



California  
COMMUNITY  
Foundation



**LOS ANGELES COUNTY**  
ECONOMIC DEVELOPMENT CORPORATION  
Collaboratively Advancing Growth and Prosperity for All

# Los Angeles County **Regional Report**

**PART 2** SEPTEMBER 2024



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## Preface and Acknowledgement

Economically, Los Angeles County is a powerhouse, with a GDP that would rank it among the world's largest economies if it were a country. Its diverse economy is anchored by key industries including entertainment and media, technology, healthcare, international trade, fashion, and tourism. The Port of Los Angeles, along with the adjacent Port of Long Beach, forms the largest container port complex in the United States. The aerospace industry significantly contributes to the Los Angeles economy by providing high-paying jobs, driving innovation, and supporting a network of local suppliers and service providers. Film production and distribution significantly contribute to Los Angeles' economy by creating jobs, attracting tourism, and generating revenue across various industries including entertainment, hospitality, and local businesses. Despite its overall economic strength, the county also grapples with significant income inequality and a high cost of living, issues that often disproportionately affect minority communities, including Native Americans.

The California Jobs First Program (formerly known as Community Economic Resilience Fund (CERF), a program developed by the State of California's Governor's Office of Planning and Research (OPR), Office of Business and Economic Development (GO-Biz), and Labor and Workforce Development Agency (LWDA) was an opportunity to include the experiences and voices of community members through the formation of the Los Angeles Jobs First Collaborative (initially called High Road Transitional Collaborative, or HRTC). An Outreach and Engagement (O&E) committee was formed from the HRTC, prior to electing a diverse Steering Committee, to further segment LA County from the five districts into nine Service Planning Areas (SPAs). The SPA's addressed geographic, socio-economic, and racial issues particular to the LA region that LA County's Comprehensive Economic Development Strategy (CEDS) may not have included. Differing from the CEDS, this report captures intricate community experiences and inequalities faced by residents building their lives in Los Angeles County.

The data in this report derives from independent research and consulting firms, and convenings led by 12 Affinity Hubs & go subregional tables serving Youth; Families; Homeless, Veterans, & Seniors; Employers & Businesses; Economic Development; Civic Engineering & Place-Based Coalitions; Sustainability; Underemployed Adults; Labor & Workers; Immigrants; Institutional Government; and Academia. Other data and potential strategies were summarized from separate convenings led by local industry sector experts in Construction, Transportation & Logistics, Clean/Renewable Energy, Bioscience, Healthcare, Video Production & Distribution, and Aerospace Manufacturing. A Financial Strategist worked with all Table leads to understand the challenges and potential solutions of each industry sector before identifying traditional capital stack opportunities and novel approaches to reinvesting profits back into the California Jobs First program.

Our research analyst has combined economic research data with insights from an array of community members to analyze current obstacles and potential solutions. The report covers various aspects of life, including housing, childcare, job quality, and emerging industries, to understand what residents need to achieve their desired stability and success. This work is the first step in an ongoing, long-term effort with California Jobs First.

Shepherding the process, the LA Collaborative formed a 38-member Steering Committee comprised of representatives from each of the 12 Affinity Hubs, 12 community-based organizations, six union leaders from labor organizations, five individual residents and/or workers, one business member, one municipal partner, and one expert from Academia. Their particular focus was in disinvested communities, and a community-led governance model. This process is challenging, yet inclusive and will continually evolve through the bylaws as the LA Collaborative identifies which rules should remain, which should be revised, and which should be eliminated or added.

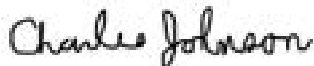
This community-informed data analysis will form the foundation for future economic strategy development. The product of hundreds of hours of collaborative effort, this comprehensive study synthesizes insights from diverse stakeholders, stakeholder groups, and a stewardship committee to provide a robust basis for decision-making.

The O&E subcommittee led by Sharon Evans, the Governance subcommittee led by Tunua Thrash-Ntuk and Kelly LoBianco, and the Research & Data subcommittee led by Matt Horton helped lay the groundwork for the eventual LA Collaborative and Steering Committee. The Steering Committee chair, Kevin Harbour, served one-year from September 1st, 2023 – September 1st, 2024, before passing the baton to Andrea Slater, who will hand-off to Stella Ursua in 2025. All those bright minds along with the stewardship leaders from LAEDC and California Community Foundation have helped the LA California Jobs First team, Chioma Agbahiwe, Scarlet Peralta, Arman Koohian, Alan Cheam, and Ariel Rivera, manage the program and assemble this report. Special thanks to Jermaine Hampton and Sulaiman Kenyatta who managed the entire CERF project prior to onboarding the current California Jobs First Team, and Maria Garcia, Jose Najera, and Paul Morales for providing LAEDC the necessary support to keep the program fiscally on track. Everyone's tireless efforts and collaboration have been crucial in shaping this report and the entire process.

Launching a new initiative and ensuring equity presents numerous challenges, yet our region's unwavering dedication has been instrumental in successfully completing the Planning Phase. I'm deeply appreciative of the shared efforts from our staff, partners, committees, and community members. Through our collective work, we're making substantial strides in fortifying the Los Angeles region and I look forward to developing even stronger concepts during the Catalyst and Implementation Phases.

Visit [lacerf.org](https://lacerf.org) to learn more about the Los Angeles County California Jobs First Program.

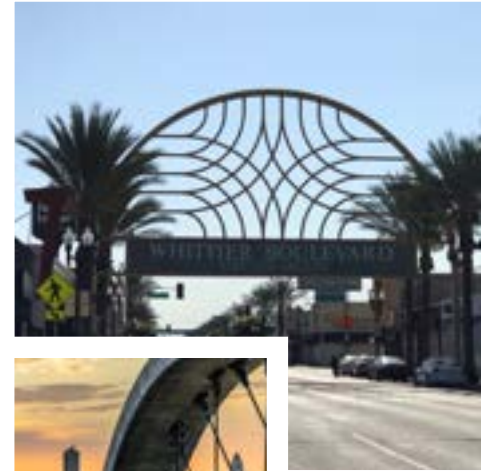
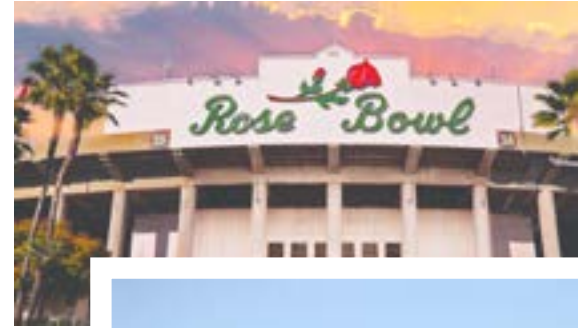
Sincerely,



**Charles Johnson**

Director, LA County California Jobs First





## Introduction

The Los Angeles County Jobs First Collaborative is pleased to present the Los Angeles Regional Plan Part 2 for the California Jobs First Program. The Collaborative is an amalgamation of over 700 community members and stakeholder groups volunteering to help develop strategies to strengthen the Los Angeles County region through identifying investment opportunities. Building off the work presented in the Regional Plan Part 1, the Regional Plan Part 2 is primarily an informative document that can be used to guide economic development in the region for the Catalyst and Implementation phases, and beyond. It is highly recommended that readers of the Plan Part 2 first read through Part 1 to gain the contextual references to our Collaborative's structure and process. Specifically, the LA County Jobs First Collaborative Governance Structure on page 12, Disinvested Communities on page 20, and Current Major Industry Clusters in Los Angeles County on page 94 are crucial for understanding the direction of the strategies presented herein.





# Regional Goals, Regional Snapshot

REGIONAL REPORT • PART 2



## Vision and Goals

### VISION

**The vision of the California Jobs First Program is to create investment opportunities through climate neutral initiatives that can produce high-quality, sustainable jobs for individuals and families within LA County to thrive.**

The California Jobs First program holds significant importance as a pioneering effort that places a strong emphasis on promoting equity and inclusion in economic planning. California Jobs First goes beyond merely focusing on economic growth and development; it strives to create an inclusive framework that considers the needs and aspirations of all members of the community, especially those who have been historically marginalized or underserved. By actively engaging disinvested groups and communities, California Jobs First aims to ensure that their voices are heard, their perspectives are considered, and their interests are integrated into the decision-making process. This approach fosters a more comprehensive and holistic understanding of the challenges and opportunities faced by diverse populations, leading to more impactful and sustainable economic development. Through its innovative and inclusive approach, California Jobs First is driving positive change in economic planning, laying the foundation for a more equitable and prosperous future.

Representing and governing the 700-plus onboarded Collaborative partners are 38 Steering Committee members. The LA County Jobs First Collaborative's extensive and diverse network of partners within the governance model across various sectors provides it with tremendous potential in the development and execution of the economic development plan. The Collaborative benefits from the active participation of community-based organizations, community organizers, community members, employers,

businesses and business associations, education and training providers, economic development agencies, government agencies, workforce entities, environmental justice organizations, philanthropic organizations, labor organizations, worker centers, and California Native American Tribes in LA County.

Labor organizations and worker centers bring distinctive expertise in worker and community organizing, while economic development agencies contribute multifaceted capabilities to support small businesses, advocate for communities, foster connections, and anchor strategies that can spur sector expansion in undernourished neighborhoods. Organizations focused on community development, environmental justice, and sustainability, such as GRID Alternatives, Rising Communities, and Pacoima Beautiful, enrich the plan's objectives. Representatives of the business community like the BizFed Institute and the American Indian Chamber of Commerce of California provide crucial industry perspectives. Finally, government collaboration, notably with the LA County Department of Economic Opportunity and LA County Chief Sustainability Office, ensures seamless connectivity and effective implementation. This collective synergy enhances the LA County Jobs First Collaborative's capacity to create a comprehensive, inclusive, and impactful economic development plan for the region and sets the foundation for informed decision-making and strategic initiatives to propel Los Angeles County towards a more resilient and equitable future.



# California Jobs First Governance Model

## 12 AFFINITY HUB LEADS

representing the thematic areas countywide (for logos and orgs assigned to these positions see [Affinity Hub Leads \(lacerf.org\)](https://lacerf.org))



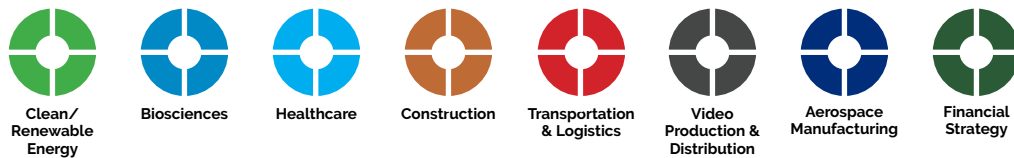
## SUBREGIONAL TABLE LEADS

90 Subregional Table Leads representing thematic areas with their SPA



## TABLE PARTNER LEADS

8 Table Partner Leads representing industries within the county



## STEERING COMMITTEE

The Steering Committee consists of 38 elected representatives who encompass influential voices from government, labor, business, industry, and community stakeholders.



## STEWARDSHIP COMMITTEE



Convenor



Fiscal Agent



## GOAL

The Los Angeles Jobs First Collaborative's goal in the Regional Plan Part 2 is to develop concrete strategies that will lead to projects across the County that advance equity for disinvested communities, provide high-quality, accessible careers, and align with state climate goals.

# Goals and Outputs

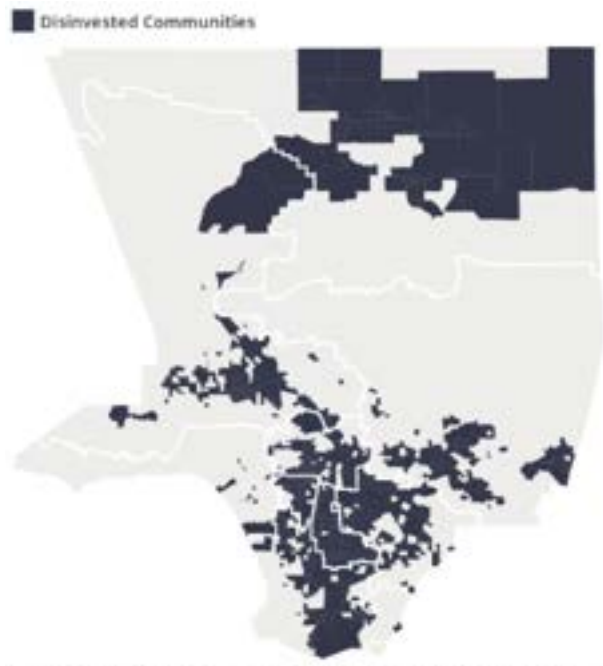
The anticipated **outputs** to achieve this goal are rooted in community engagement, and include:

1. Ongoing outreach through convenings, surveys, and focus groups in disinvested communities through the work of the Subregional Table Leads, Affinity Hub Leads, Table Partner Leads, Steering Committee, etc.
2. Financial Strategy development with subject matter experts to attract additional funding for capital stacks that could finance projects for the region.
3. Cross-sectoral partnerships between government, community-based organizations, business and philanthropy to create innovative solutions to address barriers to sustainable jobs.
4. Identifying and integrating the rich array of available and/or underutilized resources (physical, academic, workforce, employer, etc.) across LA County to develop sustainable strategies for the region.
5. Addressing systemic barriers to accomplishing the goal due to the distinct geographical nature of LA County.
6. Create opportunities for communities to participate in and have equity stakes in strategic projects.

## Community Engagement Strategy

At the heart of the strategy development process is community engagement. The LA County Jobs First Collaborative has dedicated extensive time and funding to conduct outreach and engagement activities to ensure that the organizations and

individuals serving and residing in our disinvested communities are directly engaged in this process. The LA County Jobs First Collaborative is dedicated to conducting research, data analysis, and community outreach and engagement to provide a truly community-driven and stakeholder-inclusive process to ensure that constituents living in each Service Planning Area (SPA) have a voice in the California Jobs First planning process. This includes defining, identifying, and meaningfully engaging marginalized populations and disadvantaged communities in all corners of Los Angeles County.



Source: California Energy Commission, California and Justice40 Disadvantaged or Low-Income Communities, Governor's Office of Business and Economic Development in California or the California Competes Tax Credit program, Analysis by Beacon Economics.

The strategy development process involved an inclusive process of engaging collaborative partners from a variety of sectors including community-based organizations, academia, place-based coalitions, municipal partners and philanthropy as well as other invited community members. The Strategy Development Subcommittee ensured inclusivity through a participatory decision-making process that implemented feedback mechanisms through the use of shareable documents and online written communication tools; conducting live meetings virtually to encourage geographic inclusivity and a transparent and accessible decision-making process; and, having multiple convenings along with collaborative communication tools to collect feedback in an accessible manner.

The LA County Jobs First Collaborative's community engagement tactics described below helped to develop the strategies presented in the Regional Plan Part 2. These included:

1. Awarding various grants during the Planning Phase to the Affinity Hub, Subregional Table, and Table Partner Leads to help gather countywide feedback from diverse communities and industries in order to inform the strategies presented in our Regional Plan Part 2.
  - The 12 Affinity Hub and Subregional Table Leads convened **community members and CBOs** to obtain community feedback.

[Affinity Hub Lead Findings](#)

[Subregional Table Lead Findings](#)

- The Industry Table Partner Leads convened **employers and other stakeholders** in LA County during 3+ group meetings or 1-on-1s to develop the target sector strategies detailed in Section 3A.

[Table Partner Lead Resources](#)

2. The Steering Committee created a Strategy Development Subcommittee composed of Steering Committee members and Table Partner Leads to propose strategies specifically for Section 3B (Sector-Neutral Strategies) and Section 4 (A Path Forward: Institutionalizing Community-Led, Climate Forward Planning), and provided feedback throughout the development of the Regional Plan Part 2.
3. A series of five Geographic and Racial Planning Forums were held in each LA County Supervisorial District to present research, facilitate discussions on workforce development and share challenges. Planned and executed by a Steering Committee member, Dakar Foundation, in a hybrid format, these forums presented research from Part 1 of the plan, offered panels with leaders in LA County workforce development, shared findings from the Subregional Tables and Affinity Hubs to participants, and provided the space for attendees to discuss challenges related to workforce development and general life experiences through open forums.

**Findings:** Through these tactics, the LA County Jobs First Collaborative collected findings and feedback to inform the strategy development process. Aggregated County-wide survey findings revealed the following:

Geographic and Racial Planning Forum Findings: 91 respondents were surveyed on barriers they face to achieving financial stability as well as their knowledge about workforce development. They cited the following barriers:

- 62% do not have access to healthcare.
- 75% are not aware of any vocational or job training programs available in their area.
- The biggest barriers to accessing job training programs for themselves or their household are

cost (42%) and lack of information (22%).

- When asked if they feel job training programs in their area are effective in helping people find employment, 43% said yes, 11% said no, and the rest answered "not sure" or "N/A".

Answers for the remaining questions were asked on a scale of 1-5 and are presented in the chart below. They reflect an ongoing need to familiarize communities with workforce development programs, create awareness regarding state strategies for transitioning to a carbon neutral economy and connect individuals with effective programs that can lead to high-quality jobs:

Question	Average Score (1-5)
How familiar are you with the principles of Inclusive Workforce Development?	2.2
How knowledgeable are you about current Regional Research Findings related to your industry?	2.1
How aware are you of State Strategies for the Transition to a Carbon Neutral Economy?	1.9
How prepared do you feel to contribute to a sustainable and equitable recovery from COVID-19's economic impact?	2.2
How much do you know about diversifying local economies?	2.1
How confident are you in identifying sustainable industries in California?	2.0
How likely are you to pursue high-quality, accessible jobs in the sustainable industry sector?	2.1
How well do you feel your skills align with the requirements of emerging growth industries?	2.5
How effective do you find current efforts in your community to support an inclusive workforce?	2.0
How significant are the barriers you face in entering sustainable industries?	2.0
How well do you understand the economic opportunities provided by a transition to a carbon-neutral economy?	2.0
How effective do you think state strategies are in supporting your transition to a sustainable career?	1.8
How accessible do you find the information on economic recovery strategies post-COVID-19?	1.9
How relevant do you think the event topics were to addressing barriers to entry in your field?	2.1
How likely are you to recommend the solutions discussed for overcoming entry barriers to your peers?	2.3
How effective do you find current policies in supporting a diverse and inclusive local economy?	2.0
How confident are you that the knowledge gained from this event will help you overcome professional challenges?	2.4

**The Affinity Hub Lead Convenings (see Governance Model):** representing countywide thematic groups, the Affinity Hub Leads collectively held over 50 convenings to gather community input and provide feedback loops for sub-regional leaders to discuss county-wide strategies. These convenings were generally offered virtually with an average of attendance of 26 attendees per convening, indicating engagement with a wide variety of individuals and organizations across the county. Respondents categorized their opinions in terms of Strengths, Threats and Opportunities:

#### **Strengths:**

- The region has made progress in developing sustainable industries and workforce programs aligned with climate goals and emerging sectors.
- There are successful examples of public-private partnerships, like COVID relief programs that built hyper-local networks to deploy capital and assistance.
- Existing local hire and workforce development programs are creating pipelines for disadvantaged workers into living wage jobs.
- The area has also seen increased investment in sustainable infrastructure like parks, trails, and transit options in disadvantaged communities.
- There is growing recognition of the importance of "High Road Training Partnerships" in creating quality jobs and addressing wage disparities.

#### **Threats:**

- A persistent lack of access to capital, technical assistance, and markets for small businesses, especially those owned by socially and economically disadvantaged individuals.
- The housing crisis and rising basic living costs continue to impact workers and families.
- Language barriers and digital divides create obstacles for many community members in accessing job opportunities and services.
- The "benefits cliff," where workers may lose public assistance benefits as they earn more money, remains a significant hurdle for many.

- As automation increases, up to 700,000 occupational transitions in LA county could be affected by 2030. Business services and production, two key LA county high growth industries, in addition to office support, foods service, and the legal profession are expected to be impacted. This could increase the skills mismatch in LA County. <sup>1</sup>

#### **Key Opportunities:**

- Align education and training programs more closely with emerging industry needs, particularly in fields like cybersecurity and sustainable technologies.
- Create accelerator/incubator programs to support supply chain needs and business growth for disadvantaged entrepreneurs.
- Create new job opportunities by investing in regional industry clusters aligned with emissions reduction and climate resilience goals.
- Replicate and expand existing program models that have demonstrated impact to improve access to livable wage jobs, high growth careers for underemployed residents and economic opportunities for entrepreneurs.
- Scale up investment in "green" economic opportunity sectors in construction, transportation, and other infrastructure related workforce programs to help meet both housing, employment and other market needs
- Expand broadband access and digital infrastructure in disadvantaged communities.
- Leverage major upcoming events like the 2026 FIFA World Cup and 2028 Olympics to sustainably foster skills attainment, job creation and economic development that can elevate the earning capacity of workers and entrepreneurs.
- Develop more comprehensive workforce programs that include pre-program, program, and post-program employment support, addressing gaps in the transition from training to stable and livable wage employment.

These interconnected strengths, threats, and opportunities highlight the need for a holistic,

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<sup>1</sup> McKinsey: Rewriting the script: LA's opportunity for economic growth



community-driven approach to building an equitable, climate-resilient economy in LA County. Key focus areas include workforce development, small business support, sustainable infrastructure investments, and ensuring disadvantaged communities benefit from and help shape new economic opportunities. These are all major components of the strategies recommended herein.

**Subregional Table Lead Surveys:** The Subregional Table Leads were tasked with representing identical thematic areas as the Affinity Hub Leads, minus Academia and Institutional & Government, at the Service Planning Area level. They collectively surveyed 2,600 respondents with at least 190 respondents from each Service Planning Area who answered questions on barriers to financial advancement and economic mobility, challenges and needs impacting access to high-quality jobs, community readiness for California's transition to a carbon-neutral economy, and community resiliency and pandemic recovery. While the majority of survey responses were received in English, about 200 surveys in Spanish and four in Korean were collected.

Key findings highlight significant economic challenges faced by many residents:

- Affordable housing emerged as the most pressing issue with 66% respondents identifying it as a primary barrier to personal economic advancement.
- Other major barriers included wage stagnation, education limitations, and difficulties accessing credit and financial services.
- Economic hardship, health issues, and housing instability are persistent issues for most.
- Respondents suggested various measures for improving community resilience, including creating job opportunities, improving infrastructure, enhancing healthcare access, and fostering stronger community engagement.
- Over half of respondents indicate a lack of awareness of high-growth industries and quality job opportunities in their communities as a major obstacle preventing them and their family members from accessing high-quality jobs in LA County.
- 72% of respondents said they are not connected to

local resources that they can use to connect with jobs, training or revenue opportunities

- Respondents expressed a need for various strategies including educational programs, training initiatives, and apprenticeships. Many highlighted the importance of flexible learning options, mentorship programs, and job placement services.
- While 61% of respondents believed their communities would benefit from state investments in clean energy, a significant number (1,055) were not aware of California's clean energy goals.
- Financial barriers were identified as the biggest challenge to participating in clean energy initiatives, followed by lack of awareness and education about available programs.

These findings are referenced as being applicable in the proposed Target Sector strategies, Sector-Neutral Strategies, and Additional Regional and Community Development Strategies to achieve short- and long-term goals of the California Jobs First Collaborative. Overall, the surveys reveal and confirm a diverse county facing significant economic and social challenges, but also highlights opportunities for improvement through targeted investments, education, outreach, and community-focused initiatives. The findings underscore the need for comprehensive, inclusive strategies to address issues of equity, economic mobility, workforce development, and community resilience in Los Angeles County.

**Long-term strategy:** As the Planning Phase concludes, the LA County Jobs First Collaborative will begin to identify projects for the Catalyst and Implementation phases of the Regional Investment Initiative. We continue to leverage data findings, geographic mapping, stakeholder mapping, and supplemental data sets, as well as the collected lived-experience data from surveys and other methods to identify any sub-regions or groups of people where data gaps in equity and opportunity may persist. Additional outreach and engagement to evaluate disaggregated data and gather community feedback on Catalyst project strategies may also be needed. This comprehensive approach sets the foundation for informed decision-making and collaborative initiatives to propel Los Angeles County towards a more resilient and equitable future.



During the Catalyst phase, we will expand recruitment and onboard new partners from disinvested communities; incorporate their lived-experience data and feedback to make informed decisions about which projects the LA County Jobs First Collaborative should invest in; and, expand the Collaborative to ensure that there is sufficient and balanced representation across the California Jobs First-designated nine service planning areas (SPAs). Data collected through our outreach and engagement efforts will assist us in selecting projects that will strengthen the competitiveness, resiliency, and equity of targeted industry sectors, and begin the pre-development activities needed to bring them to fruition.

The LA Collaborative will host approximately 30 convenings across the County during the Catalyst project period. Convenings will bring together current and future partners, and the various stakeholder

groups and organizations already engaged in the California Jobs First from across the Collaborative's nine designated Los Angeles County SPAs. The purpose of the convenings will be to share information about the selected projects and describe how they will improve regional economic competitiveness, job quality and/or address needs of disinvested communities in our region. The convenings will serve to build community interest in the selected projects, and will also provide an opportunity for community members to collaborate and integrate projects in specific SPAs that may complement projects in other SPAs. We will continue to allocate resources and time to research and data gathering to make decisions that are beneficial to and reflective of the priorities of disadvantaged communities in the region.



## Regional Snapshot

*"The industry story in the LA region is unique, comprising many ecosystems unlike anywhere else in the United States. There are more electric vehicles and more gaming businesses clustered in LA County than any other location. There are innovative Biotech, Space, and Ocean robotics start-ups with supporting venture capital and market partners. And there are large, mature industries including Aerospace, Trade, and Entertainment & Digital Media which sets Los Angeles apart as the creative content capital of the world. Over a dozen distinct industries thrive in LA County, with networks of suppliers, talent pipelines, and related services & customers."*<sup>2</sup>

Los Angeles County is home to nearly 10 million residents, covers more than 4,000 square miles of urban, suburban, and rural areas, and encompasses 88 cities and over 100 unincorporated communities. More than one-quarter of California's entire population resides in the 4,088 square miles that comprise Los Angeles County. The county is geographically diverse, with a combination of coastal areas, mountains, valleys, and deserts. Los Angeles County is an economic powerhouse that boasts some of the most dynamic industries nationwide and a complex

economy with millions of workers engaged across a variety of sectors. With more than one-quarter of a million employers, including more manufacturers and more minority and women-owned businesses than any other county in the nation, the county has an exceptionally strong economic base on which to build a competitive future. However, Los Angeles County faces multiple challenges across employment and labor, educational attainment, health outcomes, housing, and environmental risk factors that the LA County Jobs First Collaborative is working to overcome.

The California Jobs First Collaborative has conducted our work through the lens of the County's eight Service Planning Areas (SPAs), as each has distinct health and human service needs. SPAs allow the county to tailor services based on the demographics, resources, and challenges on a more micro level. The Jobs First Collaborative divided SPA 6 South along the 110 Freeway into SPA 6 South East and SPA 6 South West to fully capture the unique needs of the most disinvested part of our county. In contrast, the county's five supervisorial districts refer to its governance structure, where each district is represented by a member of the Board of Supervisors. While the districts are used for political and administrative purposes, SPAs are focused on delivering targeted community services.

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<sup>2</sup> <https://laedc.org/industry-cluster-development/>

# Los Angeles County Service Planning Areas

Source: Los Angeles County Department of Public Health.

**NOTE:** The South SPA 6, which encompasses high-poverty neighborhoods from Crenshaw and Hyde Park to Compton and Paramount, is split along interstate 110, into a western half and eastern half. These are referred to as the South-West SPA, and the South-East SPA, accordingly, and each have different demographic profiles.



## SPA 1 Antelope Valley

Acton, Agua Dulce, Gorman, Lake Hughes, Lake Los Angeles, Lancaster, Littlerock, Palmdale, Quartz Hill, and others

## SPA 2 San Fernando Valley

Burbank, Calabasas, Canoga Park, Canyon Country, Encino, Glendale, LA Cañada-Flintridge, San Fernando, Sherman Oaks, Sun Valley, Van Nuys, Woodland Hills, and others

## SPA 3 San Gabriel Valley

Alhambra, Altadena, Arcadia, Azusa, Baldwin Park, Claremont, Covina, Diamond Bar, Duarte, El Monte, Glendora, Irwindale, Monrovia, Monterey Park, Pasadena, Pomona, San Dimas, San Gabriel, San Marino, Temple City, Walnut, West Covina, and others

## SPA 4 Metro LA

Boyle Heights, Central City, Downtown LA, Echo Park, El Sereno, Hollywood, Mid-City, Wilshire, Monterey Hills, Mount Washington, Silverlake, West Hollywood, and Westlake

## SPA 5 West

Bel Air, Beverly Hills, Brentwood, Culver City, Ladera, Malibu, Mar Vista, Marina del Rey, Pacific Palisades, Palms, Playa del Rey, Santa Monica, Venice, West LA, Westchester, and Westwood

## SPA 6 South: East

Athens, Compton, Lynwood, South Gate, Watts, and others

## SPA 6 South: West

Baldwin Hills, Crenshaw, Exposition Park, Florence, Hyde Park, Paramount, West Adams, and others

## SPA 7 East

Artesia, Bell, Bellflower, Bell Gardens, Cerritos, City of Commerce, City Terrace, Cudahy, Downey, East Los Angeles, Hawaiian Gardens, Huntington Park, La Habra Heights, Lakewood, La Mirada, Los Nietos, Maywood, Montebello, Norwalk, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Walnut Park, Whittier, and others

## SPA 8 South Bay

Athens, Avalon, Carson, Catalina Island, El Segundo, Gardena, Harbor City, Hawthorne, Inglewood, Lawndale, Lennox, Long Beach, Hermosa Beach, Manhattan Beach, Palos Verdes Estates, Rancho Dominguez, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, San Pedro, Torrance, Wilmington, and others

While Los Angeles County is a multicultural hub, with over 130 countries of origin represented, its residents experience different economic outcomes and quality of life across the region. The disparate geographic landscape of opportunity yields very different life outcomes for those living in neighborhoods of affluence compared to those in neighborhoods of disadvantage. Historically disadvantaged communities continue to struggle with low levels of economic development, high housing costs, and limited opportunities for advancement. Moreover, they tend to suffer from poorer health outcomes, a lack of green spaces, aging infrastructure, and limited access to resources and technologies that could transform circumstances.

Los Angeles County is one of the most expensive places to live in the state: a family of four earning less than \$100,900 a year in Los Angeles County is now classified as low-income. And yet, the median household income for a family of four is \$98,200 with 14% of the population living in poverty. In 2024, there were an estimated 75,312 people experiencing homelessness within Los Angeles County. Across the County unsheltered homelessness dropped by 5.1% from 2023, while the number of people in shelter rose by 12.7%.<sup>3</sup> The California Housing Partnership estimates that it would take an additional 568,000 affordable housing units to meet

the rental needs of those with lower incomes. The average Los Angeles County renter pays 43% of their income for housing rent alone, while the average Los Angeles County homeowner spends 30% of their income on mortgage payments. Lifting children out of poverty, meeting the workplace educational and skill demands of today and tomorrow, and helping families cope with crushing health, housing and social service needs top the list of issues that require rigorous attention.

The Regional Plan Part 1 found that Los Angeles County's vast size provides it with the resilience to weather economic shocks, as it contains many of the essential inputs required for its functioning. The Los Angeles region is home to more colleges and universities than any other metropolitan area in the United States, which bolsters its educational and economic standing. Additionally, the county's diverse base of industry continues to be a significant economic driver, contributing to the region's overall strength. Over the past decade, the county has seen a decline in the number of residents living below the poverty line, accompanied by rising incomes, indicating positive socioeconomic trends.

However, the county faces notable challenges. Its declining and aging population poses risks to future economic growth by reducing the available labor supply and the number of potential consumers. High housing costs exacerbate these issues, leading to longer commutes, limiting housing mobility, and contributing to a higher prevalence of homelessness. Furthermore, the county struggles with a relatively low labor force participation rate, particularly within communities that have experienced disinvestment.

Despite these challenges, there are significant opportunities for growth. The green economy is expanding, with green jobs now accounting for 27% of total employment in the county, up from 21% in 2012. The Technology Industry also has a strong foothold in the region, particularly in the South Bay, San Fernando Valley, and West SPAs, which together account for 74% of the county's tech employment. However, the county also faces serious threats, including climate change-related risks such as wildfires and the effects of urban heat islands. Additionally, there is a high degree of spatial inequality across the SPAs, and while educational attainment has risen, the demand for jobs requiring higher education has outpaced these gains, creating potential mismatches in the labor market.

3 <https://www.lahsa.org/documents?id=8164-2024-greater-los-angeles-homeless-count-results-long-version-.pdf>

## Top-30 Regionally Concentrated Existing Industry Clusters in Los Angeles County

Type	Cluster	Jobs (2022)	5-Year Job Growth (%)	10-Year Job Growth (%)	Location Quotient (LQ)	Avg. Wage (\$) (2022)
Traded	Video Production and Distribution	141,164	26.9	26.6	15.6	124,794
Traded	Music and Sound Recording	4,411	51.7	34.4	7.2	142,514
Traded	Apparel	24,192	-28.3	-49.8	6.0	56,156
Traded	Performing Arts	42,329	15.3	65.9	4.0	229,422
Traded	Aerospace Vehicles and Defense	57,291	12.5	1.2	3.1	136,380
Traded	Jewelry and Precious Metals	1,788	3.3	9.0	2.7	55,268
Local	Local Community and Civic Organizations	315,800	14.3	312.8	2.5	29,996
Traded	Water Transportation	17,574	-2.4	6.3	1.9	139,267
Traded	Marketing, Design, and Publishing	86,425	9.8	24.2	1.8	149,254
Traded	Transportation and Logistics	80,199	11.0	55.3	1.5	89,293
Traded	Textile Manufacturing	6,318	-11.3	-29.5	1.2	58,084
Traded	Recreational and Small Electric Goods	6,634	-14.0	-5.3	1.2	100,406
Local	Local Commercial Services	315,632	6.7	20.5	1.2	74,600
Local	Local Entertainment and Media	12,580	-22.1	-14.7	1.2	108,777
Traded	Downstream Chemical Products	9,745	3.7	-4.0	1.2	76,979
Local	Local Government Services	195,051	-1.9	2.3	1.2	102,384
Traded	Education and Knowledge Creation	169,318	5.6	15.1	1.1	96,076
Local	Local Logistical Services	94,638	31.8	60.8	1.1	52,161
Traded	Environmental Services	4,410	9.6	-4.3	1.1	82,590
Local	Local Hospitality Establishments	404,728	-1.4	25.0	1.1	31,534
Local	Local Food and Beverage Processing and Distribution	131,536	0.6	5.2	1.0	44,416
Local	Local Industrial Products and Services	18,062	-15.1	-17.5	1.0	72,036
Traded	Metalworking Technology	13,514	-18.2	-21.2	1.0	66,808
Local	Local Personal Services (Non-Medical)	81,227	12.6	-59.6	1.0	43,392
Local	Local Retailing of Clothing and General Merchandise	208,478	-3.5	1.7	1.0	46,510
Local	Local Health Services	510,056	8.1	21.0	0.9	74,702
Local	Local Motor Vehicle Products and Services	97,124	-9.0	3.5	0.9	66,821
Traded	Electric Power Generation and Transmission	4,635	-2.5	11.1	0.9	159,709
Local	Local Education and Training	232,308	-2.5	3.2	0.9	64,033
Traded	Printing Services	10,203	-26.1	-32.9	0.9	58,037

Source: Lightcast. Analysis by Beacon Economics





## SWOT Analysis

The SWOT analysis provides a comprehensive assessment of the strengths, weaknesses, opportunities, and threats facing the Los Angeles region. Overall, the SWOT analysis highlights the region's strengths, such as its diverse economy and educational institutions, while also identifying weaknesses, such as housing affordability and labor force participation. It points to opportunities in the green economy and technology industry, but also highlights threats related to climate change and spatial inequality. Understanding these factors is crucial for developing strategies to promote economic resilience and address the challenges faced by the Los Angeles region.

Strengths	Weaknesses
<ul style="list-style-type: none"><li>• Los Angeles County's massive size enables it to weather shocks, and it contains many of the economic inputs it needs to function.</li><li>• Los Angeles has more Colleges and Universities than any other metropolitan area in the country.</li><li>• The region has high concentrations of job-creating, well-paying industries and sectors that continue to be a source of economic strength.</li><li>• The number of Angelenos who live below the poverty line has fallen over the last decade, and incomes have risen.</li></ul>	<ul style="list-style-type: none"><li>• Los Angeles County's declining and aging population lowers the available labor supply, reduces the number of potential consumers, and makes future economic growth more difficult to achieve.</li><li>• High housing costs force longer commute times, prevent households from moving to neighborhoods that better meet their needs, consume a large proportion of income, and increase the prevalence of homelessness.</li><li>• Los Angeles County has a relatively low labor force participation rate (65%), especially within disinvested communities.</li></ul>
Opportunities	Threats
<ul style="list-style-type: none"><li>• The green economy and the number of green jobs are growing, providing opportunities for sustainable and environmentally friendly employment.</li><li>• The Technology Industry has a strong foundation in the region and has the potential to offer high-income employment opportunities.</li><li>• There is potential for strategic initiatives to reduce barriers and foster effective employer-employee connections, benefiting families and businesses.</li></ul>	<ul style="list-style-type: none"><li>• Climate change-related threats, such as wildfires and urban heat islands, are expected to worsen in the future, posing risks to the region's environment and residents.</li><li>• There is a high degree of spatial inequality between the different Service Planning Areas, indicating disparities in access to resources and opportunities.</li><li>• The increasing demand for jobs requiring higher levels of education may pose challenges for individuals with lower educational attainment.</li></ul>



# Regional and Target Sector Strategies

REGIONAL REPORT • PART 2



## Regional Strategies

The following Target Sector and Sector Neutral Strategies are a result of the extensive community engagement, convenings, and research process conducted by the Collaborative. The Los Angeles Jobs First Collaborative has identified seven target sectors from the industry cluster analysis presented in the Regional Plan Part 1 that show promise in providing climate forward, high road careers and form the launch pad of our regional strategy. The Target Sector Strategies discusses the seven high-growth potential sectors in the County, the push towards a carbon-neutral economy, and identifies revenue-generating opportunities to move into the implementation stage.

Each of the Target Sector Strategies Table Leads received a \$50,000 grant to provide sector specific insights and information to guide the Steering Committee toward identification of strategies that align with the goals and objectives of the California Jobs First program while benefitting the Los Angeles region. The elected table leads are representatives of

### SEVEN TARGET SECTORS:

- **Aerospace Manufacturing** (traded industry)
- **Clean/Renewable Energy** (traded industry)
- **Transportation and Logistics** (traded industry)
- **Construction** (local industry)
- **Bioscience** (traded industry)
- **Healthcare** (local industry)
- **Video Production and Distribution** (traded industry)

community-serving organizations that have extensive knowledge in their respective sectors. Each was asked to leverage their contacts, engage with employers to identify job pathways, and explain the trends, challenges, resources, and pertinent information to support the development of sector specific strategies.

*Note:* the eighth Table Lead, "Financial Strategy," is not a stand-alone sector and is meant to "connect the opportunity dots." This table lead is a local non-profit with experience in securing funding whose role is to identify funding resources during the Planning Phase and help the Collaborative frame its goals, which are outlined in Section 3b: Sector-Neutral and Economic Mobility Strategies.

## Target Sector Strategies

# Aerospace Manufacturing



As the Aerospace Manufacturing Table Partner Lead for the California Jobs First program, DTI (Disruptive Technology Index) convened a series of focus groups between June and July 2024 to identify workforce barriers and develop strategies for creating actionable solutions. They included representatives from NSIN, The Aerospace Corporation, Stealth AI Startup, Soarin, and others. These discussions emphasized the importance of building a community-led, climate-forward economy that creates high-quality and accessible jobs, particularly in disinvested communities. DTI has also partnered with SoCal Alliance, LAEDC, The Aerospace Corporation, CalTech, USC, UCLA and other key stakeholders within Los Angeles County, along with meeting major Primes like RTX (Raytheon) and aerospace companies of all sizes, including Apex, Impulse, Varda, Rhoman Aerospace, and Argo, to discover challenges and opportunities in the region.

## Define Sector and Justify Prioritization by Region

### Sector Development

The Los Angeles County Jobs First Collaborative identified the Aerospace Vehicles and Defense Industry Cluster as being of great importance when it comes to prioritizing the creation of high-quality jobs, specifically around advanced manufacturing, a major priority outlined in the Regional Report Part 1. California is a global leader in aerospace

manufacturing. In 2022, California brought in more than 85% of the total capital invested in United States space-related companies. This industry provides more than 500,000 high-paying jobs nationally (the highest levels of employment and wages in the American Aerospace Industry), generates more than \$66 billion in annual economic activity, and more than \$7 billion in state and local taxes<sup>1</sup>. The U.S. Aerospace Industry is the largest in the world and supplies five markets: military aircraft, missiles, space, commercial airliners, and general aviation, with the manufacturing and assembling of vehicular flight within and beyond Earth's atmosphere.

Los Angeles County remains a key player in aerospace engineering and manufacturing, with employment in this sector being significant due to the presence of large defense contractors and a network of suppliers. In Los Angeles County, the aerospace sector remains critical, driven by major manufacturing and maintenance, repair and overhaul (MRO) facilities. Notable growth has been seen in sectors supporting commercial airline travel and air cargo due to the strategic presence of significant aerospace companies and several major airports in the region. As of 2022, the LA County Aerospace and Vehicles Defense industry cluster, which encompasses aerospace manufacturing and engineering (NAICS code: 3364) and Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing, particularly Aircraft Manufacturing,

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<sup>1</sup> Governor's Office of Business and Economic Development. (n.d.). *California's new Space Industry Task Force to be led by the Governor's Office of Business and Economic Development*. California Business Portal. <https://business.ca.gov/californias-new-space-industry-task-force-to-be-led-by-the-governors-office-of-business-and-economic-development/>

Guided Missile and Space Vehicle Manufacturing and Propulsion Unit Parts Manufacturing (NAICS code: 334511), saw a total increase in employment numbers from 5 years prior, with the cluster's workforce rising to 57,293. Of the seven industries identified within the Aerospace Vehicles and Defense industry cluster (see [Appendix](#)), six pay an average annual wage above \$110,000.

Ongoing investments in workforce development and educational partnerships are crucial for sustaining growth and maintaining the competitiveness of the aerospace sector in Los Angeles County. In 2023, about one-third of the Aerospace Industry's workforce in the United States was age 55 or older, according to Deloitte's *2024 Aerospace and Defense Industry Outlook*. This significant proportion of older employees indicates a looming wave of retirements, which will exacerbate the talent shortages that the Aerospace Industry is facing. **Despite an increase in workforce numbers, the demand for skilled workers continues to outpace supply. New, emerging technologies further the need for on-the-job training. And, although the industry standard has been to hire college graduates, there is a shift in this model as the workforce is aging and retiring.**

The Aerospace Vehicles and Defense Industry Cluster is a male dominated industry with nearly 76% of its LA County employment being male. In terms of racial and ethnic diversity, the Hispanic/Latino, and Black/African American communities are underrepresented when compared to the proportion of Hispanic and Black Angelenos in the general population. Specifically, Hispanic or Latino individuals make up only 31.9% of the Aerospace Vehicles and Defense workforce within the county, while representing about 50% of the population countywide. Meanwhile, Black or African American individuals make up 5.5% of the cluster's workforce, while accounting for nearly 8% of the County's population.

Though the Aerospace Vehicles and Defense industry cluster does not currently reflect the diversity of Los Angeles, efforts are ongoing to improve diversity and

inclusion across the industry, with this year's data showing small but meaningful progress in Technical Staff, Technical Leadership and Intern Conversions. Efforts are underway to expand opportunities for people of color and underrepresented communities, with a focus on workforce development and curriculum collaboration between industry leaders and colleges and universities.

For example, the Aerospace Corporation, a leading federally funded research and development center in El Segundo, is intentional about recruiting, employing and retaining a diverse workforce of the most skilled individuals in the aerospace industry, knowing that it takes diverse backgrounds to provide an expansive vista of perspectives needed to generate solutions. Intentional about this commitment, The Aerospace Corporation created an office dedicated to Diversity Equity and Inclusion (DEI). Aerospace's DEI Office established the Executive Diversity Council (EDC) Chaired by Aerospace President and CEO Steve Isakowitz, the Aerospace Diversity Action Committee (ADAC), and the Employee Resource Groups (ERGs), all divisions further the company's commitment to diversity and inclusion by providing different opportunities to underrepresented groups and launching key groups to benefit the DEI objectives, including the: Aerospace Asian Pacific American Association (AAPAA); Aerospace Black Caucus (ABC); Aerospace Council for Indigenous Americans (ACIA); Aerospace Military Veterans (AMV); Aerospace Lambda Alliance (ALA); Aerospace Latino Members Association (ALMA); Aerospace Totally Adaptable Group (ATAG); and Aerospace Women's Committee (AWC). From initiatives, programs and scholarships, The Aerospace Corporation is intentional about incorporating talent from overlooked communities into their robust workforce.

The Space Workforce 2030 Executive Leadership Pledge was launched across the Aerospace Industry to collectively take action to achieve the following results by 2030<sup>2</sup>:

- Significantly increase the number of women and

2 Space Workforce 2030. (2024, April). *Space Workforce 2030 annual report* (PDF). [https://swf2030.org/wp-content/uploads/2024/04/Space-Workforce-2030\\_Annual-Report\\_FINAL\\_A.pdf](https://swf2030.org/wp-content/uploads/2024/04/Space-Workforce-2030_Annual-Report_FINAL_A.pdf)

employees from underrepresented groups in our collective technical workforce;

- Significantly increase the number of women and employees from underrepresented groups who hold senior leadership positions in our collective technical workforce;
- Work with universities to increase the percentages of women and students from underrepresented groups receiving aerospace engineering degrees, to levels commensurate with overall engineering programs;
- Sponsor K-12 programs that collectively reach over 5,000,000 underrepresented students annually.

In 2020, the Aerospace Industries Association (AIA) began advocating for increased funding and new initiatives that promote diversity and inclusion on Capitol Hill and across the Executive Branch. Their support for more diversity and inclusion has resulted in:

- Developing and delivering 25,000 STEM books to 6,000 underserved and low-income students across America;
- Partnering with the Smithsonian National Air and Space Museum for a young professional discussion series on diversity and inclusion in Airforce and Defense;
- Hosting semi-annual aerospace and defense networking events for women from across the industry;
- Conducting an annual workforce survey in

partnership with The American Institute of Aeronautics and Astronautics.

According to the 2023 DATA USA Aerospace Products & Parts Manufacturing Report, approximately 100% of aerospace engineers hold a bachelor's degree in aerospace engineering or a related field. However, many jobs within the industry do not require a four-year degree. Efforts to increase awareness about opportunities for people without an advanced degree will help to increase access to jobs for disinvested communities. Some large local Aerospace employers/Primes such as Raytheon and Northrop Grumman operate successful workforce development programs that attract and develop a pipeline of minority middle and high school students who receive mentorship, training and industry specific skills as a targeted hiring initiative to increase their pools of prospective minority and underserved employees. Raytheon provides mentors for students from Compton Public Schools, while Northrop Grumman's National High School Involvement Partnership (HIP) program operates at nine high school campuses throughout LA County. The programs are connected to Aerospace-rich communities where employment opportunities are robust. Seven of these schools are located in low-income communities in Antelope Valley, one is in El Segundo and another is located in Canoga Park. This program model has been in existence for more than 10 years and is an example of efforts that could be replicated as a success model across the region.

## SWOT Economic Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• High concentration of aerospace and companies, including major defense Primes like Lockheed Martin, Raytheon, Northrop Grumman, Boeing, and SpaceX</li> <li>• Strong research and development infrastructure supported by institutions like NASA's Jet Propulsion Laboratory, Aerospace Corporation, CalTech, UCLA and USC</li> <li>• Skilled workforce with expertise in advanced manufacturing and engineering.</li> </ul>	<ul style="list-style-type: none"> <li>• Real estate costs and shortages</li> <li>• High operational costs of labor (compared to the rest of the Country)</li> <li>• Regulatory challenges and environmental compliance costs</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Increased defense spending and government contracts</li> <li>• Growth in commercial space travel and satellite technology</li> <li>• Collaboration with the university system, tech startups and innovation hubs</li> <li>• Bringing in underrepresented communities into the ecosystem for greater expansion</li> </ul>	<ul style="list-style-type: none"> <li>• Aging workforce</li> <li>• Retaining the talent pipeline that was cultivated exclusively in this region</li> <li>• Economic downturns affecting commercial airline orders</li> </ul>

**Clear Local Market Signals:** Los Angeles County's historical significance in aerospace continues to attract investments due to its diverse manufacturing footprint including: advanced R&D facilities, production plants, and supply chain networks. Further enhancing the region's capabilities is the County's unparalleled aerospace technology infrastructure which includes research universities like Caltech, UCLA, USC, and strategic sites such as LA Space Force Base, the Air Force's Advanced Systems and Development Directorate, and NASA's Jet Propulsion Laboratory. This robust network has created a 20-year employment high for Los Angeles County in the Aerospace Industry. Employment in Aerospace Products and Parts Manufacturing (NAICS code 3364) is expected to grow further throughout 2024 accounting for a total of 44,000 jobs, up from approximately 42,000 in 2022, meaning that Los Angeles County will continue to contribute 9% to the national workforce in Aerospace Products and Parts Manufacturing<sup>3</sup>. This does not include the Search, Detection, Navigation, Guidance, Aeronautical and Nautical System and Instrument Manufacturing

industry, which accounts for an additional 14,000+ jobs as of 2022.

Although the aerospace sectors have experienced post-pandemic fluctuating employment trends nationally, this is not the case for Los Angeles County, which in recent years have shown strong growth, particularly in manufacturing and support activities. The Aerospace Industry still constitutes 14% of all manufacturing jobs in Los Angeles County. The Los Angeles: Western Information Office of the U.S. Bureau of Labor Statistics places a special emphasis on sectors like unmanned aircraft systems and space technology, which are expected to drive future employment growth.

The Department of Defense (DoD) is currently prioritizing funding into the Los Angeles County Aerospace and Defense sector. In the 2023 fiscal year, Los Angeles County led all U.S. counties with \$3.5 billion in new direct contracts from the DoD<sup>4</sup>, including 36% of all national Defense Advanced Research Projects Agency (DARPA) contracts awarded, ensuring that Los Angeles County will continue to remain the

3 CBRE. (2024). *Greater Los Angeles aerospace and defense report* (PDF). <https://mktgdocs.cbre.com/2299/15954ccf-c079-470a-82dc-7f1459842c4c-421075412/v032024/greater-los-angeles-aerospace-and-defense-report.pdf>

4 USAspending.gov. (n.d.). <https://www.usaspending.gov/search?hash=1881222a672d3e33600f710f4e21e4c9&section=map>



leading R&D and manufacturing hub for aerospace and defense.

The rising demand for aerospace and defense products and services, driven by both commercial aviation and defense needs is a clear indicator that employment in the aerospace sector is bound to increase. According to the Bureau of Labor Statistics, the national projected 10-year growth in output of the Aerospace Product and Parts Manufacturing industry is 30.1%, with the number of jobs expected to grow by approximately 6% from 2022-2032.

Specifically, within LA County four industries in the Aerospace Vehicles and Defense industry cluster grew substantially between 2017-2022: Aircraft Manufacturing, Guided Missile and Space Vehicle Manufacturing, Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing and Aircraft Engine and Engine Parts Manufacturing. This growth is due to the fact that global demand for advanced aerospace technology, particularly in the defense and space exploration sectors, has surged. This includes the production of aircraft, missiles, and space vehicles, which are critical to both national defense and commercial space ventures. Significant federal investment, including defense contracts awarded to companies based in Los Angeles, fueled growth in these sub-industries. Contracts from agencies like the Department of Defense (DoD) and NASA supported the development and production of aircraft, guided missiles, and space vehicles. This influx of funding allowed local manufacturers to scale up operations, invest in new technologies, and hire more workers. The rise of commercial space exploration, led by companies like SpaceX, has significantly boosted the space vehicle manufacturing sector. The push for more affordable and frequent space launches has led to increased production of space vehicles and propulsion units, further stimulating growth in the local aerospace manufacturing industry.

**Value Chain and Infrastructure:** Los Angeles County has key infrastructure assets including major airports, ports, and a well-developed transportation network that facilitates the movement of manufactured goods. However, investments are needed and play a crucial role in enhancing the value chain and the growth of

aerospace manufacturing. Specifically, investments into state-of-the-art manufacturing facilities, equipped with advanced machinery and technology, capable of producing high-precision components for both military and commercial application. Companies like Briles Aerospace and West Coast Aerospace, which have been valued manufacturers of aerospace fasteners and precision-engineered components for decades, can use investment dollars to expand facility production and make additional hires. For the first time since the 1960s, military and commercial demand in aerospace requires faster output growth, making a defining problem not inadequate demand, but inadequate supply. Therefore, investing in SMBs and SMEs to meet the increasing demand for aerospace and space products and services is of great importance.

**Innovation Ecosystem:** Capital investments in research, development, and technological innovation, will enhance the capabilities of local aerospace companies, fueling industry growth. The DoD's Small Business Innovation Research (SBIR) program stands as a beacon of innovation for California's entrepreneurs and small businesses. This program offers a unique avenue to access non-dilutive capital, crucial for advancing early-stage technology prototypes—a phase that often poses significant challenges in securing traditional funding. A prime example of SBIR's transformative impact is evident in the journey of Launcher, a Hawthorne-based space technology company. Founded in 2017, Launcher was an early-stage business that rapidly scaled from a 6-person team to nearly 70 employees within three years, thanks to an initial SBIR investment. This funding was instrumental in their development of small rocket launch capabilities, leading to a significant contract with SpaceX and a strategic acquisition by Vector Acquisition Corporation. As of the last report in 2018, more than 2,295 SBIR contracts and more than \$1.46B in non-dilutive SBIR funding has been allocated to over 757 California companies and startups.

Recently, the U.S. Department of Labor awarded a \$12 Million grant to the West LA College/ SBWIB led collaboration to prepare 5,000 apprentices for

Advanced Manufacturing, Bioscience & IT careers nationwide<sup>5</sup>.

DTI (Disruptive Technology Index), a California non-profit organization, is at the forefront of establishing a vibrant innovation ecosystem for startups and companies in aerospace and space. Through its partnership with the U.S. Space Force venture and innovation arm, SpaceWERX, DTI established The Bridge, a 17,000 sq. ft innovation and collaboration hub located in El Segundo, that fosters innovation between entrepreneurs, technologists, brands, private organizations and government. As subject-matter experts, DTI runs *free* cohort-style education and immersion programs that help dual-use technology companies and startups “bridge” the valley of death through education, funding and mentorship. The SoCal Aerospace Council also plays a vital role in development, by advocating for policies that support the aerospace sector. This includes ensuring that the industry’s needs are considered in local, state, and national policy decisions, which helps create a favorable business environment. Additionally, a state program, California SmartMatch, has been instrumental in connecting original equipment manufacturers (OEMs) with local suppliers. This has strengthened the supply chain, ensuring that local aerospace companies can meet the demands of both national defense and commercial applications.

**Regional Assets:** Los Angeles County remains a key player in aerospace engineering and manufacturing, with employment in this sector being significant due to the presence of large defense contractors and a network of suppliers. In fact, *the Aerospace Industry encompasses virtually all of L.A. County’s geographic regions*. The city of El Segundo is considered the “Aerospace Capital of the world,” being home to Los Angeles Air Force Base, which has more than a \$1.8 billion dollar impact on the economy of the greater metropolitan Los Angeles area annually.<sup>6</sup> Additionally,

The Aerospace Corporation, along with the nation’s largest defense firms (aka Primes): Northrop Grumman, Boeing, RTX (Raytheon), and Lockheed Martin, are all in El Segundo. That, along with more than 100 venture-backed firms and start-ups that have received more than a billion dollars in venture capital investments, makes El Segundo, “the most important five square miles economically in Southern California,” according to its Mayor, Drew Boyles.

The city of Long Beach, also known as “Space Beach,” deems aerospace as the fastest growing business sector in the city, and is home to many space companies and startups. Indeed, SpaceX is building a new plant here, despite moving their headquarters from Hawthorne to Texas. Long Beach recently designated 17 acres of land on the west side of the Long Beach Airport, to be used for “aeronautical” purposes, adding to an aviation complex that generates \$8.6 billion in economic impact and supports 46,000 jobs.<sup>7</sup> Long Beach also recently launched its “Space Beach Initiative,” in conjunction with Cal State University Long Beach, a project expected to produce some 15,000 degreeed or certified engineering professionals over the next decade.<sup>8</sup>

The city of Palmdale, known as “America’s Aerospace Valley,” is the birthplace of the Space Shuttle at Air Force Plant 42; along with The Palmdale Aerospace Academy (TPAA). TPAA is a TK-12th Grade charter school serving 540 students in the Antelope Valley focused on STEM (science, technology, engineering, and mathematics) education influenced by the Aerospace Industry. TPAA’s main community partners are two of the major Aerospace “Primes,” Lockheed Martin and Northrop Grumman, with the latter offering internships to TPAA students. However, Palmdale is best known within the Aerospace community for being the home to a 215,000-square-foot advanced manufacturing facility owned by Lockheed Martin,

5 South Bay Workforce Investment Board. (n.d.). Aero-Flex Pre-Apprenticeship. South Bay Workforce Investment Board. <https://www.sbwib.org/aero-flex>

6 U.S. Space Force. (n.d.). *Economic impact*. Los Angeles Air Force Base. <https://www.losangeles.spaceforce.mil/About-Us/Fact-Sheets/Display/Article/734564/economic-impact/>

7 Long Beach Business Journal. (n.d.). *City to expand aerospace sector with new development opportunity at Long Beach Airport*. <https://lbbusinessjournal.com/news/business/city-to-expand-aerospace-sector-with-new-development-opportunity-at-long-beach-airport/>

8 Long Beach Business Journal. (n.d.). *City to expand aerospace sector with new development opportunity at Long Beach Airport*. <https://lbbusinessjournal.com/news/business/city-to-expand-aerospace-sector-with-new-development-opportunity-at-long-beach-airport/>

called Skunk Works, a pseudonym for Lockheed Martin's Advanced Development Programs (ADP). Skunk Works employs more than 2,500 residents, and has made over \$400 million in capital investments across the Palmdale campus.<sup>9</sup>

Both the San Fernando and San Gabriel Valleys maintain regional concentrations in Aerospace employment as well. San Gabriel Valley, home to a Northrop Grumman campus in the city of Azusa, employs 4,502 people in the Aerospace Vehicles and Defense industry cluster. The San Fernando Valley employs 15,531 people in the same cluster with concentrated zones in the West Valley, Burbank, and Van Nuys.

The world-renowned research facility, NASA's Jet Propulsion Laboratory (JPL) and the California Institute of Technology (Caltech) are both located in Pasadena. In general, Los Angeles County's expansive college and world-class university system creates its own pipeline of new talent, with 55,000 STEM degrees awarded in 2022. 7,000 of those degrees were from engineering programs, with Caltech leading the way, ranked as the #2 Aerospace Engineering Program in the nation.

The Santa Clarita Valley (SCV) also offers a robust training and technical skills certification program related to aerospace manufacturing, with 7.1% of all SCV jobs being in the advanced manufacturing sector and each worker receiving an average salary of \$115,755 dollars (one of the highest averages in the state of California). The Low Observable Technician pathway at College of the Canyons (COC) offers participants a fast-track workforce program in a high-demand field that helps ensure the security of our nation. Santa Clarita also boasts the largest collection of master-planned business parks in Los Angeles County. Currently there is nearly 30 million square feet of industrial and commercial property in use and additional state-of-the-art property under construction, primed for manufacturing.<sup>10</sup>

The Westside of Los Angeles County developed a new innovation hub called "Silicon Beach" that greatly supports the aerospace industry. Silicon Beach stretches along the coast from Santa Monica to Hermosa Beach, and is home to over 500 tech startups, which have raised over \$4.2 billion dollars.<sup>11</sup> This influx of capital is helping these early-stage businesses multiply, grow and offer new technology solutions that support the major aerospace defense contractors in the region.

## Increasing Economic Diversification and Resilience

The aerospace sector in Los Angeles can implement several strategies that capitalize on the growing demand for aerospace and defense products while also preparing for potential future challenges:

### 1. Diversifying Supply Chains and Production Capabilities

- **Broaden Supplier Networks:** Given the rising demand for aerospace and defense products, LA-based aerospace companies should diversify their supply chains by building relationships with a broader range of suppliers, including small and minority-owned businesses. This would reduce reliance on a limited number of suppliers, mitigating risks associated with supply chain disruptions.
- **Invest in Advanced Manufacturing:** To meet the increasing demand for advanced aerospace technology, companies should invest in next-generation manufacturing techniques such as additive manufacturing (3D printing), automation, and AI-driven production processes. These technologies can enhance production efficiency, reduce costs, and allow for quicker adaptation to market changes.

### 2. Workforce Development and Skills Diversification

- **Expand workforce training programs focused on aerospace manufacturing, space technology, and defense can**

<sup>9</sup> Lockheed Martin. (2022, March 17). *Lockheed Martin Skunk Works® hosting same-day hiring decision events*. <https://news.lockheedmartin.com/2022-03-17-Lockheed-Martin-Skunk-Works-R-Hosting-Same-Day-Hiring-Decision-Events>

<sup>10</sup> Santa Clarita Valley Economic Development Corporation. (n.d.). *Aerospace & defense*. <https://www.scvedc.org/aerospace-defense>

<sup>11</sup> Built In LA. (July 2024). *Silicon Beach: The ultimate guide to LA's tech scene*. <https://www.builtinla.com/articles/silicon-beach-guide-tech-scene>

ensure a steady pipeline of skilled workers. These programs should include initiatives aimed at underrepresented communities to enhance diversity in the workforce.

- Emphasize STEM education by collaborating with K-12 schools.
- Implement strategies to support disadvantaged students and underserved adults in disinvested communities to garner the necessary math and science grades to access internships, grants and scholarships, pre-college and specialized programs that can expand sector employment readiness.

### 3. Expand into Emerging Markets and Sectors

- Develop Green Aerospace Technologies by developing and manufacturing green aerospace technologies, such as electric aircraft, sustainable aviation fuels (SAFs), and energy-efficient propulsion systems, positioning the industry as a leader in sustainable technology.

### 4. Strengthening Public-Private Partnerships

- Leverage federal contracts with government agencies like the Department of Defense (DoD) and NASA on R&D initiatives, leading to innovation and growth in areas such as advanced materials, cybersecurity, and space exploration.
- Create participation plans where the community can be involved in PPPs through financial instruments such as stock options or vesting equity.

### 5. Fostering Resilience through Financial and Operational Strategies

- Build Financial Resilience: Companies should focus on building strong financial reserves and diversifying their revenue streams to withstand economic downturns or shifts in government spending. This could include expanding into international markets or offering maintenance, repair, and overhaul (MRO) services.

# Aerospace Manufacturing

## GOAL 1

### Enhance the Small Business and Entrepreneurship Ecosystem

STRATEGY 1 Drive innovation to support the growth and sustainability of the sector		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
Financial Strategy	Promote investments into state-of-the-art aerospace manufacturing facilities equipped with advanced machinery and technology, capable of producing high-precision components for both military and commercial application	Expanding facility production will increase availability of jobs in the sector	Facilities will be located in disinvested communities; mandating hiring from within the community will increase equity	Utilize green tech and buildings to meet CA's greenhouse gas emissions goal

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Financial Strategy</b>	Invest in SMBs and SMEs to provide incentives for businesses to engage minority owned businesses	Increasing the number of businesses, and investing in existing ones, leads to increased need for skilled workforce to fill new jobs	Growth of minority-owned businesses in the industry will increase job access to disinvested communities; Encourages entrepreneurship, stewardship and employee ownership among minority-owned businesses in underrepresented communities	Drives broader participation in clean technology innovations. Small firms often lead in specialized research, such as green aviation technologies, and can be more agile in adopting new, environmentally-friendly solutions. This diversifies the workforce and promotes inclusive growth in sectors contributing to climate action
<b>Financial strategy</b>	Sustain existing aerospace businesses and support the growth of the small business ecosystem, which is critical to diversifying company ownership and employment			
<b>Financial strategy</b>	Secure funding for research and development (R&D) activities through federal, state, and local grants by facilitating collaborations between industry and academia to drive technological breakthroughs	Leads to the creation of more high-quality jobs in fields such as engineering, IT, and other STEM-related disciplines; provides opportunities for students and early-career professionals to engage in internships, apprenticeships, and training programs. improves access to high-paying jobs and provide pathways for career advancement	Can support research into climate-resilient infrastructure, such as sustainable aviation systems and renewable energy grids in disinvested communities	Businesses are incentivized to adopt climate friendly policies to meet CA's greenhouse gas emissions goal; prepares the workforce to meet the demands of a green economy; enables the research and development of renewable energy technologies to power aerospace vehicles and parts manufacturing
<b>Financial strategy</b>	Facilitate private sector investments to support research, development and incentives for aerospace companies			
<b>Advocacy</b>	Leverage federal investment in aerospace, particularly through defense contracts, with government agencies like the Department of Defense (DoD) and NASA on R&D initiatives to make industry leaders more accountable to the government, and create incentives for large industry employers to subcontract to smaller businesses	Can lead to innovation and job growth in areas such as advanced materials, cybersecurity, and space exploration		Encourages innovations that promote environmental sustainability. The development of green aviation technologies—like fuel-efficient engines or eco-friendly materials—contributes to reducing the overall environmental impact of the aerospace industry, supporting global climate goals
<b>Partnerships</b>	Establish R&D centers with a focus on renewable energy technologies within aerospace in partnership with local universities and research institutions	Promotes job creation within disinvested communities	Disinvested communities will gain community investment and opportunities to engage community members	Centers will result in innovation and meet CA's greenhouse gas emissions goal
<b>Partnership</b>	Encourage SBIR portfolio companies, Primes and startups within the aerospace sector to actively participate in collaboration and knowledge exchange, through organized networking and collaboration events and forums	Partnerships lead to innovation in workforce development activities that can create new pathways, trainings, and access to jobs		
<b>Advocacy</b>	Advocate for state-funded incentives for businesses to commit to local hire and adopt climate-friendly policies	Ensures that residents benefit from job opportunities, and businesses are motivated to offer competitive wages and better working conditions to meet the requirements tied to these incentives	Businesses are incentivized to hire people from disinvested or underrepresented communities; reduce barriers to employment and promote more inclusive economic participation	Businesses are incentivized to adopt climate friendly policies to meet CA's greenhouse gas emissions goal, and are encouraged to adopt sustainable practices, reduce carbon emissions, and transition to greener operations

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Outreach; Partnerships</b>	Establish a Los Angeles County task force composed of diverse industry leaders, government officials, and academic representatives to oversee the execution of expanding talent pipelines, & reshape and influence perceptions of the Aerospace Industry	<ul style="list-style-type: none"> <li>Creates educational &amp; vocational pathways that are more inclusive &amp; accessible;</li> <li>Expands talent pipelines; leads to innovation in workforce development activities that can create new pathways, trainings, &amp; access to jobs</li> </ul>	Ensures that the perspectives and needs of underrepresented & marginalized communities are considered in workforce development strategies. By actively working to reshape perceptions of the aerospace industry, the task force can make the industry more appealing to women, people of color, and those from disadvantaged backgrounds leading to a more inclusive and diverse workforce in aerospace	Aligning the talent pipeline with the growing demand for environmentally friendly aerospace solutions can help foster a workforce capable of driving climate-positive change. The collaboration between industry, government, and academia will also ensure that climate considerations are a top priority in workforce training, promoting sustainable practices across the aerospace sector.
<b>Outreach; Technical Assistance</b>	Identify and engage new tech companies interested in participating in the DoD's Small Business Innovation Research (SBIR)/STTR program by providing technical assistance	<ul style="list-style-type: none"> <li>Promotes entrepreneurship and allows small firms to grow, which in turn creates high-quality jobs in emerging tech fields. These jobs often offer competitive wages, professional development opportunities, and career advancement in this industry</li> </ul>	Provides opportunities for smaller, diverse, and underrepresented businesses to access federal funding and support; promotes the growth of minority-owned businesses, creating a more inclusive innovation ecosystem and ensuring that a broader range of communities benefit from federal contracts and technological advancements; broadens access to well-paying tech jobs for individuals from historically underrepresented communities	SBIR/STTR-funded projects lead to the creation of sustainable technologies that reduce the carbon footprint of defense operations.
<b>Financial strategy; partnerships</b>	Promote co-investments and sustained collaboration between industry and community organizations with strong ties to underserved residents and educational institutions	<ul style="list-style-type: none"> <li>By partnering with educational institutions and community organizations, industries can co-invest in training programs that equip residents of underserved areas with the skills needed for green jobs</li> </ul>	Sustained collaboration ensures that climate initiatives are community-led and tailored to the specific needs of the local population	By co-investing in clean energy infrastructure (e.g., solar panels, energy-efficient housing), these partnerships ensure that vulnerable populations have access to sustainable solutions, reducing overall carbon footprints and promoting equitable climate action



## GOAL 2

## Build and Align Career Pathways

## STRATEGY 1

Align education, community needs and training programs more closely with emerging industry needs

## OUTCOMES

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development; Outreach</b>	Develop, make available and inform students about specialized curricula/ vocational training/ mentorship programs within middle schools and high schools that provide paid on-the-job training and internships and help to place them in those opportunities	Students gain the specific skills and knowledge required by the aerospace industry; creates a steady pipeline of qualified professionals, making it easier for graduates to transition directly into high-quality jobs within the sector; Leads to high paying jobs without requiring a four-year degree; creates an attractive pathway to long-term, family sustaining jobs	These pathways are more visible and accessible; provides alternative routes into the aerospace industry, expanding access to high-quality jobs for individuals who might not pursue traditional higher education	Creates a talent pipeline to address the State's climate goals;  Training programs can integrate knowledge about clean technology and climate-resilient practices, preparing a workforce that is skilled in green aerospace technologies
<b>Advocacy</b>	Promote STEM education initiatives in public and independent K-12 schools and school districts across L.A. County to increase the math and science scores and build interest in aerospace jobs.	The aerospace industry in particular requires a workforce adept in STEM fields, and early exposure prepares students for well-paying, stable careers with significant opportunities for advancement; helps garner the necessary math and science competencies to access internships, grants and scholarships, pre-college and/or specialized programs that can expand sector employment readiness.	Focusing on schools in disinvested communities helps to increase the math and science scores for disadvantaged students	By growing a workforce educated in STEM, L.A. County can advance climate goals through innovation and the development of solutions to environmental challenges
<b>Outreach; Partnerships</b>	Create a specialized curriculum and training program(s) in partnership with L.A. County's community college and university ecosystem sponsored by the primes focused on aerospace manufacturing, space technology, and defense aimed at underrepresented communities	Creates a steady pipeline of qualified professionals for the aerospace industry; students gain support needed to become equipped with the specific skills and knowledge required by the aerospace industry	Ensures that individuals from disinvested communities, including those w/o four-year degrees, have access to training programs tailored to the aerospace industry	Empowers underrepresented groups to participate in and benefit from the green economy; a workforce trained in renewable energy technologies, electric vehicles, and sustainable construction can support California's efforts to decarbonize its industries
<b>Outreach</b>	Conduct outreach to students from underrepresented groups on college campuses through career fairs, informational sessions, etc.	Provides critical insights into the industry and promotes pathways to well-paying jobs	Increase the percentages of students from underrepresented groups receiving aerospace engineering degrees	Creates a talent pipeline to address the State's climate goals.

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development; Outreach</b>	Develop, make available and inform students about specialized curricula/ vocational training/mentorship programs within middle schools and high schools that provide paid on-the-job training and internships and help to place them in those opportunities	<ul style="list-style-type: none"> <li>• Students gain the specific skills and knowledge required by the aerospace industry;</li> <li>• creates a steady pipeline of qualified professionals, making it easier for graduates to transition directly into high-quality jobs within the sector;</li> <li>• Leads to high paying jobs without requiring a four-year degree; creates an attractive pathway to long-term, family sustaining jobs</li> </ul>	These pathways are more visible and accessible; provides alternative routes into the aerospace industry, expanding access to high-quality jobs for individuals who might not pursue traditional higher education	<p>Creates a talent pipeline to address the State's climate goals;</p> <p>Training programs can integrate knowledge about clean technology and climate-resilient practices, preparing a workforce that is skilled in green aerospace technologies</p>

**STRATEGY 2**  
 Create a talent pipeline through expansion of on-the-job vocational trainings and certification opportunities for communities that have been historically disinvested

## OUTCOMES

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Outreach; Partnerships</b>	Enhance recruiting by forging partnerships between major Aerospace corporations and local CBOs	Aerospace corporations can create recruitment pipelines that focus on underserved communities, ensuring that more people are trained for and have access to high-quality jobs.	CBOs are deeply rooted in local communities and have established trust with populations that might otherwise be overlooked in traditional hiring practices. Through these partnerships, aerospace companies can access diverse talent pools, particularly in disinvested communities, and focus on reducing barriers to employment	Partnerships with CBOs ensure that local talent is equipped to participate in these environmentally conscious roles, driving the industry toward more sustainable practices that align with broader climate goals
<b>Workforce Development</b>	Establish free cohort-style education and immersion programs	Enables participants to gain practical experience and industry connections; provides participants with in-depth technical and professional training, which is crucial for building specialized skills needed in aerospace. This ensures that individuals are equipped with the necessary knowledge to excel in high-quality, high-paying jobs, enhancing long-term career prospects within the industry	Opens up opportunities for individuals from underserved and underrepresented communities, who may not have had the financial means to access such specialized training.	Promotes the development of fuel-efficient aircraft, electric propulsion systems, and reducing emissions
<b>Workforce Development</b>	Industry leaders increase sponsorships of workers	Sponsorship can include funding, internships, & job placement opportunities helping students to enter the workforce and obtain high-quality jobs	Sponsorships can create pathways for individuals who may not have access to the financial resources needed for higher education or specialized training	Contributes to the development of green technologies and processes within the aerospace sector, aligning with broader climate targets for carbon reduction

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Replicate pre-apprenticeship and registered apprenticeship programs, such as the Aero-Flex Pre-Apprenticeship and Apprenticeship Program, created by the South Bay Workforce Investment Board (SBWIB), which is designed to develop workforce pipelines for the aerospace industry in partnership with CBOs	Offers pre-apprenticeship and registered apprenticeship opportunities, allowing employers to customize training for each participant. Apprenticeships lead to higher-skilled workers, which in turn results in better job quality, career advancement opportunities, and higher wages	Allows individuals with varying skill levels and experiences to enter the program and succeed. Helps to remove barriers to entry for disadvantaged individuals. Partnering with CBOs enables job seekers to receive wrap-around services like transportation and childcare, removing significant barriers that prevent people from low-income communities from accessing quality jobs	Ensures that the next generation of workers is trained in environmental sustainability and helps aerospace companies scale the development of green aviation infrastructure and eco-friendly transport solutions

## GOAL 3

## Transition Industries into the Carbon-neutral Economy

<b>STRATEGY 1</b> Create financial incentives for industry leaders to adopt green technology	<b>OUTCOMES</b>
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Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Advocacy</b>	Encourage the adoption of green technologies and practices in aerospace manufacturing through incentives that simultaneously promote climate forward development and hiring from disinvested communities	Ensures long-term job security in a sector increasingly focused on reducing environmental footprints. Workers who specialize in green technologies, like emissions-reduction strategies, will have stable employment as industries invest more in climate-friendly solutions;	These policies will incentivize primes to sub out more to start ups and minority owned small businesses	Provides a pathway for mitigating climate impacts & meet CA's greenhouse gas emissions goal; Limits the impact of economic development activities on the natural environment & meet CA's greenhouse gas emissions goal; Reduces greenhouse gas emissions and improves energy efficiency, & meet CA's greenhouse gas emissions goal
<b>Financial strategy</b>	Invest in research and development of cleaner propulsion systems, such as electric or hydrogen-powered engines for aircraft and spacecraft	Creates the need for more skilled employees to fill these positions		

<b>STRATEGY 2</b> <b>Grow environmentally responsible industries dedicated to community resilience</b>		<b>OUTCOMES</b>		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Business practices</b>	Implement energy-efficient manufacturing processes and supply chain management projects located in or near underserved communities	Helps address unemployment and underemployment in these areas, providing stable and well-paying jobs	Increases employment opportunities to local residents;	Creates new roles in green technology sectors; Energy-efficient manufacturing processes minimize energy consumption, which in turn reduces emissions from power generation
<b>Advocacy</b>	Engage with local policymakers to align industry practices with climate goals	Creates green jobs in renewable energy, energy efficiency, and sustainability. These jobs tend to offer competitive wages, benefits, and career advancement opportunities	Industries can establish equitable hiring practices, ensuring that workers from historically disinvested or underrepresented communities benefit from new climate-focused jobs	Helps reduce pollution and environmental degradation in disinvested areas, leading to healthier living conditions and, indirectly, better economic opportunities; businesses are incentivized to adopt energy-efficient technologies, renewable energy, and sustainable practices, directly contributing to local and state emissions reduction targets
<b>Business practices</b>	Upgrade facilities to use renewable energy sources like solar panels or wind turbines; Develop and manufacture green aerospace technologies, such as electric aircraft, sustainable aviation fuels (SAFs), and energy-efficient propulsion systems; and Promote Sustainable Aviation Fuels (SAFs) by encouraging fuel suppliers and airlines to increase SAF availability and affordability	Workers in SAF-related fields are likely to benefit from long-term employment opportunities. The growing global demand for SAF aligns with climate change mitigation policies, creating a steady demand for skilled labor; The promotion of SAFs will likely be accompanied by training programs for workers in the aviation and fuel industries, enhancing their skills in handling new technologies and systems. This opens doors for career advancement and specialization, particularly in sectors related to renewable energy	Transitioning to renewable energy can reduce the energy burden on low-income households, particularly if surplus energy from renewable sources is made available at a reduced cost. This helps address disparities in energy access and affordability that disproportionately affect marginalized communities	Reduces greenhouse gas emissions and improves energy efficiency, & meets CA's greenhouse gas emissions goal; spurs innovation and investment in new technologies and infrastructure for SAF production, distribution, and utilization. This fosters the growth of a greener aviation economy and promotes the development of other renewable energy technologies; reduce lifecycle carbon emissions by up to 80%

## Alignment with Job Quality & Access, Equity and Climate

### Job Quality & Access

Through outreach, partnerships, advocacy, workforce development, and financial/investment strategies, the strategy prioritizes access to training, career advancement, and job pathways for the region's disinvested communities. The strategy to develop specialized curricula in collaboration with middle schools, high schools, community colleges, universities, and community-based organizations (CBOs) ensures that students acquire the skills needed for the aerospace industry, creating a steady pipeline of qualified professionals. By focusing on vocational training, especially for those not pursuing four-year degrees, and integrating clean energy solutions, the strategy aligns with the growing demand for sustainability in aerospace. Free cohort-style education programs and partnerships with prime contractors provide critical funding, mentorship, and job placement, increasing access to high-quality jobs. Additionally, initiatives to support underrepresented groups in aerospace engineering programs foster workforce diversity, while paid on-the-job training offers pathways to stable, well-paying careers right out of high school.

### Equity

The strategy suggests enhancing the appeal of the Aerospace Industry to underrepresented groups by implementing targeted employee listening programs. These programs should go beyond annual surveys to identify the root causes of specific workforce challenges, such as attrition in particular roles or within certain facilities, and issues related to gender, racial, ethnic, or generational cohorts. By diagnosing these challenges, the industry can develop targeted interventions to address them effectively.

### Climate

The Aerospace Industry in Los Angeles County will play a crucial role in California's Climate Scoping Plan by supporting sustainable practices, reducing emissions, and implementing clean energy initiatives. Though several aerospace companies in Los

Angeles County are actively working towards carbon neutrality and clean energy initiatives, it will take the active support of the entire Aerospace Industry in Los Angeles County to reach the 2045 goal. The strategy recommends encouraging the adoption of green technologies and practices in aerospace manufacturing, and incentivizing initiatives aimed at reducing the environmental impact of aerospace operations. Emphasizing clean energy solutions within these programs also aligns with the growing demand for sustainable practices in aerospace, further increasing job opportunities in this emerging field.

The following aerospace companies are a part of Los Angeles County's growing green economy and will be leveraged to achieve climate goals for the region:

- **Heliogen Inc:** Based in Pasadena, Heliogen focuses on industrial solar energy. Their technology, Sunlight Refinery, generates carbon-free thermal energy, which can replace fossil fuels in the production of cement, steel, and petrochemicals. Heliogen's innovative approach to clean energy has garnered significant investment and recognition for its potential to decarbonize industrial processes.
- **SpaceX:** Known for its advances in aerospace and space travel, SpaceX has also made strides in sustainability. The company aims to reduce the environmental impact of space launches and is exploring ways to make space travel more energy-efficient. Despite moving their headquarters, SpaceX continues to have a substantial presence in Los Angeles County.
- **Relativity Space:** This company utilizes 3D printing to create rockets more efficiently and with fewer parts, significantly reducing the environmental footprint of rocket manufacturing and launches. Relativity Space's approach represents a move towards more sustainable aerospace production.
- **Virgin Orbit:** Operating out of Long Beach, Virgin Orbit focuses on launching small satellites with minimal environmental impact. Their air-launched system, LauncherOne, is designed to be more efficient and less polluting than traditional rocket launches.
- **Slingshot Aerospace:** Located in El Segundo, Slingshot Aerospace builds space simulation and



analytics solutions to help manage and safeguard space assets, contributing to more efficient and sustainable space operations.

### **Alignment with State Strategies**

With California's emphasis on reducing greenhouse gas emissions and improving energy efficiency across various sectors, aerospace manufacturing companies must become incentivized to become more proactive in their adoption of green technologies and energy sources throughout their manufacturing supply-chain. Historically, California has offered significant financial incentives to industry leaders through GO-Biz's signature investment program, CalCompetes, which has awarded close to \$200 million in tax credits and grants to aerospace companies since 2019. Likewise, the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) supports California's mission to provide financial incentives to larger aerospace firms and cutting-edge aerospace startups by offering a sales and use tax (STE) exclusion to manufacturers that promote alternative energy and advanced transportation. These investments and

government rebates must be actualized to incentivize aerospace companies on becoming active adaptors to transition to carbon neutrality.

### **Strategy Implementation**

The State of California is at the helm and the global leader of the Space Industry and the Space Economy. These noteworthy accomplishments must be amplified, making aerospace synonymous with the Golden State's narrative similar to Hollywood. By focusing on our strategic goals and leveraging the strengths of the aerospace manufacturing industry in Los Angeles County, this comprehensive strategy will ensure long-term economic growth that moves the Aerospace Industry forward in a more sustainable and inclusive manner. We must also monitor progress through regular assessments and adjust strategies as needed to ensure goals are met. Through these efforts, Los Angeles County's Aerospace Industry will continue to maintain its competitive economic environment, while opening itself up to new economic development and investment opportunities.

## Target Sector Strategies

# Clean/Renewable Energy



As the Clean/Renewable Energy Table Partner Lead for the California Jobs First program, [UNITE-LA](#) convened nine employers in a series of focus groups between June and July 2024 to identify workforce barriers and develop strategies for creating actionable solutions. They included representatives from firms specializing in EV Chargers, Hydrogen Initiatives, Water Infrastructure Operations, Sustainability Consultants, Waste and Energy Management, and Municipal Water Districts. These convenings are part of ongoing efforts to increase access to high-quality jobs in the clean and renewable energy sector rooted in their close collaboration with employers to understand hiring needs and develop talent pipeline programs that provide youth with early work experience.

Through a 2022 landscape analysis that informed the launch of the Clean Tech Academy in Spring 2023, UNITE-LA conducted a series of employer interviews, revealing several key challenges in job placements. Many employers in the clean/renewable energy sector lack established internship programs to effectively pipeline students into their companies, making it difficult for young candidates to find entry points into the industry. As these employers strategize to meet California's zero carbon emissions mandates, they are still determining the types of entry-level jobs that will be available, indicating that it will take time to shift current hiring practices to ensure more equitable access to jobs for young talent.

The findings also highlighted that while some employers have competitive campus recruitment programs, these are not yet widespread across the industry, particularly in the emerging clean/renewable

energy sector in Los Angeles. Entry-level internships and jobs are especially limited for individuals without specific certifications or credentials, and the current economic climate, with reduced company budgets, is not conducive to expanding internship opportunities. This limitation is particularly challenging for youth under 18 years old, who face additional barriers to accessing work experience in this sector.

## Define Sector and Justify Prioritization by Region

### Sector Development

The Clean/Renewable Energy industry was selected due to its pivotal role in supporting Los Angeles County's infrastructure, sustainable development, and integration into regional economic and environmental plans. While the Regional Plan Part 1 defined the sector as the Green Energy industry cluster, focusing more on electrical contractors and power generation such as solar, wind and hydroelectric (see [Appendix](#)). This target sector strategy opens up the conversation to many other key components and organizations that play a vital role in California's transition to a carbon neutral economy. Beyond the power generators, the Clean/Renewable Energy sector encompasses, and works alongside, important organizations working in Hydrogen, EV charging stations, infrastructure management, water infrastructure, utilities, water, waste and energy management, among others.

Clean/Renewable Energy plays a unique role as it features in the supply chain and infrastructure of many other industries. Major Los Angeles clean energy employers include private companies such as

Charger Help, Charge, Cordoba, Inframark, Ramboll, Southern California Edison, Sunrun, Veolia, and West Basin Municipal Water District, and more, all of which are leaders in advancements in the field. Hydrogen's infrastructure is still in its early stages of development but also plays a unique role in clean and renewable energy, which is critically aligned with both regional needs and broader sustainability goals. This sector plays an essential role in supporting regional infrastructure, promoting equity, and advancing long-term sustainability goals.

**Clear Local Market Signals:** The proposed clean and renewable energy sector, along with its affiliated investments, is strongly aligned with prevailing market trends and local, state, and federal policy initiatives. This alignment is evident in the sector's focus on renewable energy, particularly solar power, which is experiencing significant growth driven by California's mandate to achieve 100% clean energy by 2045. This policy reflects a broader push towards sustainable development, positioning the sector at the forefront of a crucial market trend. In general, infrastructure management is crucial for regional development, particularly in uplifting disinvested communities.

The expansion of electric vehicle (EV) infrastructure is a key area where the sector aligns with market trends and policy goals. California's policy to phase out gasoline-powered vehicles by 2035 has created a substantial market shift towards electric vehicles, necessitating the rapid development of EV infrastructure. This shift is further supported by state and federal incentives, including rebates and tax credits, which are designed to accelerate the adoption of EVs and the necessary charging infrastructure. However, the Regional Plan Part 1 found that Battery Electric Vehicle adoption is highly uneven across SPAs with areas like South LA only having 24 to 50 Battery Electric Vehicles per 10,000 people, while the Westside has nearly 460 per 10,000.<sup>12</sup>

The EV industry in Southern California, particularly in Los Angeles, employs approximately 119,700 workers, which constitutes about 43.4% of California's total EV industry employment. This sector is experiencing

significant growth, supported by California's ambitious carbon neutrality goals, such as reaching 5 million EVs on the road by 2030. The industry is concentrated mainly in downtown LA, South Bay, and Orange County, areas known for their technological advancements and infrastructure suitable for supporting this growing sector.<sup>13</sup> Companies like Charger Help and Charge are pivotal in supporting Los Angeles' carbon-neutrality plans by facilitating EV integration, a key component in reducing emissions in this car-centric city. This growing demand for sustainable transport directly enhances the county's electrical infrastructure, which is essential for creating a sustainable transportation ecosystem.

Hydrogen can complement other energy sources, including EVs, by playing a critical role in the shift to a low-carbon economy. It serves as an energy storage medium, capturing excess electricity from renewable sources like wind and solar, which can then be used during periods of low renewable output, helping balance grid supply and demand. This increases the reliability of EV charging infrastructure powered by renewable energy. While EVs are ideal for light-duty vehicles, hydrogen fuel cells are better suited for long-haul trucks, buses, and trains due to their fast refueling time and higher energy density, allowing both technologies to complement each other across different transport sectors. In industrial applications, hydrogen can replace fossil fuels in sectors like steel manufacturing, which are difficult to electrify, reducing overall carbon emissions and indirectly supporting the EV market through cleaner industrial processes. Furthermore, hydrogen fueling stations could be co-located with EV charging stations, offering a hybrid infrastructure that provides flexibility and reduces emissions across various transportation modes.

Investments in hydrogen infrastructure in the region are already being developed through ARCHES (*Alliance for Renewable Clean Hydrogen Energy Systems*), a statewide public-private partnership with \$1.2 billion in funding from DOE to accelerate renewable hydrogen projects and the necessary infrastructure. ARCHES is committed to creating 220,000 jobs in the region over the next few years,

<sup>12</sup> In SPA 6: East it is 24 BEV per 10,000 people and in SPA 6:West it is 50 BEV per 10,000 people

<sup>13</sup> <https://laedc.org/ev-report-preview>

along with workforce development programs to train people from disinvested communities to access these family-sustaining careers.

Investments in water infrastructure operations and management are also aligned with critical policy needs, particularly in drought-prone California. Water infrastructure operations are of paramount importance given Los Angeles' dry climate and large population, ensuring sustainable water supply and equitable access, especially in underserved areas. Energy companies such as Southern California Edison (SCE) play a vital role in delivering reliable energy while advancing the shift towards renewable sources to meet state and local emissions targets. These efforts are bolstered by the federal Infrastructure Investment and Jobs Act, which allocates billions of dollars to water and wastewater infrastructure, supporting sustainable urban living and resilience against climate-related challenges.<sup>14</sup>

Solar companies directly contribute to carbon-neutrality by expanding the share of renewables in the energy mix, offering high-quality jobs in a sector central to sustainable development. There are many opportunities for adopting Solar Energy across LA County with San Gabriel Valley leading the way at 2,349 solar energy opportunities. While Solar Electric Power Generation employs less than 500 people countywide, the average wage for this industry primarily engaged in operating solar electric power generation facilities is \$171,017 annually.

Furthermore, the sector's emphasis on waste reduction and enhanced recycling processes aligns with state-level initiatives aimed at managing waste more efficiently, reducing environmental impact, and promoting sustainability in urban settings. Overall, the proposed sector and its investments are well-positioned to capitalize on current market trends and are fully supported by a robust framework of local, state, and federal policies aimed at fostering a sustainable future.

**Value Chain and Infrastructure:** Investments in infrastructure are crucial for the growth of the clean and renewable energy sector, ensuring it can

meet rising demand and contribute to sustainable development. Key areas include significant upgrades to water infrastructure, focusing on enhancing water treatment facilities and building resilient distribution systems to support sustainable water management. Expansion of EV charging stations and solar farm installations is also necessary, particularly in urban areas, to keep pace with the increasing demand for renewable energy sources.

Business clustering is another vital aspect, with the creation of innovation hubs that combine energy and water management companies, research institutions, and startups to drive advancements in sustainable technologies. Additionally, fostering clusters of sustainability consulting firms will enhance the region's capacity to implement sustainable practices across various sectors.

Additional identified investment needs are critical in advancing the clean and renewable energy sector by fostering technology transfer, market integration, and innovation. Investments in infrastructure enhancements play a pivotal role by improving essential services in water, energy, and waste management, which in turn expedites the application of new technologies. This not only modernizes the sector but also ensures that innovative solutions are implemented more quickly and effectively across various segments of the industry.

Supply chain development will require a focus on local production, encouraging the manufacturing of solar panels, wind turbines, hydrogen electrolyzers, and EV technology components within the region. This will shorten supply chains, reduce emissions, and support local economies. Strategic partnerships between utility companies, renewable energy providers, and technology developers are also essential to streamline operations and drive infrastructure development.

To support these efforts, robust legislative and funding measures have been enacted:

- **Federal Inflation Reduction Act (IRA):** This act allocates \$369 billion towards energy security and climate change initiatives. It includes incentives for clean energy technologies, aiming to reduce

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greenhouse gas emissions by roughly 40% by 2030. Key provisions include expanded tax credits for renewable energy projects and enhancements to grid infrastructure to support increased renewable energy generation.<sup>15</sup>

- **Infrastructure Investment and Jobs Act (IIJA):** Will bring California an estimated \$41.9 billion from Federal Fiscal Year (FFY) 2022 through FFY 2026 billion in new federal investments, with an estimated \$1.2B dedicated for Clean Energy and Power and \$1.94B for water and water infrastructure. The act aims to rebuild and revitalize aging infrastructure, with significant allocations for upgrading the electrical grid and expanding renewable energy capacity.<sup>16</sup>
- **LA100 (Los Angeles 100% Renewable Energy Study):** An initiative by the city of Los Angeles to transition to 100% renewable energy by 2045. The study guides future investments and policies to achieve this goal, emphasizing the development of solar, wind, and other renewable energy sources within the city's boundaries, ensuring a sustainable and resilient energy future.<sup>17</sup>

These frameworks are designed to facilitate the construction of renewable energy facilities and promote equitable energy access, particularly focusing on the integration of sustainable practices within urban infrastructures and the equitable distribution of resources in underprivileged areas. To support these endeavors, a robust regulatory and policy framework is needed, including government incentives for businesses investing in renewable technologies and infrastructure improvements. Zoning and land use policies must be adapted to facilitate the construction of renewable energy facilities and related infrastructure.

Finally, the economic and community impact of these investments cannot be overlooked. Developing training programs and job creation initiatives in high-demand sectors like solar and EV infrastructure will build local expertise and help reduce unemployment. Community engagement programs are essential to

connect these investments directly with local needs, ensuring that infrastructure improvements benefit disinvested communities and contribute to broader social equity.

**Innovation Ecosystem:** One example of a successful regional investment is the LA Regional Cleantech Career Academy (CT Academy), which is a specialized training program launched by UNITE-LA that emphasizes Workforce Development and Equity. The CT Academy was among a select group of projects recognized and funded by the CIV:Lab Advisory Committee<sup>18</sup> for closing a critical workforce development gap with its cleantech career program, as well as the prioritization of equity in its outcomes. Collectively, the LA Climate Fund grantees are building the climate/clean energy workforce through nurturing interest in STEM careers in impacted and underserved communities; engaging people at the neighborhood level in climate action planning; advocating for free transit in LA; nurturing community green spaces and land stewardship; and utilizing technology as a vehicle for climate awareness in Angelenos; among others.

Partnerships with public entities and research institutions further boost sector-specific advancements. For example, the [L.A. Regional Consortium](#) (LARC) is comprised of 19 L.A. regional community colleges, local public universities (CSU-LA and UCLA), and private universities (USC Viterbi), to tap into a pool of students skilled in engineering and environmental sciences. LARC is a regional effort to bridge the gap between workforce preparedness and the employers fueling LA's cutting-edge economy.

*West LA College's CA Center for Climate Change*<sup>19</sup> is focused exclusively on climate change solutions, and job creation to meet the demands of the future workforce. The Center was funded through a \$5-million state allocation (AB 1913- Bryan) and \$1.3 million in federal dollars from then-Congresswoman Karen Bass and Senator Alex Padilla. West LA College boasts the first and only degree and certificate

15 <https://envirovoters.org/the-inflation-reduction-act/>

16 <https://rebuildingca.ca.gov/iiija-by-the-numbers>

17 <https://www.nrel.gov/analysis/los-angeles-100-percent-renewable-study.html>

18 <https://civ-lab.org/wp-content/uploads/2024/06/LA-Grantee-Press-Release.pdf>

19 <https://www.wlac.edu/academics/climate-center>

programs in Climate Change & Environmental Studies among the 116 California community colleges. These collaborative projects leverage the strengths of different stakeholders, combining resources and expertise to drive innovation in sustainable technologies. By linking to local educational and research organizations, the sector can tap into a wellspring of innovation, particularly in areas like solar energy and EV infrastructure.

The support for cleantech startups through incubation facilities is another key investment need that propels sector growth. These facilities provide the necessary environment for startups to develop and refine technologies related to solar, hydrogen, and EV infrastructure, which are crucial for the sector's expansion. Early-stage business support through accelerators and networking initiatives focuses on nurturing startups in the environmental and sustainability sectors, offering them the tools to overcome operational challenges and scale their innovations.

Efforts to improve market access for startups by linking them to utility companies and public agencies are essential for the piloting and adoption of new technologies. The Los Angeles Cleantech Incubator is a prominent example, providing extensive support to cleantech startups and facilitating connections with major stakeholders in the energy sector. The *Los Angeles Cleantech Incubator's (LACI) Green Jobs Regional Taskforce* informs regional strategies to drive more equitable employment opportunities in Cleantech, Transportation and Smart, Sustainable Cities.<sup>20</sup> *LACI's Transportation Electrification Partnership (TEP)* is a regional public private collaboration to accelerate deep reductions in climate and air pollution by the time of the 2028 Olympic and Paralympic Games in Los Angeles. All related projects are equity driven, create quality jobs, grow the economy, and help the region reach the bold targets in the TEP's Zero Emissions 2028 Roadmap 2.0.<sup>21</sup>

Additionally, Southern California Edison (SCE) has established programs that actively engage with startups to integrate and pilot new clean energy

solutions. For instance, SCE has partnered with Sunrun to launch a virtual power plant project. This project involves using Sunrun's Brightbox home solar-powered battery systems to provide 5 megawatts of energy capacity during peak demand periods, enhancing grid resilience and offering a new revenue stream for both SCE and Sunrun. This agreement allows SCE to utilize stored solar energy from these systems, which is particularly beneficial during high-demand events like heatwaves, thus supporting the grid's stability while promoting the adoption of renewable energy solutions. This kind of partnership exemplifies how utility companies can leverage the agility of startups to test and scale new innovative technologies within the energy sector.

**Regional Assets:** The Los Angeles region is fortuitous in the wealth of resources that will be leveraged to strengthen the development of the Clean/Renewable Energy sector. In addition to The L.A. Regional Consortium (LARC), LACI (Los Angeles Cleantech Incubator) and West LA College's CA Center for Climate Change described above, these include:

- *Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES)* The California Hydrogen Hub will leverage the state's leadership in clean energy technology to produce hydrogen exclusively from renewable energy and biomass. Awarded \$1.2 billion by the Department of Energy, The Hub will provide a blueprint for decarbonizing public transportation, heavy duty trucking, and port operations—key emissions drivers in the state and sources of air pollution that are among the hardest to decarbonize. The impact of the CA Hydrogen Hub is amplified by the state of California's strong policy and regulatory support for hydrogen including permitting, and, potentially, production and use incentives.
- Los Angeles Building and Construction Trades Council is an umbrella group representing 48 local unions and district councils in 14 Trades. Membership in these unions totals more than 140,000 skilled men and women. The Council negotiates Project Labor Agreements that bring union labor standards to projects in the public and

20 <https://lincubator.org/wp-content/uploads/LACI-GREEN-JOBS-REPORT.pdf>

21 <https://lincubator.org/transportation/>



private sector.<sup>22</sup>

- Los Angeles 100% Renewable Energy Study (LA100),<sup>23</sup> a partnership between LADWP, the National Renewable Energy Laboratory (NREL) and the University of California, Los Angeles to publish a science-based study to analyze potential pathways the community can take to achieve a 100% clean energy future. This report identifies where, when, how much, and what types of infrastructure and operational changes would achieve reliable electricity at least cost, taking into consideration factors such as renewable energy policies and requirements, technological advancement, fuel prices, and electricity demand projections.

## Increasing Economic Diversification and Resilience

In Los Angeles, the **solar industry** has experienced substantial growth, reflecting broader national trends influenced by increasing solar installations and supportive policies aimed at expanding renewable energy sources. According to the Solar Jobs Census, as of 2022, there were 263,883 solar workers in the United States, marking an increase of 3.5% from the previous year. The growth is driven by both residential and utility-scale solar projects, with residential jobs increasing by 11% in 2022.

Workforce trends in the solar industry are being shaped by several key factors as the sector continues to evolve. As the costs of solar technology decrease and energy density increases, there is a growing demand for skilled workers who can manage and maintain more efficient and high-quality infrastructure. The focus on sustainability is driving the need for expertise in implementing solar systems that are not only effective but also environmentally friendly.

Improvements in safety standards are also influencing workforce requirements, as workers need to be well-versed in the latest safety protocols to handle advanced solar installations. Additionally, the increasing use of energy storage solutions, particularly batteries, is creating new opportunities and challenges

in the workforce. Professionals in the solar industry now need to be knowledgeable about how to effectively store energy and manage the systems that control energy storage, ensuring that solar power can be utilized efficiently and without waste. These trends indicate a shift towards a more skilled, safety-conscious, and sustainability-focused workforce in the solar sector.

California, as the largest solar market in the U.S., continues to add more jobs in this sector, highlighting the state's commitment to renewable energy and its influence on local labor markets. This trend is poised to continue with projections suggesting a significant increase in solar-related employment due to the demand for cleaner energy and new technologies.<sup>24</sup> It will be important to create and strengthen Public-Private Partnerships where the community can be involved through financial instruments such as stock options or vesting equity.

One of the key challenges in the **battery industry** is the increasing safety and compliance requirements, which heighten the need for specialized talent. Most occupations in this sector require certified electricians, making it more difficult to expand the workforce since few individuals meet these stringent entry requirements. This challenge underscores the need for upskilling within the market and the development of better pathways to electrical training programs to ensure a steady pipeline of qualified professionals who can meet the demands of this growing industry.

The **water sector** is increasingly focused on the "greening" of infrastructure, which encompasses sustainable approaches in engineering, design, construction, and environmental engineering. This shift towards environmentally-friendly practices is crucial for developing "resilient infrastructure" that can effectively address the growing challenges posed by climate change. As climate-related events, such as flooding, become more frequent and severe, the need for infrastructure that can withstand these impacts is more pressing than ever.

22 <https://laocbuildingtrades.org/>

23 Cochran, Jaquelin, and Paul Denholm, eds. 2021. The Los Angeles 100% Renewable Energy Study. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444. <https://maps.nrel.gov/la100/>.

24 <https://www.ecmag.com/magazine/articles/article-detail/solar-jobs-rising>

In the **water and infrastructure sector**, represented by companies like Inframark, there is notable job growth driven by the integration of clean tech into traditional water industry roles. This crossover between the water and clean tech sectors is creating a robust job market, with a wide range of opportunities emerging due to technological advancements and the growing emphasis on environmental sustainability. This expansion suggests a healthy and interconnected sector that is likely to continue growing as clean technologies become increasingly vital in water management and infrastructure.

However, the sector faces significant challenges, including the “silver tsunami,” where a large portion of the current workforce is nearing retirement, leading to a potential skills gap. Additionally, much of the existing infrastructure is aging and in dire need of upgrades to meet modern standards. These challenges are compounded by the effects of climate change, which place further stress on already vulnerable systems. Addressing these issues requires not only investment in new technologies and infrastructure but also a strategic focus on workforce development to ensure a capable and resilient future for the water sector. Additionally, the water sector faces challenges in attracting new talent. As observed by the West Basin Municipal Water District, there is a decline in applications for water industry jobs, especially among younger demographics, since the pandemic. This decline points to a lack of awareness and interest in the water industry, which could pose a significant challenge for the future growth and sustainability of the workforce in this essential sector. Despite the numerous opportunities available, the sector may struggle to maintain its growth trajectory if it cannot effectively attract and retain new talent. This challenge highlights the need for targeted outreach and education efforts to raise awareness of the rewarding career paths within the water industry.

Workforce trends in the **hydrogen fuels and logistics sector** are increasingly influenced by the broader push towards electrification in transportation and buildings, as well as efforts to reduce greenhouse gas emissions and reliance on fossil fuels. This sector is seeing significant growth, driven by initiatives like the ARCHES Hydrogen Hubs, which aim to advance hydrogen as a key component in achieving carbon neutrality. As

California pursues ambitious goals, such as having 5 million EVs on the road by 2030, the demand for skilled workers in hydrogen fuel technologies is rising, particularly in regions like Southern California.

The **EV industry** in Southern California, especially in Los Angeles, already employs a substantial workforce, with approximately 119,700 workers, representing 43.4% of the state's total EV industry employment. This industry's expansion is concentrated in technologically advanced areas like downtown LA, South Bay, and Orange County, where infrastructure is well-suited to support this growing sector. As the hydrogen fuel sector continues to intertwine with the EV space, there is a need for a workforce skilled in both hydrogen technology and EV logistics, particularly in the modernization and integration of these systems.

However, the sector faces challenges, such as meeting the “zero emissions” target set by the Los Angeles World Airports (LAWA) by 2030, which requires compliance strategies and skilled labor to implement them. Additionally, while the EV space continues to grow, there are challenges related to consumer demand that could impact the sector's overall growth, underscoring the need for a workforce that is adaptable and equipped to navigate these evolving trends.

The growth of jobs in the renewable energy and infrastructure sectors reflects both opportunities and challenges, as highlighted by recent focus group discussions with industry employers. In the EV sector, particularly with companies like ChargerHelp, the energy transition is expected to create approximately two million new jobs, with 74% of these positions not requiring a four-year degree. This shift indicates a significant increase in accessible, high-paying jobs that do not necessitate extensive higher education, making the sustainable energy sector more inclusive and providing competitive wages above the minimum. This trend underscores a broader move towards democratizing employment opportunities in the green economy, offering pathways for individuals from diverse educational backgrounds to enter the workforce.

**Certifications** in the renewable energy space are becoming increasingly vital as the industry grows and evolves, reflecting the sector's emphasis on

safety, sustainability, and technical proficiency. These certifications are not only essential for ensuring that workers possess the necessary skills and knowledge but also play a crucial role in advancing careers within the industry.

- OSHA 10 certification is a foundational credential in the renewable energy sector, offering a 10-hour training program designed by the Occupational Safety and Health Administration (OSHA). This certification focuses on educating workers and employers about safety and health hazards in the workplace, emphasizing the recognition, avoidance, and prevention of these risks. As renewable energy projects, such as solar installations and wind farms, expand, OSHA 10 certification is increasingly valued for ensuring that safety standards are consistently met across diverse worksites.
- GPRO Fundamentals of Building Green addresses the "green gap" between traditional trade skills and the new sustainability awareness required in today's construction environment. It provides foundational concepts of sustainability, making it ideal for a wide range of professionals, including those in real estate, construction, architecture, engineering, and facilities management. As the demand for high-performance, sustainable buildings grows, this certification is becoming a key differentiator for professionals in the industry.
- LEED (Leadership in Energy and Environmental Design) and Envision certifications are used to evaluate and certify the sustainability and environmental performance of construction and infrastructure projects. As sustainability becomes a core focus in building and infrastructure development, LEED and Envision certifications are critical for professionals looking to lead in the design and implementation of environmentally responsible projects.
- CPR and First Aid certifications ensure that workers are prepared to respond to emergencies. Given the physical and sometimes hazardous nature of renewable energy work, having staff certified in CPR and First Aid is crucial for maintaining safety on the job site.
- Software certifications, particularly in programs like Microsoft Suite, are growing in importance as the renewable energy sector increasingly relies on digital tools for project management, data analysis, and communication. Proficiency in software tools enhances efficiency and effectiveness in managing complex renewable energy projects.
- Certifications for EV Technicians are becoming highly valued as the EV industry expands. As more renewable energy is integrated into transportation, the need for technicians skilled in EV maintenance and infrastructure is growing rapidly. Certifications in this area are crucial for professionals looking to enter or advance in this burgeoning field.

# Clean/Renewable Energy

## GOAL 1

### Enhance the Small Business and Entrepreneurship Ecosystem

STRATEGY 1 Encourage the growth of small businesses and cooperatives that prioritize sustainability		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
Financial Strategy	Incubate new businesses in the industry and support existing businesses by providing support through grants, tax incentives, attracting investors, and training programs	<ul style="list-style-type: none"> <li>Training programs, in particular, ensure that workers gain the skills needed for advanced roles, enhancing job security, career advancement, and workplace standards.</li> <li>Small businesses, which are often the backbone of local economies, can offer better-quality jobs when they receive adequate support, leading to long-term economic resilience.</li> </ul>	Addresses historical disparities in business ownership and access to capital. Training programs that focus on marginalized groups help ensure that they can participate fully in the economy, reducing income inequality and promoting inclusive growth.	Investments in green technologies and sustainable practices can be incentivized through targeted grants and tax breaks for businesses that prioritize environmental impact.
Partnerships	Develop a community of practice of employer partners who have demonstrated commitment to diversify their respective talent pipelines and promote the value of green jobs	<ul style="list-style-type: none"> <li>Employers that actively commit to diversifying their workforce tend to prioritize inclusive hiring practices, better employee retention, and improved workplace environments. This fosters job quality by creating workspaces where diverse perspectives are valued, and all employees have access to training, mentorship, and career advancement opportunities</li> </ul>	Ensures that underrepresented groups have better access to career opportunities. These efforts intentionally address systemic barriers by offering targeted outreach, training programs, and internships designed for marginalized populations	Diversifying talent pipelines in climate-forward industries ensures that a broader demographic has access to training and employment in roles critical to meeting sustainability targets, such as renewable energy, green infrastructure, and environmental protection
Finance	Identify and pursue public and private financing options to seed projects for initiatives such as ARCHES	<ul style="list-style-type: none"> <li>Will result in more employment and revenue to support economic development; may create a range of high-quality jobs in emerging clean energy sectors such as renewable hydrogen production, distribution, and infrastructure development</li> </ul>	Will involve engaging with diverse communities through partnerships with local educational institutions and workforce development organizations to seed projects in disinvested communities	ARCHES focuses on advancing clean hydrogen technologies, which are pivotal for transitioning to a low-carbon economy
Finance	Invest in pilot projects under water and waste management, electrification of transportation, renewable energy installations, and energy-efficient buildings	<ul style="list-style-type: none"> <li>Creates skilled employment opportunities in emerging industries; introduces new workforce training and career pathways, especially in disinvested communities</li> </ul>	These can prioritize local hires	By demonstrating sustainable solutions, reducing emissions, and improving resource efficiency, these projects are paving the way for widespread adoption of clean technologies

## GOAL 2

## Build and Align Career Paths

### STRATEGY 1

**Strengthen talent recruitment and development by increasing access to High-Quality and Accessible Jobs for disinvested communities**

### OUTCOMES

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Finance</b>	Leverage and advocate for increases in state grant funding from the California Workforce Development Board (CWDB) H RTP and CA Climate Investments	Creates pathways for students to gain early work experience and hands-on training; supports access to early work experience and training in communities where training resources and programs are limited	Directs more financial resources to programs that provide training and employment opportunities for underrepresented and disinvested communities	Funds initiatives focused on clean energy, sustainable infrastructure, and climate resilience projects, helping to drive California's transition to a low-carbon economy
<b>Workforce Development</b>	Expand awareness and access to sector and career-education programs, such as the Cleantech Career Academy to provide industry-specific training and job readiness skills that encourage participants to see occupations in clean/renewable energy as desirable and attainable career paths	Creates a reliable pipeline of motivated and trained individuals ready to enter the clean/renewable energy workforce; Equips workers with specialized skills in emerging sectors like clean technology, which offer high-paying, sustainable career paths	Facilitates equitable and inclusive hiring practices that draw from a diverse talent pool; fosters shared prosperity across all communities, particularly for underrepresented and underemployed groups	Helps to meet the demand for skilled workers in the green economy. Creates job pathways in renewable energy, energy efficiency, clean fuels, and clean transportation; complements key sustainability initiatives by major companies like SoCalGas and Boeing, which are essential for driving the state's transition to a zero-emissions future
<b>Workforce Development</b>	Expand training programs, such as the CT Academy, in disinvested communities that equip residents with the hard and soft skills (digital literacy, financial literacy, AI, communication, project management) needed for emerging jobs in the green economy	Addresses specific workplace needs, ensuring that participants are well-prepared for high-demand roles, particularly in sectors where communication and project management are key to job success. Creates a well-rounded and highly skilled workforce that is prepared to meet the evolving demands of the industry	Ensures participants gain valuable experience and are positioned for career advancement	Proficiency in software tools enhances efficiency and effectiveness in managing complex renewable energy projects
<b>Workforce Development</b>	Establish a formal partnership with West LA College's CA Center for Climate Change and other community colleges across the LA Region with clean/renewable energy employer partners to participate in recruiting summer internships for youth to gain career awareness/exposure to industry	Provides networking opportunities for students that allows them to meet employers and understand what steps are needed to take to access quality jobs; creates a workforce ready to meet the growing demand for green jobs while accelerating the adoption of sustainable energy practices	Low-income students can better understand career pathways, gain valuable insights, and increase their chances of securing high-quality jobs in the clean energy sector	Provide students with hands-on exposure to the clean energy industry, fostering a new generation of workers committed to sustainability. By engaging young people in renewable energy projects, such as solar installations or energy efficiency programs, they gain practical skills that directly support the reduction of carbon emissions

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Increase access to needed certifications to ensure that workers possess the necessary skills and knowledge to advancing careers within the industry, such as safety protocols to handle advanced solar installations	Ensures workers have the essential skills and credentials to advance in their careers. Certifications validate expertise and open doors to higher-paying roles, making workers more competitive in the job market. Individuals can continually upskill, improving their job security and mobility	Offering certifications and training in solar energy installations ensures that workers from historically underrepresented communities can access quality jobs in the green economy	By enabling a larger, well-trained workforce, the pace at which solar energy projects are developed and deployed can increase. This contributes to the expansion of renewable energy infrastructure, which is crucial for reducing greenhouse gas emissions and meeting climate targets
<b>Workforce Development</b>	Replicate professional development programs like Veolia University's Campus Veolia network, which offers secure and motivating career training programs specifically designed to support the growth of their employees	Promotes career advancement and provides tailored training opportunities for employees	Employees from disinvested communities have access to the skills and support they need to advance in their careers and achieve long-term success	Clean energy companies would directly impact climate goals by equipping employees with advanced skills in renewable energy technologies and sustainable practices. This would ensure the company maintains a highly skilled workforce capable of developing and managing clean energy projects efficiently
<b>Workforce Development</b>	Increase mentorship programs among employers similar to Cordoba's Pathways to Success	Enhances professional growth, increases job satisfaction, and helps navigate career advancement opportunities, ultimately leading to higher job quality and retention rates	Bridges the opportunity gap for individuals from disinvested communities; Mentorship offers tailored support to overcome barriers related to systemic inequities, including access to networks and skills development	Helps ensure that the workforce is equipped to meet the challenges of transitioning to a low-carbon economy
<b>Workforce Development</b>	Expand training partnerships with CSULA's LA Hydrogen Research and Fueling facility to prepare workers for projects under the ARCHES initiative	Will result in more employment and revenue to support economic development; may create a range of high-quality jobs in emerging clean energy sectors such as renewable hydrogen production, distribution, and infrastructure development	Will involve engaging with diverse communities through partnerships with local educational institutions and workforce development organizations to seed projects in disinvested communities	ARCHES focuses on advancing clean hydrogen technologies, which are pivotal for transitioning to a low-carbon economy
<b>Workforce Development</b>	Leverage the LACI's Green Job Regional Partnership serving as a thought partner and talent development leader	Creates and identifies on-ramps to high growth jobs in the EV/EVSE sectors for individuals without a post-secondary education; promotes training and certification programs focused on green industries. These programs equip workers with the skills necessary to access higher-paying, stable jobs in the clean energy sector	By providing access to targeted training, mentorship, and job placement programs, LACI helps bridge the gap for those who have historically been excluded from high-quality employment opportunities in emerging green industries	By focusing on green jobs, LACI supports California's broader climate goals, including reducing greenhouse gas emissions and fostering industries aligned with environmental sustainability



Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Leverage public dollars (state and federal Workforce Innovation and Opportunity Act- WIOA) to launch public-private programs to subsidize wages with local and federal moneys set aside by the City and County to support youth and young adults employment such as Hire-LA's Youth, Youth at Work program and HIRE LAX	Ensures youth and young adults gain entry-level experience while earning a competitive wage, which improves long-term job prospects and access to high-quality jobs	Specifically targets underrepresented groups, including low-income youth, young adults from disinvested communities, and individuals facing systemic barriers to employment. By creating pathways into skilled trades, renewable energy, and other green industries, these programs help reduce income inequality and promote greater diversity within these sectors.	By preparing a new generation of workers for roles in climate-conscious industries, they contribute directly to the advancement of California's broader climate objectives
<b>Workforce Development</b>	Increase accessibility of attaining certifications in the renewable energy space by incorporating OSHA, GPRO, Geographic Info Systems trainings into the CT Academy curriculum and others like it	Essential for ensuring that workers possess the necessary skills and knowledge & help to advance careers within the industry.	Develops the real-world skills employers need and gain access to high-growth, high-wage jobs	As renewable energy projects, such as solar installations and wind farms, expand, these certifications will be required
<b>Workforce Development</b>	Partner with local employers and industry leaders to create job placement programs that prioritize hiring from within the community	Provides pathways to stable, well-paying jobs in growing sectors, fostering long-term career development through mentorship and skill-building	Allows residents from disinvested communities to gain hands-on experience while earning a wage, breaking down financial barriers that often prevent participation in career development programs	Advances inclusion in the clean and renewable energy fields through skill development and work-based learning opportunities
<b>Workforce Development</b>	Expand earn to learn models to stimulate community resident participation in sector-based education and career exploration activities	Provides community residents with paid, hands-on opportunities to gain skills in specific industries like clean energy and sustainability		

**STRATEGY 1**  
Align STEM career education and training with labor market opportunities and employer needs

**OUTCOMES**

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Nurture interest in STEM careers in impacted and underserved middle and high schools by partnering with National College Resource Foundation's STEM programs to attract minority students	Cultivates green job opportunities for low-income youth of color	Improves representation in STEM fields but also provides students with skills for well-paying, future-proof careers, leading to greater economic mobility and equity	Bridges the gap between education and emerging green industries
<b>Workforce Development</b>	Conduct targeted outreach to high schools and educational institutions in disinvested communities and bring students to clean/renewable energy expos to provide firsthand exposure to the industry	By connecting students from disinvested communities to industry-specific learning opportunities, it helps cultivate a workforce prepared for the technical demands of the renewable energy sector. This can lead to an increase in job readiness and access to high-quality jobs	Demystifies career paths in the clean energy sector, sparking interest in STEM and sustainability-related fields among underrepresented students	

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Replicate programs that incentivize engagement with disinvested residents like the Southern California Edison (SCE)'s Lineworker Scholarship Program for high school seniors	Students are provided with the financial resources and educational opportunities needed to succeed	High school seniors from underserved communities have access to substantial scholarships to access required education	Emphasizes career selection in the clean and renewable energy sectors
<b>Workforce Development</b>	Create joint partnerships between industry leaders, community leaders, CBOs, educational institutions, and successful workforce training program models	Ensures that training aligns with industry needs, providing high-quality, relevant job opportunities in the clean energy sector.	Targeting underrepresented groups increases diversity in the workforce	Training more individuals in renewable energy technologies accelerates the transition to a low-carbon economy

GOAL 3

## Transition industries in the carbon-neutral economy

STRATEGY 1 Engage people at the neighborhood level in climate action planning		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Finance</b>	Establish clean energy-related sites in disinvested communities across the region	Builds knowledge, learn about career tracks, business opportunities and community resources to improve adoption of and clean technologies and supported transition	Ensure that climate-forward initiatives are not only designed with their input but also led by them	Local residents, students, businesses and underemployed adults can learn about and build awareness of opportunities in the Clean Energy sector
<b>Finance</b>	Provide financial support and resources to communities that may be disproportionately affected by the shift away from fossil fuels	Financial support ensures that workers from industries transitioning away from fossil fuels receive retraining, upskilling, and access to new employment opportunities; Creates jobs through advocacy and policy changes; identifying and leveraging champions; building relationships with elected officials	Allows communities that have historically relied on fossil fuel-based industries to participate in the green economy	Fosters wider adoption of renewable energy technologies, contributing to the overall reduction of greenhouse gas emissions. It accelerates the move toward clean energy while ensuring that regions once reliant on fossil fuels can thrive in a decarbonized economy

<b>STRATEGY 1</b> <b>Advocate for policies at the local and state level that support a just transition to a carbon-neutral economy.</b>		<b>OUTCOMES</b>		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Finance</b>	Promote investments in green infrastructure projects in disinvested communities	Will create opportunities for long-term employment, skill development, and career progression	Marginalized populations, who are often most vulnerable to environmental hazards, directly benefit from sustainable infrastructure projects	Focusing these investments in disinvested communities can build resilience against its impacts, while contributing to broader state and national environmental targets
<b>Advocacy</b>	Increase solar installations and supportive policies aimed at expanding renewable energy sources	Expanding solar installations creates a surge in demand for skilled labor in the renewable energy sector	Supportive policies for renewable energy expansion, such as solar incentives and subsidies, can target historically underserved or disinvested communities, providing them with access to clean energy	Solar energy directly contributes to the reduction of greenhouse gas emissions by replacing fossil fuel-based energy sources with clean, renewable energy. Expanding solar capacity aligns with climate goals such as carbon neutrality and reducing overall emissions, fostering a sustainable future. Additionally, increased solar adoption lowers the overall carbon footprint, helping meet global and regional climate targets

## Alignment with Job Quality & Access, Equity, and Climate

### Job Quality & Access:

The strategy recommends helping businesses thrive in a green economy that will lead to quality jobs, while helping residents from disadvantaged communities prepare for emerging jobs through workforce training programs in renewable energy and green construction. As we learned through focus groups, employer partners emphasized the need for increased industry exposure, calling for intentional efforts to expose young people to the industry's opportunities. Partnering with local employers to create job placement programs, prioritizing local hires, and expanding earn-to-learn models will help disadvantaged communities gain skills, experience, and economic upliftment. The approach will not only contribute to environmental sustainability but also foster economic inclusivity and resilience, ensuring that all Californians benefit from the transition to a green economy.

There is a need to integrate entry-level skills gaps into employee training, such as digital literacy, project management skills, the effective use of AI tools, such as AI prompt writing, and basic financial acumen. Businesses should have a values-based approach to employee development, emphasizing core principles such as safety, respect, integrity, continuous improvement, and excellence in all training initiatives. This holistic approach aims to create a well-rounded and highly skilled workforce that is prepared to meet the evolving demands of the industry.

Replicating existing programs that can serve as a best practice model can bring significant benefits to disinvested communities by promoting career advancement and providing tailored training opportunities. For example, Veolia's Campus Veolia network<sup>25</sup> offers secure and motivating career training programs specifically designed to support the growth of their employees. Shortly after hiring, each new recruit receives a personalized integration plan, which is customized to their background, the diverse needs of the business, and specific operational

<sup>25</sup> [VEOLIA\\_2014\\_training.PDF](#)

requirements. This approach includes various forms of training, such as manager induction days and on-site training, ensuring that employees from disinvested communities have access to the skills and support they need to advance in their careers and achieve long-term success.

### **Equity:**

The strategy leverages the significant growth in clean energy industries, which already contribute substantially to California's economy—representing one out of six U.S. clean energy jobs in 2019 and offering median hourly wages that are 29% higher than the statewide median. However, the strategy also acknowledges that despite these achievements, there is a critical need for a more inclusive workforce development approach to ensure that the benefits of the clean energy economy are equitably distributed.

To effectively reach these groups, there must be a focus on engaging local communities in the decision-making process to ensure that climate-forward initiatives are not only designed with community input but also led by them. Strengthening relationships with employers and CBOs in the communities that are struggling will help ensure that workforce development efforts, climate goals, and industry growth projections are aligned. This strategy not only addresses the immediate employment needs of historically marginalized groups but also lays the foundation for their long-term success in the emerging clean energy sector and addresses environmental impacts in these disinvested communities.

Scaling programs such as the CT Academy will encourage participants to see occupations in clean/renewable energy as desirable and attainable career paths. By providing stipends and scholarships, the CT Academy encourages sustained participation and completion of the program, creating a reliable pipeline of motivated and trained individuals ready to enter the clean/renewable energy workforce. By connecting the diverse and talented labor pool with the growing

demands of the clean energy sector, the strategy contributes to both climate resilience and economic equity.

The strategies aim to serve marginalized populations and disinvested communities by providing targeted workforce development programs that not only equip people with essential skills but also create pathways to long-term, sustainable employment in sectors with high wage potential. The strategy builds upon and leverages successful examples of job-training programs that are designed to uplift individuals from economically neglected areas, such as **Cordoba's Pathways to Success**, **Southern California Edison's Lineworker Scholarship**, **UNITE-LA**, and **The CT Academy**.

### **Climate:**

Strengthening and investing in clean and renewable energy industries will provide a solid foundation for sustainable economic development across LA County, enabling growth while minimizing impacts on the natural environment. By prioritizing energy sources like solar, wind, and geothermal, the region can reduce dependence on fossil fuels, significantly lowering emissions and fostering a cleaner, healthier environment. This shift also opens up opportunities for new industries and innovation, attracting green technology investments and creating a variety of high-quality, well-paying jobs that support economic diversification. In addition, adopting sustainable waste and water management practices will further enhance economic resilience by conserving critical resources and reducing environmental degradation. Efficient water use and waste reduction can help businesses lower operational costs while ensuring that growth is aligned with preserving the county's natural ecosystems. Altogether, these initiatives will position LA County as a leader in climate-conscious economic development, fostering a competitive, sustainable economy that benefits both industry and the environment.

## Workforce Development:

Our employer partners proposed the following strategies to help address the challenges relating to work readiness:

CATEGORY	BARRIER	STRATEGIES
ENTRY-LEVEL SKILLS GAP	Digital Literacy	Enhanced training on digital platforms and project management tools.
	Project Management Skills	Focus on developing organizational skills understanding basic fundamentals of corporate financial analysis such as return on equity (RoE) and project budget management
	Communication Skills	Effective communication within technical roles.
TRAINING AND UPSKILLING CHALLENGES	Soft Skills Improvement	Mentorship programs to integrate soft skills with technical training.
RECRUITMENT CHALLENGES	Decline in Job Applications	Target younger diverse demographic, enhancing job postings to reflect dynamic aspects and impact on sustainability, cultivating partnerships w/ community colleges
	Awareness and Interest among Younger Demographics	Targeted outreach to high schools and educational institutions to raise awareness.
	Attracting Diverse Candidates	Create more inclusive job postings and recruitment strategies.

The CT Academy can be viewed as a best practices workforce development curriculum, as it was created with input from industry employers, community college and institutions of higher education cleantech professors, and provides a contextualized continuum of WBL experiences and sustained interactions with industry professionals in real workplace settings. In line with the need for upskilling and mentorship as shared by our employer partners, core curriculum activities include career panels, mock interviews, 1:1 mentoring, job site visits, project-based learning, portfolio building, professional soft skills development, and connection to internships and paid work experience. These activities help participants successfully transition through the stages of career awareness, exposure, exploration, preparation, training, and finally, into paid work experience. Participants are

provided stipends (currently \$17.32 hr.) to encourage program enrollment and completion, and are eligible for a \$1,000 scholarship to pursue post-secondary education or a certificate program at the completion of the program. Participants receive direct exposure to the cleantech industry through career panels, job site visits, and interaction with industry professionals. This helps in building a workforce that is not only skilled but also well-versed in industry practices and challenges.

### Alignment with State Strategies

The strategy is aligned with California's Executive Order No. B-55-18 (creating a state goal to reach greenhouse gas neutrality by 2045 and to maintain net negative greenhouse gas emissions thereafter) coupled with the California Clean Energy Jobs Act (AB

2204) of 2022 (creating high-paying energy efficiency and clean energy jobs in California). These not only represent a concerted effort to move to a net-zero energy system, but also a statewide climate policy profoundly impacting regional economies and their workforce needs.

## Strategy Implementation

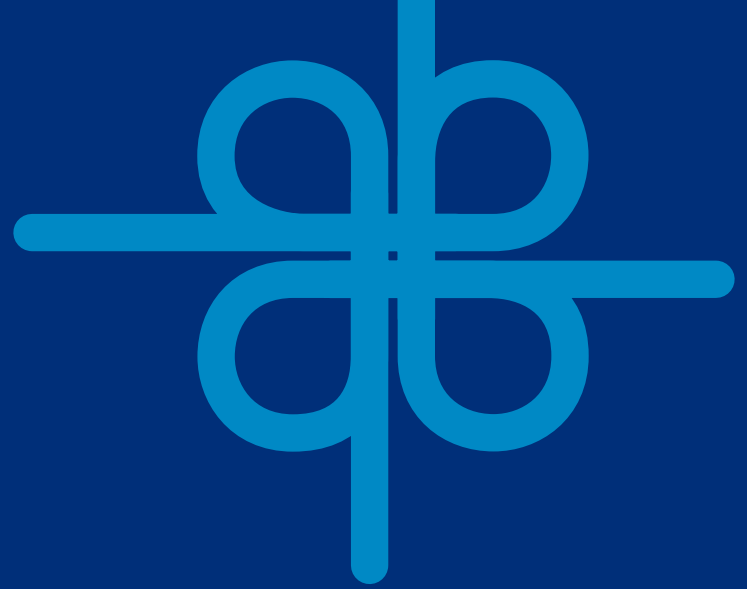
To successfully implement the proposed strategies, cross-sectoral partnerships with government, employers, educational institutions, the nonprofit sector, and community stakeholders are critical. These various partnerships will enable us to advance workforce development strategies, advocacy and awareness, and financial strategies for success.

- Facilitate partnerships between local youth and adult workforce ecosystem stakeholders such as the City of LA's Economic and Workforce Development Department (EWDD), LA County's Department of Economic Opportunity (DEO), CBO's and employers to synergize efforts and leverage resources to uplift LA's young adults.
- Continue collaborative efforts with the CA Climate Center to explore community engagement and workforce development in the green sector.
- Explore collaborative efforts in the emerging renewable energy sector by partnering with CSULA's LA Hydrogen Research and Fueling facility and the ARCHES initiative to expand existing hydrogen projects.
- Use data to track the success of programs, to identify areas for improvement, to better understand where the jobs are being created, and to develop strategies for how to best leverage existing resources to expand workforce development efforts in those areas.
- Regularly evaluate the effectiveness of the services provided and adjust strategies as needed to ensure they are meeting the needs of participants.



## Target Sector Strategies

# Transportation & Logistics



As the Transportation & Logistics Table Lead for the California Jobs First program, [COMTO Socal](#) convened employers in a series of focus groups between July and August 2024 to identify workforce barriers and develop strategies for creating actionable solutions. Employers included representatives from Torrance Transit, Caltrans, Long Beach Transit, AIX Group, BA Inc, LA Metro, Antelope Valley Transit, the Port of Long Beach, and the City of Culver City. These discussions emphasized the ongoing challenges that the sector has in attracting a skilled workforce that is well-trained to meet the needs of the region.

### Define Sector and Justify Prioritization by Region

Los Angeles County is a key center for trade, industry, and population movement, and has seen significant growth across multiple transportation and logistics subsectors. In Los Angeles County, the Transportation & Logistics and Water Transportation industry clusters play a pivotal role in supporting the region's economy, employing over 97,000 individuals in well-paying careers essential to the region's people and goods movement. Among these sectors, the Scheduled Passenger Air Transportation industry stands out, employing nearly 28,000 county residents with an impressive average annual wage of \$111,878. This thriving industry, along with the Freight Transportation Arrangement and Marine Cargo Handling industries, collectively provide 63,456 jobs in the county, all offering average wages above \$88,000 annually. These industries underscore the critical importance of the Transportation & Logistics sector in maintaining and enhancing the county's infrastructure.

Efficient transportation systems serve as the backbone of economic development, facilitating the seamless flow of goods and services across regions and borders. By enhancing infrastructure such as roads, railways, ports, and airports, governments can significantly reduce transit times and costs associated with moving products from manufacturers to consumers. This not only boosts local economies but also attracts foreign investments by creating a more competitive business environment.

While the Transportation & Logistics industry cluster only includes the industries listed in the [Appendix](#), Regional Plan Part 1 identifies numerous industries that are not included in the industry cluster definition of *Transportation & Logistics* that are relevant to the movement of people and goods. These industries include those found in other clusters identified in the Regional Plan Part 1, such as *Advanced Transportation & Clean Technology*, which includes Battery Manufacturing and Turbine and Turbine Generator Set Units Manufacturing; *Distribution & Ecommerce*, which includes the various goods warehousing, wholesale, and storage industries; *Local Food and Beverage Processing and Distribution*; *Automotive*, which includes industries related to the manufacturing of motor vehicles and trucks; *Business Services*, which includes various types of ground and passenger transit service such as taxi service; *Local Logistical Services*, which includes Couriers and other local delivery services such as Fedex and UPS, ambulance services, and waste collection; and, *Water Transportation*, which includes Marine Cargo Handling. All in all, industries related to the transportation of people and goods

throughout the county employ well over 300,000 people.

Los Angeles County's transportation and logistics sectors are expanding across multiple fronts, driven by technological advancements, infrastructure investments, and evolving market demands. These subsectors are crucial to maintaining the county's economic vitality and connectivity in an increasingly globalized world. The LA County Transportation & Logistics industry cluster is concerned with, but is not limited to, the following:

- **Transloading & Third-Party Logistics:** With Los Angeles' ports being among the busiest globally, transloading is essential for efficiently moving imported goods to inland destinations. The rise in e-commerce and international trade has driven investments in transloading facilities to alleviate congestion and enhance supply chain efficiency.
- **Highway Transportation:** LA County's extensive highway network supports a high volume of freight and commuter traffic. Modernization efforts focus on expanding highways and integrating electric and autonomous vehicles, all while addressing congestion and environmental impacts.
- **Microtransit Expansion:** In response to the county's vast geography, microtransit solutions such as ride-hailing and shuttle services are growing. These services offer on demand efficient first-mile and last-mile connectivity, enhancing public transportation accessibility.
- **Warehousing and Logistics:** The explosion of e-commerce and LA County's role as a trade gateway have spurred warehousing growth. Modern facilities increasingly incorporate automation, robotics, and advanced inventory systems, with third-party logistics (3PL) providers offering comprehensive supply chain services. Advanced skills and upskilling of warehouse workforce is needed to support the transformation of this sector.
- **Passenger Ride Share:** Ride-sharing is highly popular in the congested and densely populated LA region. These services are increasingly integrated with public transit to offer convenient transportation alternatives, reducing personal vehicle reliance. While passenger ride share is controversial in terms of employment given A.B.5, new opportunities to morph this model and serve greater constituencies of LA's population is forthcoming, especially in light of LA's goal to host car-free Olympics in 2028.
- **Air Freight:** LAX, Burbank-Glendale Airport, Long Beach airport, and other regional airports serve as critical hubs for air freight, especially for high-value and time-sensitive goods. Demand from sectors like electronics and pharmaceuticals drives growth, supported by investments in airport infrastructure and technology.
- **Goods Movement:** As a global supply chain nexus, LA County's goods movement sector benefits from enhanced multimodal transport networks, including highway, ports, rail, and air. Initiatives focus on improving connectivity, efficiency, and sustainability in goods transportation. Goods movement related employment accounts for more than 1.3 million jobs in LA county (LA Metro Goods Movement strategy).
- **Cold Storage:** The demand for fresh produce, pharmaceuticals, and other perishable items has led to the expansion of cold storage facilities. Proximity to ports and distribution hubs makes LA County a prime location for cold storage, with advancements in energy efficiency and refrigeration technology.
- **Non-Emergency Medical Transportation (NEMT):** With an aging population and growing healthcare needs, NEMT services are expanding rapidly in LA County. These services ensure that patients can access healthcare facilities for routine visits, therapy, and other non-emergency medical needs. The sector is increasingly integrating technology to improve service efficiency and patient experience, such as through ride-hailing platforms dedicated to medical transport.

## Sector Development

### Clear Local Market Signals

The Transportation & Logistics sectors comprise a robust and vital part of the region's economy and infrastructure. With growing industries such as Scheduled Passenger Air Transportation, Freight Transportation Arrangement, General Freight Trucking, Long-Distance, Truckload, and large investments being made into both expanding and enhancing

infrastructure such as the LAX Modernization, and various Metro and San Pedro Port projects. Developing a workforce to meet the demands of these projects is critical to ensure the county can continue to make people and goods movement more efficient, climate friendly and beneficial to the communities that often get overlooked in transportation planning.

The logistics and goods movement sector is one of the fastest-growing in Los Angeles, driven by the increasing demand for home delivery services. This growth is fueled by the rise of e-commerce, which has seen a substantial boost in recent years, especially during the pandemic. The sector is expected to continue expanding as consumer preferences shift towards online shopping and quick delivery options. For example, FedEx has established significant logistics operations in Los Angeles, leveraging the region's strategic location and infrastructure to facilitate the rapid movement of goods. The company operates several distribution centers and hubs throughout the county, enabling it to efficiently manage the growing volume of packages and deliveries. Amazon Prime's extensive network in Los Angeles underscores the importance of the region in the company's logistics strategy. With multiple fulfillment centers and delivery stations, Amazon has optimized its last-mile delivery services, ensuring that products can reach customers quickly and efficiently. This local infrastructure not only supports Amazon's operations but also drives economic activity in the region by creating jobs and supporting ancillary businesses.

**Value Chain and Infrastructure:** Recent major investments in the transportation sector in Los Angeles demonstrate a significant commitment to enhancing the region's infrastructure and ensuring its resilience and growth.

- **FY24 Low or No Emission grant for LA Metro:**

The \$77.5 million grant from the Federal Transit Administration allows LA Metro to purchase dozens of battery-electric buses and install the necessary charging infrastructure. This investment supports the transition to a zero-emission bus fleet, which is

a key strategy for reducing public transit emissions. Electric buses produce no tailpipe emissions, significantly reducing the carbon footprint of public transit. The grant also includes funding for workforce development training, ensuring that workers are prepared to maintain and operate the new technology. By building local expertise in zero-emission technology, the strategy supports long-term sustainability goals while also providing economic opportunities in the green economy.

- California has received nearly \$30 billion in federal infrastructure funding through the **Infrastructure Investment and Jobs Act (IIJA)** since its passage. This funding has been directed towards upgrading roads, bridges, rail, public transit, airports, seaports, and the electric vehicle (EV) charging network across the state, with a substantial portion benefiting Los Angeles. Additionally, the state has invested over \$10 billion in transit and intercity rail projects, active transportation, and supply chain upgrades, all of which contribute to the region's transportation infrastructure.
- The **Reconnecting Communities and Neighborhoods Grant** awarded \$139 million to the Los Angeles Metropolitan Transportation Authority (LA Metro) project *Removing Barriers by Creating Legacy – A Multimodal Approach for LA County* to enhance and expand vital multimodal transportation systems for millions of LA County residents and visitors to our region.
- LA Metro has secured \$709.9 million from the **Bipartisan Infrastructure Law and the Fiscal Year 2024 transportation spending law**. This funding is earmarked for critical projects like the **East San Fernando Valley Light Rail Transit Project** and the **D Line (Purple) Subway Extension**. These projects are crucial for expanding the Metro Rail system, improving connectivity, and preparing the region for the 2028 Olympic and Paralympic Games.
- The **CA Dept of Transportation** recently awarded millions of dollars in grants for distinct projects across LA County to improve multi-modal transportation, clean energy transportation projects, and more.<sup>26</sup>

<sup>26</sup> <https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/regional-and-community-planning/sustainable-transportation-planning-grants/2024-2025-sustainable-transportation-planning-grant-winners>

**The Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES)** and the United States Department of Energy (DOE) officially announced the signing of a landmark \$12.6 billion agreement, including up to \$1.2 billion from the DOE and \$11.4 billion in public and private matching funds, to build and expand clean energy infrastructure across California. This project plans to generate clean power at two major power plants and other stationary distributed locations throughout the state, including the [Los Angeles Scattergood plant](#); it also will replace existing diesel powered cargo-handling equipment with hydrogen fuel cell equivalents at marine terminals at the Port of Long Beach and associated fueling infrastructure.<sup>27</sup>

**LAX** is undergoing extensive improvements made possible by public/private investment. Since 2017, Terminals 1 and 7/8 have undergone major infrastructure improvements with \$980 million invested in Terminal 1 and \$546 million invested in Terminals 7/8. Currently, more than \$4 billion worth of improvements are being made to Terminals 2/3 (\$2.3 billion), Terminals 4/5 (\$1.6 billion) and Terminal 6 (\$230 million). A brand new, \$1.7 billion, state-of-the-art 15-gate facility, the West Gates at Tom Bradley International Terminal, opened in May 2021, while construction for the \$5.5 billion Landside Access Modernization Program (LAMP), which includes an Automated People Mover train system, Consolidated Rent-A-Car facility, Intermodal Transportation Facilities and roadway improvements, got underway in 2019. The first component of the LAMP – the \$294 million LAX Economy Parking facility – made its public debut in October 2021. In the future, LAX will start work on a more than \$6 billion Airfield and Terminal Modernization Project (ATMP), which will add a new terminal, concourse and elevated roadway system, while enhancing safety on the airfield.

**The Ports of Los Angeles and Long Beach** boasts major infrastructure and job creation investments:

- **The Port of Los Angeles' Port Optimizer™** technology data portal received an \$8 million grant from the California Governor's Office of

Business and Economic Development (GO-Biz). The award was the largest of five GO-Biz grants totaling \$27 million to improve data and supply chain functionality across California's port network. The only port community data platform of its kind in operation in North America, the Port Optimizer is a cloud-based information portal that digitalizes maritime shipping data for cargo owners and supply chain stakeholders through a secure single access point. By integrating data from across the port ecosystem, the portal enables ports and the supply chain to operate more efficiently and helps cargo owners bring their goods to market in a more predictable and timely manner.<sup>28</sup>

- The Port of LA recently completed construction of a \$37 million rail expansion project on Pier 400<sup>29</sup> that will improve cargo flow, reduce emissions and improve roadway safety. \$21.6 million came from grant funding from the **California Trade Corridor Enhancement Program (TCEP)**, which funds improving freight corridors in the State. The Port funded the remaining cost of nearly \$51.6 million.
- In 2023, the Port of LA received a \$110 million pledge from the State to help fund the nation's first training facility specifically devoted to supply chain workers, located within the San Pedro Bay port complex. The Port of Los Angeles and Port of Long Beach Goods Movement Training Campus<sup>30</sup> would provide a single and centralized location aimed at attracting, recruiting, and retaining workers in the goods movement sector. The \$110 million allocation will be spread across three fiscal years, starting with the 2022-23 state budget with additional amounts in 2023-24 and 2024-25.
- The Port of Long Beach will receive \$283 million from the federal government to assist in building "America's Green Gateway," a rail project which will enable one of the nation's busiest seaports to move more cargo by trains, speeding deliveries across the entire national supply chain, easing congestion and lessening local environmental impacts. The funding was awarded for the Port's Pier B On-Dock Rail Support Facility through the U.S. Department

27 [https://www.energy.gov/sites/default/files/2024-07/H2Hubs%20ARCHES\\_Award%20Fact%20Sheet.pdf](https://www.energy.gov/sites/default/files/2024-07/H2Hubs%20ARCHES_Award%20Fact%20Sheet.pdf)

28 [https://www.portoflosangeles.org/references/2024-news-releases/news\\_071624\\_go\\_biz\\_grant](https://www.portoflosangeles.org/references/2024-news-releases/news_071624_go_biz_grant)

29 [https://www.portoflosangeles.org/references/2024-news-releases/news\\_071024\\_pier\\_400\\_expansion](https://www.portoflosangeles.org/references/2024-news-releases/news_071024_pier_400_expansion)

30 [https://www.portoflosangeles.org/references/2023-news-releases/news\\_032423\\_gmtc\\_pledge](https://www.portoflosangeles.org/references/2023-news-releases/news_032423_gmtc_pledge)

of Transportation's Mega Grant Program. This grant will create over 1,000 local jobs.<sup>31</sup>

- The ports of Los Angeles and Long Beach will provide \$25 million for an ambitious partnership with regional air quality agencies to jump-start charging infrastructure for electric heavy-duty drayage trucks in one of the nation's most populous regions. The \$135 million in projects led by the Mobile Source Air Pollution Reduction Review Committee will install up to 207 charging units at eight sites around Southern California in Wilmington, Rancho Dominguez, Rialto, Fontana, Commerce and the Port of Long Beach. Contracting for the projects is being administered by the South Coast Air Quality Management District.<sup>32</sup>
- Serving the Port of Long Beach, a new charging depot that will be operated by Forum Mobility recently broke ground, aimed at meeting the accelerating demand for heavy-duty electric trucks. The facility, scheduled to go online in fall 2024, moves the Port closer toward achieving a goal of zero-emissions operations for drayage trucks by 2035. Forum Mobility's facility will be equipped with 19 dual-port chargers and six single-dispenser chargers capable of powering up 44 heavy-duty electric trucks simultaneously in about 90 minutes – depending on battery size.<sup>33</sup>
- The Pacific Maritime Association and the International Longshore and Warehouse Union, which provide the workforce for both the ports of Los Angeles and Long Beach, joined together to open a new Maintenance and Repair Training Center at the Port of Los Angeles. The \$16.4 million, 20,000 square-foot facility, located on a 4-acre parcel adjacent to Pier 400, comes out of an agreement struck between the employers and workers to establish a way to help dockworkers learn new and relevant industry skills, including maintaining and repairing emerging technologies.<sup>34</sup>

**Innovation Ecosystem:** The transportation industry in Los Angeles is undergoing several innovative transformations aimed at improving efficiency,

sustainability, and connectivity, as well as creating new jobs that need to be trained for and filled.

- **Zero-Emission Buses (ZEBs):** Los Angeles is at the forefront of adopting zero-emission buses, transitioning its fleet to electric and hydrogen fuel cell buses. This shift is part of Metro's plan to fully electrify its bus fleet by 2030. The move towards ZEBs is a significant innovation in reducing greenhouse gas emissions and improving air quality across the city.
- **I-710 Corridor Management Project:** The I-710 Corridor Management Project focuses on improving operational efficiency for truck travel, which will help reduce congestion and improve travel time reliability. By actively managing traffic flow and minimizing the impact of passenger vehicles on local streets, the project is expected to result in significant reductions in greenhouse gas emissions—estimated at 14,920 tons over 20 years. This reduction is achieved by optimizing traffic flow, which decreases the amount of time vehicles spend idling in traffic, thus cutting down on emissions. The project also includes technology-focused solutions to improve safety, thereby reducing the number of secondary collisions. This not only prevents further traffic disruptions, which can contribute to higher emissions but also aligns with climate resilience goals by ensuring safer, more reliable transportation systems. Importantly, the project is designed to benefit disadvantaged communities along the corridor by improving air quality and enhancing safety for pedestrians and cyclists through upgraded infrastructure. These community-focused improvements contribute to environmental justice by ensuring that the benefits of reduced emissions and safer streets are equitably distributed.
- **Micro-Transit and Mobility as a Service (MaaS):** Metro has been piloting micro-transit services, which offer on-demand, shared rides in smaller vehicles within specific areas. This service is designed to complement existing public transit options and provide more flexible, efficient

31 <https://polb.com/port-info/news-and-press/port-receives-283-million-for-americas-green-gateway-12-18-2023/>

32 [https://www.portoflosangeles.org/references/2024-news-releases/news\\_062724\\_pola\\_polb\\_truck\\_charging](https://www.portoflosangeles.org/references/2024-news-releases/news_062724_pola_polb_truck_charging)

33 [Construction Begins on Truck Charging Depot at Port - Port of Long Beach \(polb.com\)](https://www.portoflosangeles.org/references/2024-news-releases/news_062724_pola_polb_truck_charging)

34 <https://www.dailybreeze.com/2024/05/31/longshore-training-facility-opens-in-port-of-los-angeles/>

transportation solutions, particularly in areas where traditional fixed-route services may not be as effective. MaaS platforms are also being developed to integrate various forms of transportation into a single, accessible service, allowing users to plan, book, and pay for different modes of transport in one place.

- **Major Transit Projects:** Metro's Long Range Transportation Plan Major Transit Projects reviews 23 planned projects for the region to be completed through the year 2057 totalling over \$68 billion in project costs. These include projects which are currently in the Environmental Review phase such as the Sepulveda Transit Corridor, to projects which are in construction such as the D Line Subway Extension.<sup>35</sup>
- **Advanced Traffic Management Systems:** The city is investing in advanced traffic management systems that utilize real-time data to optimize traffic flow, reduce congestion, and improve overall transportation efficiency. These systems incorporate technologies like adaptive traffic signals, real-time monitoring, and predictive analytics to manage and reduce traffic bottlenecks.
- **Integration of Electric Vehicle (EV) Charging Infrastructure:** As part of its broader climate action goals, Los Angeles is expanding its network of electric vehicle charging stations. This infrastructure is crucial for supporting the growing number of EVs in the region and is being integrated into public spaces, commercial areas, and along major transportation corridors.
- **High-Speed Rail Developments:** The development of high-speed rail, particularly the segment connecting Los Angeles to the Central Valley, represents a significant innovation in regional transportation. This project aims to provide faster, more sustainable travel options between
- major cities, reducing reliance on car travel and contributing to regional economic growth.
- **Automation and Autonomous Vehicles:** Los Angeles is also a hub for testing autonomous vehicles, with several pilot programs and partnerships exploring the use of self-driving cars and buses. These innovations are expected to play a significant role in the future of transportation, potentially reducing accidents and improving efficiency in public and private transit systems.
- **Spending and Modernization at the San Pedro Ports:** The Port of Long Beach reached \$55 million in spending on Small Businesses in 2024, a year-over-year increase from \$54 million.<sup>36</sup> The Port of Los Angeles budget dedicated \$257.7 million to the Port's capital improvement program (CIP), a 19% increase over the previous fiscal year's adopted budget. In addition, a comprehensive Port of Long Beach digital platform being designed to help speed cargo deliveries across the nation, the Supply Chain Information Highway, is getting an infusion of funding from Gov. Gavin Newsom's administration. The Governor's Office of Business and Economic Development (GO-Biz) announced a \$7.875 million grant for the Port's data system today. Funding is expected to help build out a variety of functions including export and rail cargo visibility, user authentication and data security, the exchange of data between foreign ports, truck appointments and a number of future project enhancements that will enhance operational efficiency and customer service.<sup>37</sup>
- **California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP):** The Port of Los Angeles and Port of Long Beach will make \$60 million in Clean Truck Fund Rate funding available through the California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) for

35 [LRTP-2020-Final\\_with-linked-toc.pdf \(dropbox.com\)](#)

36 [Port's Small Business Spending Surpasses \\$55 Million - Port of Long Beach \(polb.com\)](#)

37 [Port of Long Beach Data Project Receives \\$7.875 Million to Speed Goods Delivery - Port of Long Beach \(polb.com\)](#)



vouchers toward the purchase of zero-emissions, Class 8 drayage trucks that operate at the San Pedro Bay ports complex. The voucher program utilizes the existing HVIP funding application process to provide incentive funding toward eligible zero-emission truck purchases servicing the port complex. Launched by the California Air Resources Board, HVIP is part of California Climate Investments, a statewide initiative that puts billions of cap-and-trade dollars to work by reducing greenhouse gas emissions, strengthening the economy and improving public health and the environment – particularly in disadvantaged communities similar to those adjacent to the ports. Funding is administered by CALSTART, the current HVIP administrator, on a first-come, first-served basis.<sup>38</sup>

### Regional Assets

- **LA Metro** operates one of the largest public transit systems in the United States, including buses, light rail, and subway lines. This extensive network provides a solid foundation for expanding and improving transportation services, particularly with ongoing projects like the Purple Line Extension and the East San Fernando Valley Light Rail Transit Project.
- **Los Angeles International Airport (LAX)** is one of the busiest airports in the world and serves as a critical hub for both domestic and international travel. The ongoing modernization projects at LAX, along with upgrades at other regional airports like **Hollywood Burbank Airport**, provide opportunities to enhance multimodal transportation connectivity, linking air travel with public transit and other forms of transportation.
- Los Angeles is home to leading research institutions such as the **University of Southern California (USC)** and the **University of California, Los Angeles (UCLA)**. These institutions conduct cutting-edge research in transportation technologies, urban planning, and environmental sustainability. Leveraging these academic resources can help drive innovation in the transportation sector, particularly in areas like smart mobility and zero-emission technologies.
- The Silicon Beach area of Los Angeles is a hub for tech startups and companies focusing on transportation innovation, including autonomous vehicles, mobility-as-a-service (MaaS), and electric vehicle (EV) technology. Collaborating with these tech companies can accelerate the adoption of new technologies and create synergies between the public and private sectors.
- Agencies like the **Southern California Association of Governments (SCAG)** play a crucial role in regional transportation planning and policy development. SCAG's efforts in long-range transportation planning, sustainability, and funding allocation are vital assets that can be utilized to align local transportation projects with broader regional and state goals.
- **The San Pedro Bay Port Complex**, which includes the **Ports of Los Angeles** and Long Beach, is the busiest container port complex in the Western Hemisphere and one of the top ten busiest in the world. The logistics infrastructure associated with these ports, including rail and trucking networks, is a critical asset for the region's transportation sector. Efforts to modernize and green the logistics supply chain can significantly contribute to the overall efficiency and sustainability of transportation in the region. Major players like FedEx, Amazon Prime, and other logistics companies have established extensive operations in the region, making it a key hub for goods movement on the West Coast.

Los Angeles County's logistics and trade sectors are significantly bolstered by the presence of advanced training programs at **Cal State Long Beach** and the new Port of LA training facilities. These initiatives serve as premiere assets in the region, providing specialized education and hands-on training that are crucial for developing a skilled workforce in logistics, supply chain management, and maritime operations. The programs at Cal State Long Beach are renowned for their focus on supply chain logistics, offering students both theoretical knowledge and practical experience. The Port of LA's training facilities are designed to equip workers with cutting-edge skills necessary to meet the demands of modern port operations. Together, these programs not only enhance the region's capacity to support global trade but also ensure that local workers

38 [https://www.portoflosangeles.org/references/2023-news-releases/news\\_110923\\_hvip\\_ze\\_trucks](https://www.portoflosangeles.org/references/2023-news-releases/news_110923_hvip_ze_trucks)

are prepared for high-quality jobs in one of the world's most vital economic sectors.

## Increasing Economic Diversification and Resilience

By forming public-private partnerships, the transportation industry can tap into private capital for infrastructure projects, reducing reliance on public funds. These partnerships can involve private companies in the financing, construction, operation, and maintenance of transportation projects, sharing both risks and rewards. This model not only diversifies revenue but also attracts investment even during economic downturns, as private entities seek stable, long-term returns on infrastructure investments. Additionally, with the growth of e-commerce, the transportation industry can partner with logistics companies to provide last-mile delivery services. This could include repurposing certain transit infrastructure for goods movement during off-peak hours or integrating delivery lockers at transit stations. Such partnerships can generate additional revenue streams while optimizing existing assets.

Transportation companies can work with community groups and support networks that connect small businesses with larger players in the industry. By facilitating partnerships and capacity building, small businesses can collaborate, share resources, and enhance their ability to access transportation sector contracts, scale their operations and access new markets. The transportation sector can play a crucial role in supporting small businesses within the supply chain by fostering networks that connect them with larger industry players; offering opportunities for collaboration and resource sharing; providing

tailored logistics solutions, such as flexible delivery schedules and customized freight services; creating digital platforms for tracking shipments and optimizing routes to further enhance supply chain management; implementing financial support programs, like microloans or subsidies, which help small businesses invest in logistics; offering training programs in logistics and technology; and, encouraging supplier diversity and advocating for supportive policies, such as tax incentives and grants. These efforts will help to create a more robust and equitable supply chain, increasing the sector's overall resilience.

Aligning with educational programs is also critical for economic diversification. Two examples of successful programs are:

- **The SEED school** is a public boarding school that provides students with a pathway to college and career readiness by engaging in computer sciences, engineering, and studies of systems and societies through transportation infrastructure.
- **The Transportation Career Academy Program (TCAP)** provides summer internship opportunities to current junior and seniors who depend on transit, reside in LA County, live in close proximity to a Metro rail station and whose schools are located near Metro's rail expansion efforts. This program offers students an opportunity to learn about careers in transportation and how to apply classroom theories and concepts to "real-world" work situations at one of the nation's largest public transportation agencies.

# Transportation and Logistics

## GOAL 1

### Enhance the Small Business and Entrepreneurship Ecosystem

STRATEGY 1 Diversify the sector's financial base to promote economic opportunities within disinvested communities		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Financial Strategy; advocacy</b>	Leverage real estate assets around transit hubs in disinvested communities through transit-oriented development (TOD)	<ul style="list-style-type: none"> <li>TOD projects often involve mixed-use developments, including office spaces, retail, and industrial hubs, which generate local employment opportunities.</li> <li>By concentrating these developments around transit hubs, jobs are brought closer to communities that historically lack access to high-paying opportunities</li> </ul>	Creates sustainable communities while generating steady income that is less sensitive to economic cycles	TOD can help improve air quality and reduce greenhouse gas emissions by providing a variety of transportation options, including public transit, walking, and biking
<b>Finance</b>	"Monetize the Metro" through digital and physical advertising across Metro stations, buses, and trains; corporate sponsorships; and Transit-Oriented Development	<ul style="list-style-type: none"> <li>Increase job opportunities by hiring more hiring more drivers, maintenance workers, and support staff, contributing to job growth in the region</li> </ul>		Funding sources can then be used to fund green energy projects within the Metro system
<b>Advocacy; financial strategy</b>	Advocate for policies that support small businesses, such as tax incentives or small business set-asides, that reduce logistical barriers particularly those in disinvested communities, and educate small business owners especially those in disadvantaged communities about these opportunities	<ul style="list-style-type: none"> <li>By reserving government contracts for small businesses in disinvested areas, more contracts can be awarded to local entrepreneurs and small businesses. This directly leads to increased employment opportunities for local residents</li> </ul>	Allows businesses in underserved areas to grow, leading to increased employment and wealth creation in communities that have been historically excluded from economic opportunities; Stimulates economic growth in underserved areas, as they provide the financial resources and market opportunities that small businesses need to thrive	Government contracts often have environmental guidelines or requirements, such as the use of green technologies, energy-efficient materials, or adherence to sustainability standards like LEED certification. This ensures that small businesses participating in these contracts are aligning with climate goals

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Policy</b>	Incorporate training and skill-building initiatives into collective bargaining agreements	Ensures that employees have access to continuous learning opportunities; guarantees that workers can acquire the skills needed to adapt to technological changes, thereby preventing displacement	Protects workers' job security by formalizing the commitment to upskilling and reskilling within the framework of employment contracts	
<b>Advocacy; finance</b>	Form public-private partnerships (PPPs) to access private capital for infrastructure projects	PPPs often involve workforce training initiatives to meet the technical demands of large-scale infrastructure projects. This investment in training improves job security and the skill level of workers, providing career advancement opportunities	Opens up opportunities for smaller, local businesses and subcontractors; PPPs often include local hire agreements and community benefits clauses that support marginalized groups	Accelerates the adoption of greener technologies, such as electric vehicles (EVs) and energy-efficient public transit systems
<b>Partnership</b>	Transportation companies and agencies can collaborate and share resources to create and support networks that connect small businesses with larger players in the industry	When large transportation companies collaborate with small businesses, they can offer access to broader markets and resources, allowing small businesses to grow, creating more jobs	Ensures that underrepresented groups have access to contracts, resources, and funding, promoting economic mobility and reducing disparities	Transportation companies and agencies that share resources can jointly invest in sustainable infrastructure, such as EV charging stations, hydrogen fueling stations, and mass transit systems
<b>Advocacy</b>	Increase the State and County pay scale for public sector jobs in transportation to compete with private sector roles and other industries	Increasing the pay scale allows workers in public sector jobs to earn livable wages, thus contributing to reducing income inequality and offering greater financial stability	Fosters a workforce that contributes to both job quality and the broader fight against climate change by advancing policies and projects that support decarbonization and energy efficiency	Allows the public sector to set an example in sustainable employment practices, such as investing in training for green jobs and sustainable technologies
<b>Workforce Development</b>	Leverage the Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES) for regional transportation projects	Creates a range of high-quality jobs in emerging clean energy sectors such as renewable hydrogen production, distribution, and infrastructure development	Ensures that individuals from historically disinvested or underrepresented communities have access to training programs and career pathways in the clean hydrogen industry	Focuses on advancing clean hydrogen technologies, which are pivotal for transitioning to a low-carbon economy
<b>Financial</b>	Support small transportation & logistics businesses dependent on the LA and Long Beach Ports with access to capital, technical assistance, and reduced regulatory burdens	Ensures job stability for workers in freight handling, shipping, and logistics. Investment in these small businesses can lead to job creation, particularly in high-demand sectors like warehousing, trucking, and distribution, resulting in well-paying positions with benefits	Allows more minority-owned and women-owned enterprises to enter the logistics sector	Small businesses that align with clean technology initiatives, such as using zero-emission vehicles or sustainable packaging practices, will help contribute to California's goal of reducing port-related pollution
<b>Finance</b>	Develop programs to attract investments in clean-mobility resources for residents, community groups and transit related entrepreneurs	Fosters new industries and roles within the green economy, generating jobs in clean energy, transportation, infrastructure development, and entrepreneurship, which provide long-term, sustainable employment	Prioritizes equitable access to opportunities for marginalized groups, supporting career pathways that offer job stability, training, and upward mobility in emerging clean-mobility sectors	Increase access to clean mobility resources to encourage adoption of climate goals

## GOAL 2

## Build and Align Career Pathways

**STRATEGY 1**  
Develop pathways to employment through education, training, certification and access to resources for disinvested communities that encourage participation in LA's transition toward clean transportation

## OUTCOMES

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Finance</b>	Offer and expand free fare and low-income fare programs such as the Low-Income Fare is Easy (LIFE) Program and Mobility Wallet Pilot Program	Creates economic inclusion by removing transportation as one of the major obstacles that prevent people from participating fully in the economy	ensures that residents of disinvested neighborhoods can more easily commute to work, school, and other essential services	Reduces reliance on single-use vehicles
<b>Workforce Development</b>	Secure steady funding for Los Angeles Trade-Technical College (LATTC)'s range of courses and apprenticeship programs tailored to transportation technologies, such as the JAC Program and Rail Vehicle Maintenance Program, to be replicated across more technical and trade schools in LA	Apprenticeships allow students to gain practical experience while they learn, making them job-ready upon completion; Creates a steady pipeline of skilled workers tailored to the specific needs of the transportation industry	Increases access to hands-on training for a larger, more geographically diverse population	Prepares students for careers in sectors like electric vehicles (EVs) and clean energy, which are critical to advancing Los Angeles' transportation infrastructure toward sustainability
<b>Workforce Development</b>	Leverage and replicate models such as Metro LA's Transportation Career Academy Program (TCAP), a summer internship for current junior and seniors who depend on transit, reside in LA County, live in close proximity to a Metro rail station and whose schools are located near Metro's rail expansion efforts	Introduces students to potential long-term careers in transportation, infrastructure, and related industries. Early exposure helps develop relevant skills, increasing job readiness and paving the way for higher-quality employment	Bridges gaps in access to quality job opportunities, promoting socioeconomic mobility.	Encourages a future workforce invested in sustainable, public transportation solutions
<b>Workforce Development</b>	Conduct job vacancy outreach at community events in disinvested neighborhoods to expand community awareness of clean-mobility sector opportunities and pathways	Provides a touchpoint for introducing employment opportunities for residents who may have limited access to traditional job search resources	Helps to bridge the gap between job seekers and employers, ensuring that underrepresented groups have a fair chance at securing quality jobs	As more people from marginalized communities participate in the transition to clean energy, it helps ensure that climate solutions benefit those most impacted by environmental harm
<b>Workforce Development</b>	Prioritize Disadvantaged Business Enterprise (DBE), Small Business Enterprise (SBE), Disabled Veteran-owned Business Enterprises (DVBE), and Women-Owned Business Enterprise (WBE) programs	Ensures that businesses owned by historically marginalized groups have access to government contracts and procurement opportunities, leading to job quality and access	Fosters greater diversity in the workforce and helps break down barriers to entry for underrepresented groups	

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Leverage programs offered by LAX and the Ports to on-board job seekers from under-represented and disinvested communities, including the Bridge to Jobs Program (BRIDGE), which provides alternate pathways into City civil service positions	Provides a direct pathway to employment in high-demand areas such as public transit, infrastructure development, and transportation technology	Reduces barriers to entry for individuals from disinvested communities, creating equitable access to high-paying jobs that might otherwise be out of reach	As government agencies as well as LAX and the Ports move toward more sustainable operations (like the adoption of clean energy initiatives), programs that onboard workers into these sectors provide a pathway for individuals to enter green jobs
<b>Workforce Development</b>	Leverage the Targeted Local Hire Program (TLH), which provides alternate job pathways into City civil service via full-time, paid, on-the-job training for entry-level City positions		Provides direct pathways to entry level jobs in civil service, which are well paid and provide opportunities for advancement	
<b>Workforce Development</b>	Replicate and scale specialized education programs like the SEED School of Los Angeles, which provides students with a pathway to college and career readiness by engaging in computer sciences, engineering, and studies of systems and societies through transportation infrastructure	By offering advanced technical education, these schools improve job quality by positioning students for well-paying careers with long-term growth potential	SEED School and similar programs target underserved populations, giving students from marginalized communities access to quality education and career pathways that they might not otherwise have	Well-trained graduates are prepared to contribute to the development of sustainable transportation systems, clean energy projects, and infrastructure that reduces carbon footprints
<b>Workforce Development</b>	Guarantee entry-level employment upon completion of specific trainings/ apprenticeships	Provides workers with immediate stability and reduces the stress of job searching. With stable, entry-level positions, employees can develop their skills further and access long-term career growth opportunities, fostering higher job satisfaction	Empowers workers from marginalized communities by offering immediate income and job security. This approach enables individuals to climb the economic ladder, access further professional development, and reduce long-term unemployment disparities	Helps foster the growth of a skilled workforce needed to advance clean energy solutions and sustainable practices such as decarbonization and renewable energy adoption
<b>Workforce Development</b>	Host in-person job fairs and Information Sessions at Trade Schools to connect students directly with employers, industry professionals, and apprenticeship programs	Allows students to gain practical experience while they learn, making them job-ready upon completion; creates a steady pipeline of skilled workers tailored to the specific needs of the transportation industry	Provides an opportunity for students to learn about career paths, available positions, and the skills required by employers	
<b>Workforce Development</b>	Leverage regional projects such as the Metro Rail expansions & the East San Fernando Valley Light Rail Transit Project to create quality jobs in the construction, operation, and maintenance of public transit projects	Projects like the Metro Rail expansions often incorporate apprenticeship programs and collaborations with local trade schools, ensuring that workers can acquire specialized skills needed for construction and long-term operations. This helps workers enter industries with high demand and stable career pathways	Including mandates for hiring from local and disinvested communities, ensures that the economic benefits flow directly to residents	These jobs not only contribute to the development of infrastructure that reduces emissions but also provide long-term employment in green and sustainable industries

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Foster collaborations between industry stakeholders, public transit agencies and local community colleges to proactively provide training to operate and maintain advanced transportation systems	Ensures that workers are not left behind or replaced by technology; prepares workers to transition into roles that require these new competencies; Supports job retention & enhances the skill sets of the existing workforce, making them more valuable in the evolving job market; facilitates internships and apprenticeships and provides students with hands-on experience while simultaneously equipping them with the competencies required in a rapidly changing job market	Creates accessible pathways to high-demand jobs for underrepresented communities	Skilled workers in these fields will be essential to implementing sustainable solutions that reduce greenhouse gas emissions and promote environmental resilience

## GOAL 2

## Transition industries into the carbon-neutral economy

STRATEGY 1 Create financial incentives for transportation & logistics companies		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Financial Strategy</b>	Issue green bonds or tap into climate funds aimed at reducing carbon emissions	Leads to high-quality, well-paid jobs in emerging sectors like solar energy, wind power, and electric transportation	Projects like energy-efficient housing or renewable energy in underserved communities reduce energy costs and improve living conditions for low-income populations	Green investments tend to focus on sustainable and future-proof industries, providing long-term employment opportunities in sectors expected to grow as the world moves toward decarbonization. This leads to better job security for workers compared to traditional industries tied to fossil fuels



STRATEGY 2 Promote investments in the clean transportation infrastructure		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
Finance	Finance sustainable transportation projects such as electric buses, renewable energy-powered transit systems, and infrastructure designed to withstand climate change impacts	Infrastructure investments help expand logistics operations, increasing the demand for a skilled workforce. This leads to more training and development opportunities for workers, helping them advance to higher-paying roles within the logistics and transit sectors	Helps reduce air pollution, improving health outcomes in these communities; improves service reliability and reduces operational costs, which can be passed on to passengers in the form of lower fares	Meets the state's goals of having 100% of new car sales be ZEVs by 2035, as set out in Executive Order N-79-20; reduce the overall carbon footprint of transportation, contributing to California's and global climate goals of lowering CO <sub>2</sub> emissions; promote the use of clean energy sources; ensures that transit systems remain operational during extreme conditions
Policy	Transition to zero-emission vehicles (ZEVs) and the electrification of public transit systems	Creates jobs in areas such as battery technology, electric vehicle (EV) manufacturing, charging infrastructure installation, and vehicle maintenance		
Partnerships	The transportation industry can partner with logistics companies to provide last-mile eco-friendly delivery solutions such as electric vehicles (EVs), bicycle couriers, or delivery drones	increases demand for drivers, delivery personnel, and logistics support roles; Partnering with transportation companies can streamline operations, allowing logistics workers to benefit from better organized routes and access to training programs, improving efficiency and job satisfaction	Small and minority-owned businesses in logistics can benefit from partnerships with larger transportation and delivery companies through increased contracts and supply chain inclusion	The industry can significantly reduce carbon emissions and traffic congestion; encourages the development of sustainable infrastructure like urban delivery hubs and EV charging stations
Policy	Expand access to zero emissions first- and last-mile transit options throughout the county such as electric bikes, scooters, and electric shuttles	create high-quality jobs in sectors like manufacturing, vehicle maintenance, and charging infrastructure. As the infrastructure for zero-emission transit expands, job opportunities in maintenance, tech support, and system management will continue to grow	connects residents to key transit hubs, improving their access to jobs, education, and services while reducing their reliance on costly personal vehicles	Reduces the reliance on fossil-fuel-based vehicles, significantly cutting carbon emissions and improving air quality. This directly contributes to California's ambitious climate goals of reducing greenhouse gas emissions
Advocacy	Advocate for the adoption of human-centered, as opposed to car-centric, city and county planning documents which increase the quality of bicycling, walking and public transit infrastructure		Promoting walking and biking infrastructure can help improve physical activity, reduce pollution exposure from cars, and improve public health, particularly in communities that suffer from higher rates of asthma, obesity, and heart disease	

## Alignment with Job Quality & Access, Equity, and Climate

### Job Quality & Access:

The strategies outlined to advance job quality and access in Los Angeles's transportation sector focus on education, industry partnerships, targeted investments, and competitive compensation. These efforts collectively work to create a robust workforce equipped with the skills and opportunities needed to thrive in a rapidly evolving industry. The strategy recommends partnerships between educational institutions, industry stakeholders, and transit agencies, which can facilitate internships and apprenticeships and provides students with hands-on experience while simultaneously equipping them with the competencies required in a rapidly changing job market.

To close gaps in job access, there must be more female-centered outreach efforts as well as demonstrating the roles that women have in the industry. Representation matters, so we must identify women in roles in various facets of the industry and create a forum to talk about their experience and career pathways. This could include showcasing women in job advertisements; and, offering career shadow days for women interested in the industry. Additionally, succession planning programs are needed to ensure careers do not become stagnant.

### Equity:

The proposed strategies advance equity and serve disinvested groups in Los Angeles County through targeted job vacancy outreach, financial assistance programs, and dedicated opportunities for small businesses. This approach advances equity by directly addressing the barriers that disinvested communities face. Conducting job vacancy outreach at community events ensures that job seekers from underserved areas, who may lack traditional resources, have direct access to employment opportunities. Programs like DBE and SBE promote supplier diversity, providing marginalized businesses with access to government contracts. Small business set-asides create economic opportunities for local entrepreneurs, driving growth and revitalizing disinvested communities.

Improving transportation infrastructure plays a crucial role in advancing equity by providing underserved and marginalized communities with better access to essential services like jobs, education, and healthcare. By reducing geographic barriers and offering affordable, efficient mobility options, it enables greater economic and social mobility, especially for low-income populations who may not own cars. Infrastructure projects can also create jobs and stimulate economic growth in disadvantaged areas, promoting long-term development. Furthermore, enhanced transportation can improve public health by reducing air pollution and traffic accidents, which often disproportionately affect low-income and minority communities. Inclusive planning that considers the needs of diverse groups, such as people with disabilities or the elderly, fosters a more accessible environment for all. By correcting historic disparities in transportation access and investment, such improvements help reduce social and racial inequalities, making cities more equitable and inclusive for everyone.

### Climate:

As zero-emission buses (ZEBs) and other technologies become increasingly prevalent in the transportation sector, there is a growing need for workers to adapt to these changes. Organizations and local trade colleges are developing ZEB and technology-focused training programs that equip workers with the necessary skills to operate and maintain new technologies. For example, **Los Angeles Trade-Technical College (LATTC)** offers a range of courses tailored to emerging sectors, including renewable energy and transportation technologies. LATTC's programs emphasize practical, hands-on training to prepare students for careers in sectors like EVs and clean energy, which are critical to advancing Los Angeles' transportation infrastructure toward sustainability.

Additionally, the **LA Metro** transit agency is investing in workforce development initiatives related to ZEB technology as part of its broader strategy to transition to zero-emission public transit. These efforts are complemented by collaborations with local educational institutions to ensure that the workforce is well-prepared to operate and maintain advanced transportation systems. By proactively providing this training, the sector ensures that workers are not left

behind or replaced by technology but are instead prepared to transition into roles that require these new competencies. This not only supports job retention but also enhances the skill sets of the existing workforce, making them more valuable in the evolving job market. And, by incorporating training and skill-building initiatives into collective bargaining agreements, these organizations ensure that employees have access to continuous learning opportunities. This approach guarantees that workers can acquire the skills needed to adapt to technological changes, thereby preventing displacement. These agreements protect workers' job security by formalizing the commitment to upskilling and reskilling within the framework of employment contracts.

The World Institute Resources points out, "Public transport is one of the best, most cost-effective solutions available to address today's climate and development challenges. Buses and trains can reduce greenhouse gas (GHG) emissions by up to two-thirds per passenger, per kilometer compared to private vehicles."<sup>39</sup> Investing in green transportation options and infrastructure—such as electric vehicles or efficient public transit systems, micro-grids, replacement of diesel trucks—not only mitigates the negative impact of carbon emissions but can also stimulate job creation within emerging industries focused on sustainability.

## Workforce Development

Partnerships between educational institutions and industry stakeholders are crucial in facilitating internships and apprenticeships, which provide students with valuable hands-on experience. Apprenticeships allow students to gain practical experience while they learn, making them job-ready upon completion. These collaborations help bridge the gap between academic learning and practical application, ensuring that graduates enter the workforce with the competencies required in a rapidly changing job market. By aligning training programs with industry needs, these partnerships ensure that the local workforce is prepared to meet the demands of both current and future job markets.

## Alignment with State Strategies

The strategy aligns with Governor Gavin Newsom's clean transportation infrastructure package and the California Climate Commitment. California's climate strategy, as outlined in the California Climate Change Scoping Plan, emphasizes reducing greenhouse gas emissions by shifting from car dependence to public transportation and other sustainable modes of transport. By creating quality jobs in the construction, operation, and maintenance of public transit projects like the Metro Rail expansions and the East San Fernando Valley Light Rail Transit Project, Los Angeles is directly supporting these state goals. These jobs not only contribute to the development of infrastructure that reduces emissions but also provide long-term employment in green and sustainable industries.

**California Transportation Plan (CAPTI):** CAPTI outlines strategies that advance more sustainable transportation modes, such as walking, biking, and public transit. By encouraging these modes of transportation, the plan aims to reduce reliance on single-occupancy vehicles, which are a major source of greenhouse gas emissions. The promotion of rail and zero-emission vehicle technology further supports California's broader climate goals by reducing the transportation sector's overall carbon footprint. CAPTI's focus on accelerating the adoption of zero-emission vehicles (ZEVs) directly aligns with California's climate objectives, as ZEVs produce no tailpipe emissions. This shift is crucial for reducing the state's transportation-related emissions, which are a significant contributor to overall greenhouse gas levels.

**Transition to Clean Vehicles:** The state's strategy includes the transition to zero-emission vehicles (ZEVs) and the electrification of public transit. Los Angeles is aligning with this by creating jobs in the electric bus manufacturing and maintenance sectors, as well as in the development of electric vehicle charging infrastructure. These efforts are essential for meeting the state's goals of having 100% of new car sales be ZEVs by 2035, as set out in Executive Order N-79-20.

**Green Infrastructure Jobs:** Efforts to expand bike lanes, pedestrian pathways, and other forms of green

39 [The Current State of Public Transport as a Climate Solution | World Resources Institute \(wri.org\)](https://www.wri.org/publications/2016/04/the-current-state-of-public-transport-as-a-climate-solution/)

infrastructure also create quality jobs in construction and maintenance, which align with California's climate strategies to reduce vehicle miles traveled and promote active transportation as sustainable alternatives.

**Job Creation in Climate-Resilient Infrastructure:**

The state's climate adaptation strategies, including those outlined in California's Climate Adaptation Strategy, stress the importance of building resilient infrastructure that can withstand the impacts of climate change. Los Angeles's focus on creating quality jobs in the construction and upgrading of transportation infrastructure, such as transit-oriented developments and the modernization of public transit systems, aligns with these goals. These jobs not only provide economic stability for workers but also contribute to the broader state objective of creating climate-resilient communities.

**Inclusion and Equity in Green Jobs:** Caltrans recently updated Main Street, California: A Guide for People-Centered State Highway Main Streets, which is shaped by five guiding principles that reflect the State's strategic goals and forms the basis of the Planning for Main Streets project: foster people-centered transportation infrastructure; improve safety and public health; elevate equity and livability; advance sustainability and climate action; and engage communities, partners, and stakeholders.

The project is also aligned with California Climate Investments, a statewide initiative that puts billions of cap-and-trade dollars to work by reducing greenhouse gas emissions, strengthening the economy and improving public health and the environment – particularly in disadvantaged communities.

## Strategy Implementation

- Create synergies and partnerships that bring together the various employers, entities, agencies, etc. to build upon best practices, streamline efforts, and conduct needed outreach.
- Foster partnerships with key organizations and entities such as the Transportation Business Advisory Board of the LA Metro to support existing entities and organizations that represent and serve disinvested communities, including historically underserved business owner groups
- Systematic data collection and evaluation of training programs that engage employers, industry experts, workforce development organizations, and other stakeholders allow workforce development organizations to identify current and future skills needs in the industry.

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## Target Sector Strategies

# Construction



As the Construction Table Partner Lead for the California Jobs First program, the [Coalition for Responsible Community Development](#) convened a series of focus groups between June and July 2024 to identify workforce barriers and develop strategies for creating actionable solutions. They included representatives from CRCDC Enterprises, Sonny's Construction, Power2Workers, and CA Construction Compliance. These discussions emphasized the importance of building a community-led, climate-forward economy that creates high-quality and accessible jobs in Construction, particularly in disinvested communities.

## Define Sector and Justify Prioritization by Region

### Sector Development

The Construction industry cluster in Los Angeles County has demonstrated growth over the past five years, with employment increases observed across most Service Planning Areas (SPAs). According to the Regional Plan Part 1, this upward trend is expected to continue, fueled by a substantial pipeline of construction projects.

The Los Angeles County Development Authority's (LACDA) 2020 Comprehensive Economic Development Strategy (CEDS) forecasts an 8.5% job growth rate in the construction industry through 2028, positioning it as one of the few industries with consistent expansion over the next decade. According to the Association of General Contractors' 2024 outlook survey, the construction sector is poised for growth in 13 of its 17 construction project categories,

which include Water/Sewer, Transportation (transit, port, rail, airport), Bridges/Highways, Federal (VA, GSA, USACE, NAVFAC), Power, Hospital/Other Healthcare, Data Centers, K-12 Schools, Public Buildings, Manufacturing, Higher Education, Multifamily/Residential. Retail, Lodging, and Private Offices are forecasted to have lower levels of anticipated growth.

The LA County Construction industry cluster employs 121,530 people and provides ample career paths and opportunities for individuals in disinvested communities who tend to obtain lower levels of educational attainment in the traditional university system. (See [Appendix](#)) The largest sub-industry in LA County is Plumbing, Heating and Air-Conditioning Contractors employing 21,873 at an average wage of \$73,299 annually. The two following largest sub-industries in LA County's construction industry are Commercial and Institutional Building Construction and Residential Remodelers employing a combined 25,611 people, with the former paying an average wage of \$105,698 and the latter \$59,699. Within the Construction industry cluster, some of the growing sub-industries include New Multi-Family Construction, Commercial Construction Residential Remodelers and a variety of contracting industries such as Drywall and Insulation, Painting and Wall Covering, Poured Concrete Foundation and Structure, Roofing, Finish Carpentry, and Framing.

The demand for skilled labor is particularly strong in specific occupations within the Construction sector. Carpenters, Construction Laborers, First-Line Supervisors for Construction Trades and Extraction Workers, Plumbers, Pipefitters, Steamfitters, and Painters are among the top roles driving employment.

Electricians are in short supply in California, with roughly 1 electrician for every 478 housing units in the state of California.<sup>40</sup> This specialty trade intersects with the build out of California's clean energy sector and will require increased efforts to expand the workforce to meet California's EV network, passenger and bus electrification infrastructure, port upgrades, residential conversions and building decarbonization. Similarly, plumbers, bricklayers, drywall installers, carpenters, and sheet metal workers are cited as positions that are difficult to fill.<sup>41</sup> From the 2024 Associated General Contractors of America Construction Outlook California Survey results, 71% of the 65 firms surveyed answered that they are having a hard time filling some or all salaried and hourly craft positions.<sup>42</sup>

This demand reflects the ongoing need for a workforce capable of supporting the diverse range of construction projects planned throughout the region. Training partnerships, apprenticeship programs and acceleration models to grow the contracting pool is necessary to meet local market demand. California's decarbonization cannot occur without robust building greening which opens up opportunities for training and employment opportunities in the various construction industries. It is additionally anticipated that state buildings will begin retrofits to meet these requirements and standards as the budgets improve.

**Clear Local Market Signals:** The Construction sector in Los Angeles County is strategically positioned to align with market trends, driven by the immense opportunities tied to major upcoming events and significant federal investments. The preparation for the 2028 Olympics, which includes expansive infrastructure improvement projects like the Convention Center expansion and the D-Line Subway Extension Project, is at the forefront of this growth. Although the region is not building new sporting venues for the 2028 Olympics, the large-scale infrastructure projects tied to this event are creating a substantial demand for construction services. This includes everything from the physical building and upgrading of facilities to the development of

transportation networks that will support the influx of visitors and long-term urban growth. In addition, other significant projects such as the LAX Landside Access Modernization Program, LA Metro Transit Center and BRT expansions, Hollywood Burbank Airport upgrades, Destination Crenshaw, and the Dodger Stadium Gondola, are all driving demand within the construction sector. These projects lay the groundwork for sustained growth in the construction industry as the ongoing need for maintenance, upgrades, and expansions to accommodate future economic and population growth will continue to provide employment opportunities long after these events are over.

Employing over 120,000 people in our region, Construction will play a foundational role in transitioning LA County to a carbon-neutral economy. Directly, the Construction industry will do this by utilizing green building standards which reduce carbon emissions in energy consumption and construction. Indirectly, the construction industry will reduce carbon emissions and aid economic growth through its development of transportation infrastructure, and commercial development throughout all industries.

The region's housing shortage has led to exorbitantly high rents, overcrowding, loss of business and talent, long commute times and restrictions in economic mobility. This will require the construction of hundreds of thousands of housing units. According to the Regional Housing Needs Assessment (RHNA), the 88 cities and unincorporated parts of the County will need to add an additional 812,060 units between 2021-2029. The City of Los Angeles alone needs 456,000+ new housing units between 2021-2029, which is over 5 times the 2013-2021 target of approximately 82,000.<sup>43</sup> Across the entire six-county SCAG region, there will need to be 1,341,827 new housing units by 2029,<sup>44</sup> generating hundreds of thousands of new jobs.

In LA County, employment in New Multifamily Housing increased 34% between 2017-2022, and is

40 <https://grist.org/energy/electrician-shortage-electrify-everything-climate-infrastructure-labor/>

41 [The California Labor Shortage Explained - South Bay Construction \(sbci.com\)](https://www.sbc.com/resources/insights/the-california-labor-shortage-explained)

42 [2024 Outlook California FINAL.pdf \(agc.org\)](https://www.agc.org/2024-Outlook-California-FINAL.pdf)

43 [https://planning.lacity.gov/odocument/3d0775b4-6e54-4294-ad5a-85df6b8eaf82/Executive\\_Summary\\_\(Adopted\).pdf](https://planning.lacity.gov/odocument/3d0775b4-6e54-4294-ad5a-85df6b8eaf82/Executive_Summary_(Adopted).pdf)

44 [https://planning.lacity.gov/odocument/6e79ba73-689a-4f6f-95e4-057dd85b5b57/What\\_to\\_Know\\_about\\_\\_RHNA\\_Site\\_Selection\\_and\\_Rezoning.pdf](https://planning.lacity.gov/odocument/6e79ba73-689a-4f6f-95e4-057dd85b5b57/What_to_Know_about__RHNA_Site_Selection_and_Rezoning.pdf)



expected to grow further. The creation of the L.A. County Affordable Housing Solutions Agency,<sup>45</sup> with its focus on securing additional funding for these critical housing projects, underscores the alignment of construction activities with both market demands and societal needs. Improvements in water, waste management, and public infrastructure, remodeling buildings and demand for new types of commercial and residential structures will all increase demand for qualified workers in the Construction industry. This presents a wonderful opportunity for LA County to uplift its existing populations into High-Road Training Partnerships and career pathways in the construction industry

**Value Chain and Infrastructure:** The significant federal investments from the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA) further amplify the growth of the construction industry, both of which are pouring resources into sustainable mobility and infrastructure upgrades. The combined efforts of the IIJA and IRA are setting the stage for long-term growth in the construction sector. These Acts are not only modernizing infrastructure but also making it climate-ready, with investments in energy, transportation, water, and telecommunications. The IIJA's \$1.2 trillion allocation for infrastructure, including \$550 billion for new investments, coupled with the IRA's tax credits and incentives, are reducing the cost of construction and stimulating job growth in Los Angeles. This comprehensive approach to infrastructure investment ensures that the region's development is efficient, resilient, and secure.

Additionally, the South LA region received a \$20 million Community Change grant from the EPA for the South LA All In Good Jobs, Healthy Communities Project. The SLAAI-GJHC project, led by CRCD in partnership with [Los Angeles Trade Technical College](#) (LATTC), [Community Coalition](#), [City of Los Angeles Economic & Workforce Development Department](#) (EWDD), [Amity Foundation](#) and the [City of Huntington Park](#), focuses on addressing critical issues such as lead contamination in housing and the

need for climate-resilient jobs. This initiative will train residents in lead abatement, welding, electric vehicle maintenance, and weatherization, providing pathways to well-paying, sustainable careers.<sup>46</sup>

In August 2024, Los Angeles received nearly \$250 million in Affordable Housing and Sustainable Communities grants for seven distinct housing and transportation development projects.<sup>47</sup> These funds are helping to modernize and expand the county's infrastructure, ensuring that the construction industry continues to thrive. By enhancing transportation, tourism, and urban infrastructure, these projects ensure that the region remains a competitive and attractive location for future investments, thereby sustaining the growth of the construction industry over the long term.

Investments in construction are vital for supporting the growth of the industry by providing essential infrastructure that enables businesses to operate efficiently and expand. These projects contribute to economic development, logistics and distribution, urban development, public services, and transportation. Moreover, construction projects create a favorable environment for related businesses by supporting their operations and enhancing other industries through indirect purchasing power. These funds are helping to modernize and expand the county's infrastructure, ensuring that the construction industry continues to thrive. Access to financing options, such as loans and investment funds, is crucial for businesses to undertake construction projects, particularly for smaller firms that may lack the necessary upfront capital. Smaller contractors often face challenges in securing bonding support, which is essential for their growth within the sector. Additionally, navigating regulatory requirements, zoning, land use, building codes, and compliance language becomes increasingly complex as projects grow in scale. Providing technical assistance in these areas will further support the development of a robust local construction network.

<sup>45</sup> <https://lacaahsa.gov/>

<sup>46</sup> [coalitionrcd.org](https://coalitionrcd.org)

<sup>47</sup> [https://la.urbanize.city/post/state-awards-238m-affordable-housing-developments-la-county?utm\\_source=Urbanize+Newsletter&utm\\_campaign=2a3f9f3355-news-la-daily-2024-08-27&utm\\_medium=email&utm\\_term=0\\_f2c8779a36-2a3f9f3355-199907424](https://la.urbanize.city/post/state-awards-238m-affordable-housing-developments-la-county?utm_source=Urbanize+Newsletter&utm_campaign=2a3f9f3355-news-la-daily-2024-08-27&utm_medium=email&utm_term=0_f2c8779a36-2a3f9f3355-199907424)



**Innovation Ecosystem:** The construction industry is experiencing significant advancements through various regional innovation resources. The use of Design Build contracts and PPPs has enabled construction projects in Los Angeles to be completed faster and more efficiently. These methods foster creativity and innovation by allowing private sector companies to collaborate closely with public agencies, streamlining processes and reducing delays. The emphasis on faster project timelines opens up new opportunities for private businesses to engage with public sector projects, driving growth in the construction sector and enabling rapid response to market demands.

The shift towards innovative construction methods, such as manufactured and modular homes, is transforming the affordable housing landscape in Los Angeles. These approaches allow for quicker, more cost-effective construction, which is crucial in a city facing significant housing shortages. By adopting these innovations, private sector companies can better meet the demand for affordable housing while also contributing to sustainable building practices. This connection between innovation and the construction sector is vital for addressing the region's housing crisis.

Federal investments in infrastructure and housing are accelerating the growth of industries that meet emerging market demands. These investments provide capital and resources that local economies need to adjust to global competition. For the construction sector, this means increased opportunities for private companies to expand their operations, develop new technologies, and create jobs. -New federal investments accelerate the transformation of industries to meet new market demands and pushes local economies to adjust to competing international investments. Companies have to adjust based on the funding and trends that are pushed out by the government and the funding that is tied to it. One of those recent examples is the ARCHES project that received over \$1 billion from the federal government and will be part of a larger \$13 billion project that introduces a new fuel for vehicles and heavy-duty machinery.

Business organizations such as the Los Angeles Economic Development Corporation (LAEDC), the Los Angeles Chamber of Commerce, the

Construction Network and others like CMAA play a crucial role in supporting the construction sector. These organizations act as catalysts for growth by providing the private sector with resources, networking opportunities, and industry insights. They help companies prepare for future projects by offering guidance on navigating regulatory environments, accessing funding, and adopting best practices. This support strengthens the construction sector's foundation, enabling it to thrive in a competitive market.

**Regional Assets:** The county benefits from some of the largest and most lucrative construction companies, Architectural and Engineering Firms, Educational Institutions, finance firms, and Chambers of Commerce in the nation. These entities all have a role to play in the growth, diversification and resilience potential of the sector.

- **Southern California Association for Nonprofit Housing (SCAMP):** SCAMP provides essential technical assistance and advocacy support to non-profit developers involved in affordable housing projects. By identifying funding opportunities and offering guidance on navigating regulatory challenges, SCAMP helps non-profit developers overcome barriers, enabling them to undertake more projects. This support is crucial for expanding the construction sector, particularly in the affordable housing space.
- **Construction Contractor Alliance (CCA) and the Southern CA Chapter of the National Association of Minority Contractors (NAMC-SC):** The Construction Contractor Alliance and the National Association of Minority Contractors - Southern CA play critical roles in empowering women and minority-owned businesses by helping them gain access to bidding opportunities. This inclusion fosters diversity in the construction industry and helps small businesses grow, ultimately expanding the sector's capacity. By bringing in these underrepresented groups, these organizations help to ensure a more equitable distribution of opportunities and resources within the industry.
- **Southern California Minority Development Council:** This council helps minority-owned construction businesses by providing them with access to networking, mentorship, and resources needed to compete in the market. By supporting

these businesses, the council helps to create a more diverse and robust construction sector that is better equipped to handle large-scale projects and innovate within the industry.

- **Associated General Contractors of California:** This organization provides comprehensive support to the construction industry through advocacy, addressing labor and compliance issues, and offering networking opportunities. Their educational and training programs build competence among construction workers and professionals, while their scholarships and mentorships help develop a skilled workforce. This, in turn, enhances the sector's ability to meet demand and undertake more complex projects.
- **LA/OC Building Construction Trades:** Subcontractors and specialty trades provide the skilled labor necessary for the construction sector to thrive.
- **Los Angeles Area Chamber of Commerce, the Latino Business Chamber of Commerce, Los Angeles Business Council (LABC), Greater Los Angeles African American Chamber of Commerce (GLAAAC), Asian Business Association-LA, the American Indian Chamber of Commerce, and the Building Industry Association of Southern California (BIASC)** collectively can provide the advocacy needed for businesses in the construction industry, helping them gain a competitive advantage in procurement opportunities. They provide platforms for networking and collaboration, which can lead to new partnerships and projects, further driving the sector's growth.
- **Kaiser Permanente's Local Hire** and **Hire LAX** initiatives offer successful examples of local hire efforts with targeted recruitments from high unemployment disinvested areas. Programs that include targeted outreach to LA County's 150,000+ opportunity youth can play an important role of connecting underemployed residents to pathways sector careers.
- Specializing in Construction and Healthcare pipeline jobs, the **Watts/LA WorkSource Center** is an example of a successful program that links public housing residents, youth, and local qualifying residents with construction and permanent job opportunities associated with all of the Housing

Authority for the City of Los Angeles (HACLA's) redevelopment projects.

Projects that can be leveraged include:

[LACCD Capital Bond Program \\$14.9 Billion Investment](#)

- [San Gabriel Valley Regional Housing Trust Fund](#), a joint powers authority created in February 2020 to fund and finance the planning and construction of homeless housing, and extremely low, very low, and low-income housing projects.
- The **California State Treasurer's BIPOC Developers' Fund** provides access to bond capital and resources to support diverse builders, fund affordable housing projects, expedite and streamline regulatory and CEQA processes.
- The **Southern California Association of Government (SCAG)** Regional Early Action Program (REAP) Subregional Partnership Program, which will allocate \$23 million in REAP 2.0 grant funding non-competitive formula allocation based on proportional share of the 6th Cycle RHNA to subregional councils of governments (COGs) for eligible activities supporting member cities and counties implement Housing Element work plans
- Regional Metro Projects that impact LA Countywide, many of which are detailed in the **Transportation Target Sector**.

## Increasing Economic Diversification and Resilience

The construction sector in Los Angeles is thriving, driven by the region's demand for infrastructure expansion and modernization. This growth extends to the surrounding counties where significant construction projects such as high-speed rail, the ARCHES Hydrogen fuel project, and various transportation and housing developments are underway. These projects are drawing the construction workforce to a broader range of opportunities, further emphasizing the sector's dynamism. Leveraging the presence of critical assets that the county has to offer will build the sector's resilience.

There is a need for regional coordination on zoning, land use, building codes, and processes to streamline construction schedules and mitigate challenges related to rising material and labor costs. The adoption of governmental measures such as LA City Executive

Additionally, the sector can adopt more robust mentorship models in the industry. For example, LA Metro has instituted programs and policies that are increasing economic diversification in the sector which could be considered as a best practice.

# Construction

## Enhance the Small Business and Entrepreneurship Ecosystem

<b>STRATEGY 1</b> Increase economic diversification of the sector		<b>OUTCOMES</b>		
<b>Strategy Type</b>	<b>Tactics</b>	<b>Job Quality/Access</b>	<b>Equity</b>	<b>Climate/ State Strategies Alignment</b>
<b>Financial Strategy</b>	Increase access to capital for smaller firms that may lack the necessary upfront capital such as bonds, loans and investment funds, for businesses to undertake construction projects	Businesses can afford to hire more workers, pay competitive wages, and provide better benefits; promotes job stability and creating pathways for workforce development, including training and advancement opportunities	Removes a financial barrier that often prevents smaller and underrepresented businesses from participating in large-scale construction contracts; increases access to prime contractor or subcontractor roles on construction projects, increasing their chances to compete fairly, grow their operations, and build wealth in historically disinvested communities	Smaller subcontractors are often more flexible and innovative than larger firms. Their involvement in significant projects can foster new ideas and methods in sustainable construction, energy efficiency, and material use. This can contribute to reducing the overall carbon footprint of large-scale projects
<b>Policy Change</b>	Require firms bidding on projects worth more than \$25 million to include strategies to support smaller subcontractors — particularly those that are qualified as a Disadvantaged Business Enterprise (DBE)	Smaller subcontractors, when engaged in large-scale projects, often require additional skilled labor, leading to more training and apprenticeship opportunities. This helps build a more diverse and skilled workforce		

49 <https://www.mayoralcity.gov/sites/g/files/wph2066/files/2024-03/ED%20%20-%20Emergency%20Use%20of%20Viable%20City-Owned%20Property%202nd%20Revised%20Final.pdf>

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Financial Strategy</b>	Provide a bonding guarantee to qualified Small Business Enterprise (SBE), Disadvantaged Business Enterprise (DBE) and Disabled Veteran Business Enterprise (DVBE) firms to expand their bonding capacity on construction contracts as a prime contractor or subcontractors			
<b>Partnerships</b>	Establish and maintain industry networks and associations that bring together construction firms, suppliers, and contractors to share best practices and address common challenges will encourage joint ventures and partnerships between businesses to address large-scale projects and share resources, expertise, and labor	By sharing resources, expertise, and labor, businesses can better meet project demands while offering more training and growth opportunities for workers	Helps create a more inclusive industry with equitable access to contracts and higher-quality jobs	Networks allow construction firms, suppliers, and contractors to share best practices regarding energy-efficient building techniques, sustainable materials, and low-carbon design strategies; lead to innovative solutions, such as reducing emissions through more efficient supply chains and pooling resources to invest in renewable energy projects
<b>Partnerships</b>	Establish mentorship programs where experienced LEED-certified firms guide and support diverse architecture & engineering (A&E) firms through the certification process	Mentorship provides smaller or minority-owned firms with the tools and guidance they need to achieve certification, enabling them to participate in these lucrative projects. This opens up a broader range of contracts and growth opportunities for their employee; allows employees of diverse firms to expand their professional networks, learn best practices, and gain insights into leadership within the green building industry	Fosters a more equitable and inclusive construction industry in disinvested communities; grows the capacity of smaller firms, enabling them to contribute to and take on larger infrastructure projects, thereby expanding the construction sector	Increases the number of LEED-certified buildings
<b>Policy Change</b>	Replicate practices utilized by Housing Authority for the City of Los Angeles (HACLA) when seeking bids, such as securing commitments to local hiring within the contract documents during the bidding process and holding bidders' conferences	Ensures that contractors are held accountable for recruiting workers from the local community. This provides direct employment opportunities for individuals in disinvested areas; fosters a competitive environment where firms are incentivized to propose strategies that emphasize workforce development	Advances equity when all participants are clearly informed of the requirements and expectations related to local hiring commitments	Embedding climate-related requirements within local hiring and contract commitments encourages contractors to adopt sustainable construction methods, such as energy-efficient building materials, green design practices (e.g., LEED certification), and reduced emissions from transportation during project implementation
<b>Partnerships</b>	Establish R&D centers with a focus on renewable energy technologies within aerospace in partnership with local universities and research institutions	Promotes job creation within disinvested communities	Disinvested communities will gain community investment and opportunities to engage community members	Centers will result in innovation and meet CA's greenhouse gas emissions goal

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
	Encourage SBIR portfolio companies, Primes and startups within the aerospace sector to actively participate in collaboration and knowledge exchange, through organized networking and collaboration events and forums	Partnerships lead to innovation in workforce development activities that can create new pathways, trainings, and access to jobs		

## GOAL 2

## Build and Align Career Pathways

**STRATEGY 1**  
Increase access to jobs through expansion of training and certification opportunities for communities that have been historically disinvested

## OUTCOMES

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Financial Strategy</b>	Invest in building out, expanding, and creating satellite training programs and/or centers specifically located in or serving disinvested communities to reduce barriers to access to training in green sector jobs	Ensures that the residents have direct access to the skills, certifications and entrepreneurship opportunities needed to secure quality jobs or revenue opportunities in the growing construction sector	Residents who have historically faced barriers to employment and economic mobility are provided with local, accessible opportunities to develop essential skills	Creates a cleaner localized environment and economy; training covers topics such as green sector jobs such as EV vehicle repair, weatherization, solar installation and other green sector fields, clean energy infrastructure design, charging system maintenance and evaluation, electric battery recycling and reuse
<b>Workforce Development</b>	Create a centralized database that facilitates referrals, tracks worker progress, and connects them to essential resources, accessible to labor unions, educational institutions, MC3 providers, workforce development organizations, and key sector employers contractors, nonprofit trades, and trade unions	Supports workers and prevents displacement; creates a seamless pathway for workers to secure and retain employment; enhances job stability and career growth opportunities in the trades	Ensures better coordination between labor unions, educational institutions, MC3 providers, workforce development organizations, and key sector employers	
<b>Workforce Development</b>	Promote construction union sponsorship programs to encourage project owners and contractors to recommend applicants for apprenticeship programs	Guarantees higher wages, healthcare, and retirement benefits compared to non-union jobs; Completing a union apprenticeship often results in certifications that are recognized industry-wide, making workers more competitive and qualified for high-paying jobs	Creates a pathway for traditionally underrepresented groups; promotes local hire initiatives, providing residents of disinvested communities with opportunities for quality jobs in their neighborhoods	The workforce will be better prepared to take on green construction projects that help reduce carbon footprint

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Partner with local community colleges across the region to expand training operations including targeted LEED certification programs in disinvested communities	<ul style="list-style-type: none"> <li>Allows students to gain early exposure to the construction industry and curriculum that aligns with employers' needs;</li> <li>equip participants with the foundational and advanced skills required in various construction trades, making them competitive candidates for high-demand jobs</li> </ul>	By targeting disinvested communities, LEED training programs can help address the environmental disparities often present in these areas	Leads to energy-efficient homes, public buildings, and infrastructure, all of which contribute to reducing greenhouse gas emissions
<b>STRATEGY 2</b> <b>Advance the sector by intentionally hiring people from disinvested communities (Project Labor Agreements)</b>		<b>OUTCOMES</b>		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Policy Change</b>	Mandate businesses or public project primes to hire new workforce and sponsor individuals via local community benefit agreements or PLAs	<ul style="list-style-type: none"> <li>Requiring that contractors commit to hiring a certain percentage of workers from the local community is designed to ensure that the economic benefits of a project are felt directly by residents in the areas where these projects are being implemented. By prioritizing local workers, this helps to reduce unemployment and stimulate the local economy</li> </ul>	ensure that disinvested populations are represented in the workforce; helps to dismantle systemic barriers that have historically excluded these groups from the construction industry, fostering a more inclusive workforce	
<b>Policy Change</b>	PLAs should include provisions for pre-apprenticeship and apprenticeship programs that provide training and job placement in union jobs & incorporate support for workers to be committed to additional projects from the contractor if selected	<ul style="list-style-type: none"> <li>Ensures that there is a steady pipeline of skilled tradespeople, particularly as the industry is aging. These opportunities typically offer good overall benefits including healthcare, PTO, retirement and create career ladders for progression</li> </ul>	For residents of disinvested communities, access to these union jobs can mean greater job stability, better healthcare benefits, and opportunities for career advancement, all of which contribute to long-term economic mobility and improved quality of life	
<b>Policy Change</b>	Require that entities putting out construction bids abide by Section 3 of the Housing and Urban Development Act	<ul style="list-style-type: none"> <li>Encourages the use of minority-owned businesses and suppliers, which helps these small enterprises grow and thrive</li> </ul>	Ensures that projects contribute to the economic upliftment of disadvantaged communities, providing them with access to job opportunities and career advancement	
<b>Policy Change</b>	Require contractors to sponsor workers into trade unions by making it a requirement to bid on a project & Establish standardized protocols for the establishment of union sponsorship funds that require timely release of union fees for applicants	<ul style="list-style-type: none"> <li>Enhances job security, safety standards, and overall work conditions, and ensures that workers receive timely access to skill development opportunities</li> </ul>	By removing bureaucratic delays, standardized protocols ensure that union benefits, including sponsorships for training and education, are distributed equitably, which can help marginalized workers advance in their careers and secure higher-paying jobs.	Increases the number of workers who can gain LEED certification or certifications in energy-efficient manufacturing processes

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
	Require contractors to sponsor workers into trade unions by making it a requirement to bid on a project & Establish standardized protocols for the establishment of union sponsorship funds that require timely release of union fees for applicants	Enhances job security, safety standards, and overall work conditions, and ensures that workers receive timely access to skill development opportunities	By removing bureaucratic delays, standardized protocols ensure that union benefits, including sponsorships for training and education, are distributed equitably, which can help marginalized workers advance in their careers and secure higher-paying jobs	Increases the number of workers who can gain LEED certification or certifications in energy-efficient manufacturing processes

## GOAL 3

## Transition industries into the carbon-neutral economy

STRATEGY 1 Create financial incentives for industry leaders to adopt green technology		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
Financial Strategy	Encourage tax credits, other financial incentives, grants or technical assistance for contractors to meet LEED and other environmental standards	Encourages more companies to engage in green construction, thereby expanding job opportunities in communities that may have previously been excluded from the green economy. Providing resources such as grants or technical assistance helps smaller, diverse firms overcome financial barriers to certification, enabling them to compete in an evolving market	Tax credits may include provisions or bonuses for hiring locally or from underrepresented groups, creating pathways into high-quality jobs for marginalized communities	Promotes sustainable construction practices. These incentives make it more financially feasible for contractors to adopt energy-efficient technologies and materials, reducing greenhouse gas emissions and energy consumption
Financial Strategy	Promote investments from agencies like the EPA, DOT and Caltrans to facilitate the ability for the region to access funding to convert brownfield or other vacant land sites into environmentally sustainable sites that can be repurposed for economic development, recreational or other community friendly uses	Converting brownfield sites involves complex environmental remediation, sustainable construction, and urban development efforts. These projects often require specialized skills in environmental engineering, waste management, and sustainable construction, providing opportunities for high-skilled jobs with competitive wages	Redeveloping these sites not only removes hazardous conditions but also opens up new spaces for recreation, housing, or business development, directly benefiting the residents of these communities	Cleaning up brownfield sites reduces toxic pollution and restores the natural environment. Once redeveloped, these sites can be repurposed for environmentally sustainable uses, such as parks, urban agriculture, or renewable energy installations



**STRATEGY 2**  
Grow environmentally responsible industries by supporting small businesses and social innovation ventures dedicated to community resilience

## OUTCOMES

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>TA</b>	Provide ongoing technical assistance, workshops, and peer-learning opportunities that help diverse firms navigate the LEED certification process, build capacity, and stay competitive in the market.	Upskilling can result in better job performance and enhanced competencies, making workers more valuable in the marketplace. Ensures that workers are not only employed in green jobs but are also at the forefront of environmental innovation	Ensures that underrepresented businesses, including minority-owned and women-owned firms, can participate in the high-demand, high-paying green construction market, promoting equity and improving job prospects	Leads to energy-efficient homes, public buildings, and infrastructure, all of which contribute to reducing greenhouse gas emissions
<b>Outreach</b>	Conduct outreach to diverse architecture & engineering firms about the benefits of LEED certification	LEED certification also elevates the standards of work, ensuring that employees gain valuable skills in sustainable building techniques, which are increasingly sought after in the job market. Meeting LEED certification requirements means engaging in projects that are likely to receive long-term public and private investment. Workers involved in such projects can expect greater job stability	Helps democratize access to this sector and ensures that underrepresented groups are not left out of the benefits of the green transition	Incentivizes firms to become LEED certified and promotes the inclusion of diverse firms in projects that require sustainable design expertise
<b>Advocacy</b>	Encourage public agencies and large developers to include LEED certification goals and diversity metrics in their project requirements		Levels the playing field by giving underrepresented entrepreneurs access to contracts that were previously hard to secure; Ensures that women, minorities, and disadvantaged business enterprises (DBEs) are actively involved in project planning, construction, and management	
<b>Policy Change</b>	Adopt and enforce Green Building Standards such as LEED (Leadership in Energy and Environmental Design) or BREEAM (Building Research Establishment Environmental Assessment Method)	Increases the need for workers in these areas to obtain specialized skills such as energy-efficient design, waste management, and renewable energy implementation. These certifications will lead to higher-paid jobs. The increased demand for green buildings and environmentally responsible construction creates a more stable market for workers in green construction, insulating them from volatility in traditional construction sectors		Projects emphasize the use of renewable energy sources, such as solar and wind power, which directly align with climate goals by reducing dependency on non-renewable energy
<b>Workforce Development</b>	Build decarbonization and weatherization workforce	Workers in decarbonization and weatherization are likely to have long-term job security as more businesses and homes transition toward energy efficiency	Workers in decarbonization and weatherization directly contribute to improving the health and well-being of their communities by making buildings safer, more energy-efficient, and less reliant on fossil fuels	Supports the California Public Utilities Commission (CPUC)'s efforts to advance state goals on electrification for both residential, commercial spaces

## Alignment with Job Quality & Access, Equity, and Climate

### Job Quality & Access

**Expanding the use of Project Labor Agreements (PLAs), Community Benefit Agreements and Local Hire Initiatives** that set specific hiring goals for targeted geographic areas and underserved populations will guarantee higher wages through prevailing wage,<sup>50</sup> better benefits, and safer working conditions compared to non-unionized jobs. PLA's also advance workforce development efforts because they can include provisions for pre-apprenticeship and apprenticeship programs that provide training to individuals from targeted areas. PLAs in the future can additionally incorporate support for workers to be committed to additional projects from the contractor if selected. These opportunities typically offer good overall benefits including healthcare, PTO, retirement and create career ladders for progression. Many of these elements are being worked on concurrently through the High Road Training Partnerships.<sup>51</sup>

Specialized construction training programs are designed to equip participants with the foundational and advanced skills required in various construction trades, making them competitive candidates for high-demand jobs. Some examples include:

- MC3 is a pre-apprenticeship training program designed to prepare individuals for apprenticeships in various construction trades, which are crucial for creating a pipeline of skilled workers.
- HBI-PACT is a hands-on training that prepares participants for a range of construction roles
- OSHA 10 certification ensures that workers are knowledgeable about safety regulations.
- Lead Abatement certification prepares workers to safely handle and remove hazardous materials, addressing both safety and environmental concerns.

To support workers and prevent displacement, the strategy recommends that contractors, nonprofits, industry and trades associations, and trade unions

have access to a **centralized database** that facilitates referrals, tracks worker progress, and connects them to essential resources. This database would enable these entities to attend MC3 (Multi-Craft Core Curriculum) program graduations, register and sponsor workers, and link them to WorkSource Centers and America's Job Centers of California (AJCCs). The database would help maintain consistency in work assignments, particularly for workers from disinvested communities.

### Equity

Project Labor Agreements (PLAs), Community Benefits Agreements, and Local Hire Initiatives ensure equitable access to jobs by requiring contractors to sponsor local workers, emphasizing diversity and dismantling systemic barriers. This approach helps disinvested communities access quality employment and share in the economic benefits of construction projects. Prioritizing local hires fosters economic growth and reduces unemployment, while training centers in marginalized areas empower residents with new skills. These strategies promote long-term economic resilience, create sustainable jobs, and help close persistent economic gaps across Los Angeles County.

### Climate

Adopting and enforcing Green Building Standards like LEED and BREEAM ensures that construction projects meet high environmental performance standards, as mandated by California's CALGreen code. Tax credits and incentives are available to help meet these standards. Additionally, agencies like the EPA facilitate funding to convert brownfield sites into environmentally sustainable developments. This helps repurpose limited real estate in Los Angeles County for mixed-use projects, addressing the demand for housing and community-friendly spaces.

### Workforce Development:

The workforce development initiatives that are part of the overarching sector strategy will be instrumental in building a strong workforce pipeline, by providing the

50 [https://planning.lacity.gov/odocument/f59cab59-d2a3-4326-b531-7c01bcc80606/Appendix\\_2.1\\_-\\_Governmental,\\_Non-Governmental,\\_and\\_Constraints\\_for\\_People\\_with\\_Disabilities\\_\(Adopted\).pdf](https://planning.lacity.gov/odocument/f59cab59-d2a3-4326-b531-7c01bcc80606/Appendix_2.1_-_Governmental,_Non-Governmental,_and_Constraints_for_People_with_Disabilities_(Adopted).pdf)

51 <https://cwdb.ca.gov/initiatives/high-road-training-partnerships>

assistance that workers need to succeed in attaining quality jobs, and by engaging multiple stakeholders including construction unions, construction contractors/employers, K-12 educational institutions, community colleges, and vocational schools, as well as local CBOs. These partnerships will allow for the scaling and expanding of mentorship, extended learning opportunities, and soft skills development into disinvested communities throughout the region to ensure the workforce is diversified.

## Alignment with State Strategies

The strategy aligns with several state and local strategies, such as the California High Road Construction Careers and Training Partnerships, California Climate Adaptation Strategy, Sustainable Groundwater Management Act, and LACDA CEDS all of which support the growth of the construction industry with training in the rapidly changing construction sector. The construction industry is diverse and each one of the plans listed above indicate a specific need within the region or surrounding regions to support the updates to the outdated infrastructures in Los Angeles County. The projects use new approaches to meeting the demands of a growing population throughout Los Angeles County and the state. Additionally, recent investments have been noted with the Transformative Climate Communities programs and projects that has led to the development of training programs localized in disinvested communities.

## Strategy Implementation

LA County has a strong workforce development board that reviews anticipated needs and challenges with

various industries. To successfully implement the strategy, we recommend the following:

- Establish a construction focused industry roundtable to include training partners, ownership (LAWA, Metro, High Speed Rail, Water Districts, School Districts, etc), and labor to address best approaches to prepare for a growing market demand as the workforce in construction continues to age. Partnerships such as the Los Angeles Workforce Infrastructure Network (LAWIN) can be seen as models where investments are made to target larger federal and private investments with a return to disadvantaged communities. Regional collaboration among the private sector, CBOs, employers, associations, and City and County governments will leverage costs and resources. The Councils of Government can play a significant role in providing guidance on key priorities in each region based on sector priorities.
- Promote the adoption of Workforce Disparity Studies across the construction sector to provide greater transparency of fair or racially disparate hiring. By highlighting gaps, these studies compel construction firms to adopt fair hiring practices, improving working conditions and wages for underrepresented groups.
- Establish and maintain industry networks and associations that bring together construction firms, suppliers, and contractors to share best practices and address common challenges to encourage joint ventures and partnerships between businesses to address large-scale projects and share resources, expertise, and labor.



## Target Sector Strategies

# Bioscience

As the Bioscience Table Lead for the California Jobs First program, [Larta Institute](#), in partnership with [Bioscience LA](#), convened employers in a series of focus groups between June and July 2024 to identify the challenges to growth of the bioscience industry, key investments needed, and potential solutions. Participants included Amgen, Huntington Medical Research Institute, Kite Pharma/Gilead, Takeda Pharmaceuticals, City of Hope, Grifols Biologicals, Rabble Health, Cedars Sinai/ Wavemaker Three-Sixty Health, Noblespace, and OmBiome. Along with concerns about the high cost of living and large geography of the County, some of the gaps identified through several convenings with industry leaders include access to talent, unifying industry vision and public awareness, and public incentives to attract new and expanding businesses.

### Define Sector and Justify Prioritization by Region

#### Sector Development

The Regional Plan Part 1 identified the Bioscience industry cluster as a strong candidate for a target sector due to its livable wages, low environmental impact and multitude of career opportunities that do not require a 4-year college degree. Specifically, the Regional Plan Part 1 used a definition of bioscience made up of six industries centered around the Biopharmaceutical and Medical Devices sectors. The research found that Pharmaceutical Preparation Manufacturing, Surgical Appliance and Supplies Manufacturing, Ophthalmic Goods Manufacturing are all industries that grew by more than 10% between

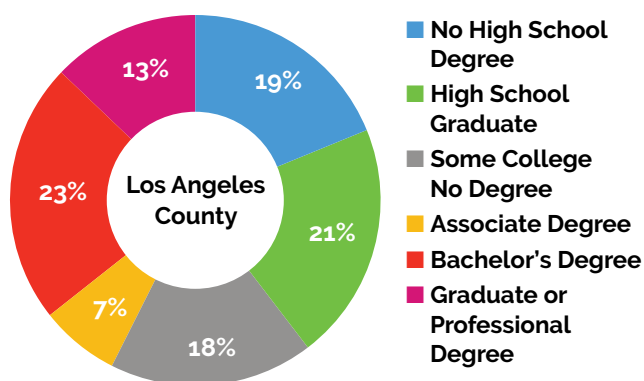
2017-2022, while paying, in 2022, an average wage above \$65,000.

However, while the Regional Plan Part 1 used a narrow definition of the Bioscience industry focused on the Biopharmaceutical and Medical Devices industries (see [Appendix](#)), the bioscience Table Partner Lead used a broader definition from the Biocom California Economic 2024 Impact Report which allows for even greater job creation and is the only source of current data for the bioscience industry statewide. This definition includes biotechnology, biopharmaceuticals, medical devices and equipment, research and testing, scientific/research tools, and food and agriculture biotechnology as tracked by the California-based Biocom Institute.

The bioscience industry is a component of the larger health care and life science industry that focuses on activities and services that enable medical treatment for patients – research, development and manufacturing of pharmaceuticals and medical devices. The industry consists of jobs in Pharmaceutical Preparation Manufacturing, Surgical Appliance and Supplies Manufacturing, Surgical and Medical Instrument Manufacturing, Medicinal and Botanical Manufacturing, Ophthalmic Goods Manufacturing, In-Vitro Diagnostic Substance Manufacturing, Dental Equipment and Supplies Manufacturing, and, Biological Product (except Diagnostic) Manufacturing. In addition to enhancing health and wellness and improving quality of life, bioscience jobs can offer employees a range of positions and high pay, with potential to uplift the

lives of working families and enable robust economic development.

**Clear Local Market Signals:** The Bioscience industry cluster was identified in the California Jobs First Regional Report Part 1 as an emerging industry in Los Angeles County due to recent job growth, average wages almost 20% higher than County average, and the ability to capitalize on currently competitive clusters. Moreover, investment in the bioscience sector has the ability to expand STEM education, high quality jobs, research opportunities to diversify clinical trials, and access to locally developed innovation in the most diverse County in the United States. This Bioscience Target Sector Strategy provides an update on the bioscience industry in Los Angeles County with challenges and opportunities identified through convenings with industry leaders to direct future investment.



According to the Biocom California Economic 2024 Impact Report, the bioscience industry in Los Angeles County:

- Consists of 3,176 life science establishments with direct employment of 82,931
- Pays an average salary of \$110,747 with 65% employed without a Bachelor's degree
- Receives \$1.5 billion research funding from National Institutes of Health and National Science Foundation of approximately \$45 billion spent nationally<sup>52</sup>

According to the same Biocom California Economic 2024 Impact Report, in 2023 California led the

nation in private bioscience investment with \$59.6 billion, funding growth statewide, including major investments by Labcorp and Eli Lilly in Los Angeles. The Los Angeles Economic Development Corporation (LAEDC) 2024 economic forecast also identified education/health as the highest growing industries with projected 54,200 new jobs vs. stagnant job growth overall of less than 1.0% over the next two years.

However, gaps remain in connecting the various assets to ensure investment leads to desired outcomes and measurable impacts. Along with concerns about the high cost of living and large geography of the County, some of the gaps identified through several convenings with industry leaders include access to talent, unifying industry vision and public awareness, and public incentives to attract new and expanding businesses.

These market signals were heavily influenced by the COVID-19 pandemic, which highlighted two critical bioscience market drivers: (1) the stark health inequities in Los Angeles County, which led the nation in COVID-19 cases and severe outcomes, largely due to prevalent underlying health conditions like asthma, cardiovascular disease, diabetes, and chronic lung disease, as reported by the USC Lusk Center Neighborhood Data for Social Change and the U.S. Centers for Disease Control and Prevention; and (2) the significant growth and investment in Los Angeles-based bioscience companies such as Fulgent, Moderna, and Xencor, which played pivotal roles in developing rapid COVID-19 testing, vaccines, and treatments.

Although Los Angeles County is an innovation leader in the field as it relates to research, especially in the human life sciences, the industry is not well connected to the region's diverse population, which has one of the most diverse gene pools in the world. Specifically, the region's diversity is not well represented in clinical trials for a number of reasons, including a lack of trust, economic difficulties, education and understanding of how participating in clinical trials might positively impact their health outcomes. This is both a gap and an opportunity, especially as it may impact the health and wellbeing of disinvested communities

52 <https://www.biocom.org/news/eir/>

who suffered disproportionately the effects of the pandemic, and continue to live in an inequitable post-pandemic environment.

With the growing awareness of health outcomes and equity, coupled with the proven impact of local investments in addressing the unique healthcare needs of Los Angeles County, the healthcare and bioscience industries are well-positioned for significant future growth. This awareness, amplified by the pandemic's exposure of health disparities, has underscored the critical role that targeted investments in bioscience can play in improving public health. As a result, these industries are not only expected to expand but also to increasingly focus on innovative solutions that address the specific health challenges faced by the Los Angeles community. This trajectory suggests that healthcare and bioscience will continue to be key drivers of economic and social progress in the region.

**Value Chain and Infrastructure:** To improve job quality and access in the bioscience sector, it is crucial to expand job growth opportunities in underinvested communities through enhanced programs and strategic partnerships. One of the key challenges is attracting and expanding businesses by educating stakeholders about the specific needs of the industry, such as zoning, workforce development, and space requirements. Streamlining permitting processes by educating local authorities about the industry's needs and clearly identifying community benefits can significantly improve access to high-quality jobs. Additionally, thinking creatively about tax and financial incentives can promote the construction of infrastructure tailored to the bioscience industry, such as the development of 'grad lab' spaces, which are more suitable for growing companies compared to large anchor tenant spaces. These efforts will help create an environment that fosters both job quality and access in bioscience, particularly in communities that have been historically underinvested.

**Innovation Ecosystem:** The bioscience industry demonstrated economic resilience and even growth during and after the COVID-19 pandemic. For example, Fulgent, Moderna, and Xencor developed rapid COVID-19 testing, vaccines, and treatments during the pandemic and \$59.6 billion was invested statewide post-pandemic, including major investments by

Labcorp and Eli Lilly in Los Angeles. These and future investments are part of what drive the higher projected job growth in healthcare and bioscience industries:

Investments in the bioscience industry in Los Angeles have the potential to improve health outcomes by expanding diversity in clinical trials and local development of therapies/innovation with reverberating impacts addressing environmental justice, healthcare disparities, and medical access. For these reasons, several local policies have focused on increasing investment in bioscience. The 2020 – 2025 Los Angeles County Comprehensive Economic Development Strategy (CEDS) and the 2016 – 2020 LAEDC Propel LA Strategic Plan prioritize the bioscience sector with Workforce Improvement Board and County CEO support. In 2019, the Los Angeles County Board of Supervisors adopted the Bioscience Initiative, which formed the non-profit organization BioscienceLA. This entity, along with the LAEDC Bioscience Council, and regional stakeholders can help further investments in workforce programs and research expansion.

**Regional Assets:** The main components of the bioscience innovation pipeline are research development manufacturing. The region is known to host dozens of companies involved in bioscience manufacturing, from pharmaceuticals and biologics to medical devices and bio-manufactured products like cell therapies and biosimilars. These can be leveraged to expand the manufacturing of bioscience technology to develop more robust and diversified revenue streams to the region. We can also benefit from existing accelerators, such as University Lab Partners (ULP), a premier nonprofit wet lab incubator located in Orange County, CA, has been chosen to lead the diagnostics and medical devices hub in the next generation of the BARDA Accelerator Network of the Biomedical Advanced Research and Development Authority (BARDA), part of the Administration for Strategic Preparedness and Response within the U.S. Department of Health and Human Services.

Los Angeles County's key regional assets attract \$1.5 billion in annual federal research funding, including major private research universities (UCLA, University of Southern California, Caltech, Loyola Marymount University, and Pepperdine University),

three California State Universities (Los Angeles, Northridge, Dominguez Hills), community colleges, and 80 public school districts. Los Angeles County is home to 3,176 life science companies and research facilities. Major Los Angeles bioscience employers include private companies such as Amgen, Takeda, Grifols, Kite Pharma, and Xencor, and public/not for profit institutions such as City of Hope, Cedars-Sinai, Lundquist Institute, Huntington Medical Research Institute, and various world class university research facilities. These research institutions and companies are leaders of advancements in genomics, regenerative medicine, and immunotherapy leading to worldwide transformative healthcare solutions.

Recently, UCLA acquired the former Westside Pavilion mall, an expansive 700,000-square-foot property just two miles from its main campus that will be reshaped into a nexus of exploration and discovery called the UCLA Research Park. UCLA Research Park will house the California Institute for Immunology and Immunotherapy, a major new multidisciplinary institute focused on advanced research in these important biomedical fields. In addition, the space will become the new home of UCLA's Center for Quantum Science and Engineering, which was established in 2018 and brings together academic and industry partners to advance cutting-edge research and development in quantum computing, communication and sensing. This is supported by a \$500 million investment from the state of California toward the creation of the immunology and immunotherapy institute.

Los Angeles is home to several successful incubator programs that can be leveraged to strengthen the sector further.

- The Lundquist Institute (formerly LA BioMed), an independent 67-year nonprofit research organization located on the Harbor-UCLA Medical Center Campus. The Lundquist Institute works in partnership with the Medical Center to find cost effective solutions to health problems and promote wellness in the community. The Lundquist Institute provides a cutting-edge platform for researchers to explore a wide range of medical challenges, from regenerative medicine to genomics. This institute not only contributes to scientific advancements but also plays a crucial role in fostering collaborations between academia, industry, and healthcare

providers, driving progress in the bioscience sector. In 2018 the Lundquist Institute completed a new 78,000 SF research facility that includes a 20,000 SF bioscience incubator and has plans to develop the Bioscience Tech Park on 15-20 acres on the Medical Campus on land owned by the County. This will be developed in phases in concert with the County's \$1.9 billion investment in a new outpatient facility and a new county hospital slated to open in 2026.

- Incubator apprenticeship programs at Cal State University Los Angeles are instrumental in supporting the next generation of bioscience professionals. These programs offer hands-on training and mentorship to students and emerging entrepreneurs, equipping them with the practical skills and knowledge needed to succeed in the competitive bioscience and healthcare industries. By providing real-world experience in a supportive environment, these apprenticeship programs help bridge the gap between academic learning and professional practice, ensuring that graduates are well-prepared to contribute to the growth and innovation of the bioscience sector in Los Angeles.
- Larta Institute has a well-regarded accelerator program, Heal.LA, specifically focused on diverse founders and the needs of underinvested communities, that has the capacity to select proposals for the development of pilots in these communities. Larta is supported by the California Office of the Small Business Advocate (CalOSBA) and the U.S. Small Business Administration.

These apprenticeship programs underscore the importance of local initiatives in nurturing talent, advancing research, and driving economic growth in the bioscience and healthcare industries.

## Increasing Economic Diversification and Resilience

The bioscience sector offers a valuable diversification to Los Angeles' predominantly lower-paying service and logistics job market. These positions not only provide higher wages but also offer flexibility with both in-person and remote work opportunities. According to the 2024 Biocom report, more than 60% of California bioscience employees report as non-White, compared to only 35-55% in Texas, New York, North Carolina, and Massachusetts. Moreover, bioscience jobs are



essential and resilient, continuing through economic downturns, pandemics, and other geopolitical challenges due to the ongoing global demand for healthcare and advancements in therapies. This sector is particularly crucial in Los Angeles, where there is a pressing need to enhance health equity and improve health outcomes for the community.

Talent recruitment and development is the largest challenge facing economic diversification and resilience of the bioscience industry. The strategy aims to “broaden the top of the funnel” by increasing the number of students enrolled in community college programs related to bioscience by building awareness about the opportunities available in community college programs through targeted outreach to high school students, underrepresented groups, and communities that might not traditionally consider bioscience careers; and identifying and eliminating barriers that may prevent students from enrolling in these programs by offering financial assistance, providing flexible class schedules, online learning options, and support services like tutoring and career counseling

to accommodate students with different needs and circumstances. The strategy aims to cultivate a larger, more diverse pool of talent ready to meet the growing demands of the bioscience industry. This approach strengthens the workforce pipeline, ensuring that the region can meet its future health and economic needs.

From the employer's perspective, the approach involves raising awareness about existing programs and potentially securing matching funds to enhance them. Strengthening Public-Private Partnerships could include the creation of participation plans where the community can be involved through financial instruments such as stock options or vesting equity. It also focuses on breaking down silos and standardizing processes across Workforce Investment Boards (WiBs), community colleges (CCs), and industry partners to ensure that the program and certification exams evolve in line with industry demands. Additionally, a key component of the strategy is collecting data to track and measure success metrics, allowing for continuous improvement and alignment with employer needs.

## Bioscience

### GOAL 1

### Enhance the Small Business and Entrepreneurship Ecosystem

#### STRATEGY 1

**Diversify the sector's financial base to promote economic opportunities within disinvested communities**

#### OUTCOMES

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Advocacy</b>	Convene local government officials, community leaders, & industry leaders to learn about the community benefits of investing in a bioscience workforce & industry	<ul style="list-style-type: none"> <li>Creates well-paying, high-skill jobs in areas such as biotechnology, research, healthcare, and pharmaceuticals. These industries offer long-term career opportunities with paths for advancement</li> </ul>	Engaging community leaders ensures that historically underserved populations are included in workforce development initiatives.	Aligns with local and statewide climate goals, such as reducing carbon footprints, improving energy efficiency, and addressing environmental challenges through technological innovation.

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Financial Strategy</b>	Create tax/financial incentives that promote the construction of infrastructure that meets the needs of the industry	By driving investment into infrastructure, the industry attracts skilled workers and helps raise overall job standards in the region.	Aligning bioscience infrastructure development with incentives targeting underserved communities helps ensure that opportunities in the growing bioscience industry are available to disinvested communities	Incentives will have a green component to them to mitigate climate impacts
<b>Workforce Development</b>	Develop 'grad lab' spaces to create specialized facilities designed for startups, particularly those led by recent graduates in fields like biosciences, technology, and other STEM-related industries	Supports job growth for smaller companies	Accessible lab spaces for startups, particularly for underrepresented communities, helps level the playing field when they include mentorship and apprenticeships	Promotes innovations in research and development in environmentally friendly technologies, advancing solutions for reducing carbon emissions and improving energy efficiency
<b>Finance</b>	Connect small bioscience companies and start-ups with Small Business Innovation Research (SBIR) grants and other funding opportunities	These grants enable companies to fund innovative projects, create high-quality jobs, and offer career pathways for underserved communities	Support small businesses and DBEs	By supporting early-stage bioscience ventures, the region can advance climate goals by promoting green technology innovations and sustainable practices

GOAL 2

## Build and Align Career Pathways

STRATEGY 1 Strengthen talent recruitment and development		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Expand pre-apprenticeship and apprenticeships connecting employers and talent funded by the South Bay Workforce Investment Board	These programs connect employers with talent, ensuring that workers gain valuable, on-the-job experience that meets industry demands	By prioritizing disinvested communities and marginalized groups in recruitment, the expansion of these programs promotes diversity and inclusion in the workforce	Training the workforce to meet climate-conscious industry standards helps promote greener practices within key sectors
<b>Workforce Development</b>	Promote STEM and bioscience careers by sharing information about job openings, career paths, and success stories in Bioscience Manufacturing through targeted outreach to high school students, underrepresented groups, and communities that might not traditionally consider bioscience careers	Early exposure to high-quality career pathways that offer competitive wages, job stability, and career growth allows workers to pursue the necessary education and skills training, leading to higher quality jobs that provide long-term economic benefit	By building awareness about the opportunities available in community college programs, barriers to entry can be reduced. This helps ensure that more diverse talent pipelines are developed, making the industry more inclusive and representative of different communities  Supports underrepresented groups in the workplace, such as women, minorities, and individuals from disinvested communities	By drawing younger workers into the field, especially those trained in climate-conscious manufacturing processes, the industry can innovate in ways that contribute to environmental sustainability

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Provide mentorship and peer connection programs for new and potential employees	By offering guidance and knowledge-sharing from experienced workers, employees gain valuable skills and grow professionally		By emphasizing green skills, such as energy efficiency, resource conservation, and sustainable technologies, mentorship initiatives can advance climate-conscious strategies
<b>Workforce Development</b>	Create a centralized job portal that includes an online forum for interaction to streamline job searches and candidate placement;	Helps individuals understand industry requirements, increasing the chances of career progression and skill enhancement	By creating an inclusive platform, employers can actively recruit from a diverse talent pool, fostering equal employment opportunities. The online forum can also allow minority candidates to connect with mentors and peers, providing support that enhances equity	A centralized portal can prioritize climate-related job opportunities, including roles in green energy, sustainability consulting, and environmental policy. It can also host forums focused on green job training and environmental awareness, pushing both employers and candidates toward roles that contribute to climate resilience
<b>Workforce Development</b>	Establish a central clearinghouse to coordinate efforts and streamline communication between educational institutions, companies, and potential employees			

**STRATEGY 2**  
Align STEM career education and training with labor market opportunities and employer needs

**OUTCOMES**

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Expand bioscience pre-college programs across the region and beyond LAUSD and LACCD	Helps build industry-relevant skills and enhances employability upon graduation; cultivates interest and skills in	Focusing on schools in underserved or disinvested communities will provide access to resources and experiences that students might not otherwise have. Offers underrepresented groups exposure to careers in science and technology, reducing disparities in employment opportunities	By introducing students to bioscience industries centered on sustainability and environmental innovation, these programs raise climate awareness and motivate students to seek careers in renewable energy, carbon reduction technologies, and sustainable agriculture. Equips future workers with eco-friendly knowledge, leading to the broader adoption of climate-conscious solutions in various industries
<b>Workforce Development</b>	Collaborate with LAIS member schools to create a talent pipeline for advanced higher learning degree			
<b>Workforce Development</b>	Expand school engagement across & partnerships with bioscience CBOS and companies to create internships or co-op programs, allowing middle and high school students to gain industry exposure and access to hands-on experiences while still in school			

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Education</b>	Adopt and support programs in local community-based organizations to address the persistently low academic and skill gaps in math and science	initiatives can prepare students for careers in high-demand sectors such as STEM, bioscience, and technology, leading to higher-quality jobs. Community programs increase equity by providing access to skills and knowledge that can lead to better career pathways for underrepresented populations; Ensures that participants are better equipped for further education and job training programs, reducing disparities and opening opportunities in higher-paying industries	Reduce impediments faced by underserved Black and Hispanic youth from being able to access high paying careers and/or get into college. The localized nature of these programs allows them to address specific community needs, making education more inclusive and accessible, which ultimately fosters economic mobility	
<b>Education</b>	Establish Summer Climate and Bioscience Institute programs to attract, train and engage students in middle and high schools to pursue high level careers in climate and bioscience sectors from across the region	These programs provide students with hands-on exposure to high-growth sectors like climate science and bioscience. By equipping students with advanced knowledge and technical skills early on, the institutes enhance their preparedness for future careers in these critical sectors, leading to higher-paying and more sustainable job opportunities in the long term	Targeting students from disinvested communities ensures that populations historically marginalized from STEM fields are given equitable access to high-level educational and career pathways. These institutes work to close the gap in career opportunities by focusing on inclusivity, offering mentorship and resources to students who might not otherwise have access to such specialized programs	Students engaged in these institutes are more likely to pursue careers that align with the goals of reducing carbon emissions

**STRATEGY 3**  
Create pipelines to Bioscience manufacturing jobs that do not require a four-year degree

**OUTCOMES**

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Work with industry to recognize the standardized certificate for becoming a manufacturing operator and creating a standardized curriculum for the certificate	Ensures that all trainees acquire the necessary skills and knowledge for manufacturing roles. Creates clearer career pathways, allowing workers to advance more easily within the manufacturing sector. It provides opportunities for upskilling, which can lead to higher-paying positions and long-term career stability	By creating a uniform entry point into the manufacturing sector, this initiative reduces barriers related to education, resources, or geography, making it easier for individuals from low-income or marginalized communities to gain access to quality jobs	Ensures that workers are trained in energy-efficient, low-emission processes, advancing California's climate goals
<b>Workforce Development</b>	Create more professional development opportunities to support retention by clustering education and development services	Employees gain access to consistent, high-quality training that enhances their skills, making them more capable and competitive in the workforce. encourages long-term retention as employees feel more invested in their careers and empowered to grow within their roles	More underrepresented individuals gaining access to these opportunities can break systemic barriers and bring more diverse perspectives into leadership positions	Professional development geared toward green technology, renewable energy, and sustainable practices supports employees' ability to contribute to organizational climate goals.

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Expand training by scaling the Biocom Institute Technician Certification Program across LA County's Community Colleges	Provides industry-relevant training that prepares people for technical roles in the bioscience sector, ensuring that they gain the skills required to succeed in high-quality, well-paying jobs	Opens up opportunities for career progression within the bioscience industry, particularly for those without a four-year degree	The bioscience industry is critical for advancing innovations in sustainable agriculture, bio-based products, and environmental monitoring. By training technicians in these areas, the program contributes to workforce development in green technologies, which supports California's climate goals

GOAL 3

## Transition industries into the carbon-neutral economy

<b>STRATEGY 1</b> Grow local production of therapies and innovation while lowering the industry's carbon footprint	<b>OUTCOMES</b>
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Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Finance</b>	Invest in new low-impact therapies and low-hurdle medical devices	Creates new, high-quality jobs in research, engineering, manufacturing, and healthcare. These jobs often offer competitive wages and opportunities for growth	Low-hurdle medical devices, designed to be more affordable and accessible, can bridge healthcare gaps, especially in underserved communities	Low-impact therapies focus on reducing environmental harm by using fewer resources, incorporating sustainable materials, and producing less waste
<b>Policy change</b>	Diversify clinical trials to address health issues with high concentration in disinvested communities	Promotes local job creation and workforce development, raising the quality of jobs available in underserved communities	Diversifying clinical trials ensures that these populations are included in medical research, leading to more equitable healthcare solutions tailored to their specific health needs	Diversified clinical trials can lead to medical innovations that mitigate the health effects of environmental degradation
<b>Workforce Development</b>	Leverage and expand Larta Institute's Venture Fellows Vs. Climate Change, which is focused on health and wellness, greater clarity in diagnosis, and healthier environments in communities bearing the brunt of climate change	Supports the development of cutting-edge solutions that improve community health, leading to the creation of high-quality, skilled jobs in the healthcare, environmental science, and technology sectors	Ensure that vulnerable populations have access to better healthcare and healthier living environments. This also opens up opportunities for individuals from these communities to participate in emerging industries	Supporting ventures that develop technologies or solutions to mitigate environmental damage

## Alignment with Job Quality & Access, Equity and Climate

### Job Quality

The broader definition of biosciences by Biocom California identifies 82,931 individuals employed in the Los Angeles bioscience industry which spans diverse levels of education, skills, and compensation. For example, 65% of employees do not have a bachelors' degree, yet are earning an annual average salary of \$110,747 with ample career growth opportunities. This aligns with the California Jobs First goals of creating high quality and accessible jobs. Willie Zuniga, former President of Grifols Biologicals, began his career as an entry-level manufacturing technician out of high school, demonstrating the possibilities of advancing in the sector without higher education degrees earned.

Currently, an estimated 14 out of the 19 Los Angeles Regional Consortium (LARC) aligned colleges in Los Angeles County have bioscience career programs in various stages of development from startup to fully engaged, including the Biocom Institute Technician Certification Program, or BioTC. However, there is a lack of consistency in curriculum, training, and certificates in addition to lack of program awareness or inconsistent recruiting by employers. Thus, our strategy involves partnering with community colleges to build awareness of the industry, the jobs available, and how to access them, especially in our underserved communities.

### Equity

Achieving equity in job access in the bioscience sector requires a shift in how the industry is perceived. It begins with debunking myths about who can participate and thrive in bioscience careers and reframing the development of the ecosystem to be more inclusive. This involves setting a bolder vision for the industry's future, one that prioritizes inclusive excellence and ensures that all communities, particularly those historically marginalized, are actively involved and benefit from the sector's growth. For example, at the middle school level, the BioInnovation Program promotes STEM and bioscience careers and is deployed in 11 Los Angeles Unified School District schools with the need for expansion into more disinvested communities.

To realize this vision, it is essential to educate local government officials and communities about the tangible benefits that bioscience can bring, such as job creation, economic development, and improved health outcomes. By fostering a deeper understanding of these community benefits, we can build stronger support for policies and initiatives that promote equitable access to bioscience jobs. This approach ensures that as the industry expands, it does so in a way that includes and uplifts all members of the community, creating a more diverse and equitable workforce. For example, in Boston, MA the innovation creators, medical and treatment institutions and population centers are connected in order to drive further development of products and services that are economically viable outside of the region.

### Climate

While the economic diversity and high-quality job creation aspects of the bioscience industry are apparent, the secondary impacts on reducing climate change and building regional resiliency are more qualitative with anecdotal evidence to support further growth in local production of therapies and innovation to improve health outcomes.

The bioscience industry is by nature "clean tech" due to the requirement for highly sterile environments and the lower carbon footprint involved in its processes, including manufacturing. In addition, many large employers have programs to support public/alternative transportation, recycling and composting, water conservation, and other sustainability programs, many of which are employee-driven as younger generations enter the workforce. As important, improving health outcomes through this industry's remarkable capacity for innovation, including new low-impact therapies and low-hurdle medical devices, enables communities to build greater resilience in the face of climate change. Combating the effects of climate change is not just a top-down priority, it must start at the community level and the advances that this industry has made and continues to make will result in a healthier, more climate-resilient community.

Examples of some initiatives being pursued locally include Larta Institute's Heal.LA program for underinvested communities and its Venture Fellows Vs. Climate Change, focused on health and wellness,

greater clarity in diagnosis, and healthier environments in communities bearing the brunt of climate change. Building health equity in the most diverse County in the nation also builds resilience through diversifying clinical trials to address health issues with high concentration in disinvested communities (e.g. Asthma, Diabetes, nutrition, and obesity.)

## Workforce Development

There are generally three paths to a career in bioscience – High School, community college/ college, and graduate school. With the majority of employment, 65%, without a Bachelor's degree, workforce development is focused at the high school and community college levels. This is particularly true of biomanufacturing which is also where there is a workforce skill gap.

In order to increase workforce development and diversity, a coordinated effort to market these programs, increase awareness, and foster partnerships between educational institutions and the bioscience industry are needed. Academic skills are often a prerequisite to participation in bioscience programs, internship and CTE offerings. To remedy this, the strategy recommends adopting and supporting programs in local community-based organizations, beyond those offered by school districts, and colleges, to address the persistently low academic and skill gaps which impede underserved BIPOC youth from being able to access high paying careers and/or get into college. Workforce development efforts will be unified to reduce silos and streamline training programs, ensuring a strong pipeline of skilled talent for the industry.

Key recruiting programs that currently exist in Los Angeles County include:

- **BioInnovation High School Career Program:** Curricula designed to foster curiosity and excitement in bioscience targeted at Middle School (6-8th grades). Currently branded "SOLA BioInnovation" with successful pilots at 11 LAUSD schools with proven demand and a goal to expand to multiple school districts beyond LAUSD and made available to students at all public school districts and LAIS schools across LA county
- **BioTC Certificate Community College Program:** Third-party certificate conferred to Community

College students upon successful completion of exam based on biomanufacturing curricula. Currently a single exam site at Los Angeles Mission College with 4 community colleges offering test prep curriculum with the ability to expand to all 14 community colleges with bioscience programs with adequate support staff, counselors, and training with consistent curriculum to increase student participation and move employers to include BioTC certificate in job descriptions. Current funders include Biocom, The Broad Foundation, and Verdugo Workforce Development Board.

- **Bio-Flex:** pre-apprenticeship and apprenticeships connecting employers and talent funded through the South Bay Workforce Investment Board

## Alignment with State Strategies

California Jobs First investments in the bioscience sector have the ability to expand STEM education, high quality jobs, research opportunities to diversify clinical trials, and access to locally-developed innovation which align with the following State policies and strategies:

- Executive Order B-55-18 Carbon Neutrality by 2045 – health and economic resiliency in disadvantaged communities
- CA Climate Adaptation Strategy (AB1482) – Bolster Public Health and Safety to Protect Against Increasing Climate Risks, Build a Climate Resilient Economy, Accelerate Nature-Based Climate Solutions and Strengthen Climate Resilience of Natural Systems priorities
- Community Economic Resilience Fund (SB115) – creating high quality and accessible jobs while helping local communities transition to a resilient and carbon-neutral economy
- CARB 2022 Scoping Plan – Public Health, Community Resiliency and Health
- Executive Order N-11-23 Career Education – education, healthcare, climate resilience, and technology workforce training programs

## Strategy Implementation

- **Life Science Career Exploration Fellowship** - Established 7 years ago in San Diego and expanded to include other regions in 2023. This program has proved to be a popular model connecting industry



and job seekers. Current efforts include expanding to host 2 cohorts in the Los Angeles region with the first one scheduled with Pierce College through a joint grant with planning efforts underway to identify another cohort.

- **California State University Partnership** - New continuing education program with Cal States Long Beach & Los Angeles for Biomanufacturing Applications. The training program provides opportunities for high-quality jobs across the spectrum of career opportunities. Expansion of existing programs in addition to marketing and

recruitment efforts are needed to fully integrate the program into each Cal State campus.

- **LABio TechWeek** - Annual program initiated in 2021 as part of the Los Angeles County Bioscience Initiative (2015) providing opportunities for students, employers, entrepreneurs, and government to collaborate on expansion of bioscience facilities and jobs in the County. Investments are needed to re-brand the program and expand opportunities into disinvested communities through partnership with existing and growing workforce and education development programs.

## Target Sector Strategies

# Healthcare



As the Healthcare Table Partner for the California Jobs First program, Adventist Health White Memorial convened eight employers in a series of focus groups between June and July 2024 to identify workforce barriers and develop strategies for creating actionable solutions. They included representatives from Adventist Health, Kaiser, City of Hope, AltaMed, Long Beach Memorial, Keck School of Medicine, Memorial Care, and Center for Hispanic Health. These discussions emphasized the importance of building a community-led, climate-forward economy that creates high-quality and accessible jobs for all Californians, particularly in disinvested communities.

### Define Sector and Justify Prioritization by Region

Research from the Regional Plan Part 1 identified the Local Health Services industry cluster as the largest employer in LA County at 510,057 careers as of 2022. More commonly known as the Healthcare sector, this industry cluster was made up notably of Home Health Care Services, Outpatient Care Centers, Mental Health Practitioners and Facilities, General Medical and Surgical Hospitals, Offices of Physicians, Nursing Care Facilities, Pharmacies and Assisted Living Facilities. A list of the fastest growing industries in LA County healthcare can be found in the [Appendix](#).

Identified as a priority sector for its critical role in LA's economic and public health infrastructure, the Healthcare sector is projected to play an increasingly important role as the county's aging population requires increased care. In addition, investments in the

Healthcare sector provide multi-faceted benefits to the community, specifically disinvested communities.

There is a wide variety of healthcare jobs that need to be filled while offering family-sustaining benefits. These include Medical Assistants, Medical and Clinical Lab Technicians, Clinical Lab Scientists, Licensed Vocational Nurses (LVNs) (Outpatient), Registered Nurses (RNs) (Inpatient), Health Information Technicians, Mental Health, Counselors, Substance Abuse Counselors, Emergency Medical Technicians (EMTs), Culturally and Linguistically Appropriate Home-Based Support/Care, Surgical Technologists, Emergency Department Technicians, Radiology Technologists, Nuclear Medicine Technologists, Social Services, Physicians, Healthcare Navigators, Specialized Nurses, Clinical Research Coordinators, Hands-On Medical Assistants, Science Lab Technicians, Pharmacy Technicians, Compliance and Regulatory Specialists, Geriatric Condition Specialists, Depression and Addiction Specialists, and Mid-Level Nursing Practitioners. Not only do they provide plenty of career opportunities paying livable wages with accessible educational requirements, they also assist in creating healthier communities.

### Sector Development:

**Clear Local Market Signals:** Los Angeles's health care industry remains robust as the population ages and the need to access treatment increases. Cedars-Sinai Health System contributed \$15.4 billion in economic benefit to Southern California in fiscal year 2021. Key employers like Kaiser Permanente, Dignity Health, Providence Health & Services, Cedars-Sinai Medical Center, the Los Angeles County Department of Health

Services, and USC Medical Center invest in workforce development through training and educational partnerships, and are working to expand the pipeline for healthcare professionals. Educational institutions such as USC School of Medicine, UCLA David Geffen School of Medicine, Charles R. Drew University, and the Los Angeles Community College District provide medical and allied health degree programs, aligning curriculum with industry needs.

Despite these efforts, rising costs, labor shortages, and high nursing vacancy rates complicate efforts to meet the growing demand for healthcare professionals. While there is increased need for more medical facilities, rising costs have made it more challenging to keep these large employers profitable. In its 2022 financial report, Kaiser Permanente noted that an increase in health care expenses driven by “inflation, high Covid-19 costs, ongoing labor shortages and a rise in care volume” contributed to a loss in total income and other expenses of \$3.2 billion, compared to a gain of \$7.5 billion in 2021. In terms of hiring, many health care facilities are still having trouble filling nursing roles across the county. According to the Hospital Association of Southern California, nursing vacancy rates among local hospitals is more than 30%.

A large percentage of the current healthcare workforce is nearing retirement age, which poses two unique challenges: 1) hiring for positions left vacant by retiring personnel and 2) filling the vacuum of knowledge and experience from these providers. Additionally, the American Association of Medical Colleges projects that the population of Americans over the age of 65 will increase by 42% over the next 15 years. Growing demand for the healthcare workforce to care for these older Americans places an additional strain on an already weakened system. On top of concerns over the rapidly aging healthcare workforce, the COVID-19 pandemic has placed additional stress on healthcare workers. With 20% of the healthcare workforce leaving the field since the start of the pandemic and an additional 20% contemplating leaving, concerns over staffing and increased workload create additional stress for healthcare workers. Additionally, nearly half of healthcare workers in a 2020 study reported feelings

of burnout.<sup>53</sup> These facts present both a challenge and an opportunity for the sector to create a growing and sustainable workforce with a focus on quality jobs that are equitable and attainable.

**Value Chain and Infrastructure:** The region will benefit from three major healthcare construction projects currently underway. These projects collectively represent significant investments in the healthcare infrastructure of Los Angeles, with the goal of enhancing the quality and accessibility of medical care across the region.

- **Cedars-Sinai Marina del Rey Hospital:** Construction is underway for the new nine-story tower that will replace the existing hospital, originally built in the 1970s. The new facility will feature state-of-the-art medical services, including expanded emergency and surgical departments, with the number of private patient rooms increasing from 68 to 160. The structure is expected to be completed by 2026.<sup>54</sup>
- **UCLA Health Neuropsychiatric Hospital:** In March 2023, construction began on a new neuropsychiatric hospital at 5900 Olympic Blvd. This facility will provide 119 inpatient beds, focusing on mental health and neuropsychiatric care. The project is part of UCLA Health's broader efforts to expand its healthcare services in the Los Angeles area.
- **Harbor-UCLA Medical Center:** This major \$1.7 billion project is underway at the Harbor-UCLA Medical Center in West Carson. This project aims to modernize and expand the facility to better serve the local community. The project includes the construction of a new hospital tower and various upgrades to existing infrastructure. This initiative is part of the broader effort to ensure that Los Angeles County's healthcare facilities are equipped to meet future demands. The clinic building is expected to be completed in fall 2026.

**Innovation Ecosystem:** Collaborations between healthcare providers, universities, and tech startups are driving innovation in healthcare delivery, leading to new jobs.

53 <https://www.nga.org/publications/preparing-the-next-generation-of-the-healthcare-workforce-state-strategies-for-recruitment-and-retention/>

54 <https://www.hfmmagazine.com/articles/4976-cedars-sinai-marina-del-rey-hospital-makes-progress>

- **UCLA Health** has partnered with **Medable**, a startup specializing in decentralized clinical trials, to streamline clinical trial processes and improve patient engagement. This collaboration leverages UCLA's research capabilities and Medable's technology to enhance the efficiency and reach of clinical trials, making it easier for diverse populations to participate.
- **Cedars-Sinai Accelerator Program:** Cedars-Sinai has established a highly successful accelerator program that partners with tech startups to bring cutting-edge innovations to the healthcare space. Startups like Well Health and NarrativeDX have participated in this program, which provides them with mentorship, resources, and the opportunity to pilot their technologies in a clinical setting. This collaboration helps to quickly bring new health tech solutions to market, improving patient care and operational efficiency.
- **The USC Center for Body Computing** has collaborated with tech giants like Apple and Verily (formerly Google Life Sciences) to explore the integration of digital health technologies into patient care. These partnerships focus on using wearable devices and mobile apps to monitor patient health remotely, providing real-time data to healthcare providers and empowering patients to manage their health more effectively.

These collaborations illustrate how the intersection of healthcare, academia, and technology in Los Angeles is fostering a vibrant ecosystem of innovation, leading to significant advancements in healthcare delivery and can form the basis of strategic projects going forward.

**Regional Assets:** The Los Angeles region benefits from long-established healthcare providers and systems including **Kaiser Permanente**, **Cedars-Sinai Medical Center**, and the **LAC+USC Medical Center**, all of which are experiencing growth in employment, training, and education provision. Los Angeles is also home to some of the best medical schools in the country, including **University of Southern California (USC) School of Medicine**, **UCLA David Geffen School of Medicine**, and the **Charles R. Drew University of Medicine and Science**. Additionally, the **Los Angeles Community College District (LACCD)** offers a variety of allied health programs, including nursing and health information technology, and aligns their curriculum

with the needs of local healthcare employers. These institutions will be leveraged to strengthen the development of the target sector.

Additional programs and networks that may be leveraged to strengthen the sector include:

- The **California Life Sciences Association (CLSA)**, a statewide organization with a strong presence in Los Angeles, dedicated to advancing California's life sciences sector. It offers advocacy, networking, and resources for companies and professionals in the healthcare and biotech industries. Leveraging CLSA's network can help healthcare organizations in LA stay informed about industry trends, regulatory changes, and funding opportunities. CLSA regularly hosts events, including conferences, webinars, and networking mixers, that bring together key players in the healthcare and life sciences industries. These events are opportunities to build relationships and collaborate on initiatives that strengthen the sector.
- **Los Angeles County Medical Association (LACMA)**, a professional organization representing physicians across Los Angeles County. It provides a platform for healthcare providers to collaborate on public health initiatives, share best practices, and advocate for policies that improve healthcare delivery. Engaging with LACMA can help build stronger networks among healthcare providers and create unified approaches to addressing healthcare challenges in the region. LACMA is involved in various community health initiatives that address local healthcare needs, making it a key partner in efforts to improve health outcomes across Los Angeles.
- **Southern California Clinical and Translational Science Institute (SC CTSI)**, a collaboration between academic researchers, healthcare providers, and industry partners aimed at accelerating the translation of scientific research into clinical practice. By participating in SC CTSI's programs, healthcare organizations in Los Angeles can access cutting-edge research and develop new therapies and interventions that improve patient care. SC CTSI offers training and educational programs that prepare healthcare professionals for leadership roles in clinical research and innovation, helping to build a more skilled and innovative workforce in the region.

- **UCLA Health Innovation Hub** connects researchers, clinicians, and entrepreneurs to develop and commercialize innovative healthcare solutions. It provides access to resources such as funding, mentorship, and office space, making it a vital community space for driving healthcare innovation in Los Angeles. UCLA Health also runs community engagement programs that connect the university's resources with the local population, addressing healthcare disparities and promoting public health.

## Increasing Economic Diversification and Resilience

To address the growing demand for healthcare professionals in Los Angeles County, we require a well-trained workforce that extends beyond direct healthcare roles. The healthcare sector encompasses public health, wellness, behavioral and mental health, and healthcare technology, as these are integral to the broader healthcare ecosystem. The transformative impact of emerging technologies, such as artificial intelligence, will not only expand certain healthcare job opportunities but may also lead to the reduction of others.

The state is making investments to advance and develop the healthcare workforce to meet the needs of the population. The Fiscal Year 2023 state budget included a \$1.52 billion investment in the healthcare workforce, driven by California Governor Gavin Newsom. This investment aims to address workforce shortages as well as to increase diversity and linguistic and cultural competency in the healthcare workforce, requiring coordination between several agencies and stakeholders. This budget includes \$235 million over three years for new behavioral health programs such as expanding Master of Social Work programs and creating a psychiatry loan repayment program to support the state hospital psychiatry workforce; and \$281 million over three years to recruit, train and certify community health workers/*promotores*. *Promotores* share similar characteristics as the communities they serve and are primarily, but not

exclusively, Latina women. These workers engage with Spanish-speaking communities to connect individuals in need with health and social services. Governor Newsom also budgeted \$135 million for High Road Training Partnerships (H RTP) to build career pathways for healthcare professionals as well as \$130 million to create pathways into health careers for English Language Learners through the state's Adult Education Consortia; and, \$60 million to train opportunity youth for roles in Emergency Medical Services.<sup>55</sup>

California established the California Health Workforce Education and Training Council in 2022 in statute. The Council is tasked with planning education and training programs to support the healthcare workforce to meet the state's needs. Council membership includes representation from the California Health & Human Services Agency (CHHS) and the Labor & Workforce Development Agency (LWDA), community colleges and other higher education institutions, various health providers and professionals, and consumers. The Council tasks specific individuals with coordinating among agencies which had not previously had a formal way of coordinating. The group's cross-organizational collaboration has supported connections to direct care and behavioral health workforce planning and funding, planning with community colleges and other educational institutions, employer cultivation and removing barriers to employment for justice-involved individuals.<sup>56</sup>

These efforts are all working towards enhancing the economic diversification and resilience potential within the target sector, and are strengthening the sector's ability to withstand economic challenges and diversify revenue streams. By boosting economic resilience and diversification opportunities in the sector and offering workers financial assistance and flexible work arrangements to mitigate economic burdens, we can support diverse candidates entering healthcare professions.

<sup>55</sup> <https://www.nga.org/publications/preparing-the-next-generation-of-the-healthcare-workforce-state-strategies-for-recruitment-and-retention/>

<sup>56</sup> <https://www.nga.org/publications/preparing-the-next-generation-of-the-healthcare-workforce-state-strategies-for-recruitment-and-retention/>

# Healthcare

## GOAL 1

### Enhance the Small Business and Entrepreneurship Ecosystem

#### STRATEGY 1

Identify opportunities within the healthcare sector to sustain local economic growth and improve community resilience

#### OUTCOMES

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development; Finance</b>	Invest in climate-resilient healthcare infrastructure, such as clinics and educational facilities that meet the specific health and wellbeing of disinvested and marginalized communities	Creates sustainable, long-term employment healthcare, administration, and support services, often targeting local residents	Access to healthcare becomes more equitable as these communities receive essential services, improving overall wellbeing and reducing health disparities; Increases access to no- and low-cost culturally appropriate public health resources for disinvested communities	
<b>Advocacy</b>	Adopt and expand telehealth and digital health solutions to enhance service delivery efficiency	Creates new job opportunities in healthcare technology, digital support, and remote care coordination, while also reducing geographical barriers for marginalized populations	Enables healthcare providers to serve more patients remotely, improving access to care for underserved communities.	Telehealth reduces the need for physical travel, contributing to lower carbon emissions, and supports climate goals by minimizing the environmental impact of healthcare delivery through more sustainable practices.
<b>Finance</b>	Leverage accelerator programs, such as Cedars-Sinai's, that partners with tech startups to bring cutting-edge innovations to the healthcare space	Provides workers with mentorship, resources, and the opportunity to pilot their technologies in a clinical setting	Helps to quickly bring new health tech solutions to market, improving patient care and operational efficiency; supporting startups that address health disparities in underserved communities.	Climate goals are impacted by promoting innovations that increase healthcare efficiency, such as reducing resource usage through telemedicine and digital health tools
<b>Finance</b>	Invest in healthcare workforce development program pipelines across many different healthcare professional job types, both clinical and non-clinical	Ensures that employees remain competitive and competent, opening up paths for career growth. Both clinical roles (nurses, doctors, technicians) and non-clinical roles (health administrators, IT specialists, medical coders) benefit from continuous learning, which leads to greater job fulfillment and retention	Ensures that local populations have access to training and employment opportunities. This helps close geographic gaps in healthcare employment, ensuring that people in these areas can enter the healthcare workforce without needing to relocate	Clinical roles can be trained to handle health impacts related to climate change or responding to climate-related natural disasters. Healthcare systems become better prepared to deal with the challenges posed by climate change

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Finance</b>	Invest in sustainable healthcare research and innovation, such as energy-efficient medical devices, renewable energy use in healthcare facilities, waste reduction strategies, and the development of eco-friendly medical technologies	Drives job creation in green healthcare sectors	Fosters a sustainable healthcare system by improving patient care, and addressing the unique health challenges faced by disinvested communities	Promotes practices that reduce resource consumption

## GOAL 2

## Build and Align Career Pathways

**STRATEGY 1**  
Meet the growing need for high-growth entry-level jobs in healthcare through targeted training programs, mentorship, & internships

## OUTCOMES

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Leverage and scale existing healthcare organizations' Workforce Development Programs to expand training and placement opportunities	Builds career ladders for participants. Entry-level workers can advance into higher positions with additional training and support. Improves the long-term quality of jobs by offering ongoing learning and promotion opportunities	Increases representation in the healthcare sector, ensuring that more healthcare workers reflect the backgrounds and needs of the populations they serve. This leads to better health outcomes for diverse communities and helps address long-standing health inequities	
<b>Workforce Development</b>	Increase the number of Certified Nursing Assistant (CNA) training programs in underserved areas by providing financial aid, and creating pathways for CNAs to advance to higher-level nursing roles	Expedites entry into healthcare careers, providing more efficient routes to employment		
	Leverage and replicate programs like the South Los Angeles WorkSource Center to facilitate job placements and provide career counseling	Create supportive networks that are crucial for accessing resources, training, and job opportunities	Ensures that workforce development initiatives are tailored to meet the specific needs of local residents, leading to more effective and sustainable outcomes	
	Develop mentorship programs that connect students and job seekers with experienced healthcare professionals	Helps individuals navigate the complexities of the healthcare industry and achieve long-term career success	Benefits individuals from non-traditional backgrounds, such as career changers or first-generation students, by offering personalized support and helping them navigate the healthcare sector	



Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
	Promote careers in mental health counseling, especially for students from underserved communities by increasing internship and fellowship opportunities	improves their readiness to enter full-time roles and contributes to higher job satisfaction as they are better prepared to handle the responsibilities of their careers	Offering internship and fellowship programs in underserved areas means students from these regions are more likely to stay and serve their own communities, thus reducing workforce shortages in areas that need these health professionals most	As climate change exacerbates stress and mental health issues, especially in vulnerable communities, promoting careers in mental health counseling aligns with broader efforts to build community resilience
	Offer more radiologic technology programs at area community colleges in underserved areas.			
	Establish partnerships with pharmacies to provide hands-on pharmacy technician training programs and job placement support			
	Expand Emergency Medical Technician (EMT) training programs in underserved areas and create pathways for EMTs to advance to paramedic or nursing roles		Helps build local resilience by ensuring that communities are prepared to respond to climate-related emergencies	

**STRATEGY 2**

**Create robust partnerships with high schools, local community colleges and vocational schools to develop a more diverse workforce from disadvantaged communities**

**OUTCOMES**

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Leverage and replicate bridge programs at LA area community college, such as Los Angeles Southwest College CNA to RN Bridge Program, that allow CNAs and LVNs to transition into RN roles	This program offers advanced placement for CNAs and LVNs, allowing them to apply their previous experience toward earning their Associate Degree in Nursing (ADN) and becoming an RN	Provide coursework, clinical experience, and support to help ease the transition and meet the RN licensure requirements	

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Leverage and replicate programs such as the South Los Angeles Scholars Program, which provides meaningful summer internship opportunities by helping them develop the necessary skills to secure future employment in the health care sector	Enhances job readiness and prepare individuals for the complexities of healthcare work, improving the quality of jobs they will pursue in the future; exposes participants to a range of healthcare professions, helping them identify specific career paths within the healthcare sector; gain direct entry points into the healthcare workforce, often leading to full-time job offers after graduation; connect students with career ladder opportunities in healthcare, where entry-level roles can lead to advanced positions over time.	Helps low-income and underrepresented youth residing in South Los Angeles, overcome barriers to entering the healthcare sector; motivates them to pursue further education, certifications, or training in healthcare, improving both their educational outcomes and long-term career prospects.	
<b>Workforce Development</b>	Expand vocational school offerings of short-term certifications in high-demand areas (e.g., medical assisting, phlebotomy), such as LATTC's career ladder program in nursing that prepares students for the State Board of Registered Nursing Licensing Examination	Addresses labor shortages in essential healthcare services through certifications designed to meet immediate workforce needs, leading to stable employment in high-demand sectors; fosters upward mobility, enhancing long-term job quality; gives them recognized credentials that increase employability, job security, and access to better benefits and working conditions; Short-term certifications allow individuals to enter the workforce quickly, filling crucial roles in healthcare where demand is growing	By making healthcare training accessible to non-traditional students, minorities, and individuals facing financial hardships, these programs can diversify the healthcare workforce. A more diverse workforce helps improve care for a wider range of communities, as healthcare providers better reflect the populations they serve	Programs that expand the number of medical professionals can help communities better respond to health crises caused by climate change. A well-trained healthcare workforce contributes to community resilience in the face of natural disasters, extreme weather events, and other climate-related challenges
<b>Workforce Development</b>	Direct students to coursework in local high schools and link them to potential scholarships, paid internships, hands-on experience and certifications to support their pursuit of healthcare careers	Enables underrepresented students to gain the skills and financial support necessary to enter high-demand fields like healthcare; help students transition directly into high-demand, high-quality jobs after graduation	Contributes to workforce diversity, and addresses health disparities in marginalized communities; offers a pathway to stable careers without requiring a college degree	
<b>Workforce Development</b>	Create Simulation Labs in Communities	Provides practical exposure to healthcare professions, making these careers more accessible and attractive; students the opportunity to gain real-world experience	These labs offer hands-on training for local residents, increasing access to high-demand healthcare careers. By providing real-world experience, they enhance job readiness	Simulation labs can integrate sustainable practices in healthcare training, aligning with climate goals by preparing healthcare professionals to work in eco-friendly facilities and adopt sustainable healthcare practices

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
<b>Workforce Development</b>	Increase awareness of the diversity of career paths within the healthcare sector by inviting middle and high school students to workshops, career fairs, and site visits to healthcare facilities to reach a broader talent pool and support the career growth of individuals from diverse backgrounds	Exposes students to potential careers, expanding their understanding of opportunities in the healthcare industry	Encourages students from diverse backgrounds to pursue healthcare careers, addressing workforce shortages and promoting equity in the field	Fosters a generation of professionals aware of environmental impacts in healthcare
	Foster partnerships between healthcare organizations and local community colleges and vocational schools to increase access to high quality jobs	Ensures that training programs are aligned with the specific needs of healthcare employers. This alignment ensures that students receive up-to-date, practical skills that prepare them to excel in their roles, improving their job performance; create structured career pathways, where individuals can advance from entry-level positions to more specialized roles through continued education and on-the-job training	Creates direct pipelines to employment within local healthcare organizations	
<b>Workforce Development</b>	Recruit from a broader and more diverse population pool to expand the number of people of color who are entering the healthcare sector	Leads to a more culturally competent workforce. This not only improves patient care but also creates an environment where workers feel their cultural background and experiences are valued. This can foster a sense of belonging, increasing employee morale and enhancing job quality	Builds trust among lower-income BIPOC communities to access healthcare services and improve overall health equity, making healthcare services more accessible and effective for diverse communities	
<b>Workforce Development</b>	Partner with local, community-based organizations in disinvested communities to facilitate job placements and provide career counseling	These partnerships can create supportive networks that are crucial for accessing resources, training, and job opportunities; results in more outreach, increases trust among the community, informs them of career pathways, and increases access to information about job opportunities and the path to achieve them within the healthcare industry	Ensures that workforce development initiatives are tailored to meet the specific needs of local residents, leading to more effective and sustainable outcome	
<b>Workforce Development</b>	Increase access to public health education programs and create community-based internships and apprenticeships to expose students to public health careers	Internships and apprenticeships allow students to gain practical experience in real-world public health challenges. This hands-on learning enhances job readiness and ensures workers can transition into high-quality roles with relevant experience	Reduces financial barriers to entry and makes public health careers more accessible to a broader range of people; Internships in public health often involve work in underserved communities, helping students understand and address social determinants of health.	These programs can train individuals to address the health impacts of climate change, contributing to healthier and more sustainable communities

## GOAL 3

## Transition industries into the carbon-neutral economy

STRATEGY 1 Implement clean energy technology and sustainable practices into healthcare infrastructure		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
Policy	Implement operational changes in healthcare settings that prioritize energy efficiency, water conservation, and reduced waste	As healthcare settings adopt sustainable practices, new roles and job functions emerge, particularly in facilities management, energy efficiency, and environmental health. allows individuals with different educational backgrounds to access these jobs, expanding the pool of healthcare-related employment opportunities	Sustainable healthcare practices—such as reducing harmful waste and energy emissions—can improve the health of communities that are historically vulnerable to environmental harm	Prioritizing energy efficiency in healthcare facilities directly contributes to reducing greenhouse gas emissions, aligning healthcare settings with broader climate goals
	Engage healthcare workers in sustainability initiatives	Opens up opportunities for healthcare professionals to acquire new skills, enhancing their career development and improving job quality; provide pathways for current employees to transition into specialized jobs focused on sustainability	By involving healthcare workers in initiatives aimed at reducing pollution and waste, these programs can improve health outcomes for marginalized communities	Initiatives like proper waste disposal and energy-efficient practices in daily operations are key to meeting climate goals
	Allow for more all-electric buses for patient transportation and exploring the use of EV ambulances	Drivers and maintenance staff will need specialized training to operate and maintain electric vehicles (EVs). This creates opportunities for skill development and can improve job quality by providing workers with cutting-edge, in-demand skills in green transportation technologies	contributes to a safer and healthier work environment for drivers and healthcare workers, reducing their exposure to harmful emissions; reduces costs and improves access to healthcare for patients, especially in underserved or rural communities; helps make healthcare more accessible to low-income patients who rely on public or subsidized transportation to access medical care	Electric vehicles produce significantly fewer greenhouse gas emissions compared to traditional gasoline or diesel vehicles, helping the healthcare sector contribute to global climate goals. The reduction in emissions from electric buses and ambulances also aligns with broader efforts to transition to renewable energy-powered transportation systems
	Hospitals, clinics and other healthcare buildings utilize technology for clean and renewable energy	Creates high-quality green jobs within healthcare facilities; Hospitals and clinics that use advanced energy-efficient HVAC systems and lighting create more comfortable environments for staff and patients, improving job satisfaction and well-being	Ensures that patients in underserved communities have access to uninterrupted care during power outages or extreme weather events, thus reducing healthcare disparities	By using renewable energy technologies, healthcare institutions can dramatically reduce their carbon footprint, directly contributing to global climate change mitigation efforts

## Alignment with Job Quality & Access, Equity, and Climate

### Job Quality & Access:

Improving access to quality jobs in healthcare requires a multifaceted approach that addresses both systemic challenges and individual barriers. To create, retain and improve the quality of healthcare jobs, the sector must increase access to these jobs for members of disinvested communities. For example, the Kaiser Permanente School of Allied Health Sciences (KPSAHS) offers programs in radiologic technology, medical assisting, and more, which are accessible to residents of South LA. Kaiser's involvement in allied health education helps ensure that local residents have the skills needed to enter the healthcare workforce.

Building pathways and pipelines beginning in high school is critical to success. Workshops, career fairs, and site visits to healthcare facilities are designed to inspire and prepare students for future healthcare careers. For example, Charles Drew University's partnership with Common Spirit Health seeks to overcome systemic barriers and develop more diverse nurses from disinvested communities by establishing mentorship programs in high schools and developing relationships with pre-college educators. Their programs offer apprenticeship style trainings via Nurse Residencies, Mentorship & Preceptorship Program, Social Work Fellowships and the Care Academy. Their model helps students take needed courses in high school and links them to potential scholarships to support their pursuit of healthcare careers.

When healthcare organizations partner with local community colleges and vocational schools, they can increase access to high quality jobs through scholarships, internships, and mentorship opportunities that are geared toward students from underserved communities. They can fast-track programs that are accessible to students in disinvested communities to expedite their entry into healthcare careers. These partnerships are ripe for increasing networking opportunities initiatives such as community events and job fairs to reach a broader talent pool and support the career growth of individuals from diverse backgrounds.

Developing pathways that facilitate seamless transitions from community colleges to universities supports continuous educational growth makes it easier for individuals to advance in their healthcare careers. For example, the South Los Angeles WorkSource Center helps to facilitate job placements and provide career counseling. These partnerships can create supportive networks that are crucial for accessing resources, training, and job opportunities. This collaborative approach ensures that workforce development initiatives are tailored to meet the specific needs of local residents.

### Equity:

The healthcare industry struggles with the need to diversify its workforce. Persistent barriers faced by disinvested communities include difficulty accessing necessary education, career counseling, and mentorship programs. There is often a lack of exposure, information and awareness to career opportunities and professional networks that can support job placement and advancement. Without these networks, individuals may not be aware of the opportunities available in the healthcare sector or how to navigate the certification or hiring process.

Healthcare organizations are slowly understanding the business benefits of a diverse workforce, including driving innovation and performance. Addressing cultural and social barriers reduces biases that often hinder the hiring process. By training management and staff to recognize and overcome these biases, healthcare organizations can create more equitable hiring practices that provide fair opportunities for candidates from disinvested communities. Finally, healthcare organizations must implement strong anti-discrimination policies and provide training to ensure these practices are upheld. By creating a more diverse and representative workforce, healthcare organizations can better serve the needs of diverse populations, expand access to care in underserved areas, and promote long-term economic mobility for people of color entering the field. Recruiting from a broader and more diverse population pool to increase the number of people of color in healthcare impacts both job quality and access by fostering inclusive workplaces, increasing cultural competence, and improving job satisfaction for healthcare workers. It also opens up career opportunities for underrepresented groups,

addresses healthcare disparities, and contributes to a more equitable healthcare system.

Additionally, geographic and transportation barriers also limit access to job opportunities and educational opportunities. The high costs associated with education, childcare, access to technology, and living expenses create significant barriers for many individuals living in disinvested communities pursuing a career in healthcare. Providing financial support alleviates the financial barriers that prevent individuals from pursuing necessary education and training to sustain healthcare careers.

### **Climate:**

Healthcare organizations are on the front lines of sustainability and operational changes that prioritize energy efficiency, water conservation, and reduced waste. By transitioning to electric or hybrid vehicles for patient transport, NEMTs, hospital shuttles, and emergency response, the healthcare sector can significantly reduce its carbon footprint. Additionally, hospitals, clinics and other healthcare buildings can utilize technology for clean and renewable energy. Engaging healthcare workers in sustainability initiatives ensures that these practices become integrated into daily operations, fostering a culture of environmental responsibility.

### **Workforce Development**

The strategies advance workforce development efforts in healthcare by creating comprehensive and supportive systems that address various stages of career preparation and entry. These include training programs in underserved areas, internships, providing financial aid, expanding bridge programs that allow CNAs and LVNs to transition into RN roles, increasing awareness of healthcare administration as a career path. Collaboration with schools at all levels, from elementary to community colleges, helps establish robust pipeline programs that guide students toward healthcare careers from an early age. This multi-level engagement ensures that students are aware of and prepared for healthcare opportunities, creating a continuous flow of talent into the sector. Additionally, partnering with local, community-based organizations to offer workshops on resume building, interview preparation, and job readiness skills directly

prepares individuals for the healthcare workforce. These workshops will equip community members with the practical skills needed to succeed in the job market, making them more competitive candidates for healthcare positions.

### **Alignment with State Strategies**

Health care is on the front lines of climate change bearing the costs of increased illnesses, changes in disease prevalence, and the health impacts of more frequent extreme weather events. At the same time, health care operations contribute significantly to climate change and the very diseases it is trying to treat. The health care sector is responsible for 8.5% of U.S. greenhouse gas (GHG) emissions, with the U.S. health sector accounting for 25% of global health sector emissions.

By implementing clean energy technology and sustainable practices into healthcare infrastructure, the strategy aims to have the industry meet California's greenhouse gas (GHG) emission reduction targets. The strategy also aims to be aligned with California's Priority Climate Action Plan (PCAP) which aims for California to meet its long-term goal of achieving carbon neutrality by 2045.

### **Strategy Implementation**

Expanding healthcare access and job creation in Los Angeles County requires a multi-faceted approach involving local, state, and federal policy alignment.

At the local level, there could be more targeted and intentional focus on expanding community health worker programs, which have had best practices in other areas. Investing in access to and sustainability of the pipeline of healthcare workforce development; increasing funding for preventive care and mental health services; and increasing funding for healthcare workforce development program pipelines across many different healthcare professional job types, both clinical and non-clinical are necessary.

Advocacy is a key piece of implementation going forward. This may include advocating for more healthcare infrastructure and services, increased county funding for public health programs, collaboration with community organizations to address health disparities, and more. Although

California has led the nation and has implemented progressive healthcare policies, including Medi-Cal expansion and the Affordable Care Act (ACA) implementation, challenges remain in terms of affordability, access to care and access to holistic and continued care, and access and sustainability of healthcare workforce development job pipelines. California should prioritize increasing Medi-Cal reimbursement rates as healthcare experts have shared this to be a major challenge in delivering and continuing to offer high-quality care that is accessible, expanding access to telehealth services and similar services that are easily accessible, including expanding language access, and investing in healthcare workforce training programs that are supported statewide. Support is needed for statewide legislation that addresses the cost of care that also includes the cost of medications needed, support for consumer and patient protections, and support that invests in a strong, strategic, and efficient public health infrastructure for local counties and municipalities to follow. There should be transparency and shared decision-making with state policymakers to advocate for policies that promote equity and affordability and

that would be realistic and the most meaningful and impactful.

At the federal level, the ACA has significantly expanded healthcare coverage, but challenges such as rising healthcare costs and disparities remain at the federal level. Federal policies will continue to always play a crucial role in shaping healthcare access and job creation, particularly as policies trickle down to the state and local levels. We need to advocate for policies that address the broad and holistic social determinants of health, including but not limited to housing, education, language, and economic opportunity. If at all levels initiatives are supported that promote health equity and eliminate disparities, this healthcare access and employment economic development plan will have positive outcomes and impacts. We need to support federal legislation that strengthens the ACA, protects Medicaid, and invests in sustainable healthcare research and innovation. We need to promote transparency and shared decision-making and engage with federal policymakers to emphasize the importance of addressing healthcare disparities always at the top of the nation's priorities.





## Target Sector Strategies

# Video Production and Distribution

As the Video Production & Distribution (VPD) Table Lead for the California Jobs First program, Plenty of Pie convened employers and stakeholders in a series of focus groups between June and July 2024 to identify workforce barriers and develop strategies for creating actionable solutions. They included producers, writers, crew members, directors, and other representatives from the entertainment industry, as well as representatives from the Producers Guild of America. These discussions emphasized the significant impact that COVID-19 has had on the industry as a whole, and the challenges it is facing today.

### Define Sector and Justify Prioritization by Region

Los Angeles has long been seen as the Motion Picture capital of the country, and for good reason. Defined in the Regional Plan Part 1 as Video Production and Distribution, the research found that, as of 2022, the industry cluster was over 14 times more concentrated in LA County compared to the nationwide average. Other related industry clusters surrounding the Performing Arts, Music and Sound Recording, Marketing, Design and Publishing, and Local Entertainment and Media, have similarly, though not at the same magnitude, high concentrations in the LA County region. These industry clusters collectively employed over 280,000 people in 2022. Within these industries, the single largest employer being the Motion Picture and Video Production industry, employing 128,884 people in 2022. (See [Appendix](#))

Recent shifts in the industry and increased domestic and international competition, covered later in the

section, have produced significant effects in the number of shoot days measured by Film LA. However, as a historically strong industry with a strong regional concentration offering well-paying careers, developing and maintaining the entertainment industry is critical to Los Angeles's economic well-being. Along with developing the industry through investments, strategies must be developed to bring back productions from competing regions. By increasing the number of productions taking place in the LA Region, the number of LA County jobs in the industry will increase.

The Video Production and Distribution industry is a vast and dynamic sector that offers a wide range of job opportunities beyond the well-known creative roles like writers, actors, and directors. The entertainment industry is much more than just the creative roles seen on screen. It is supported by a vast network of professionals across various sectors, all working together to bring ideas to life and deliver them to audiences around the world. While these creative positions are vital to the industry, there are numerous technical, administrative, and logistical roles that are equally important in bringing films, television shows, and other media productions to life.

**Development Phase:** In the development stage, projects are conceptualized and prepared for production. Key roles in this phase include: Writers, Studio Executives, Producers, Agents & managers, Compliance Analysts and Standards and Practices professionals, Finance and Legal Experts, and Script Editors.

**Pre-Production Phase:** During pre-production, the groundwork is laid for the actual filming or recording. This phase involves: Production Managers and Coordinators, Accountants, Location Scouts/Managers, Casting Directors, and Storyboard Artists.

**Production Phase:** The production phase is where the bulk of the filming or recording takes place, and it requires a wide variety of roles, including: Directors, Actors, Catering and Food Services staff, Line Producers, Assistant Directors, Script Supervisors, Stunt Coordinators, Directors of Photography and Camera Department staff, Digital Imaging Technicians and Data Wranglers, Sound Engineers, Grips, and Lighting Technicians, Art Department, Hair & Makeup, and Wardrobe Teams, On-set Nurses and Teachers, Security, Plumbing, and Construction teams.

**Post-Production Phase:** After filming, the post-production phase focuses on editing and finalizing the content. Key roles here include: Editors, Sound Mixers, Colorists, Visual Effects Artists, Digital Artists and Music Supervisors/Composers, Foley Artists, and Systems Engineers and DevOps specialists.

**Distribution Phase:** The distribution phase involves getting the finished product to the audience. Roles in this phase include: Publicists and Photographers, Web Editors and SEO Specialists, Programmers and Social Media Experts, Marketing, Advertising, and Account Management Professionals, Business Development Specialists and Licensing Experts, and Collections Teams.

**Exhibition Phase:** The Exhibition Phase involves key roles that bring films to audiences through theaters, television, streaming platforms, and other media outlets. These include: Film Distributors, Sales Agents, Exhibitors, Cinema Managers, Projectionists, Theater Staff Publicists, Content Acquisition Managers, Technicians, Film Programmers, Event Coordinators and Legal Advisors.

This diversity of roles ensures that there are numerous pathways to high-quality jobs within the industry, catering to a wide range of skills and interests.

## Sector Development

### Clear Local Market Signals:

The U.S. Media and Entertainment (M&E) industry is the largest in the world at \$660 billion (of the \$2 trillion global market) - enduring an estimated \$53B or 7.3% decline due to the pandemic.<sup>57</sup> The M&E industry comprises businesses that produce, distribute and offer ancillary digital services and products for: the Motion Pictures, Television programs and Commercials along with Streaming Content, Music, Video and Audio recordings, Broadcast, Radio, Text and Book Publishing, eSports and Video Games sectors.

The state of California and Los Angeles County, in particular, dominates the Video Production and Distribution sector leading the number of jobs and overall wages paid. The Region has a "dense ecosystem" of specialist workers, suppliers, facilities and industry know-how. For example, for every worker employed in Film & TV in Atlanta, there are 12 employed in Los Angeles County.<sup>58</sup>

The Motion Picture Association reports that the film and television sector supports 2.74 million jobs nationwide and \$242 billion in wages annually. In the State of California, the film and television sector is directly responsible for 258,860+ jobs which pays over \$42.6 Billion in wages and indirectly responsible for 816,580 jobs from local vendors and other businesses.<sup>59</sup> Nationally, the industry supports 240,000 local businesses, 92% of which employ fewer than 10 people.<sup>60</sup> This sector should be prioritized as it has great opportunity for growth, maintains a low educational barrier to entry, has adopted robust climate impact mitigation strategies and offers a wide range of high-quality job opportunities. Additionally, the sector is the primary attraction for tourism in the region which, in 2023, generated \$40.4 Billion in total

57 <https://www.trade.gov/media-entertainment>

58 <https://www.otis.edu/about/initiatives/documents/otis-college-report-creative-economy-may-2024.pdf>, <https://www.otis.edu/about/initiatives/creative-economy/dashboard.html>

59 <https://www.motionpictures.org/what-we-do/driving-economic-growth/>

60 <https://www.motionpictures.org/what-we-do/driving-economic-growth/>

business sales and 530,000 jobs for Los Angeles residents.<sup>61</sup>

Key markers of the industry's market signals include the following:

- The uptick in streaming services and subscriptions for digital media in 2020 was a boon for the MVoD, Video Games and Music sectors, while live performance, touring and the gig economy were forced to pivot or shutter. However, since the loosening of COVID restrictions, the live event industry has rebounded. In 2023, according to Pollstar, a research firm that tracks the live entertainment industry, the top 100 largest tours shattered the previous record grossing over \$9 billion as concert ticket sales increased by 18% while ticket prices increased by 23%.<sup>62</sup>
- In 2018, total core copyright industries added \$2.2 trillion to the U.S. economy (accounting for 11.6%) and employed over 11.6 million workers. These industries grew on average 5.23% a year, while the U.S. economy as a whole averaged 2.21% annually.
- As of December 2020, the International Trade Administration values the US Filmed Entertainment & Streaming sector at \$85 billion.<sup>63</sup> (This sector is the equivalent of what we define as "Video Production & Distribution").
- According to the Beacon Economics 2018 FDMI Report, the Video Production and Distribution sector generated \$158.3 billion in economic output countywide, of which \$61.2 billion represented economic activity generated down the supply chain. This also created ripple effects that led to substantial tax revenues for county and municipal governments. In 2016, the sector generated an estimated \$2.3 billion in tax revenues for local government in that year alone.

Although the State of California remains a dominant force in film and television production -- leading the

number of jobs and overall wages paid (9.4% of the sector), film and television production takes place in all 50 states, as well as the District of Columbia and the island of Puerto Rico. This creates intense competition between states for the finite number of projects that can be produced annually – the winner being the state that offers the greatest cost savings to the production. Currently the State of California and Los Angeles, in particular, is losing out to a number of domestic and international locations where it is cheaper to produce film and television projects via tax rebates, incentives and lower wages due to the cost of living.<sup>64</sup> In fact, China threatens to overtake US dominance in this industry within four years.<sup>65</sup>

### Value Chain and Infrastructure:

The Video Production and Distribution Sector is a high value, high output industry that has a low barrier of educational entry; however, access to significant financial investment is imperative for continued growth in the sector. Larger studios and production companies self-fund or receive investment from sovereign funds or asset management companies like BlackRock, Crestview, Goldman Sachs, and Blackstone and usually budgeting no less than \$30M per project, with many action or fantasy film budgets hitting \$250M+.<sup>66</sup> Marketing budgets for each project range from at least half the cost of the production to equal or above production costs, paying for advertising, promotions and in-person activations.

According to the information gathered in the Table Lead Partner convening with Producers on July 15, 2024, even with such large budgets, due to the high cost of doing business in Los Angeles and the lack of competitive tax incentives, producers cannot justify to studios and investors to remain in Los Angeles and will shoot in other states and/or countries to attain profitability. Local independent producers source funding from private investors, local banks, crowdsourcing platforms (like Indie go-go or Kickstarter) and sometimes their personal credit

61 <https://www.travelagewest.com/Travel/USA-Canada/los-angeles-tourism-recovery>

62 <https://news.pollstar.com/2023/12/16/the-great-return-becomes-a-golden-age-2023s-top-tours-see-massive-historic-growth/>

63 <https://www.trade.gov/media-entertainment-film-sector>

64 <https://deadline.com/2024/07/film-tv-production-los-angeles-q2-2024-1236012221/>

65 <https://deadline.com/2024/07/pwc-global-outlook-china-america-entertainment-industry-1236010359/>; <https://economicdevelopment.lacounty.gov/wp-content/uploads/2018/09/2018-FDMI-Report.pdf>

66 <https://screenrant.com/most-expensive-movies-2023-budgets/>

cards, but may also leave the state to seek funding via tax rebates and other incentives through co-productions with producers in other countries. Most co-productions require filming in that region and hiring local workers. Independent Producers would benefit from competitive local incentives and funding geared specifically to their budget ranges of \$1M or less. The Video Production and Distribution Sector requires significant local financial incentives for studio based and independent producers to remain in Los Angeles County.

**Innovation Ecosystem:** The Video Production and Distribution sector is constantly innovating to be more efficient and exploit creativity in forms. The advent of Virtual Production is a promising technological innovation used mostly by studios and large production companies to shoot realistic environments on a soundstage (e.g. *Dune*, *The Mandalorian*). But it is too cost prohibitive for most independent producers to utilize.<sup>67</sup>

Additionally, the increased use of AI tools has negatively impacted the industry, minimizing the need for some entry-level positions, particularly in Visual Effects and animation where emerging creatives can break into the industry more readily. Access to all jobs in industry are gained through relationships and networking, irrespective of training and skill level. Without entry level opportunities to access, there's very little hope for those without adequate networks to break in.<sup>68</sup>

One of the most disruptive innovations is the tech industry's infiltration into Hollywood with the advent of streaming networks like Netflix and Amazon Prime. Prior to their disruption, "windowing" or the "downstream" revenue model was standard; i.e., using theatrical box office performance as the foundation to future earnings. For example, a film that earned \$200M during its theatrical run would command more licensing fees from distribution points like pay-per-view, cable, home video (like DVD's), streaming, network TV, ancillaries (like airplanes), and international territories than a film that earned only \$50M theatrical. Even "straight-to-DVD" was a

foundation for films that failed to achieve a theatrical distribution deal. (Home video (DVD's) was essentially replaced to now mean "streaming".) In either case, wages were paid to unionized contracted talent (SAG, DGA, WGA, PGA) associated with the film at every distribution point.

This strategy ended with the rise of the streaming services where a project (like a film) only has one monetization point through the streaming service itself. As the streaming company is the single holder of all rights and, only on rare occasions, do they license material into other spaces, the project loses its value quicker as there is no other point of entry to monetize. COVID-19 made matters worse, forcing theaters to close during a time when streaming companies were already aggressive in attracting viewers to watch first-run films and TV shows on their platforms. This new shift in how audiences consume content destroyed the theater industry and eliminated wages for those members who traditionally received residual payments at the distribution points. It's important to note that historically, film and TV projects were rarely "sold." They are copywritten material controlled by the producer and licensed to distributors for an agreed upon period then returned to the producer after the licensing period ends. The labor strikes and subsequent negotiations ultimately determine the new rules going forward; however, there are still steps the state can take to create jobs within the framework the unions have negotiated.

Currently, studio leaders are in search of a new business model that reinvigorates and brings more growth opportunities to the sector. The theater industry is trying to re-monetize its content in this new world created by the streaming companies. By maximizing the cost of each point of entry and by continually widening its reach, the industry seeks to make money throughout the life cycle of the project which for all copyrighted material is at least 75 years.

**Regional Assets:** As the Video Production & Distribution birthplace, Los Angeles County has enviable infrastructure, climate and educational resources, including being home to seven of the top

67 <https://nofilmschool.com/how-to-prepare-to-work-with-led-stages>

68 <https://www.forbes.com/sites/neilsahota/2024/03/08/the-ai-takeover-in-cinema-how-movie-studios-use-artificial-intelligence/>

twenty-five film schools in the country.<sup>69</sup> Los Angeles County has a mild climate and a variety of landscapes, terrains and urban locations that filmmakers can choose from.

Facilities, stages, technological innovation and well-trained workforce abound. According to Cushman & Wakefield,<sup>70</sup> Los Angeles County boasts the largest inventory of indoor filmable sound stages in the United States at 389 stages for a total of 5.4 million square feet. There is an additional 5.6 million square in development including the Fox Studio Lot in Century City and TVC 2050 in Beverly Hills. According to the Otis College Report on the Creative Economy (May 2024),<sup>71</sup> despite the proliferation of the construction of major sound stage facilities in Atlanta, New Mexico, and other areas across the country, there is no "New Hollywood" on the horizon. Los Angeles remains the biggest producer of marquee content and is unparalleled in this sector.

## Increasing Economic Diversification and Resilience

Job access and quality in the Video Production & Distribution sector are heavily influenced by union representation, particularly through organizations like SAG-AFTRA, WGA, DGA, IATSE, and the Teamsters. Union labor is a cornerstone of this sector, providing workers with access to high-wage jobs that come with crucial benefits such as healthcare and pensions. This is especially important in an industry where work is often project-based, with employees moving from gig to gig.

However, not all roles within this sector are unionized or protected. For example, positions such as feature film producers, non-fiction television producers, reality TV producers, and video game producers often fall outside the umbrella of union protection. Despite this, those working through unions benefit significantly, with access to steady employment and the ability

to accumulate enough hours throughout the year to qualify for benefits.

The importance of union representation has become increasingly apparent, as evidenced by the recent surge in unionization efforts. During the Hollywood strikes, over 8,000 workers joined entertainment unions across 49 campaigns. This wave of unionization reflects a growing demand for better job security and working conditions in an industry that can be volatile and unpredictable.

In particular, reality TV workers have been pushing for unionization to gain similar protections and benefits enjoyed by their counterparts in scripted television and film. Additionally, the video game industry is seeing similar trends, with workers seeking union representation to safeguard their jobs from challenges like AI. Thus, while union membership is not universal across all roles in the Video Production & Distribution sector, unions play a critical role in ensuring job quality, worker safety, financial security, and access to benefits, highlighting the ongoing need for collective bargaining in this dynamic industry.<sup>72</sup>

Jobs in the corporate branch of the entertainment industry are increasingly at risk due to the rapid pace of mergers and acquisitions, as well as the vertical integration of major buyers. This trend is pushing the industry closer to a monopolistic structure, where a few large corporations dominate the market. The consolidation of power within these companies limits competition and reduces the number of independent entities in the market, thereby threatening the job security of employees within these corporate structures.

As mergers and acquisitions become more prevalent, the industry sees a shrinking number of employers, which leads to job cuts, redundancy, and a more precarious employment environment for those working in corporate roles. Employees who previously benefited from a more diverse and competitive job market now face fewer options and less negotiating

69 <https://www.hollywoodreporter.com/lists/top-25-american-film-schools-ranked-1134785/>

70 <https://www.connectcre.com/stories/new-projects-could-more-than-double-la-sound-stage-inventory/>

71 <https://www.otis.edu/about/initiatives/documents/otis-college-report-creative-economy-may-2024.pdf>

72 <https://www.hollywoodreporter.com/business/business-news/reality-tv-workers-unionize-industry-organize-1235746974/>  
<https://paydayreport.com/over-8000-joined-entertainment-unions-in-49-campaigns-during-hollywood-strikes/>  
<https://slate.com/technology/2024/07/video-games-sag-aftra-union-strike-ai-bots.html>



power. This consolidation also affects creative and operational decision-making, as fewer companies controlling content production and distribution can lead to a homogenization of the types of projects that get greenlit, ultimately reducing opportunities for innovation and diversity in content creation.

Moreover, the verticalization of buyers—where companies not only produce content but also control the distribution channels—further consolidates power and limits market diversity. This trend can push the industry towards a monopolistic environment where only a few large conglomerates have the ability to dictate terms, reducing the opportunities for smaller, independent companies to compete. Thirty years ago, there were over a dozen major buyers that gave sellers options on where to take their projects. Now there are seven – Netflix, Amazon, Paramount, NBCUniversal, Warner Bros, Disney, and Sony.<sup>73</sup>

As the industry becomes more white-collar and college-educated, these corporate roles are increasingly occupied by professionals who must navigate an industry landscape dominated by fewer, larger employers. The stability of these jobs is increasingly uncertain, as corporate consolidation often leads to restructuring, downsizing, and a focus on short-term profitability over long-term employment stability. This shift not only threatens job security but also has broader implications for the industry's overall diversity and the types of content that are produced and distributed, impacting the entire ecosystem from the ground up.<sup>74</sup>

The Video Production & Distribution sector is currently experiencing a significant downturn nationwide, with Los Angeles County being particularly affected.<sup>75</sup> This recession in the industry has been driven by a combination of factors, including the aftermath of the COVID-19 pandemic, the rise of streaming services, and the ongoing challenges related to strikes and labor disputes. In Los Angeles, the heart of the entertainment industry, the impact has been especially severe. Production levels in both film and

television have dropped significantly, with many projects being delayed or canceled altogether. This decline has not only affected production crews and actors but has also had a ripple effect on related industries, such as post-production, equipment rental, and location services.

The situation is exacerbated by the increasing competition from other regions and countries that offer more attractive tax incentives and lower production costs. As a result, some productions that would have traditionally taken place in Los Angeles are now being outsourced to other locations, further deepening the recession in the local industry.

Efforts to revive the sector will likely require a combination of strategic incentives, such as enhanced tax breaks, and investments in new technologies to make Los Angeles a more competitive and attractive location for productions. Addressing the current challenges will be crucial to restoring growth and stability in this vital sector of the local economy. It will also require strengthening Public-Private Partnerships whereby local communities can be involved through financial instruments such as stock options or vesting equity.

The industry is highly resilient to economic shocks as evidenced during the COVID pandemic, where it was one of the first to come back with protective measures in place to ensure safety of workers. However, there is a point where costs can become too prohibitive for the consumer and the audience will shrink, which is what this sector is currently experiencing. Although overall box office gross has increased since 2018, attendance has shrunk by half.<sup>76</sup>

In order to increase the Video Production and Distribution sector's economic diversification and resilience the US needs to invest more in its soft power and elevate the importance of arts and culture in our society and in our communities. According to the Pew Research center, 76% of countries in the world consider America's entertainment industry

<sup>73</sup> <https://www.the-numbers.com/market/distributors>

<sup>74</sup> <https://www.hollywoodreporter.com/business/business-news/hollywoods-workers-increasingly-white-collar-college-educated-1235911266/>

<sup>75</sup> <https://www.thewrap.com/film-tv-production-2024-levels/>

<sup>76</sup> <https://www.indiewire.com/features/general/2022-box-office-2023-1234795871/>

"above average" or "the best".<sup>77</sup> But even as a cultural powerhouse, there is little to no federal, state or local support to maintain its dominance. The Corporation for Public Broadcasting (CPB), National Endowment for the Arts (NEA) and the National Endowment for the Humanities (NEH) do not fund commercial films or TV projects. Moreover, the CPB FY23 budget was \$475M (split 67% to television and 23% to radio); NEA's FY23 budget was \$211M and NEH's budget was \$207M. To contrast, the production budget of the 2023 Disney film, *Elemental* was \$200M.<sup>78</sup> To put it another way, the U.S. national budget for Arts & Culture is worth four Disney films!

According to research by McKinsey & Company, the entertainment industry could potentially gain an additional \$30 billion in annual revenue by addressing persistent racial inequities in its workforce and content. This significant financial opportunity stems from the industry's current failure to effectively engage with diverse audiences, particularly within Black, Latinx, and Asian-American/Pacific Islander communities. The entertainment sector is missing out on \$10 billion annually due to the lack of engagement with Black

audiences alone. The gap is even more pronounced with Latinx communities, where the industry could gain an estimated \$12 billion to \$18 billion per year by better valuing Latinx professionals and consumers. Additionally, a focus on the Asian-American and Pacific Islander market could add another \$2 billion to \$4.4 billion annually.

This revenue opportunity is not just theoretical; it is supported by evidence that diverse content, when properly marketed and supported, performs exceptionally well. Films and TV series that authentically represent these communities, such as "Everything Everywhere All at Once" and "Squid Game," have achieved significant success, proving that there is a strong demand for diverse storytelling.

By investing in diversity, both on-screen and behind the scenes, the entertainment industry can unlock these revenue streams while also contributing to a more inclusive and equitable cultural landscape. This approach not only enhances the richness of storytelling but also aligns with the business imperative of capturing a broader, more diverse audience base.<sup>79</sup>

77 <https://www.pewresearch.org/global/2023/06/27/views-of-american-soft-power/>

78 <https://screenrant.com/most-expensive-movies-2023-budgets/>

79 <https://www.hollywoodreporter.com/movies/movie-news/mckinsey-report-hollywood-representation-1235880126/>

<https://www.mckinsey.com/featured-insights/diversity-and-inclusion/black-representation-in-film-and-tv-the-challenges-and-impact-of-increasing-diversity>

<https://www.mckinsey.com/featured-insights/diversity-and-inclusion/from-margins-to-mainstream-asians-and-pacific-islanders-in-hollywood>

<https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/latinos-in-hollywood-amplifying-voices-expanding-horizons>



# Video Production and Distribution

## GOAL 1

### Enhance the Small Business and Entrepreneurship Ecosystem

STRATEGY 1 Attract more productions to shoot in Los Angeles County		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
Finance	Overhaul the tax credit process to be more efficient and expedient for producers, and increase the amount of credit available for productions so that LA is more competitive as a film/production location	Creates more local job opportunities in the sectors, and leads to higher employment rates and stability	Increased tax credits can encourage productions to hire locally, providing access to quality jobs for underrepresented communities	Streamlining tax credits and attracting productions can reduce the carbon footprint by encouraging local filming, reducing the need for long-distance travel and transportation of goods, and promoting green filming practices
	Incentivize studios and networks filming in Los Angeles County to use diverse production service companies through a rebate program	Encourages inclusivity and economic participation from diverse businesses	Encourages the growth and sustainability of diverse production services within the local industry	Promotes sustainability by encouraging the use of environmentally conscious vendors and services in productions
	Create an incubator for diverse producers to establish production service companies by forging partnerships with lenders and investors to enable them to finance at least one production per quarter	Provides the financial backing and support needed for underrepresented groups to launch businesses in the production industry. This enables a more diverse workforce and opens doors for new talent, creating a broader range of job opportunities	Provides both the financial resources and the skills training necessary to build sustainable businesses; supporting minority-owned businesses and ensuring diversity in the production pipeline	With financial support, productions can invest in sustainable practices, reducing environmental impacts and promoting eco-friendly filming
	Establish a film cooperative program to empower diverse independent producers to access the necessary resources for producing and distributing their projects while also generating local employment by hiring diverse crews	By resourcing independent producers with project budgets at \$1M or less, we can directly hire more diverse crews by working with community-based organizations or incubator programs that work with disadvantaged and disinvested communities	Engages and uplifts disadvantaged and disinvested communities by ensuring they are actively involved in the production process	

## GOAL 2

## Build and Align Career Pathways

STRATEGY 1 Boost workforce development efforts with a focus on diversity and inclusivity		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
Finance	Link new production service companies with lenders and provide grants to enable them to finance at least one production per quarter	Creates more consistent employment opportunities for diverse talent	Empowers small, diverse companies that may otherwise struggle to access capital, ensuring broader participation in the production ecosystem	Enables productions that can incorporate sustainability practices, reducing environmental impacts while stimulating the local economy and green job creation
Policy	Connect local businesses to production services opportunities, such as catering, equipment rental, and location services	Generates steady work for local suppliers, providing them with long-term contracts and increasing demand for their services	Ensures that small, diverse businesses can compete and thrive in the production ecosystem	Encourages productions to source locally, reducing transportation emissions, and fostering sustainable business practices within the community
Workforce Development	Forge partnerships between CBOs and new production service companies	Creating tailored training programs that prepare individuals for careers in the entertainment industry. This ensures a skilled and ready workforce, leading to better employment outcomes for local talent	Supports the creation of diverse production service companies that can be contracted to produce studio projects	
	Facilitate collaboration with employment placement agencies, production companies, post-production houses, and studios to identify and recruit candidates.	By working closely with these agencies, the program can ensure that candidates are matched with suitable entry-level positions that align with their skills and career aspirations		
	Connect workers with mentors across various roles who can offer guidance and insights that are invaluable for navigating the complexities of the industry	Connect workers with mentors across various roles who can offer guidance and insights that are invaluable for navigating the complexities of the industry	Provides underrepresented groups access to mentors who can help them overcome barriers	
	Increase union membership across all roles in the sector	Ensures better wages, benefits, and working conditions through collective bargaining	Standardizes practices that protect underrepresented workers from discrimination and exploitation	Unions can advocate for greener practices in production, ensuring sustainability is prioritized in industry-wide agreements
	Address persistent racial inequities in film and TV workforce and content through more funding for and production of diverse content	Expands opportunities for underrepresented filmmakers and content creators	Contributes to a more inclusive and equitable cultural landscape; more inclusive storytelling and greater representation of diverse voices in media	Stories from various perspectives may highlight environmental justice and sustainability issues, encouraging responsible, inclusive practices in the film and TV production processes

Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
	Create a pipeline program that offers soft skills training and is tailored for those with "above the line" (creative roles) and "below the line" (technical roles) skill sets or degrees to access jobs in the industry and facilitates collaboration with employment placement agencies through direct partnerships with production companies and studios	Offers specialized training for high-skill, high-demand roles in the film industry.	Creates more accessible pathways to underrepresented communities, increasing diversity in roles traditionally dominated by certain groups	Can embed sustainable practices in production and technical roles through training
	Utilize a skills-matching platform or database that tracks the skills and qualifications of candidates	Can be used by job placement agencies and production companies to identify candidates who are a good fit for specific entry-level roles	Can efficiently match candidates with job opportunities that align with their strengths and interests.	
	Production companies and studios commit to hiring a certain percentage of their entry-level workforce	Creates a seamless transition from training to employment; thereby bridging the gap between these communities and the job market in the entertainment sector; secure entry-level positions for candidates.	These companies can provide feedback on the skills and qualifications they are looking for, and tailor training to meet industry needs	
	Implement Local Hiring Incentives and Worker Safety Incentives to be more competitive		Creates a more robust and equitable industry environment.	

## GOAL 3

## Transition industries into the carbon-neutral economy

STRATEGY 1 Minimize the environmental impact of film and television productions		OUTCOMES		
Strategy Type	Tactics	Job Quality/Access	Equity	Climate/ State Strategies Alignment
Policy	Integrate sustainability into every stage of production through education, incentives, and partnerships by promoting the Green Production Guide across the industry	Creates job opportunities by establishing green production training programs that can equip workers with new skills in sustainability, leading to higher job quality. Creating roles that focus on sustainable production practices, such as energy management or waste reduction, offers specialized, high-quality job opportunities. Offering certifications in green production helps workers stand out and qualify for higher-paying positions	The Guide promotes inclusive sustainable practices, ensuring that diverse production teams can contribute to green projects and benefit from the shift towards eco-friendly and socially responsible productions	Aligns with the priorities of California Climate Adaptation Strategy, particularly to "partner & collaborate to leverage resources" and "make decisions based upon the best available Climate Science," and with the California Climate Scoping Plan as it relates to "utilizing cost effective solutions to minimize greenhouse gas emissions"

## Alignment with Job Quality & Access, Equity, and Climate

### Job Quality & Access

The Video Production & Distribution sector contains thousands of high-quality jobs that require very little formal education beyond a high school diploma or on-the-job training. However, the sector is highly exclusionary, primarily sourcing job candidates from a relatively small network of friends, family and acquaintances. Databases and job boards are rarely used to hire production teams. Corporate sector jobs are secured through networking and access to social circles (alumni and organizational networks). For the industry, it's not "who you know; it's who knows you."

The proposed strategies promote soft skills training and access to critical resources tailored for disadvantaged and disinvested communities, ensuring these often-overlooked groups gain access to the industry. Local governments can create a supportive environment that encourages companies to invest in the safety and continuous development of their seasoned workforce, leading to a more skilled, safe, and sustainable industry. These tools empower participants to make informed decisions and strategically position themselves in the market.

### Equity:

UCLA's Hollywood 2020 Diversity Report reveals that the Video Production & Distribution Sector is largely dominated by white males in leadership positions (including writers, directors, producers, agents, executives and union leaders). However, this report also shows that leaders who are women or people of color hire more diverse staff and crew.<sup>80</sup>

A suggested tactic is to expand opportunities for underrepresented filmmakers by establishing a Film Cooperative Program that offers substantial grants (e.g., \$250K+) to women and people of color filmmakers with production budgets of \$1M or less. This will empower diverse independent producers to access the necessary resources for producing and distributing their projects while also hiring diverse crews. This strategy aims to engage and uplift

disinvested communities by ensuring they are actively involved in the production process. By resourcing independent producers with project budgets at \$1M or less, we can directly hire more diverse crews by working with community-based organizations or incubator programs that work with disinvested communities. The proposed incubator program will support the creation of diverse production service companies that can be contracted to produce studio projects by linking these companies with lenders and providing grants to enable them to finance at least one production per quarter. Studios and networks filming in Los Angeles County would be incentivized to use these companies through an additional rebate, encouraging the growth and sustainability of diverse production services within the local industry.

### Climate:

The Video Production & Distribution sector is making significant strides in supporting environmental sustainability, thanks in part to the comprehensive green guidelines adopted by the studios and the Producers Guild of America over a decade ago. These guidelines, detailed on the [Green Production Guide](#), are designed to minimize the environmental impact of film and television productions. The Guide is a comprehensive resource aimed at promoting sustainability in the film and television production industry. These guidelines cover a wide range of practices aimed at reducing carbon footprints, conserving resources, and promoting sustainable operations on set. They include recommendations for energy efficiency, waste reduction, sustainable sourcing of materials, and minimizing transportation emissions, all of which contribute to a more climate-friendly industry. Some key components of the toolkit are:

- 1. Production Environmental Actions Checklist (PEACH):** A checklist that outlines specific actions and best practices for reducing environmental impact at every stage of production.
- 2. Vendor Directory:** A comprehensive list of vendors who provide eco-friendly products and services,

80 <https://socialsciences.ucla.edu/wp-content/uploads/2024/06/UCLA-Hollywood-Diversity-Report-2024-Film-Streaming-5-23-2024.pdf>

ranging from renewable energy providers to sustainable catering options.

3. **Carbon Calculator:** A tool that allows productions to track and measure their carbon footprint, helping them to identify areas for improvement in energy use, transportation, waste management, and more.
4. **Sustainable Production Toolkit:** This toolkit includes guidelines, templates, and other resources that assist production teams in implementing sustainable practices across all departments, such as lighting, set design, and transportation.
5. **Green Production Guide Badges:** These badges can be used to recognize and communicate a production's commitment to sustainability.

By adhering to these guidelines, the industry not only reduces its environmental impact but also sets a standard for sustainability that other sectors can follow. The adoption of these practices highlights the industry's commitment to being a positive force for the environment while continuing to produce high-quality content.

## Workforce Development

The proposed pilot pipeline program will offer soft skills training, and facilitate collaboration with employment placement agencies and through direct partnerships with production companies and studios. The curriculum will focus on essential soft skills such as communication, teamwork, problem-solving, time management, and adaptability. These skills are critical for success in any workplace, particularly in the fast-paced and collaborative environment of film and television production. The training would also include modules on professionalism, workplace etiquette, and career readiness to prepare candidates for the expectations of the industry. By collaborating with employment placement agencies that specialize in the entertainment industry, we can help identify and recruit candidates who have completed the pilot pipeline program and ensure that candidates are matched with suitable entry-level positions that align with their skills and career aspirations. The

Direct partnerships between production companies and studios will involve creating agreements where production companies and studios commit to hiring a certain percentage of their entry-level workforce from the pipeline program. Additionally, these companies can provide feedback on the skills and qualifications they are looking for, allowing the program to tailor its training to meet industry needs.

## Alignment with State Strategies

The Video Production and Distribution Sector strategies are in alignment with the priorities of California Climate Adaptation Strategy, particularly to "partner & collaborate to leverage resources" and "make decisions based upon the best available Climate Science," and with the California Climate Scoping Plan as it relates to "utilizing cost effective solutions to minimize greenhouse gas emissions." These priorities are achieved as productions source the use of hybrid and electric vehicles to transport crew and equipment to locations, eliminate the use of single use plastic for craft services and meals, properly recycle or dispose of waste including construction materials, donate unused food to local community organizations, and minimize greenhouse gas emissions by filming local to Los Angeles County and minimizing vehicle miles traveled.

## Strategy Implementation

The development of the sector going into the next stage of California Jobs First will require the following implementation plans:

- A film cooperative program requires a public-private partnership with a mix of lenders, investors, and philanthropic funders. These partners will provide the necessary capital to establish a robust fund capable of supporting a wide range of independent film and TV projects. The program can be created through a public-private partnership involving wealthy donors (who would benefit from tax deductions), philanthropic organizations (which would receive an administrative fee), and local government (which would see positive impacts on workforce development, local sales, and income tax revenue). Importantly, this consortium of donors would have no editorial control over the projects, ensuring that creative integrity remains with the

filmmakers. To implement this, we'll need to identify and appoint a Fiscal Sponsor to manage the receipt and disbursement of funds transparently and efficiently to independent producers. This approach will create thousands of jobs across Los Angeles, keeping the economic benefits within the community.

- Implementing the pilot pipeline program requires partnering with organizations that are already providing soft skills training to disadvantaged communities, such as Black Hollywood Education & Resource Center. This collaboration will enhance the effectiveness of these programs by directly linking trained candidates to entry-level positions at studios and production companies. Regularly assessing the effectiveness of the pipeline program can be used to continuously improve the program, ensuring it meets the evolving needs of the industry. By actively addressing recruitment challenges and skill gaps identified by production companies and studios, the program can position itself as a valuable resource for addressing talent shortages in the industry. Additionally, by actively

addressing recruitment challenges and skill gaps identified by production companies and studios, the program can position itself as a valuable resource for addressing talent shortages in the industry.

- Establishing an incubator program for emerging diverse producers will involve partnerships with lenders, investors, and existing leadership development incubators. These entities can provide both the financial resources and the skills training necessary to build sustainable businesses. It also requires connecting local CBOs with these new production service companies, ensuring they have access to a trained and ready workforce. By fostering these connections, the incubator will help ensure that the new businesses are well-supported and capable of thriving in the competitive film and TV industry.

This multi-faceted approach ensures that the sector is creating sustainable job opportunities, supporting local businesses, and fostering economic growth within Los Angeles, particularly in underserved communities.

# **Sector-Neutral and Economic Mobility Strategies**

**REGIONAL REPORT • PART 2**





## Sector-neutral Strategies

To meet the California Jobs First goals, the LA County Jobs First Collaborative proposes the following sector-neutral strategies:

### 1. Enhance the Small Business and Entrepreneurship Ecosystem

- a. Remove barriers to entrepreneurship by increasing access to capital
  - i. Explore community ownership models, such as Community Resource and Development Corporations (CRCs) and partnerships, as ways to engage local communities in managing cooperative businesses.
  - ii. Support business retention, ensure job stability, and offer long-term economic benefits through employee empowerment and shared ownership.
  - iii. Support business modernization and sustainability upgrades that will increase business competitiveness through investments sourced from various public and private entities.
  - iv. Reduce the financial strain on the State's budget by encouraging private investment and fostering collaboration between the community and financial stakeholders to maintain local businesses and jobs.
- b. Enhance strategies to strengthen the knowledge, contracting capacity and technical capabilities of diverse, underutilized and underrepresented small businesses.
  - i. Provide technical assistance to local businesses, nonprofits, social enterprises to access contracting opportunities with local government and corporate entities to increase small business participation and expand their supply chains.
  - ii. Provide support to organizations that provide low to no cost digital platforms for businesses and organizations to apply for government contracts.
- c. Encourage new business creation and expansion of existing businesses that are aligned to the industry clusters with the highest growth potential.
- d. Grow Los Angeles County's Small Nonprofit Ecosystem by helping small, mid-sized and BIPOC-led nonprofits build capacity to contribute to a thriving economy.

## 2. Build and Align Career Pathways

- a. Improve education and workforce training opportunities that support career pathways to high-road jobs.
  - i. Create onramps to high-road jobs through alignment between businesses and educational/training institutions for individuals with less than a two-year degree and limited work experience.
  - ii. Create new and enhanced career pathways with paid internships, apprenticeships and on-the-job training opportunities. Offering internships to give students and job seekers practical experience in the workplace.
  - iii. Increase upskilling to job-seekers by connecting them with career panels, mock interviews, 1:1 mentoring, job site visits, project-based learning, portfolio building, internships and paid work experience.
  - iv. Develop mentorship programs that connect students and job seekers with experienced professionals to provide guidance and support throughout their career journey.
  - v. Create job placement programs that prioritize hiring from within the community.
  - vi. Replicate and scale existing successful workforce development programs
  - vii. Establish and fund vocational training programs that offer hands-on experience and certification.
  - viii. Ensure apprenticeship models embed racial and gender equity practices and policies at their core, meeting individuals where they are — with dignity and care — and supporting them throughout their entire apprenticeship journey.
  - ix. Develop transfer programs that facilitate seamless transitions from community colleges to universities supports continuous educational advancement.
- x. Build a talent pipeline to meet the specific workforce needs of local small business employers.
- xi. Offer tax incentives, grants, or subsidies to businesses that implement training programs.
- xii. Partner with key industry leaders across sectors to help develop sector-specific training programs that are aligned with current industry needs and standards.
- b. Conduct outreach in disinvested communities to promote education and training programs that lead to high-road career pathways for prospective workers.
  - i. Increased access to information at different levels of schooling by collaborating with schools at all levels, from elementary to community colleges, helps establish robust pipeline programs that guide students toward careers in various sectors from an early age.
  - ii. Engage local community-based organizations to conduct outreach and communications in their communities.
  - iii. Launch public awareness campaigns to promote the benefits of on-the-job training.
  - iv. Connect monolingual speakers to ESL resources in the community, and encourage the use of Language Lines and hiring multilingual staff.
  - v. Facilitate partnerships with community-based organizations that serve non-English speaking populations.
- c. Provide additional support services for people from disinvested communities to overcome barriers to gaining employment.
  - i. Partner with local, community-based organizations to offer workshops on resume building, interview preparation, and job

- readiness skills directly prepares individuals for the healthcare workforce.
- ii. Provide wrap-around services such as equitable access to transportation, childcare and healthcare.
- iii. Establish a soft skill focused professional leadership development program to help navigate social and professional situations, develop active listening and networking skills, public speaking, conflict resolution tools, time management and social etiquette.
- iv. Provide training programs to develop financial literacy, math, computer and language skills targeting demographic groups such as seniors, individuals re-entering the workforce, homeless, veterans, and underemployed adults.
- v. Address geographic equity through mobile training programs that can travel from place to place to increase accessibility for people without access to transportation.
- vi. Recruit from disinvested communities by building a talent pipeline to meet the specific workforce needs of local small business employers.
- vii. Offer ongoing support and mentorship to help new hires succeed and advance in their careers including pre-program, program and post-program support.
- d. Create collaborative hubs that bring together stakeholders within specific industries, such as employers, higher education institutions, nonprofits, employees/unions, etc.

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### 3. Transition industries into the carbon-neutral economy

- a. Grow environmentally responsible industries by supporting small businesses and social innovation ventures dedicated to community resilience.
- b. Develop training programs that equip residents with the skills needed for emerging jobs in the green economy in renewable energy, sustainable agriculture, and green construction, ensuring that these programs are accessible to those from disadvantaged communities.
- c. Engage local communities in the decision-making process, ensuring that climate-forward initiatives are not only designed with their input but also led by them.
- d. Encourage the growth of small businesses that prioritize sustainability and help them thrive in a green economy through grants, incentives, and technical assistance.
- e. Stimulate creation of community or resident owned cooperatives that can deliver economic and/or clean energy benefits to disinvested communities.
- f. Invest in green infrastructure projects, such as public transportation, renewable energy installations, and energy-efficient buildings, that will support the transition to a carbon-neutral economy and benefit local communities, particularly those that have been historically underinvested.
- g. Work towards the "greening" of many industry sectors that are not traditionally considered sustainable.
- h. Build awareness on existing and developing policies about carbon-neutrality goals.
- i. Employers providing internships, apprenticeships, and training opportunities

should be encouraged or incentivized to adopt sustainable practices within their operations.

- j. Professional leadership development programs can include sustainability as a core value, teaching emerging leaders the importance of integrating environmental considerations into their decision-making processes.
- k. Promote the use of public transportation or providing access to childcare centers with green certifications.
- l. Provide ongoing support and mentorship for new hires that includes guidance on how to integrate sustainability into their roles, whether through energy conservation practices, waste reduction, or other green initiatives.

**The implementation of the strategies all require significant investment from diverse sources, and will be determined as we enter the Catalyst phase.** The Collaborative will be responsible for the management and governance, and as such will engage in robust evaluation to track outcomes. The Steering Committee's proposed establishment of an Accountability and Impact Subcommittee of the Steering Committee will monitor impact and outcomes arising from dollars allocated to Catalyst, Implementation and related or leveraged project funds on disinvested communities. The outcomes of these initiatives should be meticulously measured, reported, and verified (MRV), with key metrics including jobs created and preserved, and the mitigation of risks associated with climate change impacts in underserved, underinvested communities most affected by these changes.



# Strategy 1: Enhance the Small Business and Entrepreneurship Ecosystem

As detailed in the **Regional Summary** in Part 1 of our report, the perceptions of community stakeholders in Los Angeles County regarding obstacles to entrepreneurship reveal critical insights into the economic landscape and potential barriers to business development. The survey data gathered by CVL Economics, representing the views of 800 individuals, highlight several challenges and opportunities. A significant 37% of community members surveyed identified excessively high local tax rates as one of the top three barriers to entrepreneurship, which suggests a substantial economic challenge. High taxation can deter new startups and hinder the growth of existing businesses, potentially stymieing innovation, and economic diversification in the region. Similarly, 38% cite excessively high state tax rates, reinforcing concerns over the tax burden in California. This high state tax can impact the financial planning of entrepreneurs and the feasibility of business operations, potentially driving businesses to more tax-friendly environments. The lack of small business development resources is seen as a major obstacle by 35% of members of the community. This underscores a need for more support mechanisms like business incubators, mentorship programs, and technical assistance centers that could facilitate business start-ups, growth, and innovation. Access to capital is also a hurdle for 24% of community members, pointing to an opportunity for financial institutions and investors to play a more active role in supporting local entrepreneurs. Improved access to loans, venture

capital, and grants could stimulate business creation and expansion.

Additionally, licensing costs and delays are a top concern for 25% of individuals, indicating that bureaucratic processes may be hindering the entrepreneurial ecosystem. Simplifying licensing procedures and other compliance mechanisms could foster a more business-friendly environment. Inadequate public safety and overburdensome regulations are highlighted by 17% and 23% of the community participants, respectively. These issues suggest that improving public safety and streamlining regulatory processes could not only boost business confidence but also make the county a more attractive location for entrepreneurs.

According to a 2020 report by Next Street and Common Future, disparities in small business ownership and size in LA County persist for people of color. While Black and Latino/a residents make up 8% and 49% of the population, respectively, they only own 2% and 11% of all employer small businesses; furthermore, Black-, Asian-, and Latino/a-owned businesses employ fewer employees and generate less revenue than White-owned businesses.<sup>1</sup> There has been a historic unmet demand of \$60 billion in capital for small businesses in LA County annually, with pronounced gaps of traditional and alternative lending in neighborhoods — such as South and Central LA — with high concentrations of Black and Latino/a residents.<sup>2</sup>

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1 U.S. Census Survey of Business Owners and Self Employed Persons (2012)

2 Freedom of Information Act (FOIA) to the Small Business Administration; CDFI Fund; PwC / CB Insights MoneyTree Report; U.S.

The LA County small business ecosystem lacks the coordination needed to best serve the county's small businesses. There is no central coordinator or resource to help small businesses navigate offerings from business support organizations, capital providers, anchor institutions, philanthropy, and other stakeholders. As a result, small businesses spend valuable time and resources to access the support they need, and ecosystem stakeholders are less effective in working together to support entrepreneurs.

In response to these challenges, the findings also underscore the necessity for streamlined regulatory processes to reduce the operational burdens/costs on businesses. The dialogue among business leaders leans heavily on the potential of public-private partnerships to foster innovative workforce development solutions. There is a unified call for increased support for small businesses, recognizing them as crucial to the economic fabric of the region and pivotal in enhancing their competitive edge in attracting and retaining talent.

In many cases, seed capital, which is the initial funding needed to launch a startup, typically comes from an entrepreneur's personal network—commonly referred to as “funding from friends and family.” However, this model presents significant challenges for entrepreneurs from underrepresented or economically disadvantaged backgrounds who may not have access to a network of friends and family with the financial means to provide such capital.

This lack of accessible seed funding creates a substantial barrier to entry, as many traditional lending institutions and grant programs require startups to have been in operation for a minimum of two years and to have a proven sales track record. This requirement creates a catch-22: startups cannot demonstrate sales without the capital needed to launch, and they cannot obtain the necessary capital without first demonstrating sales.

To address this gap, there is a need for more inclusive funding mechanisms that consider the unique challenges faced by these entrepreneurs. However,

to prevent potential abuse of such systems, several control measures should be implemented. For example, before providing seed capital, it is essential to verify that the entrepreneur is creditworthy. This could involve assessing the borrower's personal credit history or providing financial education to improve creditworthiness.

Additionally, securing letters of intent from potential clients or buyers can be a valuable strategy to increase the likelihood of the startup's success. These letters demonstrate market interest and commitment, making it easier for the startup to gain further financial support and traction in its early stages.

Once the seed capital is secured, it is equally important to provide ongoing support to the entrepreneur. This includes offering technical assistance, helping to build a skilled workforce, and providing guidance on navigating regulatory constraints. By creating a robust support system, we can foster a thriving small business and entrepreneurship ecosystem that is inclusive and sustainable, allowing more entrepreneurs to succeed regardless of their background.

### Regional Assets

- Economic development agency partners all contribute a wealth of expertise to effectively develop the plan for California Jobs First. These include The Center by Lendistry, San Gabriel Valley Economic Partnership (SGVEP), Antelope Valley Economic Development and Growth (AV-EDGE), Coalition for Responsible Community Development (CRCD), Inclusive Action for the City, Business Resource Group CDC, and Vermont Slauson Economic Development Corporation (VSEDC). Their multifaceted capabilities encompass supporting the growth of small businesses through enhanced access to capital, participating in political and community-driven advocacy, facilitating and implementing impactful workforce development initiatives, cultivating a business-friendly climate, and ensuring the success of businesses. Furthermore, these agencies play a pivotal role in

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Census County Business Patterns; U.S. Survey of Non-Employer Statistics; U.S. Annual Survey of Entrepreneurs; Federal Reserve Small Business Credit Survey



fostering connections between cities, companies, and organizations, with a dedicated focus on ensuring that disinvested and underserved populations receive the necessary resources to thrive, thereby fostering equity and leveling the playing field.

- The network of small business technical assistance centers, including Small Business Development Centers, Women's Business Centers, Veteran Business Outreach Centers, APEX Accelerators, California Manufacturing Partnership, Minority Business Development Centers, Chambers of Commerce and other business assistance nonprofit organizations
- Both the California Financial Development Corporations' (FDCs) and the California Treasurers' CalCap Programs offer loan guarantees, direct loans and collateral support for small businesses that experience capital access barriers. There are two FDCs and eight CalCap lenders that serve the Los Angeles region, including PCR Business Finance and the Small Business Development Corporation of Orange County, while Inclusive Action, Ampac Business Capital, United Business Bank and five others are CalCap lenders.
- [L.A. County Economic Development Corporation](#)
- [L.A. County Office of Small Business](#)
- The Center for Nonprofit Management, which works to represent and build the capacity of the region's nonprofit sector through technical assistance, advocacy, movement building, and access to grants.

## Increasing Economic Diversification and Resilience

The Los Angeles Jobs First Collaborative sector-neutral strategy will play a pivotal role in increasing economic diversification and resilience by aligning with revenue opportunities across various sectors, identifying existing opportunities within these sectors, fostering collaboration between the Collaborative partners, and encouraging the participation of smaller nonprofits. Long term, the Collaborative will encourage collaboration between public entities, private companies, and nonprofits that can lead to the creation of joint ventures or funding initiatives that support job creation and economic growth in targeted

sectors. These partnerships will help pool resources for the eventual large-scale projects that contribute to economic resilience in the region. And, encouraging the growth of a diverse range of industries, from biotech to green jobs, reduces the region's economic dependence on any single sector. This diversity makes the local economy more resilient to downturns in specific industries.

## Alignment with Job Quality & Access, Equity and Climate

### Job Quality

A direct byproduct of the proposed strategies is improving access to quality jobs. By **increasing access to capital**, entrepreneurs from disinvested communities are given the financial resources needed to start and grow businesses. As businesses expand, they create more jobs and can offer better wages, benefits, and job stability. This directly leads to the creation of quality jobs, as these growing businesses need to hire more employees to meet increased demand.

Many entrepreneurs in disinvested communities may lack the expertise needed to navigate the complexities of starting and running a business. **Technical assistance** plays a vital role by helping entrepreneurs navigate complex regulatory environments, ensuring their businesses operate efficiently and legally. This support reduces the risk of business failure and creates a more stable job market, as businesses that comply with regulations are more likely to thrive and grow, creating a ripple effect of employment opportunities. Securing these contracts often requires businesses to scale their operations, leading to increased hiring and better job quality as businesses stabilize and expand. Contract work frequently brings in stable revenue streams, allowing small businesses to offer more reliable employment, benefits, and career growth opportunities to their workers.

Additionally, small businesses and nonprofits in disinvested communities often struggle to compete for contracts with government and corporate entities due to a lack of knowledge and resources. By helping small businesses and social enterprises in disinvested communities access contracting opportunities, these businesses can expand their supply chains



and tap into larger markets. This not only drives local economic growth but also builds resilience by diversifying income sources. By providing targeted technical assistance, organizations can learn how to navigate the contracting process, meet requirements, and successfully bid for opportunities.

Small and BIPOC-led nonprofits often provide services like job training and business support, which directly contribute to increasing access to quality jobs. As these nonprofits grow, they not only provide more services to the community but also hire additional staff, creating further employment opportunities in sectors that are critical to economic stability and growth.

**Supporting workforce development** ensures that businesses have access to a pool of skilled workers who can meet the demands of modern industries. This improves business productivity while giving workers the chance to **secure well-paying jobs** with specialized skills, further enhancing **job quality** through training and upskilling opportunities that lead to career advancement.

Encouraging small businesses to participate in **larger supply chains** diversifies and strengthens the local economy. As these businesses grow within supply chains, they create more jobs and provide **upward mobility** for employees, who can advance into higher roles within the expanding business structure. Focusing on industries with the **highest growth potential** ensures that new and expanding businesses are concentrated in sectors likely to offer sustainable, high-quality jobs. These industries—such as technology, healthcare, and green energy—often provide better wages, benefits, and opportunities for career advancement, ensuring long-term **job quality** and stability.

## Equity

The strategy aims to foster **community participation** by involving residents and local stakeholders in an ownership structure, empowering them to have a direct role in the operation of cooperatives. With experienced management teams guiding the operation, these locally owned businesses are set up to succeed, promoting **economic empowerment, resource sharing, and collective decision-making** in underserved communities. This creates a strong

foundation for sustainable, high-quality employment by rooting businesses in local needs and ownership.

Many small business opportunities have low barriers to entry, offer flexible work schedules for people with child care and elderly care responsibilities, and allow people to be their own boss. Entrepreneurship provides a pathway to financial independence and wealth-generation, especially for individuals who face historic barriers to employment and prejudice in the workplace. Supporting new business creation in disinvested communities in industries with high growth potential ensures that disinvested communities are not left behind in economic development. Increasing access to capital, whether through loans, grants, or investment opportunities, helps individuals and businesses in these communities to start and grow their enterprises, leading to job creation and economic stability. By aligning with these industries, new and existing businesses can benefit from rising demand, technological advancements, and investment, leading to sustained economic growth. This also fosters innovation and entrepreneurship, which can lead to the development of products and services that meet the specific needs of these communities, creating a positive feedback loop of growth and development.

By targeting heavily industrialized, environmentally impacted, or polluted regions that have suffered from generations of disinvestment, the strategy seeks not only to foster economic growth but also to deliver environmental benefits. This dual focus ensures that economic development is coupled with efforts to improve environmental quality in communities that have been overlooked. Furthermore, the strategy emphasizes the importance of geographic equity, ensuring that disinvested communities have a seat at the table.

Smaller nonprofits often have deep connections within the communities they serve and can be instrumental in reaching underserved populations. Small and BIPOC-led nonprofits often operate with limited resources and face unique challenges. Strengthening the nonprofit ecosystem in disinvested communities ensures that these organizations can continue to provide essential services, create jobs, and foster social cohesion. Offering **technical assistance**, such as business planning, legal advice, and marketing strategies, and grant writing for nonprofits ensures

they are equipped to handle larger projects or collaborate effectively with larger organizations. This not only enhances their impact but also ensures a more inclusive approach to economic diversification efforts. By helping these organizations build capacity, they can more effectively serve their communities, advocate for their needs, and contribute to a thriving local economy.

## Climate

Encouraging the creation and expansion of businesses aligned with industry clusters that have high growth potential, particularly in green sectors like clean energy, sustainable transportation, and environmental technology, directly supports climate action. These businesses not only drive economic growth but also contribute to reducing carbon emissions and promoting environmental stewardship. New businesses in climate-focused industries can bring innovative solutions to market, such as new energy-efficient technologies, sustainable products, or services that mitigate climate impacts. By fostering these businesses, the strategy helps address both the economic and environmental challenges posed by climate change.

Increasing access to resources such as capital and technical assistance can help small businesses invest in sustainable technologies, reduce their carbon footprint, and adopt green practices. This includes supporting startups that develop renewable energy technologies, sustainable products, or eco-friendly services. By doing so, the strategy directly supports the growth of businesses that contribute to climate mitigation and adaptation efforts. Assistance in navigating regulatory constraints can help businesses implement energy-efficient practices and innovate in areas like waste reduction, water conservation, and sustainable sourcing. This helps reduce the environmental impact of small businesses and aligns their operations with climate-friendly standards.

Providing technical assistance to businesses, nonprofits, and social enterprises to access contracting opportunities can incentivize the adoption of sustainable practices. For instance, businesses that secure government contracts might be encouraged or required to meet specific environmental standards, such as reducing greenhouse gas emissions or

sourcing materials sustainably. This helps create a supply chain that supports climate resilience. Encouraging small businesses to participate in contracting opportunities, especially in sectors with high growth potential like renewable energy, green construction, and sustainable agriculture, aligns with the need to transition to a low-carbon economy. By building capacity in these industries, the strategy supports job creation while addressing climate change.

Helping small and BIPOC-led nonprofits build capacity can also include supporting organizations focused on environmental justice, conservation, and climate resilience. These nonprofits play a crucial role in advocating for and implementing community-based climate solutions, particularly in disinvested areas that are often the most vulnerable to climate impacts. Strengthening the nonprofit ecosystem enables these organizations to engage more effectively in climate action, whether through education, advocacy, or direct environmental projects. This contributes to building more resilient communities that are better equipped to handle the effects of climate change.

## Workforce Development

As government contracts become more accessible, small and emerging businesses will be incentivized to invest in training and upskilling their employees to meet the demands of larger contracts. And, as new businesses emerge and existing ones expand, there is a continuous need for innovation and adaptation. This drives the need for ongoing workforce training and development, ensuring that workers are equipped with the skills necessary to thrive in a rapidly changing economy.

## Alignment with State Strategies

The outlined strategies aim to limit the environmental impacts of economic development activities by prioritizing projects that align with California's green infrastructure goals and address greenhouse gas (GHG) emissions.



## Strategy 2: Build and Align Career Pathways

The **Labor Market Analysis** presented in Part 1 of our report showed that growing workforce needs may be constrained by labor supply. In the longer run, declining participation, changing workforce needs, and an aging population may fundamentally shift the economy and require adjustments to current health, safety net, and education policies. Los Angeles County, in comparison with similar markets, has low labor force participation rates and high unemployment rates. Race, age, gender, marital status, disability status, nativity, educational attainment and number of children all play a role in the labor force participation rates among Los Angeles County residents.

As Los Angeles County is aging and declining in population the low labor force participation rate is a serious threat to Los Angeles County's economic health. However, it also presents an opportunity for employers to provide apprenticeship programs, bringing more residents into the labor force. When employers are engaged with job training and upskilling programs, such as apprenticeships, this can lead to better economic outcomes for workers. As the green economy becomes a larger part of the region's economy, employer/trainer relationships can be critical to filling roles in occupations such as solar panel installers, turbine technicians and sustainable design specialists.

Examining the growth of wages reveals that in the top 25 LA County occupations, only four corresponded to a high school graduate education, and none corresponded to less than high school. For those with less than a high school diploma the highest wage growth occurred in health care office and

administrative positions, which grew at a rate of 54% to around \$38,000. This still leaves these residents at the lower end of the distribution, suggesting that upskilling remains an essential tool for raising incomes and improving quality of life.

Los Angeles County's recovery progress has been slower than other large Metro areas due to a lack of qualified labor supply. Although there is sufficient labor demand in Los Angeles, as evidenced by a high number of job postings and job openings, many of these jobs are not being filled because of employment barriers, such as a lack of education and skills in the workforce, exorbitantly high housing costs, and insufficient childcare affordability. According to the California Department of Finance, almost 300,000 Los Angeles residents have left the region since 2019, and more than half of that number was from the city of Los Angeles. A leading reason for the exodus was affordable housing.

Key barriers to labor force participation for people of prime working age include affordable childcare, discrimination by age, gender, and/or race, lack of well-paying work, past criminal justice history, poor health and disability, mismatch between the potential worker's skills and education levels and those demanded in the labor market, lack of relevant training, and lower educational attainment. A result of the COVID-19 pandemic was social isolation, which has made it difficult for individuals to develop strong social and communal bonds, which are essential for emotional well-being and community cohesion. As society has become more dependent on technology for communication and daily activities,

many individuals, especially younger generations, are less prepared to navigate professional and social environments effectively. The lack of face-to-face interactions and the overreliance on digital communication tools have created challenges in building and maintaining meaningful relationships, as well as in adapting to traditional work and social settings. The existence of these barriers—by education, gender, household structure, nativity, etc.—constitute ripe opportunities for policymakers to address ongoing aggregate labor supply issues by focusing on barriers to individual participation.

By implementing policy reforms and initiatives that tackle systemic challenges, such as inadequate public transit and housing shortages, we can expect to see improvements in job accessibility for individuals from low-income and underserved communities. Prioritizing underserved areas by advocating for new educational programs and improved transit is vital for ensuring equitable access.

### Regional Assets

- **The Los Angeles County Workforce Development Board** provides policy and oversight to the second largest **Local Workforce Development Area (LWDA)** in California, which serves approximately 4 million residents, 57 of the 88 cities, and approximately 150 unincorporated communities within Los Angeles County.
- The **Department of Economic Opportunity (DEO)** is LA County's central economic and workforce development hub helping residents connect to new career pathways, start and certify a business, and access life-changing opportunities. DEO works to advance equity and inclusive, sustainable growth through all DEO programs and services by targeting economic benefits to the most vulnerable and marginalized communities, small businesses and residents in LA County. DEO provides Workforce Innovation and Opportunity Act (WIOA) Title I Adult and Dislocated Worker program, WIOA Title I Youth program and Rapid Response program services.
- **Los Angeles City Economic Workforce Development Department (EWDD)** provides a broad range of programs that offer assistance in the areas of business support, employment and youth development. All programs are designed to grow and improve Los Angeles' economy while building

a well-trained and job-ready workforce.

- LA County's 19 **America's Job Centers of California (AJCC)**. The AJCCs offer no-cost workforce services to businesses, non-profits, micro-and social enterprises. AJCC job developers and Business Services Representatives (BSRs) can help organizations gain a competitive edge by helping source, recruit and hire talent while also helping tap into workforce financial incentives such as subsidized wages.

## Alignment with Job Quality & Access, Equity and Climate

### Job Quality

- Prioritizing local hiring means that the economic benefits of these jobs—such as increased income and job stability—stay within the community, contributing to overall economic development and reducing unemployment rates in areas that have historically been overlooked. When jobs are sourced locally, the ripple effects include increased local spending, which supports small businesses and services within the community. This creates a positive feedback loop where the community's economic health improves, leading to further job creation and business opportunities.
- Mentorship programs can provide critical support in navigating workplace challenges, developing professional skills, and setting career goals. This can lead to increased job satisfaction, higher productivity, and long-term career growth, which are all indicators of improved job quality. Continuous support helps to reduce turnover by addressing common challenges that new hires may face, such as adjusting to new work environments or understanding industry-specific expectations. Lower turnover rates benefit both employers and employees by creating a more stable workforce and providing workers with greater job security.
- By embedding ongoing education and skill development into job placement programs, these strategies foster a culture of lifelong learning within the community. This culture is essential for adapting to the rapidly changing demands of the economy, ensuring that workers remain competitive and resilient in the face of technological advancements and industry shifts.

Partnering with L.A. County's college and university ecosystem to create specialized curriculum and training programs will ensure a steady pipeline of qualified professionals to meet industry demands. By collaborating with industry leaders and economic development experts, the Collaborative can identify key skill gaps and employment opportunities, while also creating career pathways through paid internships and on-the-job training that provide practical experience and income. These strategies help address systemic barriers that have historically prevented residents of disinvested communities from accessing quality jobs. By providing targeted job placement programs and mentorship, the approach removes barriers such as lack of industry connections, limited access to training, and insufficient professional support. This leads to a more inclusive workforce where opportunities are distributed more equitably.

Increasing awareness of these opportunities through outreach in disinvested communities helps build a training pipeline that meets the workforce needs of local small businesses. The Collaborative aims to leverage a multitude of resources to ensure that community members have myriad ways to access information necessary to achieve their career goals. This includes:

- **Online Platforms and Job Boards**
  - Indeed, LinkedIn, USA Jobs, Monster, and Intuit, etc.
  - Freelance and gig platforms such as Upwork, Freelancer, and Fiverr, etc.
  - Specialized online platforms tailored to specific community needs
- **Professional Associations, Industry-Specific Organizations and Nonprofit Organizations:** **workforce** development agencies, community centers, and resource centers (Black Business Association, Los Angeles Cleantech Incubator, Goodwill Organization, and Boys & Girls Clubs of America; Mentor For Change, Women in Film, Film Independent, and Visual Communications, etc.)
- **Social media** (Facebook, LinkedIn, Instagram) and Digital Communication platforms for job searching and networking; email alerts and digital notifications for information dissemination.

- **Workforce Development Centers** like AJCC (America's Job Center of California) and EDD (Employment Development Department) offer job training programs, career counseling, and connections to employers.
- **Government and Public Institutions:**
  - City, county, and state job portals and local government agencies.
  - Libraries, recreation & community centers, and housing authorities.
  - Programs like SNAP CalWorks and other public assistance initiatives.
  - YouthBuild, Workforce Development Agencies
- **Education and Training Institutions:**
  - Universities, community colleges, and technical schools
  - Career centers and alumni networks within educational institutions
- **Job Fairs**, career expos, and community events providing direct engagement with employers and recruiters.
- **Traditional Media and Advertisements:**
  - Newspapers, radio, TV, and street posters used to learn about job opportunities and industry trends.
  - Community gatherings, social media, and word of mouth
- **Specialized Programs and Initiatives:**
  - Programs targeted at specific demographics such as youth, reentry individuals, and those with disabilities.
- **Recruitment and Staffing Agencies:**
  - Job recruiters and staffing agencies assisting in finding job opportunities.
  - Organizations like Goodwill Industries and specific programs like PESA.

The LA County Jobs First Collaborative remains committed to the principles of the US Department of Labor's Good Jobs Initiative (see Page X in Regional Plan Part 1). The tenets of this approach include recruitment, hiring, and workplace culture emphasizes equity, inclusion, and fairness across all levels. Qualified applicants, particularly from underserved communities, are actively recruited and evaluated

based on relevant skills, minimizing unnecessary educational and experience requirements. Workers receive family-sustaining benefits, such as health insurance and paid leave, and are empowered to use these benefits. Diversity, equity, inclusion, and accessibility (DEIA) are core values, ensuring all workers have equal opportunity and face no systemic barriers. Workers are encouraged to join unions, engage in decision-making, and work in safe, healthy environments with job security and predictable schedules. Transparent and equitable pay practices ensure workers earn a living wage, while career advancement opportunities and training are available to help workers progress in their careers. Organizational culture fosters belonging, respect, and meaningful contributions from all workers, promoting an inclusive and supportive environment.

### Equity

This strategy addresses equity by creating inclusive education and workforce training opportunities that provide career pathways to high-road jobs for individuals from disinvested communities and those with limited education or work experience. Ensuring accessible entry points for those with limited education or experience, and embedding apprentices' voices in program design, fosters accountability and a culture of belonging. It emphasizes alignment between businesses and educational institutions, offering paid internships, apprenticeships, and job placement programs that prioritize hiring locally, ensuring that individuals from underserved backgrounds have equal access to high-quality jobs.

By offering wrap-around services, such as childcare, transportation, and healthcare, and additional support services like mentoring, financial literacy, and soft skills development, the strategy helps people overcome barriers to employment. Additionally, establishing soft skills-focused professional development programs equips individuals to thrive in diverse work environments, improving both job quality and access.

By engaging community organizations and local employers, the strategy creates collaborative, community-driven solutions to meet workforce needs and promote economic mobility for historically excluded groups. The strategy ensures inclusivity for various constituencies, including those who are

neurodiverse, justice-impacted, re-entry populations, foster care alumni, and other historically marginalized groups. Partnership with multiple stakeholders (regional and local community organizations and nonprofits, community colleges, pre-apprenticeship programs, employers, and others) is critical to amplify worker voice and build worker power by collecting and sharing the needs of apprentices as well as employers, as many of them inform and lead policy and system change efforts to make growing inclusive registered apprenticeship efforts more feasible.

### Climate

The strategy recommends aligning goals related to improving job quality and access with climate impact considerations by incorporating sustainability into workforce development, training, and job placement strategies. With more residents employed in quality jobs within the green economy, communities can better withstand economic shocks and contribute to broader environmental goals, such as reducing carbon footprints and improving local air quality. By aligning job quality efforts with climate considerations, the workforce can be developed in a way that supports both economic advancement and environmental sustainability, particularly for those in disinvested communities.

Training for jobs in renewable energy, energy efficiency, and climate-resilient industries equips individuals for high-quality, sustainable careers. Workforce development in these sectors not only provides pathways to stable employment but also ensures that these jobs support environmental sustainability. Employers can be incentivized to adopt sustainable practices by offering internships, apprenticeships, and training opportunities. Leadership development programs can incorporate sustainability as a core value, encouraging future leaders to integrate environmental considerations into decision-making. Promoting climate-resilient services such as public transportation and green-certified childcare centers helps workers navigate climate impacts, while ongoing mentorship fosters sustainable practices in the workplace, enhancing job quality and contributing to broader climate goals.

## Workforce Development

Facilitating partnerships between educational institutions, industry leaders, community organizations and government agencies will lead to the creation of comprehensive training and job placement programs to increase the growth, diversification, and resilience potential of the strategy. Investing in education, training programs and centers to develop a skilled workforce is also crucial. This will ensure that workforce development programs are adaptable and capable of responding to economic shifts, such as those brought on by technological advancements or global events like pandemics. By focusing on upskilling and reskilling, the workforce remains flexible and capable of transitioning between sectors as needed.

There are hundreds of workforce development training providers in Los Angeles County, ranging from community colleges and technical training programs to federally registered apprenticeships and non-profit training centers. As many of these are members of the LA County Jobs First Collaborative, we have an opportunity to increase communication between them, improve outreach and communication, facilitate partnerships between training providers and community-based organizations to reach disinvested community members, and open more centers in disinvested communities that lack centers, especially in SPAs 1, 2, and 6 South-East and South-West.

These strategies advance workforce development efforts by creating comprehensive support systems that prepare individuals for the job market and foster long-term career growth. Partnering with local, community-based organizations to offer workshops on resume building, interview preparation, and job

readiness equips individuals with practical skills to succeed in the healthcare workforce and other sectors, making them more competitive. Collaborating with schools at all levels establishes robust pipeline programs that guide students toward careers from an early age, while developing transfer programs from community colleges to universities ensures continuous educational advancement and increased qualifications for leadership roles.

Internships and vocational training programs provide hands-on experience and certification, enhancing employability by allowing individuals to apply their skills in real-world settings. Mentorship programs connect students and job seekers with experienced professionals, offering crucial guidance to navigate the complexities of the workplace. Building a talent pipeline that meets the workforce needs of local small businesses, along with creating career pathways through paid internships and on-the-job training, further increases job readiness and opportunities for advancement. Incentives like tax breaks, grants, and subsidies for businesses that implement training programs encourage small and medium-sized enterprises to invest in workforce development. Finally, partnering with industry leaders ensures that training programs are aligned with current industry needs, creating sector-specific training that prepares individuals for relevant, high-demand careers.

## Alignment with State Strategies

The outlined strategies aim to limit the environmental impacts of economic development activities by prioritizing projects that align with California's green infrastructure goals and address greenhouse gas (GHG) emissions.



# Strategy 3: Transition Industries Into the Carbon-neutral Economy



The green economy has steadily grown in importance to both Los Angeles County and the nation's broader economy, with its employment and economic impact reaching record size. Green jobs, which make up the backbone of the green economy, represent jobs that contribute to the process of decarbonizing the economy, ranging from clean energy production to electric vehicle manufacturing to improving home energy efficiency. Many green jobs offer what many manufacturing jobs did in the 20th century: well-paying, stable careers, with most not requiring a college education, and with additional benefits of carbon emissions reduction and mitigation of climate change.

Across all five technological categories tracked by the Department of Energy's United States Energy & Employment Report (USEER), green jobs have grown significantly since 2020. Between 2021-2022, clean energy represented nearly 85% of new electric power generation jobs nationwide, and green jobs represented significant portions of employment gains in electric power transmission and storage, energy efficiency jobs like HVAC, and more than half of motor vehicle and component-related employment. Green jobs are more likely to be union jobs than their conventional counterparts, and many have contributed to an increase in employment diversity relative to the energy industry at large.

Los Angeles County's green economy contributes significantly to county employment. Green jobs account for 27% of the total employment in the county, a rise from 21% in 2012. As evidenced by the current educational makeup of the green workforce, a college degree is not necessary for many jobs in

the green economy. Nevertheless, these jobs could still require technical skills, and therefore technical training, whether through a higher education institution, workforce development, or on-the-job training. O\*Net data reveals that, while individual green occupations may vary in their knowledge and skills requirements, several competencies are common across many careers. Among the competencies rated "important" or "extremely important," the following table illustrates the most common requirements. Knowledge of the English language, critical thinking, and reading comprehension are the most important across all categories and are not displayed for reasons of conciseness.

Climate change has potential to do significant economic harm, and poses worrying tail risks. Climate change will have both direct and indirect effects on many industries and industry clusters in the region. For example, direct climate change effects on the transportation system in Southern California may include infrastructure damage, changes to vehicles, and system use. Indirect effects of climate impacts may change trade flows, land use patterns, transportation energy supply and demand, and the institutions, laws, and policies which shape the transportation system. All of this will have a significant impact on the availability of new jobs in the green economy.

Additionally, climate will impact non-White owned businesses and business owners at a higher rate than White-owned businesses. A recent study conducted by the UCLA Center for Neighborhood Knowledge (CNK) and the UCLA Latino Policy and Politics Institute (LPPI) found that climate has a profound impact on small ethnic owned businesses (EOBs), which are a

vital part of Los Angeles' business sector and form the backbone of our economy.<sup>3</sup>

### Regional Assets

- *Los Angeles Cleantech Incubator's (LACI) Green Jobs Regional Taskforce* informs regional strategies to drive more equitable employment opportunities in Cleantech, Transportation and Smart, Sustainable Cities.<sup>4</sup>
- *West LA College's CA Center for Climate Change* is focused exclusively on climate change solutions, and job creation to meet the demands of the future workforce. West boasts the first and only degree and certificate programs in Climate Change & Environmental Studies among the 116 California community colleges.<sup>5</sup>
- *LACI's Transportation Electrification Partnership (TEP)* is a regional public private collaboration to accelerate deep reductions in climate and air pollution by the time of the 2028 Olympic and Paralympic Games in Los Angeles.<sup>6</sup>
- *Los Angeles Building and Construction Trades Council* is an umbrella group representing 48 local unions and district councils in 14 Trades.<sup>7</sup>

### Increasing Economic Diversification and Resilience

The Los Angeles Jobs First Collaborative sector-neutral strategy will play a pivotal role in increasing economic diversification and resilience by aligning with revenue opportunities across various sectors, identifying existing opportunities within these sectors, fostering collaboration between the Collaborative partners, and encouraging the participation of smaller nonprofits. Long term, we will encourage collaboration between public entities, private companies, and nonprofits that can lead to the creation of joint ventures or funding initiatives that support job creation and economic growth in targeted sectors. These partnerships will help pool resources for the eventual large-scale projects that contribute to economic resilience in the region. And, encouraging the growth of a diverse range of industries, from biotech to green

jobs, reduces the region's economic dependence on any single sector. This diversity makes the local economy more resilient to downturns in specific industries.

### Alignment with Job Quality & Access, Equity and Climate

#### Job Quality

- Developing training programs in renewable energy, sustainable agriculture, and green construction ensures that residents are prepared for high-quality jobs in emerging sectors. These jobs tend to offer competitive wages, job security, and opportunities for growth, making them an important pathway to higher job quality for workers.
- Developing job placement programs tailored specifically to the green economy allows for a more focused approach to meeting the needs of both employers and job seekers. These programs can be designed to match the skills of local workers with the requirements of new green jobs, ensuring a better fit and higher retention rate. Additionally, by involving industry leaders in the development of these programs, the training provided can be more relevant and aligned with current and future industry demands.
- Training programs that equip individuals with green economy skills also improve job quality by ensuring that workers are competent, confident, and prepared to perform well in their roles. Specialized skills in areas like solar panel installation, sustainable farming techniques, or green building design make workers more valuable and employable in the long term.
- Ongoing training and professional development opportunities ensure that workers in disinvested communities are equipped with the skills needed for high-demand green jobs. This not only improves their employability but also ensures that they can take advantage of opportunities for promotion and career advancement as the green economy continues to grow.

3 <https://latino.ucla.edu/research/eob-just-transition/>

4 <https://lincubator.org/wp-content/uploads/LACI-GREEN-JOBS-REPORT.pdf>

5 <https://www.wlac.edu/academics/climate-center>

6 <https://lincubator.org/transportation/>

7 <https://laocbuildingtrades.org/>

- By supporting small businesses and social innovation ventures focused on sustainability, this strategy fosters the development of job opportunities in industries that emphasize responsible business practices. Small businesses that prioritize sustainability tend to offer meaningful work that is aligned with values such as environmental stewardship, further enhancing job satisfaction and quality.
- Grants, incentives, and technical assistance for small businesses that focus on sustainability create more job openings, especially in underserved communities. As these businesses grow, they generate new employment opportunities in areas such as clean energy, sustainable production, and eco-friendly services, making it easier for local residents to find stable, well-paying work.
- Working towards the greening of traditionally non-sustainable industries (such as manufacturing or transportation) can create new opportunities for quality jobs in these sectors. This approach helps to ensure that even industries not typically associated with sustainability can contribute to the green economy, providing disinvested communities with a broader range of job opportunities that are both environmentally and economically sustainable.

## Equity

Engaging local communities in the decision-making process significantly advances equity in job creation within disinvested communities by ensuring that the climate-supporting initiatives meant to benefit these areas are directly informed and shaped by those who live there. Creating local advisory councils or task forces with representatives from diverse community groups ensures that historically marginalized populations are involved in the planning and execution of climate-forward initiatives. This inclusion allows community members to express their needs and priorities, aligning job creation strategies with local economic realities. Engaging communities in leadership roles not only empowers individuals but also fosters a sense of ownership, leading to more sustainable outcomes. Community input helps tailor job creation, training programs, and support services to be culturally relevant and socially sensitive, removing barriers to employment and ensuring inclusivity.

These councils also promote equitable distribution of resources—such as funding, training, and job placements—toward historically underinvested areas, addressing gaps in resource allocation. Involving community members in decision-making enhances accountability, transparency, and trust, ensuring that programs genuinely serve local interests. Community-led climate initiatives foster long-term engagement and program success, while also building resilience in disinvested areas by focusing on local strengths and addressing vulnerabilities. Supporting small businesses and social ventures that emphasize community resilience and environmental responsibility further ensures that the green economy's benefits are felt locally, creating stable, quality jobs that contribute to long-term economic growth.

## Climate

Green infrastructure projects, such as renewable energy installations, energy-efficient buildings, and public transportation, are critical to transitioning to a carbon-neutral economy. By ensuring these projects are implemented in disinvested communities, the strategies create quality jobs in construction, maintenance, and operations. These jobs not only pay well but also contribute to improving the local environment, thereby enhancing the quality of life in these communities. The strategy aligns with other local green economy initiatives, such as the Los Angeles Cleantech Incubator's (LACI) Green Jobs Regional Partnership, which supports the growth of environmentally responsible industries. By supporting small businesses and social innovation ventures dedicated to community resilience, the strategy addresses critical issues like the increasing intensity and frequency of wildfires, floods, heat domes, and the need for clean energy, safe water, and nutritious food. These efforts are essential for developing equitable and healthy communities across the Los Angeles region.

Additionally, by working off established climate goals, the strategy involves identifying gaps in locally available industries and services and actively engaging or attracting businesses that can fill these gaps. This includes industries like electric vehicle (EV) battery recycling and companies that support a circular economy, managing major waste streams such as organic waste and textiles. By focusing on these areas, the strategy ensures that economic

development is not only aligned with environmental sustainability but also contributes to the creation of a resilient, green economy in Los Angeles.

## Workforce Development

The focus on upskilling the workforce is essential for fostering a well-prepared and competitive workforce in the clean and renewable energy sector. In this fast-moving and dynamic environment, the demand for specific skill sets is increasingly critical to meet the industry's evolving needs. Key skills such as management and communication are vital for ensuring that teams operate effectively, engage in constructive feedback, and collaborate efficiently. These interpersonal skills are crucial for leading projects, facilitating teamwork, and driving successful outcomes in a sector that often involves complex, multidisciplinary efforts.

Data management is another essential skill, as it helps inform decision-making processes and optimize operations within the field. The ability to manage, analyze, and interpret data is key to understanding performance metrics, predicting trends, and conducting impact assessments—allowing organizations to make informed choices that enhance efficiency and effectiveness. Software and digital literacy are also increasingly important as technology becomes more integrated into every aspect of the clean and renewable energy industry. Proficiency in relevant software tools not only improves operational workflows but also enables workers to engage with digital platforms that are crucial for data analysis, project management, and communication.

By focusing on these areas of upskilling, workforce development efforts can ensure that employees are equipped with the necessary tools and knowledge to thrive in the clean and renewable energy sector, ultimately contributing to the industry's growth and sustainability.

## Alignment with State Strategies

The strategy is aligned with California's Executive Order No. B-55-18 (creating a state goal to reach greenhouse gas neutrality by 2045 and to maintain net negative greenhouse gas emissions thereafter) coupled with the California Clean Energy Jobs Act (AB 2204) of 2022 (creating high-paying energy efficiency and clean energy jobs in California). These not only

represent a concerted effort to move to a net-zero energy system, but also a statewide climate policy profoundly impacting regional economies and their workforce needs.

## Strategy Implementation:

To implement this strategy, the Collaborative can develop a community of practice of employer partners who have demonstrated commitment to diversify their respective talent pipelines and work with disinvested communities with disinvested community partners or intermediaries to promote the value of green jobs. Through this community of practice, we can continue to foster strong partnerships among employer partners that can help in aligning programs and resources, best practices/lessons learned, as well as reducing duplication of efforts, and enhancing the overall effectiveness of workforce development initiatives. This space can also provide a platform to explore opportunities to leverage additional funding or resources including grants, private sector partnerships, or other funding sources

The Collaborative intends to leverage a wide range of available funding resources for the implementation of these strategies, including:

- Federal, state, local grants (e.g., SBIR, EPA's Solar for All) that can be leveraged for California Jobs First Implementation. These funding sources are essential to sustaining innovative approaches by small enterprises focused on development-stage pilots
- Foundation and other philanthropic instruments (like PRIs and DAFs), impact investment funds, and mission- or domain-directed family offices to support business start-up and expansion activities, especially for social-enterprises
- Federal government contracts, a regenerative source of funding for initiatives
- Loans from CDFIs and the Small Business Administration (SBA)
- Community Reinvestment Act funding
- Outside equity investors
- Opportunity Zones and New Market Tax Credits can be used to layer onto existing projects
- Tax Increment financing districts (TIF)
- Tourism assessment districts that generate funds to promote tourism

# Financial Strategy – Tying It Together



The LA County Jobs First Collaborative contracted with Sustainable Community Development Corporation (SCDC) to examine various Financial Strategies for implementing commercialization strategies for the various Industry Table Leads and subsequent projects. SCDC convened multiple conversations with partners from financial services, philanthropic organizations, governmental entities, industry, and climate neutral investors. SCDC also reviewed the reports from the other seven Table Partner convenings (*Aerospace Manufacturing, Healthcare, Construction, Transportation & Logistics, Clean/Renewable Energy, Video Production & Distribution, and Bioscience.*) The goal was to provide an inventory of assets in our region and provide a road map for Catalyst and Implementation projects for the LA County Jobs First Collaborative through partnerships and structuring strategies to meet the goals of those stakeholders.

The financial structures of the projects to bring sustainable investments to the Regional Investment initiative is our goal. Financial Strategies can be seen through the lens of the types of opportunities we are looking to nurture in our region and how we can efficiently and effectively bring equitable development into underserved communities to align with the California Jobs First goals.

Financial Strategies can be seen through a multitude of lenses. We looked at the continuum of economic activities as *Start Up, Accelerating, and Mature* from the perspective of where opportunities for economic and workforce development originate and where supports can be built around. Each of these stages have a role in the Industry Reports listed above.

**Start Ups:** Start Up businesses are critical to being cutting-edge for any economic region. As the Industry Reports above indicate, many opportunities focus on Start Ups because they are the lowest barrier to entry with the highest upside. In particular, there are strategies in each of the Priority Industries focusing on where the industries are going. Our Collaborative has a well-established pipeline of investors and an ecosystem looking to invest in the next big thing. Unfortunately, Start Up investments have traditionally not focused on underserved communities equitably. Sources of funds nevertheless exist in many areas for Start Ups, and those industries provide a future-looking approach with the right business model. How Start Ups will create scaled employment opportunities will be a critical aspect to be determined in our Catalyst Round. The Collaborative must have an approach to capture the cutting edge for disinvested communities while still ensuring those investments are multiplied with additional sources to ensure a scaled outcome. Start Up organizations, it should be remembered, have the highest risk because of the lack of a base, the lowest immediate employment scaling, but the highest upside.

**Accelerating:** Accelerating businesses within the Collaborative are another area of investment we need to explore to determine their efficacy of employment and economic development outcomes. Accelerated opportunities have to some extent de-risked the pure Start Up, while having a higher capital requirement. Accelerated opportunities can also provide a cutting edge approach to the future while providing some comfort for those investing that outcomes can be better forecasted than a pure Start Up.

**Mature:** Our region has a significant number of mature businesses and industries, which can be seen as a recapitalization opportunity. **Recapitalizations** are where older businesses can be acquired, consolidated, and updated to the modern day. Many of the legacy industries in the Collaborative are at risk of shutting down or leaving Los Angeles, particularly where cost becomes a consideration. As critical as it is to create new businesses, it is also critical to ensure those that are already here, stay here. If there is a transition to occur, updating the equipment, greening the business, and investing in a shifting workforce and community ownership can be a model to recapitalize those existing businesses. Moreover, there are opportunities to shift these mature businesses to a new competitive position with certain preferences and reimagine how the business is operating. Employment can be scaled to these businesses with reasonable expectation of sustainable outcomes since the businesses are already in operation. Risks are the maturation of the businesses and whether there can be a change in the business approach through the recapitalization to reset the *status quo*.

**Community Ownership Model:** Another aspect examined by Financial Strategies is the use of a model to create an equitable recovery from COVID and beyond while also providing a path to creating and sustaining wealth in underinvested communities. Wealth represents not only wages, but *Plant, Property, and Equipment*, assets on which wealth is created and capitalization occurs. To accomplish an equitable recovery, SCDC examined in depth how **Community Ownership** in stewardship could be deployed.

**Community Ownership** allows a community-based nonprofit or multiple nonprofits to own and operate for-profit businesses with the intent of growing the business with a community intent, and to create a thriving ecosystem where funds are invested into the community-based model and all are able to sustain themselves in a dynamic and fluid relationship. Community Ownership, from our research, is a critical path toward the equitable development goals California Jobs First intends to address.

## How It Would Work

Community ownership would work as such: a fund is raised for a community nonprofit organization with

the intent of owning subsidiaries. Funds can come from the various sources we examined depending on the specifics of the opportunity and structure of the opportunity. Subsidiaries would be purchased or started depending on the type of business. Any and all of the below or combination thereof can be applied to the collaborative's California Jobs First efforts and beyond.

### Community Ownership for Start Ups and

**Accelerators:** Incubators and Accelerators are well established, and Community Ownership can be layered onto existing models for California Jobs First-related opportunities. For instance, the Collaborative could establish a nonprofit to incubate *Bioscience* or *Aerospace* opportunities, a fast-growing employment segment as described above. The Community Ownership nonprofit would align and source capital from various sources (philanthropic, investors, SBIC, CDFI, community businesses, government) as well as existing infrastructure combined with LA County initiatives, and nurture the promising technologies from the various academic institutions in the area. The nonprofit can also work with existing and new community-based initiatives to align workforce training, entrepreneurial training, community supports (i.e. childcare), etc. As the portfolio companies grow, the businesses would spin out to workers or other investors while remaining a part of the community it was started in, providing a financial return to the parent nonprofit for future investment in similar opportunities and continuing to support community initiatives, creating a positive "flywheel." Profits from the investments can also be allocated to community development accompanying various CBO-related efforts to support the broader population or targeted groups. The model can apply for *Clean/Renewable Energy* start-ups, *Aerospace*, *Healthcare*, *Video Production and Distribution*, and *Transportation & Logistics* as described above since there are a good many start up opportunities outlined.

### The Business Purchase Model for Community

**Ownership:** The Collaborative could also use a nonprofit to raise capital and purchase existing businesses in an industry at risk of leaving Los Angeles as a "defensive initiative," preserving those entities through a community ownership model. According to the Table Partner Leads, industries at risk can be

found in *Video Production and Distribution* or *Aerospace* businesses for instance, particularly small businesses. Certain businesses in these segments can be recapitalized and spun out to community ownership through an Employee Stock Ownership Plan model or other method to ensure community wealth is created over time. Funds realized from the sale can be reinvested into the community for additional economic generation and supports. Partnerships among social enterprises, government entities, and investors can also take place, leveraging various tax incentives to bring about financing and other forms of development. To enhance the ownership model, a group of multiple businesses can be consolidated, sharing back office and other related functions, with training affiliated with local Community Colleges and other related workplace supports. For instance, such an initiative can be tied to County Department of Economic Opportunity (DEO) America's Job Center of California (AJCC) programs. The workforce training can be sustaining, scaled, and provide a new model for those Colleges to receive funding from a single investment.

**Integrated Industry Model:** Another Community Ownership model is for a nonprofit to be the profit-generating portion of a stimulus project for *Transportation & Logistics* expansion. The project financing can utilize a sustaining tenant and leveraging tax credits like New Market Tax Credits, Opportunity Zones, Low Income Housing Tax Credits or a combination thereof. Co-location of a targeted industry listed above (Start Up or Mature) along the new transit line ensures ridership and rent to sustain for the new project, particularly where the renters can provide a long-term lease. Revenue generated from the property with a sustaining business along the new transit route supplement losses sustained from the new line, providing a new basis to expand a climate-friendly project. Meanwhile, the transit company creates sustainable jobs in the Community and PLAs for *Construction* of the new project. In fact, the above model shows how the various industry sectors can be brought together with a single project. Combining the construction project described above with existing programs, such as the grant awarded to CRCD in our Collaborative, is a good example of how the model can work, whereby the Community Ownership over the commercialization can integrate with successful existing programs as a multiplier.

**Public Private Partnership for Large Scale Efforts as an Intermediary:** One last Community Ownership model allows for the nonprofit to be a Public Private Partnership (P3) collaborative. A P3 can be a way to bring industry and academia and/or community interests to work together and build trust. For instance, where academic goals differ from industrial goals, a nonprofit can be a bridge between the two to allow for a monetization of research while ensuring that research is going to a community-based support instead of merely to shareholders. In the P3 model, large commercial organizations can work together with community groups and potentially small businesses. Community Ownership thus allows for flexible strategies and sector alignment with similar outcomes and the advantage of leveraging financing solutions for the profit and nonprofit sectors and models. As explained, Community Ownership can be applied to multiple projects within each of the key industries identified by the Collaborative and at their various stages of development to ensure a more equitable return and creation of wealth in the communities being targeted.

**Other Models:** Beyond Community Ownership, Financial Strategies examined how revenue sustaining opportunities can be a multiplier, and how such opportunities can support CBOs by making targeted investments and using social enterprises to sustain the missions of all in a community. Where an investment is made to create revenue sustaining opportunities, it was seen that CBOs could break the "grand and report" model that creates a feast and famine lifecycle.

**Commercialization Model:** Many of the Industry Table Leads describe robust job training programs, and we examined how the financial strategies can be employed to scale those efforts. A common goal that SCDC identified was the need to move beyond capacity building and into a sustainment role for CBOs and community initiatives. California Jobs First can be layered onto other efforts around the Collaborative as a commercialization outcome for the investments being made. The CRCD grant described above is an example of where California Jobs First can become the end point (the commercialization) to provide the home for the jobs being created by the Environmental Protection Agency (EPA) grant awarded and described in the *Construction* section.



**Tax Credits and New Market Tax Credits for New**

**Sources of Revenue:** Tax credits are a highly promising area to be considered for how investors can participate in these types of programs, and find new sources of capital that do not exist today. We examined the New Market Tax Credit (NMTC) and how it can be applied to Private Foundation Excise Taxes. Since all private foundations pay taxes on their capital gains earnings, those funds are lost to the IRS. However, with the New Market Tax Credit expiring in 2025 and up for renewal currently, there are discussions in Congress about how to make the credit more dynamic. One idea brought up in a recent hearing is to allow private foundations to use the NMTC as an offset to their excise tax, freeing up new capital to be invested in equity opportunities under the NMTC, which could benefit the LA County California Jobs First collaborative and others in the State. Investments can be made in new or existing businesses and opportunities in qualifying (i.e. disinvested) communities via stock ownership by investors and those investments can qualify as tax credits. Aligning private foundations to invest a whole new pool of capital into community development opportunities like those described here could be a game changer, while not taking away private foundation funds from capacity building, which is where a current focus right now.

**Contextual Size of Opportunity:** For context, if the largest 10 private foundations based in Los Angeles were to pool their excise taxes into NMTCs, they could potentially save \$20 million annually on those funds over the seven years it takes to realize the entirety of the tax credit (\$140 million in total). Those funds would exceed the monies received from the California Jobs First program or larger programs such as the Build Back Better Regional Challenge (BBBRC) program from Economic Development Agency (EDA). The best part is the funds are here and they are available without a bid. Investors, moreover, will get a return on those investments in the community alongside the Community Ownership model if they choose to invest in it, in addition to the NMTC itself. These multipliers and new sources of revenue are critical to thinking about how we can invest in our economic and workforce development, multiplying the base California Jobs First funds.

**Cross Industry and De-Siloed Approach:** Building on the NMTC consideration is whether the collaborative should examine how to get to an integrated model to bring cross-industry solutions such as that described in the scenario above for *Transportation*. Because no single Industry Table exists in a vacuum and many touch on one another (*Transportation, Clean/Renewable Energy, Construction*), many of the training modalities are similar, while the final product differs, it would make sense to have a final Collaborative plan allowing for cross-sector collaboration thus allowing the California Jobs First efforts plug into other similar programs like ARCHES.

**Reimagination of Investment Model- Focus on Sustaining Initiatives for all Organizations in**

**Collaborative:** Many of the new models of grant allocation, where an investment discipline is being included as a factor for award, is something mentioned by various leaders in government and philanthropy as a future direction for economic, workforce, and community development initiatives. Funders want to get to integrated, multi-disciplinary, investment type models to address policy considerations. One of California Jobs First's evolving goals is to provide a basis to bring Collaboratives together to meet the challenges for future stimulus and other related projects throughout the State, divided by region. Where we can work across industries and find integrated solutions, aligning many different parts into multi-faceted solutions, will make the LA Collaborative stronger in future opportunities.

Ultimately, by shifting the burden of CBO funding from the current grant-based model to focusing on how investments can be deployed, it was posited that foundations and government funders can get more bang for their buck because the shift to single investments and support through social enterprises will allow for different, targeted investments, especially in a resource constrained environment.

There are multiple capital stacks and other creative approaches to financing efforts like the California Jobs First model. California Jobs First is an ideal vehicle to engage outside groups about creative approaches to financing and implementing equitable community development.

# Additional Regional and Community Development Strategies



In Los Angeles, housing and transportation remain our region's most intractable challenges. The cost of housing has skyrocketed, affordable housing remains elusive, and homelessness continues to climb. Likewise, the sprawl of LA County has created immense transportation challenges for residents. Housing and transportation remain the two largest hurdles that the region faces when it comes to workforce development. Nearly 85% of all Subregional Table Lead survey respondents cited Transportation or Affordable Housing as key barriers to the improvement of economic conditions in their community. See [Affinity Hub Lead Findings](#) and [Subregional Table Lead Findings](#).

Our region continues to grapple with and seek innovative and collaborative strategies to overcome these frustrating challenges. The Jobs First Collaborative supports existing and ongoing cross-sectoral efforts across LA County to address these two issues.

## Housing

Nearly 15 percent of LA County's population lives at or below the poverty level. Most visibly, more than 75,000 people are homeless.<sup>8</sup> The California Housing Partnership estimates that it would take an additional 568,000 affordable housing units to meet the rental needs of those with lower incomes.

Resources include:

- Los Angeles County Affordable Housing Action Plan
- [LA County Homeless Initiative: Approved Strategies to Combat Homelessness](#)
- 2045 Los Angeles County Climate Action Plan
- LA County 2035 General Plan

- LA County CEDS
- LA Metro Long Range Transportation Plan
- L.A. County Affordable Housing Solutions Agency (LACAHS)

Strategy recommendations:

- Interim Motel Conversion Ordinance: A streamlined process for repurposing underutilized motels and hotels as temporary or supportive housing.
- Permanent Supportive Ordinance: A process for creating permanent supportive housing units.
- Land use policies: Updated land use policies to make it easier to develop housing
- Rent Stabilization Ordinance (RSO): A law that prohibits rent increases for certain rental units from March 30, 2020 to January 31, 2024
- Adapt loan products and planning programs to allow for lower-cost construction of housing such as manufactured units and modular units.
- Identify and implement best practices to preserve and increase the amount of affordable housing proximate to job centers, transit, parks, and open space amenities.
- Build more Transit-Oriented Development.
- Adopt inclusionary housing ordinance that promotes mixed housing ordinance that promotes mixed income housing.
- Implement tenant protection measures to avoid displacement impacts from housing repairs and improvements, including those that are made to meet sustainable design guidelines, correct code violations, or address habitability issues.

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8 [8164 - 2024 Greater Los Angeles Homeless Count Results \(lahsa.org\)](#)

## Transportation

Though Los Angeles County has the 3rd largest transit system in the world with over 1.2 million daily boardings (Metro), and close to 22,000 miles of highways, arterials, and local roadways, its transportation infrastructure has been identified as a key barrier for economic and community development. There are several transit agencies working within the county to reduce travel time, enhance user experience and safety, and increase access and mobility of communities within Los Angeles County. These transit agencies collectively operate over 7,000 buses serving approximately 1.6 million daily bus passengers. In LA County, the primary public transportation agency is the Los Angeles County Metropolitan Transportation Authority (Metro). Other key agencies include Los Angeles County Department of Public Works, City of Los Angeles Department of Transportation, and several local transit agencies.

The 2023 INRIX Analytics Global Traffic Scorecard estimates that Los Angeles has the 4th worst traffic congestion in North America. According to the Metro 2020 Long Range Transportation Plan (LRTP), vehicle hours of delay could be nearly 40% worse by 2047 should Metro not implement the many projects listed in its LRTP. These projects include several initiatives to reduce congestion by investing in the transportation system to offer alternative and more reliable travel options, such as extending the metro rail and bus-rapid transit systems, and adding more miles of carpool lanes. Metro's most recent Congestion Management Program was adopted in 2010 with a goal to address the impact of local growth on the transportation system. The report illuminates the fact that Los Angeles County has a complex travel pattern in which freeways experience congestion in both directions during rush hour as commutes are unlike traditional commute patterns that focus traffic towards the central downtown. In 2017, Metro announced its decision to opt out of the Congestion Management Program and pursue future improvements in the LRTP in a more cost-effective manner. Metro is currently working on its Traffic Reduction Study which is exploring how congestion pricing on key arterials such as the I-5, I-405, and I-101 corridors through the Santa Monica Mountains, surface streets in Downtown Los Angeles, and the I-10 corridor between Downtown LA and the SR-1, could reduce traffic.

**The Metro Vision 2028 Plan** is the agency-wide strategic plan that creates the foundation for transforming mobility in Los Angeles County over the next 10 years. Metro will take steps to accomplish the following:

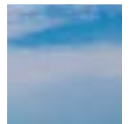
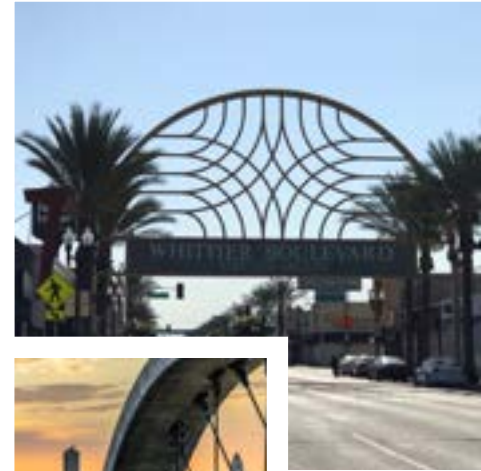
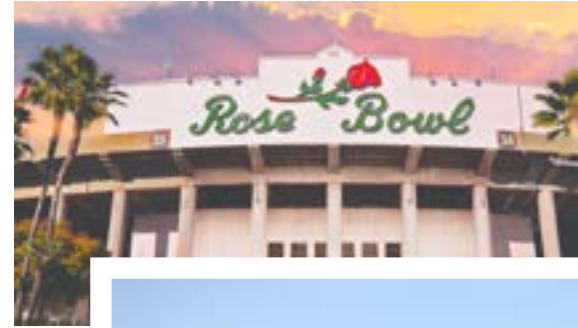
- Ensuring that all County residents have access to high-quality mobility options within a 10-minute walk or roll from home
- Reducing maximum wait times for any trip to 15 minutes at any time of the day
- Improving average travel speeds on the County's bus network by 30%
- Providing reliable and convenient options for users to bypass congestion

**Department of Public Works (DPW):** To help in the on-going effort to improve mobility on our congested local highways and streets, the Department of Public Works (DPW) began administering numerous multi-jurisdictional Intelligent Transportation Systems (ITS) projects. Using roadway sensors and closed-circuit television cameras to monitor traffic conditions, staff will be able to better manage congestion caused by incidents and special events. These ITS technologies also include providing motorists with both pre-trip and en route information on roadway traffic conditions through devices such as cell phones, Changeable Message Signs, and the Internet. All of these functions are coordinated through the County of Los Angeles Traffic Management Center (TMC) at DPW's Headquarters in Alhambra, California.

**The Countywide Traffic Signal Synchronization Program (TSSP)** involves upgrading all the traffic signals along a route to keep the signals synchronized, placing vehicle detectors in the pavement to detect the presence of vehicles, coordinating the timing of the signals between successive intersections, and automatically adjusting the traffic signals to facilitate the movement of vehicles through the intersections. Estimates show that this Program has saved motorists, on an annual basis, \$468 million in vehicle costs, 31.9 million travel hours, 38.6 million gallons of fuel, and 10,100 tons of pollutants to date. Travel times were reduced by as much as 24 to 29 percent. The second phase of this Program is on-going and involves 135 projects on 102 routes, consisting of 2,670 signalized intersections along nearly 610 miles.

# **Institutionalizing Community-Led, Climate Forward Planning**

**REGIONAL REPORT • PART 2**



## A Path Forward

In the pursuit of a sustainable and inclusive approach to economic development, the Los Angeles County collaborative has launched a strategic initiative to institutionalize community-led, climate-forward planning through the California Jobs First program. A key component of this initiative is the collaboration between various stakeholders across LA County, including a range of public-private partnerships aimed at sustaining the program beyond its initial funding period.

To streamline and present all the vital information regarding the California Jobs First program, the LAEDC will continue to serve as the regional convener and information host. The LAEDC will create a dedicated organization landing page that will catalog primary data about the California Jobs First program. This hub will include details about regional plans, partners, and all funded projects along with contact information of all onboarded partners. By curating a centralized repository, the LAEDC ensures that stakeholders, collaborators, and the public can easily access

pertinent information after the program funding period concludes.

With an emphasis on sustainability, an independent document home such as a secure cloud database will be utilized to house California Jobs First program documents. This strategy promotes long-term accessibility and neutrality by separating these documents from any state contract terms. Furthermore, collaboration with government entities that share similar goals is pivotal. Aligning California

Jobs First's mission with such government bodies ensures that the program's work continues seamlessly. Housing the initiative within a competent organization further supports its long-term vision and sustainability.

Recognizing the importance of collaborative effort, the California Jobs First program will encourage each partner to adopt the regional plan, identifying mutual areas of interest. This shared ownership will foster joint funding initiatives and program integration, catering to a unified goal of inclusive growth and climate responsibility.

Raising awareness among funders is another strategic step to secure additional financial resources. By engaging funders and showcasing the potential impact of the California Jobs First program, LA County aims to enhance existing initiatives and secure long-term stability and success.

Evaluating the effectiveness of the California Jobs First program over a minimum span of five years ensures systematic outcome measurement and impact monitoring. By identifying successful models and strategies, LA County can track progress, measure impact, and facilitate the replication of these models in other regions, paving the way for widespread adoption of best practices.

Additionally, the LAEDC will work in close association with the LA County Department of Economic Opportunity and other public agencies, to ensure that the California Jobs First regional plan, along with all other information and projects, aligns with the LA County Comprehensive Economic Development Strategy. This alignment guarantees that the California Jobs First program is fully integrated into the broader economic framework of the county, benefiting from synergistic efforts and a cohesive developmental vision.

Through these concerted efforts, Los Angeles County aims to institutionalize and amplify its community-led, climate-forward planning, making strides towards a resilient and thriving regional economy. In addition, we aim to involve residents from disinvested communities and promote engagement opportunities for communities through these strategies:

- Create local programs to educate communities on state and regional clean energy policies, highlighting job, investment, and contract benefits, and associated economic impacts and risks.
- Invest in awareness and infrastructure for residents to access local program information and benefits within their neighborhoods.
- Increase investment in disinvested communities to develop industry and new businesses in high-growth sectors, particularly in areas with higher unemployment and low-wage jobs.
- Support programs in local community organizations to address academic and skill gaps, helping underserved Black, Hispanic, American Indian and Asian youth access high-paying careers and higher education in fields like architecture and engineering.
- Establish education and awareness programs in disinvested communities across LA County to provide training, job information, and economic opportunities in high-growth industries.
- Replicate successful community-based job creation and placement programs for living-wage careers.
- Invest in self-employment and business opportunities supporting supply chains in high-growth industries.
- Invest in subsidy programs promoting shared ownership, profits, or equity models to create wealth for low-income individuals across LA County.
- Ensure investment criteria are equally accessible to all economically disadvantaged residents in LA County, not just specific neighborhoods or SPAs.
- Provide workforce development pathways for building energy upgrades and electrification by partnering with entities such as AABE, Hispanics in Energy, and CA Low Income Oversight Board.
- To ensure the California Jobs First program's collaboration endures beyond the initial funding phase, Los Angeles County has identified several pivotal resources: partnering with AABE, Hispanics in Energy, and CA Low Income Oversight Board.



# Key Actions

The enduring legacy of the California Jobs First program in Los Angeles will require the following key actions:

1

## Continued Work by the Regional Convener:

The Los Angeles County Economic Development Corporation (LAEDC) will play a crucial role beyond the initial funding period. As the Regional Convener, LAEDC will maintain its dedication to planning, organizing meetings, structuring activities, and fostering collaboration between community-based organizations (CBOs) and industry employers. This pivotal role will also involve managing reporting processes, ensuring alignment with program goals, and driving engagement across all stakeholders. However, it is important to note that the frequency and intensity of these activities will largely depend on the availability of continued funding.

2

## Ongoing Funding:

Securing continuous financial support is fundamental to maintaining operations, staffing, and supporting initiatives that emerge from the initial funding period. This ongoing funding could come from a mix of sources, including grants, private sector contributions, and public funds. Without this sustained financial backing, many of the program's key activities and collaborations could falter.

4

## Mapping County Assets and Initiatives:

Thoroughly mapping the counties assets and ongoing initiatives via automated technology will be key to sustaining the program. This involves connecting the program's activities and projects to federal, state, and locally funded projects, including those supported by philanthropy. Keeping track of these activities will enable stakeholders to pinpoint gaps and challenges within the region, making it easier to address them effectively.

3

## Integration with County Resources:

For the program to achieve long-term sustainability, integrating its collaborative efforts with the county's broader strategic framework is essential. This integration involves utilizing county resources such as staff, administrative support, and county-managed programs. By embedding the program into the county's infrastructure, the collaboration can leverage government funding, expertise, and existing networks to maintain its momentum.

5

## Evaluation:

A robust evaluation framework is necessary to track the program's progress, measure its impact, and identify areas for improvement. Consistent data collection and analysis will help ensure that the program continues to meet its goals and adapt to any emerging challenges.

Together, these resources and strategies will help ensure that the California Jobs First program's collaborative efforts continue to thrive and make a lasting impact on sustainable and inclusive economic development in Los Angeles County. By investing in these areas, the county aims to build a resilient and enduring framework that supports community-led, climate-forward planning well into the future.



# Appendix

REGIONAL REPORT • PART 2

## Aerospace Manufacturing

Industry Name	NAICS	Traded / Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Aircraft Manufacturing	336411	Traded	Aerospace Vehicles and Defense	16323	129510	28%
Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	334511	Traded	Aerospace Vehicles and Defense	14992	159728	-1%
Guided Missile and Space Vehicle Manufacturing	336414	Traded	Aerospace Vehicles and Defense	12894	162306	52%
Other Aircraft Parts and Auxiliary Equipment Manufacturing	336413	Traded	Aerospace Vehicles and Defense	10676	85213	-20%
Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	336415	Traded	Aerospace Vehicles and Defense	1254	126150	702%
Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	336419	Traded	Aerospace Vehicles and Defense	716	110341	-6%
Aircraft Engine and Engine Parts Manufacturing	336412	Traded	Aerospace Vehicles and Defense	438	148999	10%

Source: Lightcast

## Construction

Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Plumbing, Heating, and Air-Conditioning Contractors	238220	Local	Local Real Estate, Construction, and Development	21783	73299	7%
Commercial and Institutional Building Construction	236220	Local	Local Real Estate, Construction, and Development	14715	105698	16%
Residential Remodelers	236118	Local	Local Real Estate, Construction, and Development	10896	59699	23%

Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
New Single-Family Housing Construction (except For-Sale Builders)	236115	Local	Local Real Estate, Construction, and Development	9968	66313	-3%
All Other Specialty Trade Contractors	238990	Local	Local Real Estate, Construction, and Development	6893	75628	2%
Drywall and Insulation Contractors	238310	Local	Local Real Estate, Construction, and Development	6588	64274	5%
Painting and Wall Covering Contractors	238320	Local	Local Real Estate, Construction, and Development	5603	53083	3%
Poured Concrete Foundation and Structure Contractors	238110	Local	Local Real Estate, Construction, and Development	4253	70671	2%
Roofing Contractors	238160	Local	Local Real Estate, Construction, and Development	3822	66116	7%
Site Preparation Contractors	238910	Local	Local Real Estate, Construction, and Development	3507	74707	-3%
Finish Carpentry Contractors	238350	Local	Local Real Estate, Construction, and Development	3259	61031	22%
Framing Contractors	238130	Local	Local Real Estate, Construction, and Development	3232	51543	24%
Sheet Metal Work Manufacturing	332322	Local	Local Real Estate, Construction, and Development	3013	60096	-2%
Structural Steel and Precast Concrete Contractors	238120	Local	Local Real Estate, Construction, and Development	2767	77836	1%
Water and Sewer Line and Related Structures Construction	237110	Local	Local Real Estate, Construction, and Development	2489	102861	11%
Flooring Contractors	238330	Local	Local Real Estate, Construction, and Development	2205	64324	-11%
Other Building Equipment Contractors	238290	Local	Local Real Estate, Construction, and Development	2116	106894	11%
Tile and Terrazzo Contractors	238340	Local	Local Real Estate, Construction, and Development	2115	54512	-10%

Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Other Building Finishing Contractors	238390	Local	Local Real Estate, Construction, and Development	2084	58499	-7%
Masonry Contractors	238140	Local	Local Real Estate, Construction, and Development	1953	60429	-4%
Glass and Glazing Contractors	238150	Local	Local Real Estate, Construction, and Development	1806	82411	-9%
New Multifamily Housing Construction (except For-Sale Builders)	236116	Local	Local Real Estate, Construction, and Development	1709	96845	34%
Other Foundation, Structure, and Building Exterior Contractors	238190	Local	Local Real Estate, Construction, and Development	1442	129031	54%
Water Supply and Irrigation Systems	221310	Traded	Construction Products and Services	1138	110038	9%
Septic Tank and Related Services	562991	Local	Local Real Estate, Construction, and Development	868	69057	21%
Custom Architectural Woodwork and Millwork Manufacturing	337212	Local	Local Real Estate, Construction, and Development	654	68084	16%
Siding Contractors	238170	Local	Local Real Estate, Construction, and Development	297	34339	99%
New Housing For-Sale Builders	236117	Local	Local Real Estate, Construction, and Development	291	106289	3%
Steam and Air-Conditioning Supply	221330	Traded	Construction Products and Services	64	62134	-77%

Source: Lightcast

## Transportation and Logistics

Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Scheduled Passenger Air Transportation	481111	Traded	Transportation and Logistics	27972	111878	19%
Freight Transportation Arrangement	488510	Traded	Transportation and Logistics	21214	88343	15%

Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Other Airport Operations	488119	Traded	Transportation and Logistics	9239	48397	-9%
General Freight Trucking, Long-Distance, Truckload	484121	Traded	Transportation and Logistics	8639	65761	43%
Other Support Activities for Air Transportation	488190	Traded	Transportation and Logistics	3323	81438	-25%
Support Activities for Rail Transportation	488210	Traded	Transportation and Logistics	1716	62494	-6%
Other Support Activities for Road Transportation	488490	Traded	Transportation and Logistics	1432	50558	31%
Nonscheduled Chartered Freight Air Transportation	481212	Traded	Transportation and Logistics	1408	138562	33%
Nonscheduled Chartered Passenger Air Transportation	481211	Traded	Transportation and Logistics	1241	119477	20%
Specialized Freight (except Used Goods) Trucking, Long-Distance	484230	Traded	Transportation and Logistics	866	82106	-10%
Packing and Crating	488991	Traded	Transportation and Logistics	764	53049	-3%
All Other Support Activities for Transportation	488999	Traded	Transportation and Logistics	560	64617	-33%
Other Nonscheduled Air Transportation	481219	Traded	Transportation and Logistics	471	257277	45%
Charter Bus Industry	485510	Traded	Transportation and Logistics	388	43214	-50%
Scheduled Freight Air Transportation	481112	Traded	Transportation and Logistics	356	65942	-2%
Interurban and Rural Bus Transportation	485210	Traded	Transportation and Logistics	257	68425	-31%
Postal Service	491110	Traded	Transportation and Logistics	250	56467	-8%
Air Traffic Control	488111	Traded	Transportation and Logistics	95	77464	38%
Rail transportation	482110	Traded	Transportation and Logistics	8	68695	0%

Source:

## Bioscience

Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Pharmaceutical Preparation Manufacturing	325412	Traded	Biopharmaceuticals	6232	81351	35%
Surgical Appliance and Supplies Manufacturing	339113	Traded	Medical Devices	3852	93644	24%
Surgical and Medical Instrument Manufacturing	339112	Traded	Medical Devices	2146	105435	0%
Medicinal and Botanical Manufacturing	325411	Traded	Biopharmaceuticals	1453	85952	-6%
Ophthalmic Goods Manufacturing	339115	Traded	Medical Devices	922	65069	14%
In-Vitro Diagnostic Substance Manufacturing	325413	Traded	Biopharmaceuticals	627	121833	-9%
Dental Equipment and Supplies Manufacturing	339114	Traded	Medical Devices	501	81773	-31%
Biological Product (except Diagnostic) Manufacturing	325414	Traded	Biopharmaceuticals	173	109714	-80%

Source: Lightcast

## Clean/Renewable Energy

Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Electrical Contractors and Other Wiring Installation Contractors	238210	Local	Local Real Estate, Construction, and Development	19505	79935	7%
Solar Electric Power Generation	221114	Traded	Electric Power Generation and Transmission	446	171017	437%
Other Electric Power Generation	221118	Traded	Electric Power Generation and Transmission	131	140486	362%

Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Wind Electric Power Generation	221115	Traded	Electric Power Generation and Transmission	108	151612	6461%
Geothermal Electric Power Generation	221116	Traded	Electric Power Generation and Transmission	101	147786	0%
Biomass Electric Power Generation	221117	Traded	Electric Power Generation and Transmission	28	92196	-58%
Hydroelectric Power Generation	221111	Traded	Electric Power Generation and Transmission	25	130445	0%
Nuclear Electric Power Generation	221113	Traded	Electric Power Generation and Transmission	3	129702	-99%

Source: Lightcast

## Video Production and Distribution

Industry Name	NAICS	Traded / Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Motion Picture and Video Production	512110	Traded	Video Production and Distribution	128884	123333	28%
Teleproduction and Other Postproduction Services	512191	Traded	Video Production and Distribution	8839	116956	16%
Motion Picture and Video Distribution	512120	Traded	Video Production and Distribution	2999	209796	18%
Other Motion Picture and Video Industries	512199	Traded	Video Production and Distribution	388	144746	6%
Drive-In Motion Picture Theaters	512132	Traded	Video Production and Distribution	55	32378	-14%

Source: Lightcast

## Healthcare

Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
General Medical and Surgical Hospitals	622110	Local	Local Health Services	111463	95226	-1%
Offices of Physicians (except Mental Health Specialists)	621111	Local	Local Health Services	60813	96381	1%



Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Nursing Care Facilities (Skilled Nursing Facilities)	623110	Local	Local Health Services	44044	50833	-3%
Home Health Care Services	621610	Local	Local Health Services	36532	39358	44%
Offices of Dentists	621210	Local	Local Health Services	33448	53585	7%
HMO Medical Centers	621491	Local	Local Health Services	29627	120776	-3%
Hospitals (Local Government)	903622	Local	Local Health Services	22382	102891	9%
Pharmacies and Drug Retailers	456110	Local	Local Health Services	20277	55817	-5%
Hospitals (State Government)	902622	Local	Local Health Services	14020	103091	15%
All Other Outpatient Care Centers	621498	Local	Local Health Services	11915	70755	55%
Offices of Physical, Occupational and Speech Therapists, and Audiologists	621340	Local	Local Health Services	11897	49269	34%
Assisted Living Facilities for the Elderly	623312	Local	Local Health Services	11660	40711	18%
Offices of Mental Health Practitioners (except Physicians)	621330	Local	Local Health Services	11599	42160	89%
Residential Mental Health and Substance Abuse Facilities	623220	Local	Local Health Services	9166	52513	5%
Outpatient Mental Health and Substance Abuse Centers	621420	Local	Local Health Services	9023	57229	45%
Residential Intellectual and Developmental Disability Facilities	623210	Local	Local Health Services	8924	37211	36%
Medical Laboratories	621511	Local	Local Health Services	7736	75016	12%
Continuing Care Retirement Communities	623311	Local	Local Health Services	5543	45627	-14%
Kidney Dialysis Centers	621492	Local	Local Health Services	5536	76339	-3%
Freestanding Ambulatory Surgical and Emergency Centers	621493	Local	Local Health Services	4377	70644	30%

Industry Name	NAICS	Traded/ Local	Cluster Name	Jobs (2022)	Avg. Annual Wage (2022)	Job Growth (2017-22)
Specialty (except Psychiatric and Substance Abuse) Hospitals	622310	Local	Local Health Services	3815	73740	46%
Offices of Optometrists	621320	Local	Local Health Services	3813	47878	-2%
Other Residential Care Facilities	623990	Local	Local Health Services	3637	46924	-26%
Offices of Chiropractors	621310	Local	Local Health Services	3473	40439	18%
Offices of All Other Miscellaneous Health Practitioners	621399	Local	Local Health Services	2931	50386	90%
Offices of Physicians, Mental Health Specialists	621112	Local	Local Health Services	2922	76651	2%
Psychiatric and Substance Abuse Hospitals	622210	Local	Local Health Services	2800	61261	-12%
Diagnostic Imaging Centers	621512	Local	Local Health Services	2764	73236	22%
Family Planning Centers	621410	Local	Local Health Services	2617	46904	103%
Funeral Homes and Funeral Services	812210	Local	Local Health Services	2489	78649	-0%
All Other Miscellaneous Ambulatory Health Care Services	621999	Local	Local Health Services	1947	73997	58%
Optical Goods Retailers	456130	Local	Local Health Services	1699	42843	6%
Blood and Organ Banks	621991	Local	Local Health Services	1429	81543	17%
Dental Laboratories	339116	Local	Local Health Services	1375	53759	-15%
Cemeteries and Crematories	812220	Local	Local Health Services	1297	79660	12%
Offices of Podiatrists	621391	Local	Local Health Services	735	59463	-5%
Home Health Equipment Rental	532283	Local	Local Health Services	332	54914	-4%

Source: Lightcast

# Acknowledgements

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