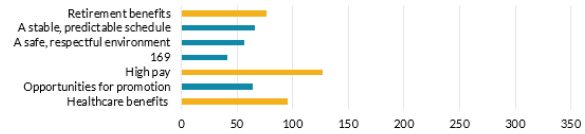
"Warehousing" fell in the bottom three responses for every subregion, and **"Oil and Gas"** ranked in the bottom three for all subregions except the North, which ranked it fourth out of seven.

Question 2: Prioritized aspects of a quality job

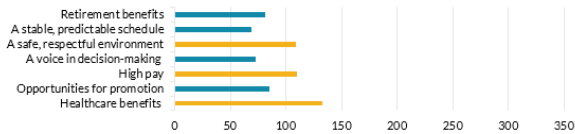
Central (Bakersfield) n = c. 77



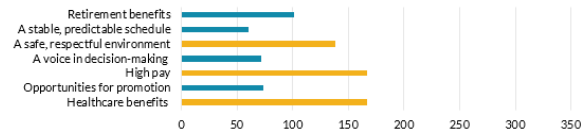
North (McFarland) n = c. 21



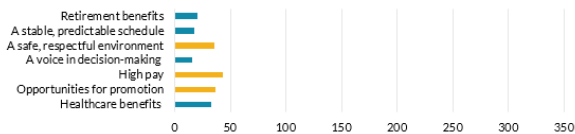
West (Taft) n = c. 29



South (Lamont) n = c. 32



East (Lake Isabella) n = 8

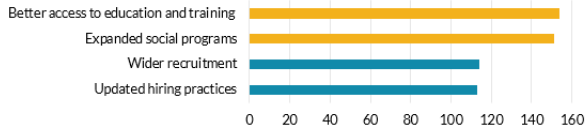


Every subregion ranked **"High pay"** in their top three responses, and four of five subregions ranked **"Healthcare benefits"** or **"A safe, respectful environment"** their top three responses.

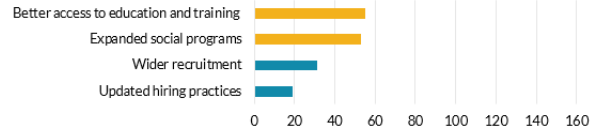
Other top-three responses included **"Retirement benefits"** and **"Opportunities for promotion"**.

Question 3: Biggest barriers to finding a quality job

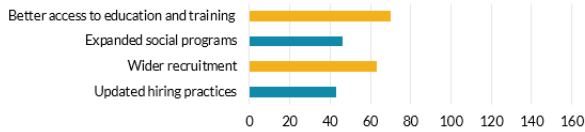
Central (Bakersfield) n = c. 141



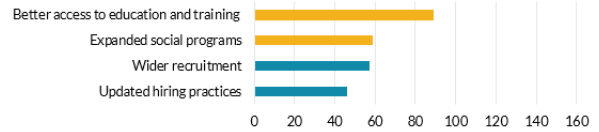
North (McFarland) n = c. 20



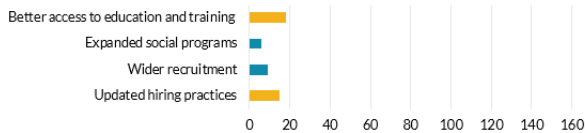
West (Taft) n = c. 26



South (Lamont) n = c. 32



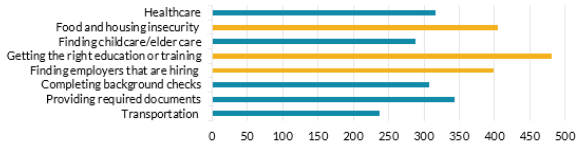
East (Lake Isabella) n = 6



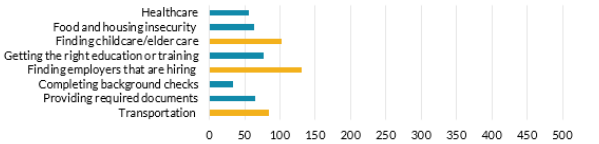
Every subregion ranked **"Better access to education and training"** as the most important intervention, while three of five subregions ranked **"Expanded social programs"** as their number two solution. Other top priorities included **"Wider recruitment"** and **"Updated hiring practices"**.

Question 4: Prioritized interventions to support residents seeking a quality job

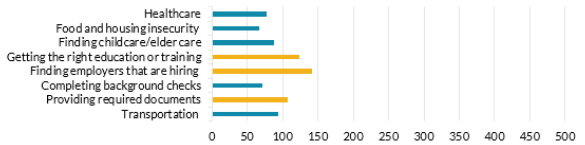
Central (Bakersfield) n = c. 129



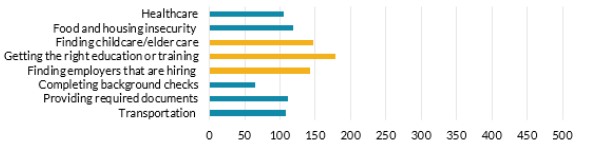
North (McFarland) n = c. 21



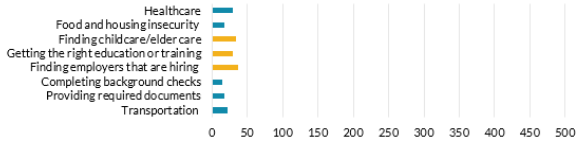
West (Taft) n = c. 26



South (Lamont) n = c. 31

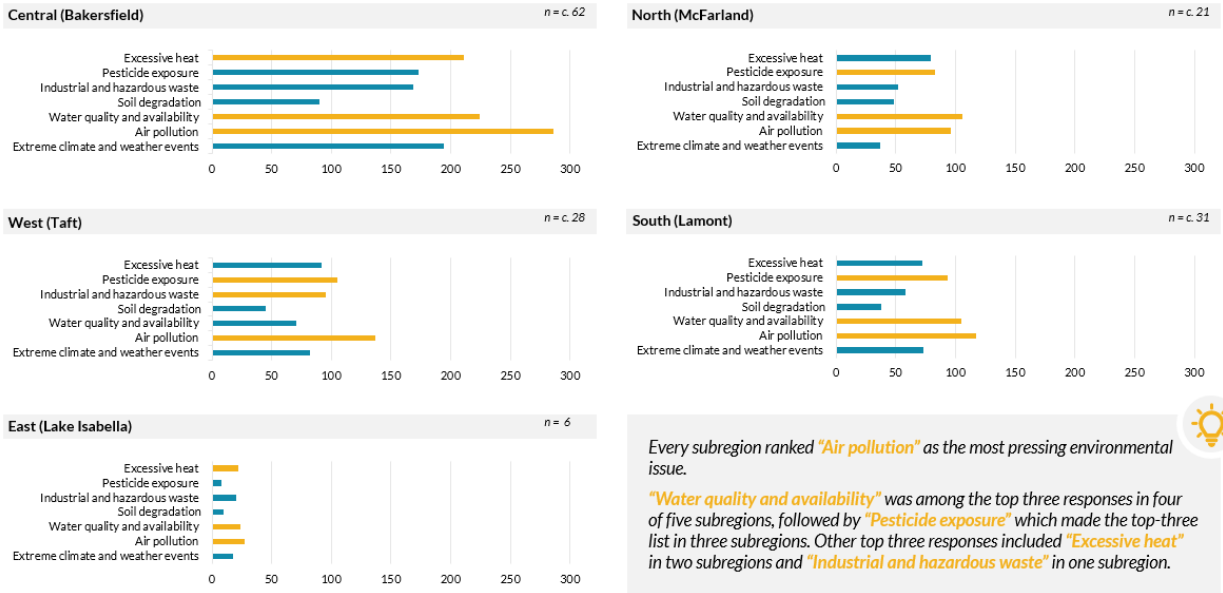


East (Lake Isabella) n = 7



"Finding employers that are hiring" ranked first in the North, West, and East subregions, while **"Getting the right education or training"** ranked first in the Central and South subregions. Three of five subregions included **"Finding childcare / elder care"** in their top three responses. Other top-three responses included **"Transportation"**, **"Providing required documents"**, and **"Food and housing insecurity"**.

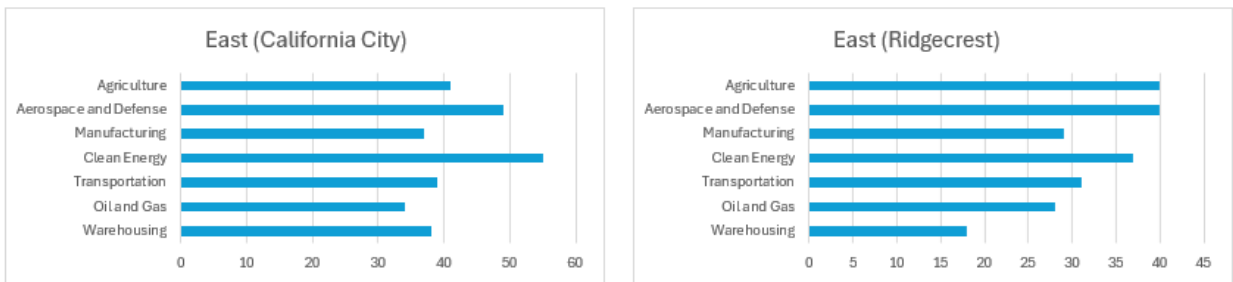
Question 5: Biggest concerns regarding the climate & environment



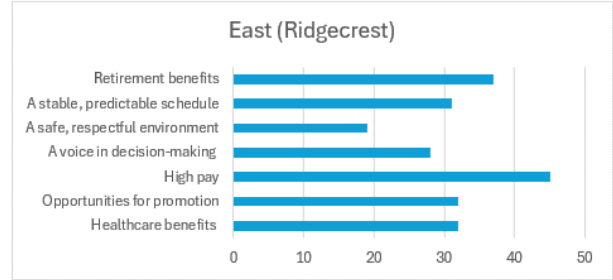
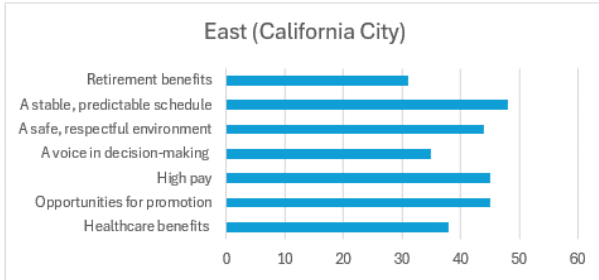
Additional East Kern Survey Results

Following our June 2024 subregional community surveys, Community Interventions decided to further support our East Kern community engagement efforts and ensure all corners of the region were included in our analysis by conducting door-to-door surveys in Ridgecrest and California City with paper copies of the June 2024 survey. This effort led by Community Interventions received a total of 21 additional survey responses (8 from Ridgecrest and 13 from California City). The figures below summarize the findings from these respondents.

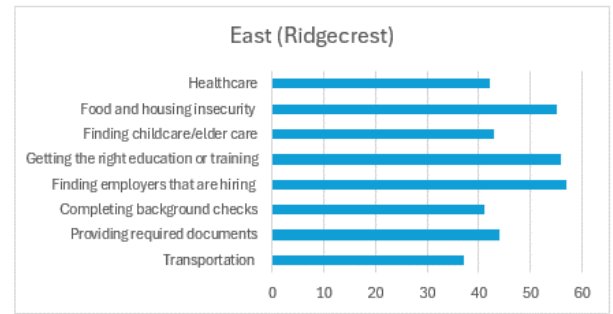
Question 1: Prioritized industries for job growth



Question 2: Prioritized aspects of a quality job



Question 3: Biggest barriers to finding a quality job



Question 4: Prioritized interventions to support residents seeking a quality job



Question 5: Biggest concerns regarding the climate & environment

