WE PROSPER TOGETHER

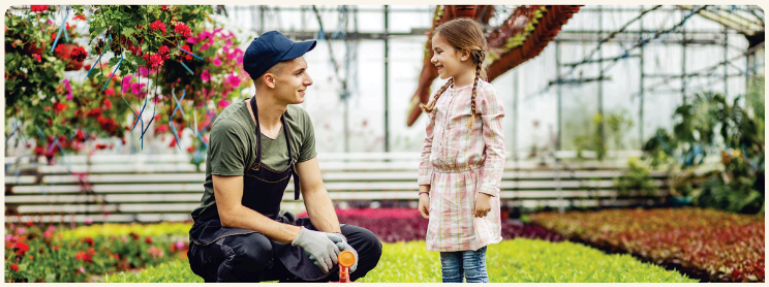
We Prosper Together Regional Plan:

Strategies for a Thriving and Inclusive Economy










valley vision

CALIFORNIA JOBS FIRST

Table of Contents

SECTION ONE

Acknowledgements

On behalf of We Prosper Together, Valley Vision, in its capacity as Regional Convener and Fiscal Agent, submits this Capital Region Economic Assessment Part 2 (Regional Plan Part 2) detailing the Planning Phase outcomes for the Capital Region.

This work would not have been possible without the commitment of our Leadership Council Members, and the incredible partnership and expansive work of our Community Ambassadors whose outreach and engagement shaped our region's strategic priorities.

- **Colusa County** – North Valley Community Foundation and subcontractors Tri Counties Community Action Partnership, S2 Consulting, and EB3 Development.
- **El Dorado/Placer** – Sierra Business Council and subcontractors El Dorado Community Foundation, and Placer Community Foundation.
- **Sacramento/Yolo** – Sacramento Asian Pacific Chamber of Commerce (Business Outreach Lead) and Civic Thread (Community Outreach Lead) and subcontractors Everyday Impact Consulting, Sac BHC, Black Artist Foundry, and CivicWell.
- **Tahoe/Nevada** – Tahoe Prosperity Center and Nevada County Economic Resource Council and subcontractor Sierra Business Council.
- **Yuba/Sutter** – Civic Thread and subcontractors Center for Workers' Rights, Everyday Impact Consulting, and Yuba-Sutter Economic Development Corporation.

Valley Vision would also like to acknowledge its funded partners, whose work is reflected throughout this report.

- **Strategic Partners** – Community Strong Strategies, LLC and Isa Avanceña, Consultant
- **Research and Data Partner** – The Brookings Institution/Cities GPS
- **Communications Partner** – RALLY

Finally, the following Valley Vision staff were instrumental in authoring and contributing to this report: Gretchen James, Renee John, Trish Kelly, Connor Kinder-Ebersberger, Evan Schmidt, and Hilary Tellesen.

SECTION TWO

Vision and Goals

We Prosper Together – Our Region's Once-in-a-Generation Opportunity

The Capital Region – composed of Colusa, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo and Yuba counties – is the beating heart of California. From the natural beauty that runs from the peaks of the Sierra Nevada mountains down to the fertile soil nourishing America's farm-to-fork Capital, our region has been a source of economic opportunity since our state's founding.

Our region is also a microcosm of California, with a mix of urban, foothill, and agricultural landscapes, varied industries and communities. We have continually shown an incredible capacity for growth. The Brookings Institution 2024 Metro Monitor Report rated the Sacramento Metropolitan Area the second in the nation for the largest decrease in relative poverty rate and fourth for economic inclusion. Today, as the epicenter of the fifth largest economy in the world and of some of the country's most innovative policymaking, our region is poised to spark a new era – one that is resilient and inclusive for all.

Growth in manufacturing, food innovation, clean energy and more are creating new jobs, and efforts by educational institutions and community-based organizations are expanding training and access opportunities for those who are often left out. However, existing efforts are not enough; the Capitol region needs 335,000 additional high-quality jobs to meet the needs of our struggling families.

With 38% of residents in our region belonging to families whose income does not meet basic needs, we still have work to do in closing these gaps.

We Prosper Together is our once-in-a-generation opportunity to do so.

All too often, age, race, gender and other characteristics unfortunately impact an individual's access to economic mobility in the region. In the past, work to build a strong economy has not fully considered the importance of building an inclusive one. We Prosper Together is a community-led initiative and long-term commitment to fostering a resilient regional economy in which all our diverse communities have the opportunity to thrive financially, socially, and culturally.

We Prosper Together's North Star

The Capital Region is committed to growing a prosperous, resilient, and sustainable economy. It is this commitment that informs our "North Star," the shared vision of our regional success.

We Prosper Together focuses on the generation of quality jobs, clear and well-supported career pathways, and an equitable and sustainable economy that spans the eight-county region. It will build on existing strategic plans and efforts in order to reinforce current work and maximize the benefit of ongoing subregional economic and community development activities.

> Individuals across the We Prosper Together region have equitable access to high quality jobs in high-potential industries, facilitated by investment strategies in both tradable and local sectors that prioritize environmental sustainability.

Our North Star has guided the core elements of our Planning Phase process, including establishing and operating our governance structure, conducting extensive research and data analysis, and implementing robust community outreach and engagement strategies. The activities within these core elements have, in the last eighteen months, enabled us to identify priority industry sectors, understand the barriers faced by historically disinvested communities, and discover opportunities for potential projects and strategies to connect our communities to quality jobs. Within our North Star are three key action areas in our Planning Phase that lead to the strategies included in this regional economic development plan, discussed in detail throughout this report:

- Growing and creating high quality jobs in priority tradable clusters.
- Connecting disinvested communities to currently available quality jobs in both tradable and local sectors.
- Operationalizing strategies that foster inclusion and ensure equitable outcomes.

The geographic and population diversity of the Capital Region presents both an opportunity for growth and a challenge to identifying economic development priorities at a regional level, as each county's needs are unique. Our rural counties' priorities are often centered on basic infrastructure and transportation needs or connecting residents to services, while our urban core is more positioned to focus on systems-level interventions in the workforce pipeline or innovation ecosystem.

Yet the vision of We Prosper Together is to develop a cohesive regional identity and strategy. The work of our governance structure – the Leadership Council and the full regional Collaborative – has been to come together around a shared regional identity and build consensus around a set of priorities. This has been no easy feat. In just eighteen months, our region has assembled and operationalized a governance structure

that engages a diverse set of stakeholders and represents the full geography of our eight-county region. Within that same time frame, we also completed a collaborative research process culminating in a comprehensive assessment of the Capital Region's economic, climate, and public health. We leveraged that assessment to equip our communities, industry leaders, and policymakers with tools for informed advocacy and decision-making. Concurrently, we established a network of subregional and community ambassadors (labor, tribal) partners who lead our community outreach and engagement efforts. All of these processes and input came together and yielded the sector and economic mobility strategies that are discussed in detail throughout this report.

The enormity of the trust and capacity-building and collaboration that had to take place as a prerequisite for accomplishing the goals of the Planning Phase cannot be overstated. As we communicate to our collaborative – change can only occur at the speed of trust. Meeting the critical and ambitious goals of the California Jobs First Regional Investment Initiative while adapting to the realities of timelines and human capacity resources has and continues to be a challenge for our region, one that we will continue to navigate as we transition from the Planning Phase to the Catalyst Phase. The work described here is ongoing, and we offer this report as a living document that we will continue to refine as part of our regional inclusive economic development plan and as we move towards implementation.

Ongoing and Long-Term Strategies for Incorporating Community Engagement

We Prosper Together recognizes that a process is truly inclusive only when it actively involves divergent voices and makes deliberate efforts to engage communities that have too often been left out of economic development conversations. Our Planning Phase focused on meeting communities where they are with accessible opportunities to contribute to decision-making, and established a governance structure that encouraged, recognized, and appreciated the diverse perspectives of all stakeholders as vital contributors.

Early on, subregional hub partners grouped as follows – Sacramento/Yolo, Yuba/Sutter, El Dorado/Placer, Tahoe, Colusa County, and Nevada County – developed community engagement plans that outlined their specific approach to gathering input on the barriers and opportunities that exist in their subregions. Additionally, the Capital Region's Leadership Council was designed to reflect the diverse geographies, perspectives, and sectors of the region, and its management provides a consistent feedback loop between Leadership Council members, the subregional hub partners, the broader governance structure, and the Regional Convener.

Currently, subregional hub partners and Leadership Council members are vetting and applying the Capital Region Economic Equity Priorities to the development of the Catalyst Phase project criteria, which will help operationalize the sector-neutral strategies that were surfaced in community outreach and engagement. The Priorities are a model that seeks to answer the question "what are the conditions and systems that have to be put in place, in order to successfully implement equity and inclusion strategies."

Community outreach and engagement will continue. The priorities, values, and processes that were built in the Planning Phase will shape the Catalyst initiative and be adapted to best suit the evolving needs of the program.

SECTION THREE

Regional Snapshot

This Regional Snapshot provides an overview of the Capital Region, including a condensed version of the Capital Region Economic Assessment that was included in Part 1 of our Planning Phase report.

Landscape and Economy

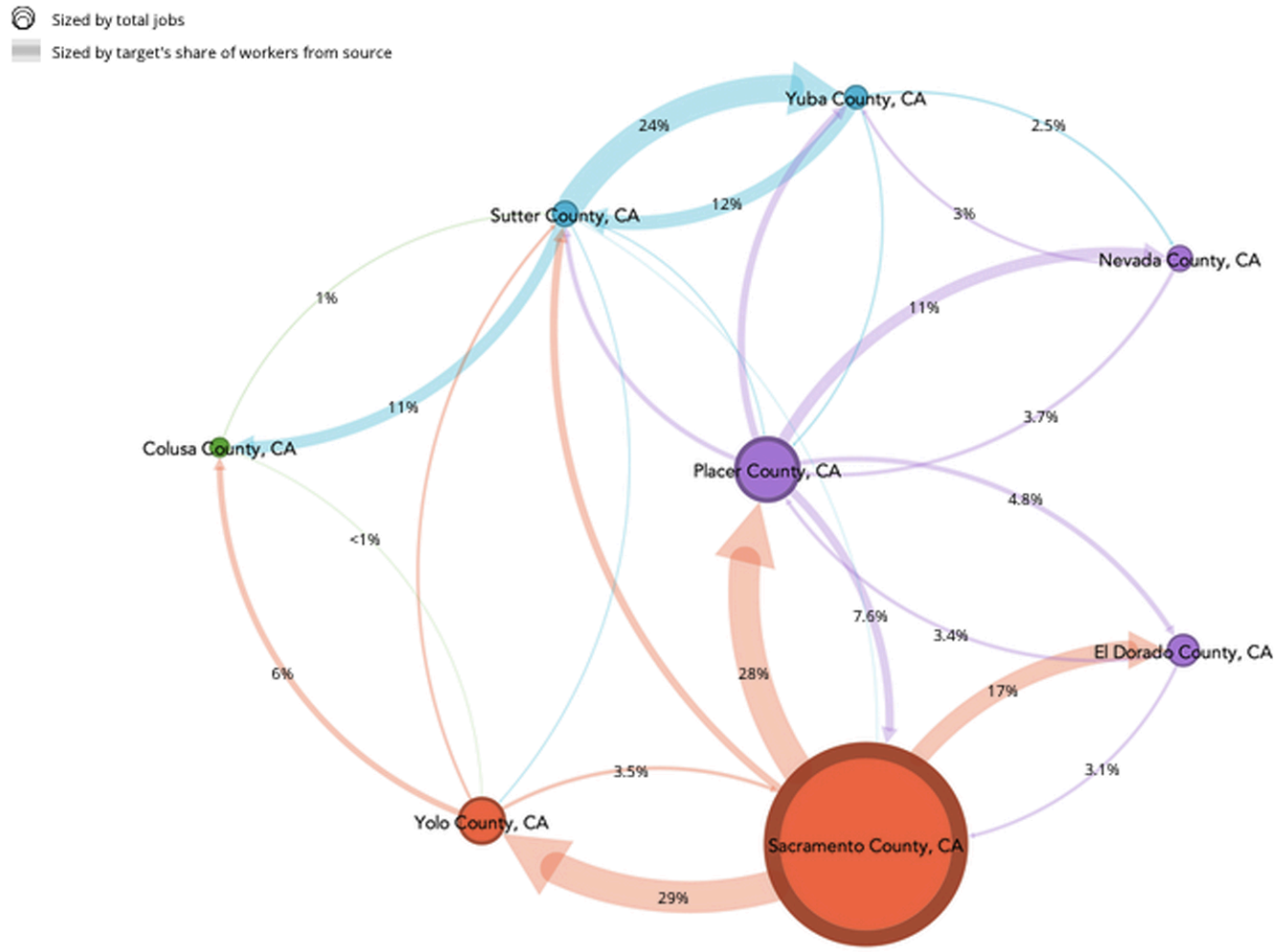
The Capital Region includes a wide array of landscapes – field crops, orchards, ranches, timber, and mountain terrain – across its eight counties. It features a mix of rural communities, small towns, suburbs, and an urban core that is home to the State Capitol. It has incredible racial and ethnic diversity and a wide variety of cultural backgrounds and spoken languages.

In addition to massive differences in population size – the smallest county, Colusa, has 22,000, while the largest, Sacramento, has 1.6 million – there are other significant economic differences among the region's eight counties, as evidenced by the following key indicators:

- **Level of Prosperity:** Prosperity can be measured by looking at two factors: productivity and average worker earnings. Between 2012 and 2022, productivity by itself was relatively consistent across the region: El Dorado, Placer, and Sacramento Counties each had productivity 23% higher than that of Sutter County, with all other counties falling somewhere in between. However, when compared to average earnings, workers in the urban and urban-adjacent parts of the region, particularly the Sacramento/Yolo subregion, seem to benefit more from industry productivity than their rural counterparts: Workers' earnings range from 59% of productivity in Yolo County to roughly 42% in Colusa County, with the other counties falling in between.
- **Population-to-Job Ratio:** A larger ratio indicates that a higher proportion of people live in one county and commute to work in another, versus living and working in the same county. The ratio of 3.2 people per job in El Dorado County, when compared to 2.2 people per job in Placer and Sacramento Counties, suggests that El Dorado has more of a residential focus while the other two counties are more job-intensive.
- **Local Labor Markets:** The figure below (Chart 1) illustrates inter-county commuting data and reveals a grouping of four overlapping subregions versus one regional labor market. The subregions' interdependence includes at times sharing labor pools, innovation assets, and other resources. This finding in particular highlights the importance of the specific needs of these subregions when designing economic and workforce development strategies.

Commuting patterns among contiguous Capital region counties, 2022

Showing share of each county's workers who commute from other adjacent counties in the Capital region



Source: Brookings analysis of Lightcast estimates.

Chart 1
Source: Capital Region Economic Assessment (Page 35)

There are also economic similarities among the eight counties. For example, counties adjacent to Sacramento County are more economically similar to their neighbors, possibly due to the fact that urbanization tends to make economies more similar.

Collectively, these economic differences and similarities led to subdividing the Capital Region into five subregions: Sacramento/Yolo, Placer/El Dorado, Yuba/Sutter, Nevada, and Colusa.

Diverse Communities

Population Growth

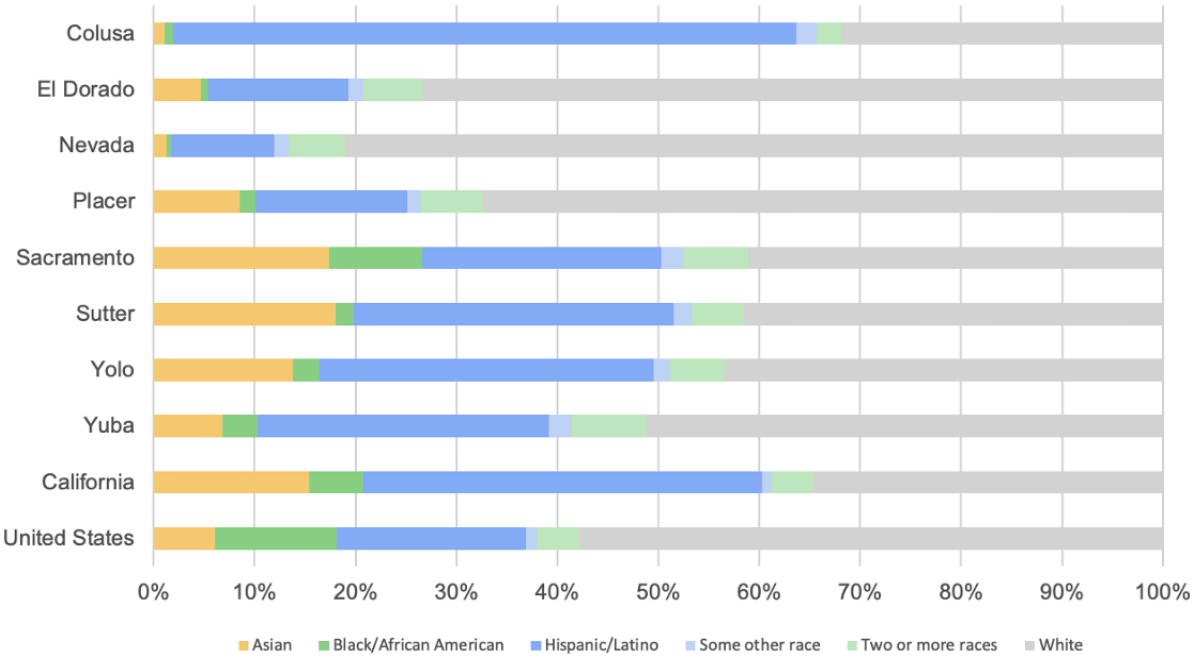
The population of the Capital Region grew 10.9% between 2010 and 2020, exceeding growth rates at both the state (8.6%) and national (7.4%) levels. This growth was uneven across the eight counties – Colusa, El Dorado, Nevada, Sutter, and Yolo Counties saw growth under 10% during this period, while Placer (16.2%), Sacramento (11.7%), and Yuba (13.1%) Counties all gained residents at a faster pace.

Racial and Ethnic Diversity

Census data reveals that racial and ethnic diversity in the region varies across counties. The populations of Colusa, Sacramento, Sutter, and Yolo Counties are majority people of color. On the other hand, the populations of El Dorado, Nevada, Placer, and Yuba Counties are majority white people, with Nevada County having the highest proportion at 81%.

- Hispanic/Latinx residents make up a large proportion of the population of the Capital Region. Five counties – Colusa, Sacramento, Sutter, Yolo, and Yuba – each have a larger proportion of Hispanic/Latinx residents than the United States as a whole.
- Sacramento County has a larger proportion of Black/African American residents than California as a whole.
- Both Sacramento and Sutter Counties have a larger portion of Asian populations than California as a whole.

The figure below (Chart 2) illustrates this racial and ethnic diversity:



Source: SACOG analysis of 2020 U.S. Census data.

Chart 2
Source: *Capital Region Economic Assessment (Page 39)*

Age

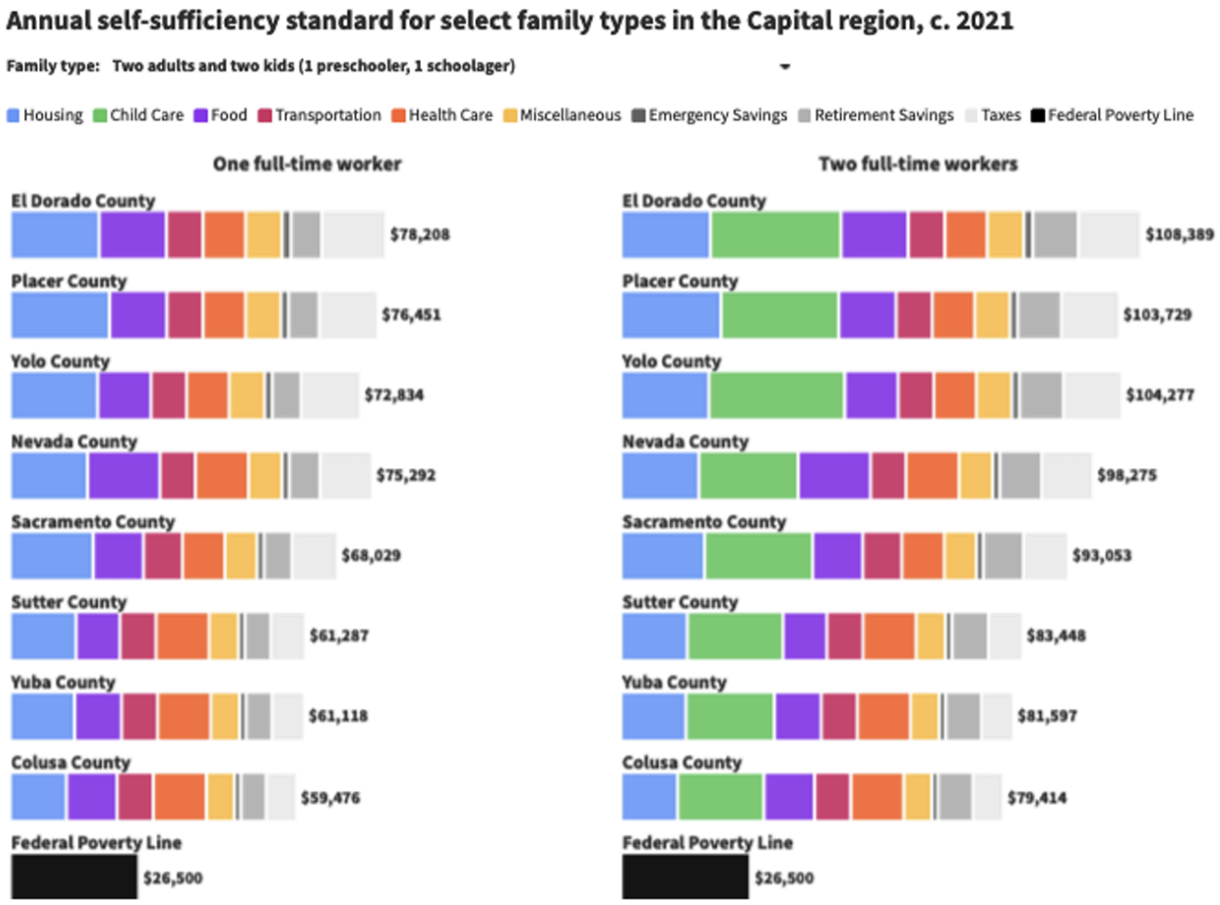
The median age ranges widely across the region. Five counties are below the U.S. median age of 39, including Yolo County, which has a median age of just 32. Three counties are above the national median, the oldest of which is Nevada County at 50.2 years old. Larger populations of older residents means that there are fewer adults of prime working age, which is an important factor in the labor shortages reported in these counties. More than one-fourth of Nevada County residents and more than one-fifth of Placer and El Dorado County residents are over age 65, compared to 15.2% of all California residents.

Economic Barriers

Cost of Living

Year after year, families throughout the Capital Region find it harder and harder to make ends meet. As inflation, lack of childcare, and rising housing costs push the costs of raising a family higher, an increasing

proportion of households are finding that they do not have enough income to cover their basic needs.[1] The figure below (Chart 3) illustrates that the cost of raising a family in the Capital Region is high, although it varies by county.



Source: Brookings / Cities GPS analysis of University of Washington Self-Sufficiency Standard for California, 2021.
Brookings / Cities GPS adds taxable emergency savings and non-taxable retirement savings to the self-sufficiency standard.

Chart 3
Source: Capital Region Economic Assessment (Page 49)

[1] Understanding how many residents live in families that are struggling to get by offers insight into the scale of the challenge facing the region. The first step in this assessment involves determining a baseline cost of living against which area household incomes can be evaluated. Because the cost of raising a family varies by family composition as well as location, this analysis begins by estimating basic costs of living for families of different sizes and structures in each of the eight Capital Region counties. These estimates account for local costs for housing, food, childcare, transportation, and the like as well as California-specific tax deductions and credits. These "market baskets" of monthly household expenses also include savings to ensure that families not only can cover their basic needs but also are able to build a degree of financial security and stability over time. Additional details on this methodology can be found on page 51 of the Capital Region Economic Assessment.

At least 37% of residents in the region belong to families whose household income fails to cover basic costs. Almost 44% of the region's children are growing up in families with incomes insufficient to cover basic needs. Another 5.9% belong to struggling families without an adult worker.

Proportions of struggling families vary among subregions. Yuba/Sutter and Colusa have the highest share of struggling families – nearly 50% of their populations – while Placer/El Dorado fares much better at 28.2%. This level of variation reflects the fact that the subregions have different industry mixes, which in turn affects the available supply of quality jobs and subregional resilience to economic downturn across different economic sectors. These differences suggest that sub regional strategies will be needed to complement region-wide efforts and attend to more local needs.

It is worth noting that the Capital Region has a higher share of its population (61%) achieving self-sufficiency than many other regions in California. It also tracks well nationwide, and comparatively offers more opportunities for its residents. Yet, as detailed above, there is still a tremendous need and opportunity for investment and economic growth in the region as more than a third of families still struggle significantly.

Factors Affecting Worker Outcomes

More than two-thirds of struggling adults in the region are at an age when people often begin or are actively raising a family.

Capital Region workers who are younger and/or have less formal education are more likely to belong to struggling families. Because industry often uses age and education as a proxy for work experience and skills training, workers with less of either tend to have lower wages. Less educated young workers face the worst of both worlds, typically earning less than older workers at the same education level as well as more highly educated workers from their age group.

More than half of struggling adults in the region have some level of postsecondary education short of a four-year degree. Another 34% have a high school diploma or G.E.D. Although this sizable contingent of workers has education and skills that should enable them to find well-paid work, regional shortfalls in the number of quality jobs available makes this impossible.

The odds of struggling to make ends meet in the Capital Region are also shaped by race, ethnicity, gender, and other characteristics. These factors correlate with persistent barriers to educational and economic success, reflecting a long history of limited access to opportunity for people of color and women in the United States. Over half of struggling workers are people of color, many of whom chose "other" when asked to identify their race. Because so many of these workers are also raising children, improving labor market outcomes for struggling workers can help address existing racial and gender disparities and prevent similar inequities from taking hold in the future.

Taken together, these factors intersect and overlap to shape each individual's experience in the regional economy. Programs and strategies that meet the needs of specific communities will be essential in order to counteract barriers to opportunity and produce more equitable outcomes for all Capital Region residents.

Environmental Challenges

As the climate crisis worsens, Capital Region residents will increasingly face a number of environmental hazards, including extreme heat days, air pollution, and natural disasters. The extent of these hazards is projected to vary from county to county, with some facing greater danger than others. An assessment of Capital Region census tracts against CalEPA criteria[2] revealed that people of color represent a disproportionate number of residents living in a CalEPA-designated disadvantaged community.

Extreme Heat

By mid-century, El Dorado, Nevada, Placer, and Yuba Counties will have more than 30 extreme heat days each year, meaning that temperatures exceed 93°F. This is higher than the projected state average of 26.85 extreme heat days per year. If current trends continue, Nevada will have 70.5 extreme heat days each year by century's end, while El Dorado, Placer, Sutter, and Yuba Counties will have more than 60.

Wildfire Risk

Climate change has also increased the risk of wildfire in the Capital Region. All counties find wildfire risk serious enough to merit discussion in their general plans and are also responsible for local hazard mitigation planning, ensuring compliance with FEMA hazard planning requirements. Wildfires also harm air quality, creating an environmental hazard that extends well beyond the boundaries of the fire itself. Wildfire smoke increases the amount of particulate matter in the air, which irritates and damages the lungs when inhaled.

Industry Emissions

Industry-produced GHG emissions have increased steadily over the past twenty years. Sacramento and Placer Counties saw the highest levels of emissions 2000-2022, while Colusa, El Dorado, and Nevada Counties experienced virtually no increase in emissions levels during this time. These trends reflect the structure of the local economies – Sacramento and Placer Counties have a higher proportion of industrial enterprises, while Colusa, El Dorado, and Nevada Counties are rural areas with much less economic activity to generate emissions.

---

[2] CalEPA (as directed by SB 535) developed criteria for designating "disadvantaged communities," meaning those census tracts that fulfill one of the following: Is in the top 25th percentile of CalEnviroScreen 4.0 overall scores; Has no CalEnviroScreen 4.0 score due to data gaps but is in the top 5% of cumulative pollution burden scores; Was designated as a disadvantaged community in 2017; Is under control of a federally recognized Tribe.

In 2022, utilities represented the largest source of industry-produced GHG emissions, and critical and hazardous air emissions were dominated by utilities across all eight counties. Government enterprises and agriculture also contributed a sizable amount of emissions that year.

While these emissions affect all residents, certain populations bear the brunt of the impact – power plants and other high-emissions facilities are more often located near historically disinvested communities, and residents in these areas face higher risk of poor health outcomes due to emission exposure.

Hazardous Waste

Releases of commercial hazardous waste as defined by federal law, increased between 2001 and 2022. Transportation and warehousing, manufacturing, and utilities are in a three-way tie for largest producer of these substances. At the county level, Placer, Sacramento, and Yolo Counties again have the highest levels of commercial hazardous waste, which is primarily produced by utilities and manufacturing facilities. Point source industry releases to water and ground increased between 2001 and 2022, with releases to water outpacing those to ground. Utilities were the primary source of point source releases to both water and ground.

Health Outcomes

The Capital Region is marked by sizable disparities in health outcomes. A combination of counties with the most rural and dense urban communities experience rates of chronic conditions and premature death that are well above average, while others are supported by impressive levels of insurance coverage, access to care, and vital social determinants of health.

Life Expectancy

Five counties in the region – Colusa, Nevada, Sacramento, Sutter, and Yuba – all have life expectancies below the state average of 81 years. Of this group, Yuba County has one of the lowest life expectancies in the state at 76.3 years. By contrast, El Dorado, Placer, and Yolo Counties all have life expectancies above the state average. These figures vary by race, with Black residents tending to have the lowest average life expectancy. Racial disparities also appear in measures of premature death and years of potential life lost (though data are not available for a number of counties in the region).

Chronic Health Conditions

In terms of chronic health conditions, each of the eight counties exceeds the state average on several measures. The Colusa, Sacramento/Yolo, and Yuba/Sutter subregions all have rates of asthma, cancer, chronic kidney disease, chronic obstructive pulmonary disease (COPD), depression, diabetes, and high blood pressure that are higher than the California average. A combination of factors contributes to these outcomes, including increased exposure to environmental pollution, stress due to resource constraints, and limited access to primary care. Depression and high blood pressure are particularly prevalent, with

relatively higher rates in most of the five subregions. Nevada County has an especially high incidence of depression that increased during the pandemic, putting pressure on already under-resourced mental health programs and services.

Access to Care

Disparities in access to care are stark across the region's eight counties. In El Dorado, Nevada, Sacramento, and Sutter Counties, the number of healthcare providers tracks with the state average of 1,230 residents for every primary care physician. In Placer and Yolo Counties, this ratio drops to 810 and 820, respectively, meaning that there are more physicians available to provide care for county residents. Colusa County has 3,590 residents for every primary care provider and in Yuba County, the ratio is dramatically higher, with 5,340 residents for every primary care physician. Health insurance coverage also affects people's ability to access care. In Yuba County, 8% of residents under age 65 do not have health insurance, matching the state average. Lack of health insurance is more common in Sutter and Colusa Counties (13% and 9%, respectively) and less common in Placer (4%), El Dorado (5%),and Nevada, Sacramento, and Yolo Counties (6%).

The Inclusive Economy Poll[3]

Valley Vision routinely conducts research on priority issues to gather and understand the community's perspectives, and The Inclusive Economy Poll was its first public opinion poll solely focused on the economic well-being of our eight-county region. The Poll provides a snapshot of experiences, perspectives, and viewpoints related to economic opportunity, access, well-being, and awareness in the eight-county Capital Region that includes Colusa, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba counties. The Poll was in the field from late October to early December 2023. It is demographically representative of the Capital Region and has a margin of error of plus or minus 2.3%.

The Rockefeller Inclusive Economic Indicators, a framework for economic inclusion, informed the creation of the poll's themes and questions. According to this framework, an inclusive economy is Equitable, Accessible, Growing, Stable, and Sustainable. The following paragraphs summarize the poll findings within these categories.

An Equitable Economy

While most respondents reported adequate access to basic needs, such as clean air, reliable power, and transportation, there are gaps in access to other basic needs, especially in rural areas. Food access remains a critical issue, with almost one-quarter of respondents indicating some level of food insecurity. There are notable disparities in access to high-speed internet, and those in rural counties are less likely to report

[3] This section is in response to the recommended "SWOT" section of the Regional Plant Part 2 guidelines.

adequate access. People of color are more likely to say they have experienced workplace discrimination due to their race or ethnicity than their peers.

A Growing Economy

According to poll findings, almost half of Capital Region residents said that jobs are hard to find, especially those in lower income categories, and 28% of workers are not making a living wage. Those in rural areas are less likely to report access to adequate benefits however, overall, two-thirds or more report access to a wide range of benefits, like health, sick time, and family leave. There is an ample amount of interest in career transition or skill attainment, with most of the respondents (82%) indicating they would be interested in increasing their job skills. The findings in this section underscore the importance of investing in initiatives and projects that increase the availability of and pathways to quality jobs, which is the primary goal of We Prosper Together.

A Sustainable Economy

Poll findings showed that weathering financial hardship depends partially on household income. 50% of those who make less than $50,000 do not have any savings, and 61% of those in the same income bracket report that they would need assistance covering a $400 emergency expense. A positive outlook for prosperity in the future is also an important indicator of economic stability and sustainability. While many feel the future will be better, those who make less money or live in rural locations are less optimistic.

SECTION FOUR

Target Sector Strategies

As discussed in the Vision and Goals section of this report, there are three key action areas within our We Prosper Together North Star that have led to the strategies included in our regional economic development plan:

- Growing and creating high quality jobs in priority tradable clusters.
- Connecting disinvested communities to currently available quality jobs in both tradable and local sectors.
- Operationalizing strategies that foster inclusion and ensure equitable outcomes.

This section of the report discusses the four high-potential tradable sectors[4] – and the priority clusters within those sectors – in which our region intends to concentrate investment and effort to create high quality jobs. The section will proceed as follows (clicking on the links below lead to that specific section of the report):

I. **Identifying High-Potential Tradable Sectors:** How and why our region identified its four high-potential tradable sectors overall, including their job multiplier effect, the number, concentration, and growth of jobs, and job quality and access.

II. **From Sectors to Clusters – Narrowing Towards a Targeted Investment Strategy:** How our region combined research and data analysis with an inventory of regional assets and outcomes from robust community outreach and engagement to drill down to more specific cluster priorities within each high-potential tradable sector.

III. **Competitive Drivers of the Regional Economy:** How innovation, entrepreneurship, and small business activity support these sectors in catalyzing economic growth.

IV. **Alignment with State Priorities and Climate and Equity Goals:** How growing and creating jobs in these sectors supports advancement of federal and state priorities, and a sustainable and equitable economy.

[4] The words "sector" and cluster" are both used throughout this report. These words have specific definitions in the context of economic development, but are often used interchangeably in different materials and plans. For the purposes of this report, "sector" will be used to refer to the broader category of tradable industry sectors (Business Services, Precision Manufacturing, Working Lands, and Research and Development), while "cluster" will be used to refer to the more narrowed groupings within the sectors (e.g., Technical Services and Business Administration within Business Services). As discussed in this section of the report, the process of identifying priority clusters in our region began with identifying high-potential industry sectors.

V. **Business Services, Precision Manufacturing, Working Lands, and Research and Development:** A deeper dive into each of these four high-potential tradable sectors and the more specific cluster priorities within them, including outcomes from quantitative data analysis, and qualitative community and industry input.

VI. **Talent Demand Analysis:** How ready the region's workforce is for jobs in the four high-potential tradable sectors. Specifically, whether workers have the education level and talent (i.e., knowledge, skills, and abilities) needed to qualify for these quality jobs and, if not, what workforce development strategies need to be implemented to get them to that point.

Identifying High-Potential Tradable Sectors

A region seeking to strengthen its economy must prioritize growth in high-potential tradable sectors where it has a distinct comparative advantage vis-à-vis other regions in the United States and globally. Targeted economic and workforce development interventions in these sectors can bring wealth into the region by boosting business growth, generating new quality jobs, and improving access to these jobs. This, in turn, grows local-serving sectors in the region (e.g., healthcare and construction in the Capital Region), which also increases the total number of available quality jobs.

To identify its high-potential tradable sectors, our region undertook an initial screening process to pinpoint which tradable sectors most benefit from the proximate concentration of related firms and activities for value-chain, talent, and innovation connections. Building on earlier analyses of industry performance, machine learning methods were applied to large datasets that describe intraregional supply chains and talent demand to define strategic industry sector opportunities.

This approach revealed groups of industries that belong to the same regional value chain and groups of industries that have common talent needs, and showed that these two were highly correlated. Grouping industries in this way also quantified how growth in one drives or depends on growth in others.

The following additional factors were also considered:

- The strengths and challenges of the region's existing industry base, workforce, educational institutions and other innovation assets, infrastructure, and physical assets;
- The possibilities and risks posed to and from the environment; and
- Whether jobs in these industries provide wages and other benefits that offer families pathways to achieve self-sufficiency and economic potential.

Finally, the following criteria, informed by the goals of the California Jobs First program, were applied as a filter:

- **Tradability:** The industry is tradable and has a high growth multiplier, meaning each job created in the industry leads to creation of another in other industries.
- **Feasibility:** Support can be applied effectively because the region already boasts a specialization in the industry or because the industry is growing faster locally than it is nationwide.
- **Opportunity:** The Industry can expand access to quality jobs because it either concentrates quality or promising jobs[5] for all workers or for mid-skilled workers with some college, a certificate, or an associate degree.
- **Sustainability:** The sector can continue to be competitive given environmental standards, and advances California Jobs First objectives of promoting a transition to a low-carbon economy.

This process led to the identification of **four high-potential tradable sectors**.[6] These sectors comprise activities spanning everything from software to warehousing:

- **Business Services:** The Business Services sector includes technical services, business administration, legal services, management consulting services, advertising and marketing, among others. Likely accelerated by the presence of state government, connections to the Bay Area, and the presence of corporate, subsidiary, and regional managing offices, business services are a major driver for the region, particularly in the Greater Sacramento metro area, where it is the largest sector to pass the selection screens of tradability, feasibility, opportunity, and sustainability. Opportunity is driven by a set of needed skills that complements existing strengths and workforce capacity associated with government and other management and headquarters functions.
- **Precision Manufacturing:** Although disaggregated across separate traditional industry categories and comparatively small in terms of total establishments, a convergence of precision manufacturing activities presents emerging opportunities. Linking strength in firms, talent, and innovation across microelectronics and semiconductors, instrumentation, automotive and transportation equipment, and aerospace, the region evinces capacity for producing intricate, highly accurate components to meet stringent specifications and tolerances. In light of major new investments in manufacturing and research by Solidigm and Bosch, a focus on this sector could preserve and grow activities that generate middle-skill, middle-income jobs.

[5] A position that does not provide a self-sufficiency wage and / or employer-provided health insurance but does offer a pathway to a quality job within the next ten years.

[6] The Capital Region Economic Assessment details this process in full, including the specific data underpinning each step of the analysis.

- **Working Lands:** Manufacturing and downstream activities connected to the region's exceptional natural resources show promise. Connections are evident between commodity production in agriculture, forestry, and mining throughout the eight counties as well as value-add in related processing, equipment, and advanced logistics that could further localize with adjustments in supply chain and international trade practices. Quality jobs are generated in the manufacture of construction materials, wood products, and food as well as related freight arrangement, packaging, and shipping. Goods movement advantages rely on internal growth of manufacturing and agriculture and are poised for further automation, requiring all dimensions of the value chain to be considered as a sector.

- **Research and Development:** Well-known research and innovation capabilities in agricultural and biological science offer cross-cutting potential for capturing even greater commercial benefits in the region. Agricultural science represents one-third of peer-reviewed regional innovation outputs, spinning out more than 900 worldwide patents and 12 companies with 50 deals receiving $1.4 billion in growth capital over ten years. Investment intensity in Capital Region agricultural innovation is three to 30 times the national average. Biological sciences for human health anchored in pharmaceuticals and biotech, devices, and traded health services represents another 45% of peer-reviewed outputs, representing some 40,000 articles leading to 4,400 new patented therapies and 130 regional startups securing growth capital totaling $1.7 billion over 10 years.

The Job Multiplier Effect[7]

Job growth in tradable sectors helps generate growth in the rest of the region's economy. Tradable sectors sell products to the rest of the world, which creates income for the region. Additionally, because tradable sectors depend on robust local value chains, their sales generate purchases from other regional industries, supporting even more local jobs – a job multiplier effect. The outcome is that, for every job that is created in a tradable sector, almost two more are added in the rest of the region's economy (an average multiplier of 2). This multiplier effect is why slow growth or shrinking clusters are worrisome trends – losing jobs in these priority clusters can mean foregoing job creation in other regional industries.

Across our region's four high-potential tradable sectors, the multiplier ranges from 1.6 to 3.1, underscoring the collective role of these four sectors supporting quality jobs and job growth.

[7] The data in this section, and additional data on the job multiplier effect across all four high-potential sectors and the clusters within those sectors can be found in Slide 9 of the Capital Clusters Metrics.

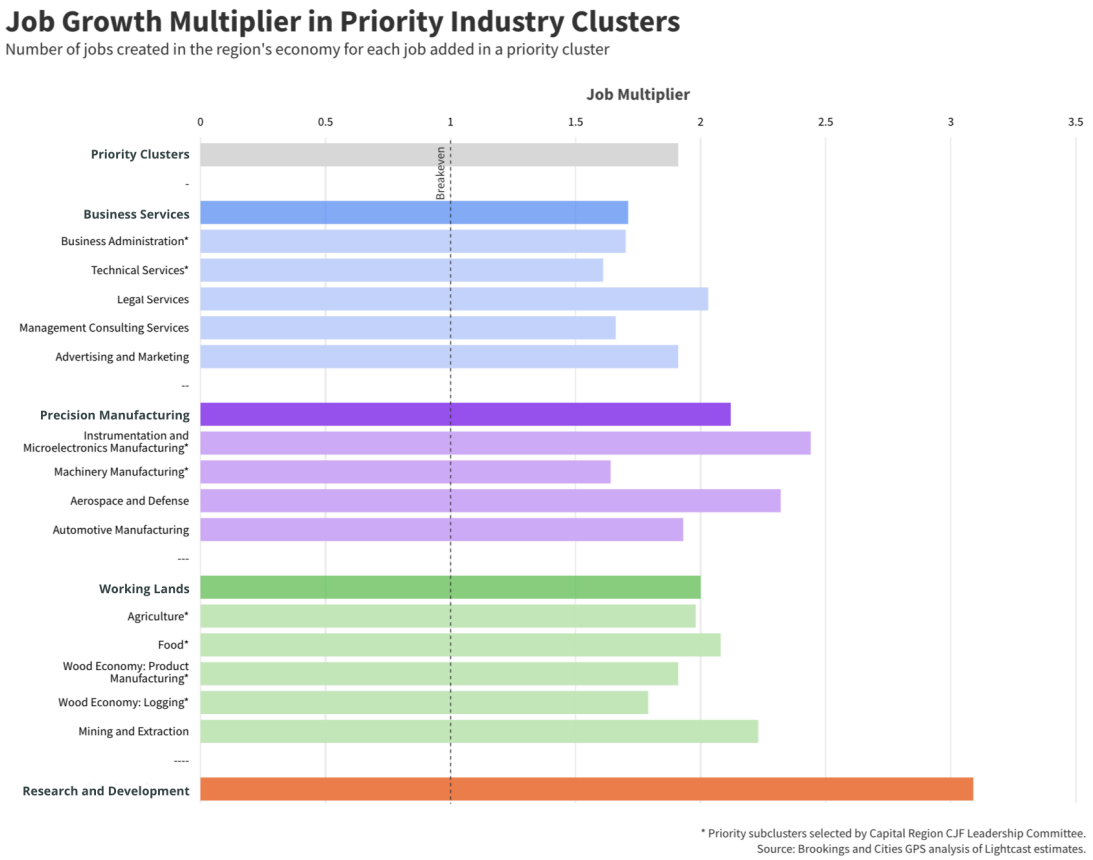


Chart 4
Source: Capital Clusters Metrics (Slide 9)

Job Numbers, Concentration, and Growth[8]

These four high-potential tradable sectors comprised one in every eight jobs in 2022[9] – close to 150,000 jobs total or 12.5% of jobs in the region, representing nearly half of all tradable sector jobs. These jobs were spread over 13,000 business establishments, including small businesses.

[8] The data in this section, and additional data on job numbers, concentration, and growth across all four high-potential sectors and the clusters within those sectors can be found in Slides 6, 7, and 8 of the Capital Clusters Metrics.

[9] Throughout this report, and unless otherwise stated, data referenced is from 2022.

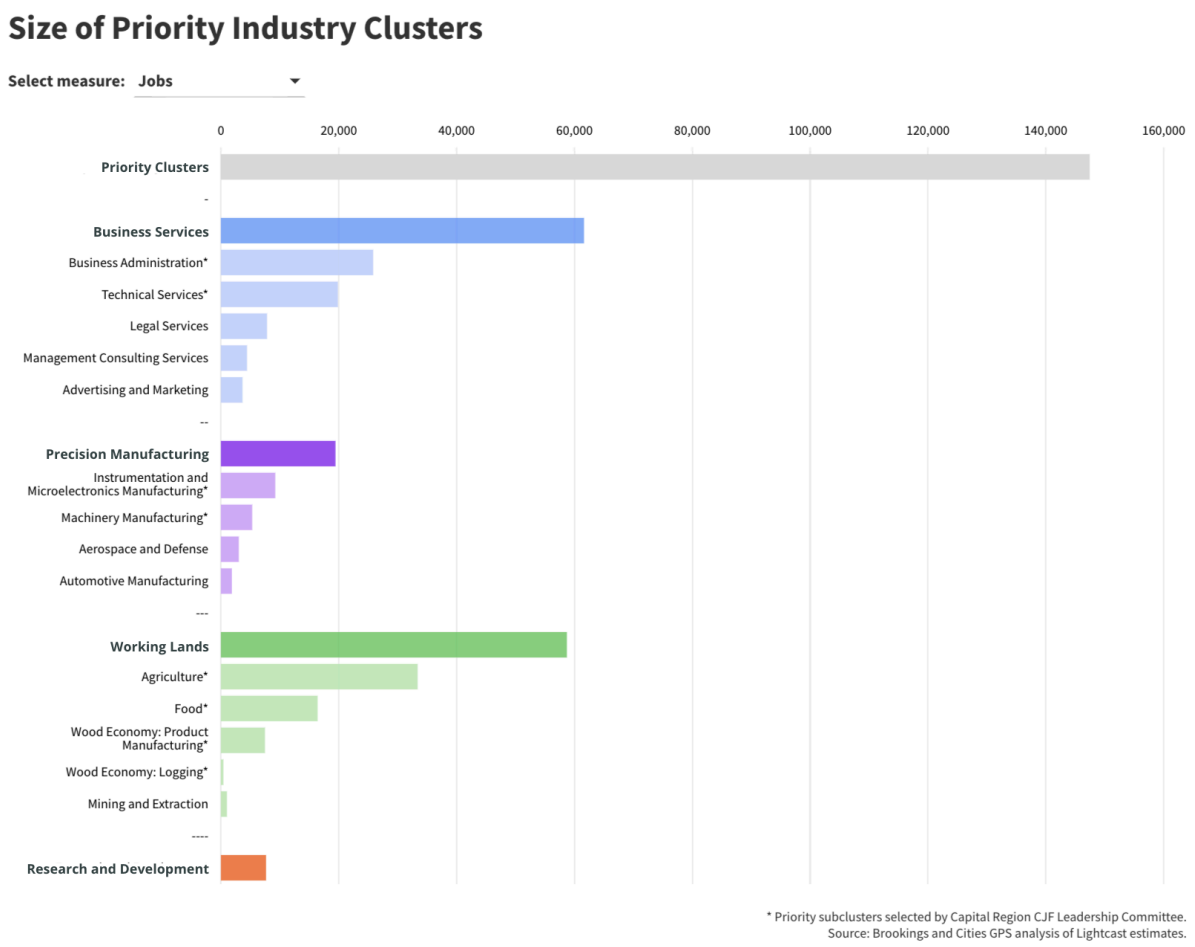


Chart 5
Source: Capital Clusters Metrics (Slide 6)

These four high-potential tradable sectors are also highly concentrated in the region, comprising 2.5 times more of the region's private-sector jobs than they did nationwide in 2022. This implies a unique advantage in the region, making it a competitive place for businesses in these sectors.

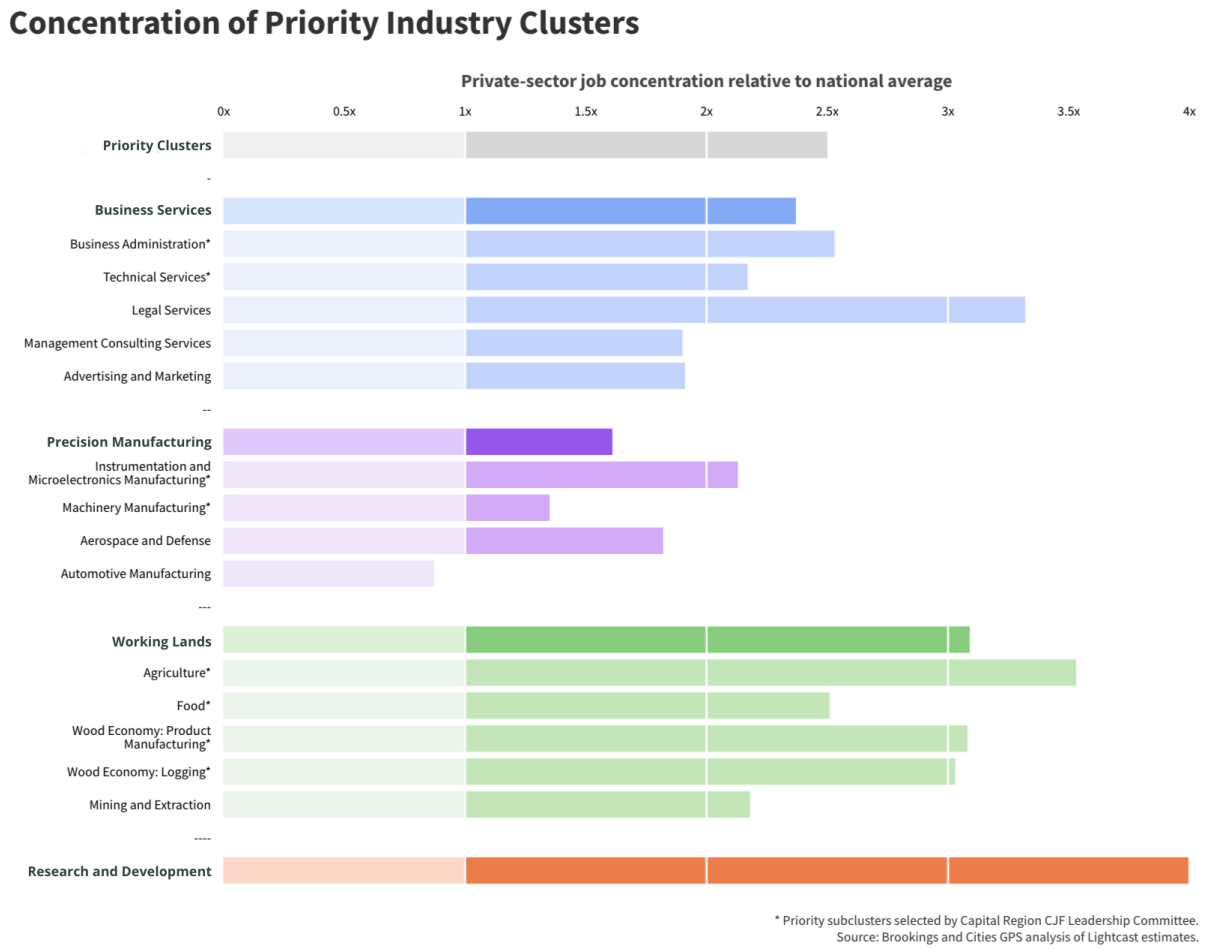


Chart 6
Source: Capital Clusters Metrics (Slide 7)

Notwithstanding the quantity and high concentration of jobs in these high-potential tradable sectors, from 2012 to 2022, they grew more slowly than their national counterparts, adding 25% fewer jobs than expected. And while certain clusters boomed (e.g., management consulting services within Business Services, aerospace and defense and auto manufacturing within Precision Manufacturing, and food and wood economy product manufacturing within Working Lands) absolute job gains were small. As the state capital, our region has historically had stronger performance in its local-serving sectors, due largely to the high number of government jobs[10] that continuously grows as California advances economically. This does not, however, lead to tradable sector growth, and has, to a certain extent, limited resources available and needed to grow tradable sectors.

[10] In 2002, government sector jobs accounted for 103, 981 quality jobs in the Capital Region (see Slide 35 of the Capital Region Economic Assessment Data Book).

Job Quality and Access[11]

Job quality in these four high-potential tradable sectors is very high, on average, including for mid-skilled jobs.

- These sectors pay an average of $105,000 per year, including benefits, compared to $88,000 for the region.
- Approximately 62% of jobs in these sectors are opportunity jobs (i.e., a position that meets the criteria for a quality or promising job) compared to about half of jobs overall in the region. Furthermore, 45% of priority sector jobs are quality jobs, surpassing 35% of jobs overall in the region.

While jobs in these sectors skew toward higher-skilled workers,[12] they also provide ample opportunity for mid-skilled workers who possess at least some post-secondary training too. Nearly 27% of priority sectors' opportunity jobs are held by mid-skilled workers, compared to 30% regionwide.

From Sectors to Clusters – Narrowing Towards an Investment Strategy

These four high-potential tradable sectors represented a quantitative baseline, confirmed by preliminary feedback from economic development organizations and business intermediary groups. To capture a more complete picture of the opportunities for high quality job creation within these sectors, our region continues to refine and define utilizing a talent demand analysis, qualitative community and industry input, with the end goal of identifying priority tradable clusters within these sectors to concentrate investment and effort. This identification was supported by:

- **Quantitative Input from Cluster-Specific Metrics and a Talent Demand Analysis:** Additional research and data analysis was conducted to further understand the quality job potential of the clusters within each tradable sector, including the specific occupations that make-up each cluster; the knowledge, abilities, and skills required of workers in those occupations; and the skills adjacencies across each of the clusters and occupations.
- **Qualitative Community Input:** Qualitative community input was gathered through robust community outreach and engagement that spanned eight counties and centered the voices of disinvested communities historically excluded from traditional economic development planning

[11] The data in this section, and additional data on job quality and access across all four high-potential sectors and the clusters within those sectors can be found in Slide 10 of the Capital Clusters Metrics.

[12] This highlights the importance of degree completion efforts, in tandem with other education and career pathway initiatives.

processes. This effort was driven by our subregional community conveners and included feedback from the We Prosper Together Leadership Council, whose membership reflects the diverse geographies, perspectives, and sectors of our region. Subregional community conveners sought input from communities about opportunities they saw across potential projects and strategies of focus. Additionally, our Leadership Council was presented with data on the region's high potential tradable industry sectors reflected in the Capital Region Economic Assessment, then asked to consider this data in light of opportunity areas and projects within the regions, sectors, and communities they represent. This process surfaced specific opportunities for sector growth and job creation within each subregion to further shape our region's priority tradable clusters and ground our strategies in the lived experience of communities. It also furthered the development of economic mobility strategies and the creation of Capital Region Economic Equity Priorities to ensure that the conditions for operationalizing equity as a core component of target sector strategy implementation are in place. These are discussed in greater detail in the Sector-Neutral Strategies section of this report.

- **Qualitative Industry Input:** Preliminary qualitative industry input was gathered from conferring with our region's economic development council and other partners and stakeholders. Qualitative industry input is ongoing, and includes target employer outreach through industry-specific focus group discussions and one-on-one interviews. Focus group discussions will be convened around semiconductors; FoodTech, AgTech and working lands; business services; biosciences; cleantech; and precision manufacturing. Interviews will be conducted with top executives in each of these target areas covering firm background and regional presence, economic environment, workforce profile, retention, and growth strategies.

The outcome of these three parallel streams of input is the current identification of 2 to 3 priority tradable clusters within each sector with further analysis ongoing:

- **Qualitative Industry Input**
  - Technical Services
  - Business Administration
- **Research and Development**
  - Agriculture and Food Technology
  - BioTech
- **Precision Manufacturing**
  - Instrumentation and Microelectronics Manufacturing
  - Next Generation Transportation
  - Machinery Manufacturing
- **Working Lands**
  - Agriculture and Food

- Wood Economy

Beginning page 33 is a more detailed discussion of the priority clusters identified within each of the high-potential tradable sectors – why they were selected, and how they will advance our region's North Star of equitable access to quality jobs in a prosperous, resilient, and sustainable economy.

Competitive Drivers of the Regional Economy

Innovation

Our region is a powerhouse in basic and applied research, with particular emphasis on sciences relevant to agriculture. It has a solid innovation ecosystem anchored by globally recognized research institutions and leading-edge firms. This ecosystem acts as the top of the funnel for high-value tech-enabled entrepreneurship, producing inventions and new product and process improvements that inspire startups in tradable sectors and potentially generate quality jobs along the way.

Research activity in the region is geographically concentrated, with the majority taking place in the Sacramento/Yolo subregion, home to UC Davis and CSU Sacramento. UC Davis sits at the heart of the region's innovation ecosystem, and is far and away the most innovation-oriented entity in the region, representing some 90% of research activity.

UC Davis is also the future home of Aggie Square, a 1.1 million-square-foot district focused on translating food and biotechnology innovations into needed products and services. Once complete, Aggie Square will offer needed wet lab facilities, startup and scale-up space for food bioeconomy entrepreneurs, offices, mixed-use space, housing, and other amenities.

Two other planned projects will further expand the region's innovation capacity:

- The Plant at Woodland Research and Technology Park, led by University of California Agriculture and Natural Resources with strong support from Valley Vision and other partners, will create a new node for food, agriculture, and health research and development.
- The California Mobility Center at CSU Sacramento is working to boost innovation and commercial activity related to clean mobility.

Aggie Square, The Plant, and the California Mobility Center are the product of several years' collaboration inspired by the cluster priorities set forth in the 2020 Prosperity Strategy, the six-county[13] region's Economic Development Administration-approved Comprehensive Economic Development Strategy economic roadmap. These innovation centers were conceived as building blocks for their respective clusters. They will catalyze the development of solutions needed to address the challenges posed by the climate crisis. From

[13] El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties.

discoveries in life sciences to precision agriculture applications to innovations in EV charging infrastructure, these hubs of innovation will undoubtedly play an important role in accelerating sustainable climate adaptation throughout the Capital Region and beyond.

CleanStart, another nonprofit entrepreneurial support organization, builds connections within the clean tech community and helps very early-stage companies in the region get ready for funding. Investment in additional capacity for these proven programs would accelerate innovation and energize startup and scale-up activity in high-growth tradable industries.

Further north in Yuba County, the proposed Wheatland Research Center will provide additional space for climate-related research and development.

Private-sector firms also play a role in the regional innovation ecosystem. Bosch's plans for the former TSI Semiconductors facility in Roseville offers a prime example. Bosch will invest $1.5 billion to transform the site into an important new node in its global semiconductor manufacturing network. The company will retain the existing workforce and expects to expand it substantially in the years ahead. Another example is Sparkz, a Livermore-based battery technology company that has leased a new building in Metro Air Park to manufacture battery components domestically for electric vehicles, home battery storage and utility-scale storage.[14]

These and other regional innovation assets are discussed in greater detail later on in Target Sector Strategies, within their applicable high-potential tradable sector – Business Services, Precision Manufacturing, Working Lands, and Research and Development.

Entrepreneurship

The Capital Region's vibrant entrepreneurial ecosystem draws strength from its large scale and multiple nodes of activity. The many organizations and individuals involved in this ecosystem together provide an important "backyard advantage" for entrepreneurs in the eight-county region. A wide range of programming exists to help potential founders move from initial concept to launch and scale-up.

Startups in the Capital Region have attracted increasing amounts of growth capital in recent years, and growth capital overall has trended upward since 2019 – approximately $238M in 2019, $287M in 2020, $2B in 2021,[15] $593M in 2022, and $805M in 2023 – reflecting a solid base of high-potential early-stage firms. Startups in information technology, healthcare, and consumer products and services received the lion's share of financing, but other sectors such as energy, materials and resources, business products and services, and financial services have also seen respectable levels of investment.

[14] See additional details from the Sacramento Business Journal here.

[15] The nearly $2billion secured in 2021 remains something of an outlier driven by increased risk tolerance as the pandemic waned. See Page 116 of the Capital Region Economic Assessment for more information.

The Capital Region ecosystem is composed of a variety of actors, including institutions of higher education, venture capital funds, startup incubators, and nonprofits. Three key organizations anchor the broader network with a distinctive mix of entrepreneurial support programming and collaborative ecosystem building activities:

- The Carlsen Center for Innovation and Entrepreneurship (CIE) at Sacramento State offers cohort programs, workshops, networking events, and a continuing education certificate program focused on innovation and entrepreneurship. It serves the six-county Greater Sacramento region, with programming open to the Sacramento State as well as the general public. Community members represent roughly 70% of CIE users; Sacramento State students make up the remaining 30%. CIE recently received a state grant for the Accelerate California: Inclusive Innovation Hub program, which will provide expanded services for entrepreneurs across the region.

- The Growth Factory in Roseville combines investment from its geographically focused VC fund with startup support programming for pre-seed and seed-stage startups. Its accelerator program helps founders move from minimum viable product to investment-ready over the course of 18 months. The Growth Factory also partners with cities, counties, high schools, community colleges, and others in the Capital Region to provide entrepreneurial support programming, host pitch competitions, and more.

- StartupSac is a nonprofit entrepreneurial support organization that hosts a variety of workshops, events, and networking opportunities to educate and strengthen connections across the entrepreneurial ecosystem. The organization's website acts as a clearinghouse for local events, opportunities, resources, and news of relevance to the Sacramento startup community. It also provides contract services for entrepreneurial support organizations and startups, ranging from event production to marketing and website development to research and consulting.

These three anchor organizations together co-founded the Sacramento Entrepreneurial Growth Alliance (SEGA), a network of collaborative entrepreneurial ecosystem builders with a bias towards action and a commitment to grow equitable opportunities and fuel a thriving regional economy.

These and other regional entrepreneurship assets are discussed in greater detail below, within their relevant high-potential tradable sector.

Small Businesses

Not every business owner is looking for venture capital. Local-serving companies and Main Street businesses instead need small-dollar debt financing and technical assistance tailored to their situation.

Several organizations in the Capital Region focus on working with owners of small and microbusinesses. A few cities – among them Elk Grove, Rancho Cordova, and Rocklin – offer free business counseling and, in some cases, grant support for entrepreneurs. Federally funded Small Business Development Centers (SBDCs) located throughout the region provide free technical assistance that covers virtually every aspect of starting and operating a small business. Unfortunately most small and microbusiness owners are not aware that these services are available. SBDCs operate with minimal funding and have no budget for marketing and outreach, relying instead on word of mouth and referrals from their host organization (California Capital Financial Development Corporation in Sacramento, Sutter, Yolo, and Yuba Counties; Sierra Business Council in El Dorado, Nevada, and Placer Counties; and Butte College in Colusa County).

Potential entrepreneurs from underinvested communities face particular challenges when trying to start their businesses. Sacramento-based nonprofit CLTRE works to empower these individuals with culturally relevant programming and a welcoming ethos. Its CLTRE Navigator program provides targeted assistance to founders of color to help them navigate their entrepreneurial journey and establish successful businesses.

In places where the nearest SBDC is far away, local economic development organizations are stepping into the gap. The Nevada County Economic Resource Council (NCERC) and the Yuba-Sutter Economic Development Corporation (YSEDC) also offer free one-on-one advising for area business owners.

A number of stakeholders in the subregions have expressed interest in using procurement strategies to leverage anchor institutions' purchasing power in support of local small businesses, with priority for vendors owned by individuals from historically underrepresented backgrounds. Action on this front is promising but still nascent. Beale AFB and Sacramento Municipal Utility District (SMUD) both have active procurement efforts that they continue to refine. The CalAsian Chamber offers concierge-style matchmaking for purchasers seeking local vendors. Collaboration among anchors, vendor contract financing, and face-to-face outreach will lower barriers to participation for smaller local vendors.

Alignment with State Priorities and Climate and Equity Goals

State Priorities

Over the past few years, the federal government has authorized billions of dollars for much-needed investments in infrastructure, power generation and distribution, and the nation's industrial base. Funds and support from the 2021 American Rescue Plan, the 2021 Infrastructure Investment and Jobs Act, the 2022 CHIPS and Science Act, and the 2022 Inflation Reduction Act are helping accelerate climate adaptation investments, modernize the power grid, and boost innovation and supply chain resilience in priority industries. The State of California has taken steps to leverage federal funding and recent budget surpluses to advance similar goals. A sizable proportion of the funding made available by the 117th Congress and the

Biden Administration aims to provide support for regional economic development strategy development and implementation. Key federal initiatives include formula-determined infrastructure and clean energy funding as well as competitive grant programs such as the Build Back Better Regional Challenge, Tech Hubs, and Regional Clean Hydrogen Hubs. The Capital Region's industry strengths in food and agriculture, life sciences, and semiconductors (among others) are relevant to the aims of many of these programs. The region was part of a successful $21.4M Good Jobs Challenge application focused on resilient careers in forestry coordinated for northern California by the Foundation for California Community Colleges, consistent with the "working lands" value chain.

While several other applications have not been successful given the highly-competitive nature of these programs, they provide a baseline for additional strategies and resource pursuit:

- EDA Tech Hub application for a Zero Emission Vehicle Innovation Hub;
- National Science Foundation Regional Innovation Engines application focused on Innovation and Workforce in Food;
- EDA Build Back Better application to establish a Northern California Farm-to-Fork Innovation Coalition; and
- Good Jobs Challenge application to establish and strengthen a regional Information Technology jobs ecosystem to support the talent needs of high-growth sectors in our regional economy.

Climate Goals

Competitiveness of a broader range of regional industries may be subject to climate change impacts on operations and expenses. Clean energy transitions, insurance risk, supply chain and transportation disruptions, infrastructure vulnerabilities, and regulatory compliance for stringent emissions and waste management practices all can impose additional place-based costs for firms compared to peer regions in other states. Yet thoughtful investment in climate resilience could help drive inclusive economic outcomes. Meeting the state's ambitious climate goals and regulations will push market demand and major investments that offer adaptation solutions and quality job opportunities for the region. These include growth in traded activity like climate-ready agricultural solutions and zero-emission vehicle (ZEV) inputs, as well as local infrastructure installation for utilities where proactive workforce and procurement efforts can ensure that disconnected workers and local firms benefit from once-in-a-generation investments.

Equity Goals

Though the Capital Region fares better than many other regions in California at least 38 percent of area residents belong to families whose household income fails to cover basic costs.[16] This factors in basic costs for families of different sizes and compositions for each of the region's eight counties, and also includes

[16] See Page 6 of the Capital Region Economic Assessment Executive Summary.

savings to ensure financial stability and security.[17] The share of workers that struggle to make ends meet varies by age, skill, and race.[18] Enabling greater economic mobility by growing and creating quality jobs in high-potential tradable sectors will provide an avenue to self-sufficiency and generational wealth-building. It will let families establish economic security and stability and begin to repair past damage to communities that have been historically disinvested and barred access to opportunity.

These efforts to increase economic opportunity will bring the largest benefit if combined with deliberate actions to support the success of those involved. The Sector Neutral Strategies section of this report highlights the economic mobility strategies that will be an integral component of We Prosper Together's continued work as we advance into the Catalyst and Implementation phases.

Business Services – Technical Services and Business Administration

Sector Definition and Prioritization

The Business Services sector includes technical services, business administration, legal services, management consulting services, advertising and marketing, among others. Likely accelerated by the presence of state government, connections to the Bay Area, and the presence of corporate, subsidiary, and regional managing offices, business services are a major driver for the region, particularly in the Greater Sacramento metro area, where it is the largest sector to pass the selection screens of tradability, feasibility, opportunity, and sustainability. Opportunity is driven by a set of needed skills that complements existing strengths and workforce capacity associated with government and other management and headquarters functions.

[17] See Slide 20 of the Capital Region Economic Assessment Data Book.

[18] See Slide 23 of the Capital Region Economic Assessment Data Book.

Business Services Key Takeaways

- The high concentration of Business Services jobs, the current presence of a significant number of establishments, and already existing infrastructure in the sector, all give it a competitive advantage for future growth. This is particularly true if investment and resources are applied to more thoughtfully and effectively grow the sector and to expand training programs and services to more residents, particularly those in disinvested communities.
- Across several of its counties, the region boasts training programs supported by a robust ecosystem of education, workforce development, and private sector partners.
- Business Services jobs boast higher average earnings than jobs in the region overall, and the quality jobs share of Business Services jobs is high.

The following table (Table 1) is a snapshot of the Business Services sector in 2022:

Business Services	
Gross Regional Product (GRP)	$12,369,647,697
Payroll	$7,181,247,075
Jobs	61,620

Table 1
Source: Capital Clusters Metrics (Slide 4)

Our region identified two priority clusters within the broader Business Services Tradable Sector: Technical Services and Business Administration.

Technical Services includes[19] custom computer programming services, computer systems design services, software publishers, data processing and hosting, graphic design, translation and interpretations, environmental consulting services, and the "catch-all" categories of other computer-related services, other scientific or technical consulting services, or all other professional, scientific, or technical services.

[19] See Slide 4 of the Capital Clusters Metrics for the full breakdown of subclusters within the Technical Services cluster.

Business Administration includes[20] managing offices (corporate, subsidiary, regional), offices of other holding companies, office administrative services, offices of certified public accountants, professional employer organizations, human resources consulting services, and the "catch-all" categories of all other business services or business support services, or other accounting services.

Identifying Technical Services and Business Administration was informed by quantitative input from the cluster-specific metrics and the talent demand analysis; qualitative community input from Leadership Council members and the community outreach and engagement conducted by subregional community conveners; and preliminary qualitative industry input. The table below is a high-level snapshot of these three input sources, all discussed in further detail below:

	Total Number of Jobs	Number of Quality Jobs	Number of Mid-Skill Opportunity Jobs	Subregional Community Ambassador Identification *0 out of 5 scale*
Business Services	61,620	36,602	11,316	2
Technical Services	19,846	13,674	3,606	-
Business Administration	25,844	13,646	5,385	-

Table 2: This table highlights key findings from the quantitative input from the cluster-specific metrics and the talent demand analysis, and indicates how many subregions out of five total subregions noted specific opportunities in the Business Services sector.

Job Numbers, Concentration, and Growth[21]

In 2022, jobs in Business Services made up about 42% of total jobs in the four high-potential tradable sectors in the region, the largest share of jobs among those sectors. The two largest clusters within Business Services, in terms of number of jobs, are Technical Services (32% of total jobs in Business Services) and Business Administration (42% of total jobs in Business Services).

[20] See Slide 4 of the Capital Clusters Metrics for the full breakdown of subclusters within the Technical Services cluster.

[21] The data in this section, and additional data on job numbers, concentration, and growth for Business Services can be found in Slides 6, 7, and 8 of the Capital Clusters Metrics.

Looking specifically at each subregion, this sector also made up the largest share of jobs among all four high-potential tradable sectors in the Sacramento/Yolo and El Dorado/Placer subregions. In Nevada County, Business Services was a close second behind Working Lands (1,077 jobs in Business Services versus 1,189 jobs in Working Lands). In the Yuba/Sutter subregion and Colusa County – the more rural economies of the Capital Region – Business Services was a far second behind Working Lands, making up only 1,419 jobs in Yuba/Sutter and 40 jobs in Colusa County. This variation in the number of Business Services jobs across subregions illustrates how each subregional economy has specific needs and opportunities, particularly between rural and urban counties. It also makes clear that our approach must enlist multiple tradable sectors across diverse geographies to effectively increase economic mobility for our disinvested communities.

The job multiplier effect of Business Services is also significant – for every job created in the sector, 1.71 are added to the rest of the region's economy. The Technical Services and Business Administration clusters have job multipliers of 1.61 and 1.7 respectively.

Business Services jobs are highly concentrated in the region. Business Services comprises 2.37[22] times more of the region's private-sector jobs than they did nationwide in 2022. Looking specifically at the Technical Services and Business Administration clusters within Business Services, their concentration is 2.17 and 2.53 respectively. This implies a unique advantage in the region, making it a competitive place for Business Services businesses.

Notwithstanding the quantity and high concentration of Business Services jobs, the sector grew more slowly than its national counterparts from 2012 to 2022, with a job growth rate of only 14.5% in the sector overall.[23] Growth in many of the clusters within the Business Services sector was also uncompetitive – 17.5%[24] and 12.6%[25] respectively for Technical Services and Business Administration. Only the Management Consulting cluster had competitive growth, with a growth rate of 53.5%. Despite this uncompetitive growth, the current presence of a significant number of jobs and establishments and already existing infrastructure in the sector give a competitive advantage for future growth, if investment and resources are applied to more thoughtfully and effectively grow the sector.

[22] A value of 1 or greater means that a cluster represents a greater portion of the region's private-sector jobs than it does nationwide.

[23] If Business Services had added jobs as fast as they did nationwide from 2012 to 2022, their collective job base would have grown 17.8%. Instead, it grew just 14.5%. See Slide 8 of the Capital Clusters Metrics for additional details and a graph representation.

[24] If Technical Services had added jobs as fast as they did nationwide from 2012 to 2022, their collective job base would have grown 18.2%. Instead, it grew just 17.5%. See Slide 8 of the Capital Clusters Metrics for additional details and a graph representation.

[25] If Business Administration had added jobs as fast as they did nationwide from 2012 to 2022, their collective job base would have grown 18.2%. Instead, it grew just 12.6%. See Slide 8 of the Capital Clusters Metrics for additional details and a graph representation.

Job Quality and Access[26]

Business Services jobs boast higher average earnings than jobs in the region overall – 31.92% higher ($116,539, compared to $88,338). The average earnings of Technical Services ($124,262) is 40.67% higher, and the average earnings of Business Administration ($111,017) is 25.67% higher. Earnings across the sector and in those two clusters are also higher than the average earnings of the four high-potential tradable sectors overall.

Additionally, the quality jobs share of Business Services jobs is high – almost two-thirds of Business Services jobs are quality jobs (59.4%). Within Technical Services, 68.9% of the jobs are quality jobs; within Business Administration, 52.8%. Though jobs in Business Services skew toward higher-skilled workers, they also provide ample opportunity for mid-skilled workers who possess at least some post-secondary training. Twenty-three percent of Business Services sector opportunity jobs are held by mid-skilled workers, compared to 30% regionwide. Mid-skilled jobs make-up 21.3% of total Technical Services, and 28.5% of Business Administration jobs.

Input from Community Outreach and Engagement – Leadership Council and Subregional Community Conveners

The Sacramento/Yolo community convener noted that the subregion boasts robust workforce development programs centered on technology-focused training that enhances digital literacy and cybersecurity skills among its participants. Additionally, community outreach and engagement in this subregion revealed a strong interest among community members in technology-related jobs, such as cybersecurity, software development, and IT support. It should be noted that these types of skills would also have broader applicability, not just to Business Services, but to jobs in Precision Manufacturing and Research and Development as well. As noted earlier in this report, the most common opportunity jobs across all four high-potential tradable sectors are in technical fields – computer-related, engineering-related, and business-related occupations are the most common opportunity jobs across clusters, for workers of all education levels.

In the El/Dorado Placer subregion, community outreach and engagement revealed that the start-ups within the Growth Factory[27] ecosystem expressed a need for finding talent with technical skills related to data, artificial intelligence, cybersecurity, UI/UX design, and business skills.[28] The subregion is also seeing

[26] The data in this section, and additional data on job quality and access in Business Services can be found in Slide 10 of the Capital Clusters Metrics.

[27] The Growth Factory is an entrepreneurial development organization with an accompanying venture fund that helps communities develop talent, accelerate the growth of great companies, create an innovative culture, and fuel a competitive economy.

[28] Within business skills, marketing and sales were specifically called out, which are part of the Business Services cluster, but outside of the Technical Services and Business Administration clusters.

increased momentum in business services and technology more broadly, noting that they will be a critical component of all industries, and training a skilled workforce is critical to attract and retain high-growth firms. In fewer than two years, Unstructured – an AI/data-related startup based in Placer County – has raised $60M and has over 50 employees. Education partners like Sierra College and Sacramento State are working to align education, certificates, and degrees around this need. Folsom Lake College, part of the Los Rios Community College District, has the first AI pathway in the region, developed in partnership with Intel. Other ideas surfaced by community members with respect to the Business Services sector include an AI bootcamp or other accessible pathway to learning about AI tools.

Regional Assets

Over 7,000 Business Services establishments, including small businesses, are already present in the region – making up over half of approximately 13,000 businesses in the region overall. There are multiple firms with a strong regional presence, including Zennify (a financial services consulting firm based in Natomas in Sacramento County) and Nitrogen Wealth (a wealth management software services company based in Auburn in Placer County). For example, the Growth Factory is seeing strong momentum with early-stage companies like Unstructured. Through the efforts of organizations like the Nevada County Economic Resource Council and the Greater Sacramento Council – regional organizations focused on business attraction and retention – as well as city government and business associations, the region boasts a deep bench of local expertise in recruiting businesses within this sector. The small businesses within the Business Service sector are, in particular, excellent drivers of economic competitiveness, bringing new ideas to market. The presence of the state capital also provides immediate visibility and growth opportunities for Technical Services and Business Administration.

Precision Manufacturing – Instrumentation and Microelectronics Manufacturing, Next Generation Transportation, and Machinery Manufacturing

Sector Definition and Prioritization

The Precision Manufacturing sector includes instrumentation and microelectronics manufacturing (including medical device manufacturing), next generation transportation, machinery manufacturing, aerospace and defense, among others. Although disaggregated across separate traditional industry categories and comparatively small in terms of total establishments, a convergence of precision manufacturing activities presents emerging opportunities. Linking strength in firms, talent, and innovation across these clusters, the region evinces capacity for producing intricate, highly accurate components to meet stringent specifications and tolerances. In light of major new investments in manufacturing and research by Solidigm and Bosch, a focus on this sector could preserve and grow activities that generate middle-skill, middle-income jobs.

Precision Manufacturing

- Regional assets like the presence of five of the six leading chip manufacturers in the region and the Siemens Mobility rail manufacturing hub position the the sector well for future growth in the region, particularly if investment and resources are applied to more thoughtfully and effectively grow the sector and to expand training programs and services to more residents, particularly those in disinvested communities.
- Precision Manufacturing jobs boast higher average earnings than jobs in the region overall and a high quality jobs share – almost half of Precision Manufacturing jobs are quality jobs.

The following table is a snapshot of the Precision Manufacturing sector in 2022:

Precision Manufacturing	
Gross Regional Product (GRP)	$4,121,290,297
Payroll	$2,162,796,314
Jobs	19,447

Table 3
Source: Capital Clusters Metrics (Slide 4)

Our region identified three priority clusters within the broader Precision Manufacturing sector: Instrumentation and Microelectronics Manufacturing, Next Generation Transportation, and Machinery Manufacturing.

Instrumentation and Microelectronics Manufacturing includes[29] electronic computer manufacturing, surgical and medical equipment manufacturing, analytical laboratory instrument manufacturing, semiconductor and related device manufacturing, and the "catch-all" category of other electrical component manufacturing, among others. It also includes merchant wholesalers for computer and computer peripheral equipment and software; electrical apparatus equipment, writing supplies, and related equipment; and the "catch-all" category of other electronic parts and equipment.

[29] See Slide 4 of the Capital Clusters Metrics for the full breakdown of subclusters within the Instrumentation and Microelectronics Manufacturing cluster.

Next Generation Transportation includes[30] motor and generator manufacturing, relay and industrial control manufacturing, truck trailer manufacturing, automobile and light duty motor vehicle manufacturing, battery manufacturing, and the "catch-all" category of other motor vehicle parts manufacturing, among others.

Machinery Manufacturing includes[31] machine shops, farm machinery and equipment manufacturing, machine tool manufacturing, commercial and service industry machinery manufacturing, food product machinery manufacturing, construction machinery manufacturing, and the "catch-all" categories of all other industrial machinery manufacturing and all other miscellaneous manufacturing.

Identifying Instrumentation and Microelectronics Manufacturing, Next Generation Transportation, and Machinery Manufacturing was informed by quantitative input from the cluster-specific metrics and the talent demand analysis; qualitative community input from Leadership Council members and the community outreach and engagement conducted by subregional community conveners; and preliminary qualitative industry input. The table below is a high-level snapshot of these three input sources, all discussed in further detail below:

	Total Number of Jobs	**Number of Quality Jobs**	**Number of Mid-Skill Opportunity Jobs**	**Subregional Community Ambassador Identification** *0 out of 5 scale*
Precision Manufacturing	19,447	8,693	3,350	2
Instrumentation & Microelectronics Manufacturing	9,231	4,579	1,764	1
Next Generation Transportation	1,860	-	-	1
Machinery Manufacturing	5,318	1,856	819	1

[30] See Slide 4 of the Capital Clusters Metrics for the full breakdown of subclusters within the Next Generation Transportation cluster.

[31] See Slide 4 of the Capital Clusters Metrics for the full breakdown of subclusters within the Machinery Manufacturing cluster.

Table 4

Job Numbers, Concentration, and Growth[32]

In 2022, jobs in Precision Manufacturing made up about 13% of total jobs in the four high-potential tradable sectors in the region. The two largest clusters within Precision Manufacturing, in terms of number of jobs, are Instrumentation and Microelectronics Manufacturing (48% of total jobs in Precision Manufacturing) and Machinery Manufacturing (28% of total jobs in Precision Manufacturing). Next Generation Transportation is the fourth largest (10% of total jobs in Precision Manufacturing).

This sector has the third largest share of jobs among all four high-potential tradable sectors in each subregion. The number of jobs varies widely, however. Most Precision Manufacturing jobs are concentrated in the Sacramento/Yolo subregion (12,432 or about 64%), and the El Dorado/Placer subregion also has a significant number (5,511 or about 28%). The Yuba/Sutter subregion and Nevada County only have about 700 Precision Manufacturing jobs each, and Colusa County has less than 20. Similar to the Business Services sector, this variation in the number of Precision Manufacturing jobs across subregions illustrates how each subregional economy has specific needs and opportunities, particularly between rural and urban counties. It also makes clear that our approach must enlist multiple tradable sectors across diverse geographies to effectively increase economic mobility for our disinvested communities.

The job multiplier effect of Precision Manufacturing is significant – for every job created in the sector, 2.12 are added to the rest of the region's economy. Instrumentation and Microelectronics Manufacturing and Machinery Manufacturing, have job multipliers of 2.44 and 1.64 respectively.

Precision Manufacturing jobs are concentrated in the region, but less so than the other three high-potential sectors. Precision Manufacturing comprises 1.61[33] times more of the region's private-sector jobs than they did nationwide in 2022. Looking specifically at the Instrumentation and Microelectronics Manufacturing and Machinery Manufacturing clusters within Precision Manufacturing, their concentration is 2.13 and 1.35 respectively. This implies a unique advantage in the region, making it a competitive place for Precision Manufacturing businesses.

The Precision Manufacturing sector grew more slowly than its national counterparts from 2012 to 2022, with a job growth rate of only -3.2% in the sector overall.[34] Growth in many of the clusters within the

[32] The data in this section, and additional data on job numbers, concentration, and growth for Precision Manufacturing can be found in Slides 6, 7, and 8 of the Capital Clusters Metrics.

[33] A value of 1 or greater means that a cluster represents a greater portion of the region's private-sector jobs than it does nationwide.

[34] If Precision Manufacturing had added jobs as fast as they did nationwide from 2012 to 2022, their collective job base would have grown 14.9%. Instead, it grew just -3.2%. See Slide 8 of the Capital Clusters Metrics for additional details and a graph representation.

Precision Manufacturing sector was also uncompetitive – -28%[35] and 14.6%[36] respectively for Instrumentation and Microelectronics Manufacturing and Machinery Manufacturing. Only the Management Consulting cluster had competitive growth, with a growth rate of 53.5%. Despite this uncompetitive growth, certain regional assets give a competitive advantage for future growth, if investment and resources are applied to more thoughtfully and effectively grow the sector. For example, the region boasts the presence of five of the six leading chip manufacturers including Intel and Intel spin-offs Solidign and Blaize. Siemens Mobility's rail manufacturing hub, a 583,000 square-foot facility, is also located in the region.

Job Quality and Access[37]

Precision Manufacturing jobs boast higher average earnings than jobs in the region overall – 25.89% higher ($111,211, compared to $88,338). The average earnings of Instrumentation and Microelectronics Manufacturing ($133,174) is even higher at 50.76%. Both of these are higher than the average earnings of the four high-potential tradable sectors overall. Machinery Manufacturing average earnings, however, are not as high – only $80,408, lower than jobs in the region overall, but still enough to meet the annual self-sufficiency standard for most families in the region.[38]

The quality jobs share of Precision Manufacturing jobs is high – almost half of Precision Manufacturing jobs are quality jobs (44.7%). Within Instrumentation and Microelectronics Manufacturing, 49.6% of the jobs are quality jobs; within Machinery Manufacturing, 34.9%. Though jobs in the Precision Manufacturing skew toward higher-skilled workers, they also provide ample opportunity for mid-skilled workers who possess at least some post-secondary training. Twenty-eight percent of Precision Manufacturing sector opportunity jobs are held by mid-skilled workers, compared to 30% regionwide. Mid-skilled jobs make-up 28.8% of total Instrumentation and Microelectronics Manufacturing, and 29.7% of Machinery Manufacturing jobs.

[35] If Instrumentation and Microelectronics Manufacturing had added jobs as fast as they did nationwide from 2012 to 2022, their collective job base would have grown 13.9%. Instead, it grew just -28%. See Slide 8 of the Capital Clusters Metrics for additional details and a graph representation.

[36] If Machinery Manufacturing had added jobs as fast as they did nationwide from 2012 to 2022, their collective job base would have grown 17.2%. Instead, it grew just 14.6%. See Slide 8 of the Capital Clusters Metrics for additional details and a graph representation.

[37] The data in this section, and additional data on job quality and access in Precision Manufacturing can be found in Slide 10 of the Capital Clusters Metrics.

[38] See Slide 20 of the Capital Region Economic Assessment.

Input from Community Outreach and Engagement – Leadership Council and Subregional Community Conveners

Within the Precision Manufacturing sector, Leadership Council members highlighted the presence of key semiconductor firms and employers in the region, primarily focused on research and development operations, with emphasis on solid-state memory solutions, but also some fabrication.

In the Sacramento/Yolo subregion, the community convener identified the manufacturing sector as a strong area of opportunity, and noted that incorporating cutting-edge technologies such as robotics, automation, and precision engineering, as well as developing innovation hubs and fostering collaboration between technology companies and manufacturers, can revitalize the sector. The subregion also boasts robust workforce development programs centered on manufacturing that foster skills in advanced manufacturing technologies that can help address skills gaps. Additionally, community outreach and engagement in this subregion revealed a strong interest among community members in jobs involving new manufacturing technologies, including robotics and precision engineering.

In the El Dorado/Placer subregion, the community convener also identified Precision Manufacturing as an opportunity sector, particularly in Placer County. Sierra College's mechatronics program is well known for producing talent utilized by our region's manufacturers, including Siiemens and Bosch (formerly TSI Semiconductor). The community convener also noted, however, that it was largely traditional economic development stakeholders who advocated for prioritization of this sector, while community members tended to better favor local-serving sector priorities.

In the Tahoe subregion, the community convener noted that community members expressed interest in Precision Manufacturing projects and that the sector is seen as providing stable and well-paying employment opportunities that align with the community's needs and aspirations.

In Nevada County, the community convener identified manufacturing as an opportunity area for assisting disinvested communities into laddered employment. It noted that, as the need for semi-skilled workers grows, it is manufacturing firms that are often positioned to do more in-house training in the specific skills needed to operate the specialized machines and equipment required.

Regional Assets

The region boasts a strong semiconductor industry anchored by five of the six leading chip manufacturers. R&D operations dominate, with emphasis on solid-state memory solutions. Since Intel set up shop in 1984, this regional cluster has grown steadily. Several companies, including Solidigm and Blaize, spun out from Intel and established facilities in the region. Bosch has also announced plans to invest $1.5 billion in the former TSI Semiconductors facility in Roseville and significantly expand its workforce. The company will retain the existing workforce and expects to expand it substantially in the years ahead. Placer County has

already begun conversations with the City of Roseville, Sierra College, and the Golden Sierra Job Training Agency to coordinate workforce development efforts related to this substantial investment.

Despite a wave of layoffs in recent months at Intel and Solidigm, the industry expects to grow as funding from the federal CHIPS and Science Act begins to be dispersed. Since semiconductors have applications ranging from zero-emission vehicles (ZEVs) and other cleantech to communications systems to aerospace and defense, a solid sector presence can open up possibilities for productive interactions across a wide range of industries.

In addition to semiconductors, the region is also home to major manufacturers like Siemens Mobility. Its manufacturing facility serves as the North American Rail Manufacturing Headquarters for rolling stock. The rail plant boasts full manufacturing capabilities, including design, engineering, testing, carshell, bogies, subassembly, and final assembly. The plant is an example of environmentally friendly manufacturing, as it utilizes solar energy to power up to 80% of the facility.

Finally, the California Mobility Center (CMC) is working to boost innovation and commercial activity related to clean mobility. This public-private partnership aims to create a robust ecosystem of researchers, investors, founders, and firms intent on developing next-generation mobility solutions. The proposed CMC includes plans for a Ramp-Up Factory that will provide cost-effective prototyping and small-scale production for startups, original equipment manufacturers, and firms in the clean mobility supply chain. Currently located in Sacramento's Depot Park, the CMC will ultimately anchor The HubResearch Park, a 25-acre development just south of the Sacramento State campus.

Working Lands – Agriculture & Food and the Wood Economy

Sector Definition and Prioritization

The Working Lands sector includes food, agriculture, wood economy product manufacturing, mining and extraction, and wood economy logging, among others. Manufacturing and downstream activities connected to the region's exceptional natural resources show promise. Connections are evident between commodity production in agriculture, forestry, and mining throughout the eight counties as well as value-add in related processing, equipment, and advanced logistics that could further localize with adjustments in supply chain and international trade practices. Quality jobs are generated in the manufacture of construction materials, wood products, and food as well as related freight arrangement, packaging, and shipping. Goods movement advantages rely on internal growth of manufacturing and agriculture and are poised for further automation, requiring all dimensions of the value chain to be considered as a sector.

Working Lands Key Takeaways

- Although jobs in Working Lands make up 40% of total jobs in the region, the quality jobs share is low, because many of the jobs are low-wage, seasonal, and do not provide opportunities for advancement.
- Jobs in this sector could, however, provide a more accessible path for mid-skilled workers to opportunity jobs, if mechanisms like new business models, technology adoption, and skills training are operationalized to help boost productivity and increase wages. In relation to this, value-added food and agriculture production has surfaced as an opportunity area for rural counties in the region whose economies are heavily agriculture-dependent.

The following table is a snapshot of the Working Lands sector in 2022:

Precision Manufacturing	
Gross Regional Product (GRP)	$8,401,902,761
Payroll	$4,431,978,125
Jobs	58,719

Our region identified two priority clusters within the broader Working Lands sector: Agriculture & Food and the Wood Economy.

Agriculture includes[39] crop production, farm labor contracts and crew leaders, local and long distance freight trucking, rail transportation, wholesale trade agents and brokers, wholesale merchants for wine and distilled alcoholic beverages, wholesale merchants for beer and ale, wholesale merchants for farm supplies, rice milling, frozen specialty food manufacturing, among many others. Food includes[40] animal production, general line grocery merchant wholesalers, fresh fruit and vegetable wholesalers, perishable prepared food manufacturing, roasted nuts and peanut butter manufacturing, breweries, wineries, soft drink manufacturing, among many others.

[39] See Slide 4 of the Capital Clusters Metrics for the full breakdown of subclusters within the Agriculture cluster.

[40] See Slide 4 of the Capital Clusters Metrics for the full breakdown of subclusters within the Food cluster.

Wood Economy includes[41] lumber, plywood, millwork, and wood panel merchant wholesalers. engineered wood member manufacturing, commercial printing except screen and books, wood window and door manufacturing, manufactured home manufacturing, wood kitchen cabinet and countertop manufacturing, wood container and pallet manufacturing, and the "catch-all" category of "all other miscellaneous wood product manufacturing," among many others.

Identifying Agriculture & Food and the Wood Economy was informed by quantitative input from the cluster-specific metrics and the talent demand analysis; qualitative community input from Leadership Council members and the community outreach and engagement conducted by subregional community conveners; and preliminary qualitative industry input. The table below is a high-level snapshot of these three input sources, all discussed in further detail below:

	Total Number of Jobs	**Number of Quality Jobs**	**Number of Mid-Skill Opportunity Jobs**	**Subregional Community Ambassador Identification** *0 out of 5 scale*
Working Lands	58,719	15,677	8,802	4
Agriculture & Food	49,799	15,545	7,260	4
Wood Economy	7,899	2,516	1,320	4

Table 6: This table highlights key findings from the quantitative input from the cluster-specific metrics and the talent demand analysis, and indicates how many subregions out of five total subregions noted specific opportunities in the Working Lands sector.

Job Numbers, Concentration, and Growth[42]

In 2022, jobs in Working Lands made up about 40% of total jobs in the four high-potential tradable sectors in the region. The two largest clusters within Working Lands, in terms of number of jobs, are Agriculture & Food (85% of total jobs in Working Lands) and Wood Economy (13% of total jobs in Working Lands).

[41] See Slide 4 of the Capital Clusters Metrics for the full breakdown of subclusters within the Wood Economy cluster.

[42] The data in this section, and additional data on job numbers, concentration, and growth for Precision Manufacturing can be found in Slides 6, 7, and 8 of the Capital Clusters Metrics.

This sector has the largest share of jobs among all four high-potential tradable sectors in every subregion, except in Sacramento/Yolo and El Dorado/Placer where it has the second largest share of jobs after Business Services. In subregions with more rural geographies and economies, the number of Working Lands jobs far exceeds the number of jobs in other high-potential tradable sectors. For example, in Yuba/Sutter, there are 9,095 Working Lands jobs, and only 1,419 jobs in Business Services, which is the next biggest sector. In Colusa County, this is even more pronounced, with 3,884 jobs in Working Lands, and less than a hundred in Business Services, Precision Manufacturing, and Research and Development combined. This illustrates how each subregional economy has specific needs and opportunities, particularly between rural and urban counties. It also makes clear that each of these high-potential tradable sectors and the clusters within them plays a specific role in growing the regional economy as a whole, and connecting disinvested communities to opportunities that increase economic mobility.

The job multiplier effect of Working Lands is also significant – for every job created in the sector, 2 are added to the rest of the region's economy. Agriculture has a job multiplier of 1.98; Food, 2.08; Wood Economy (product manufacturing), 1.91; and Wood Economy (logging), 1.79.

Working Lands jobs are concentrated in the region, more so than Business Services and Precision Manufacturing, but less than Research and Development. Working Lands comprises 3.09[43] times more of the region's private-sector jobs than they did nationwide in 2022. Agriculture in particular has an especially high concentration at 3.53. This implies a unique advantage in the region, making it a competitive place for Working Lands businesses.

Notwithstanding the quantity and high concentration of Working Lands jobs, the sector grew more slowly than its national counterparts from 2012 to 2022, with a job growth rate of only 17.3% in the sector overall. However, while Agriculture had slower than expected job growth, Food and Wood Economy (both product manufacturing and logging) all had competitive growth rates, indicating a competitive advantage in these clusters.

Job Quality and Access[44]

Working Lands average earnings are the lowest among all four high-potential tradable sectors, and are lower than jobs in the region overall ($75,477, compared to $88,388). The average earnings of Agriculture, Food, and Wood Economy (product manufacturing) are all under $80,000; only Wood Economy (logging) average wages ($102,378) are competitive vis a vis the Working Lands Sector as a whole and other jobs in the region overall.

[43] A value of 1 or greater means that a cluster represents a greater portion of the region's private-sector jobs than it does nationwide.

[44] The data in this section, and additional data on job quality and access in Working Lands can be found in Slide 10 of the Capital Clusters Metrics.

The quality jobs share of Working Lands is also the lowest among all four high-potential tradable sectors – only 26.7% of jobs are quality jobs. It is the only one of these sectors that has a lower quality job share than jobs in the region overall (35.7%). Agriculture, in particular, has the lowest quality job share among all clusters within Working Lands – 23.9%. Wood Economy (logging) is the only cluster with a quality jobs share (45.9%) that surppasses that of jobs in the region overall, and is even larger than some of the clusters within Precision Manufacturing.

Working Lands jobs are the most accessible to mid-skilled workers among all four high-potential tradable sectors, with mid-skill opportunity jobs making up 34.6% of Working Lands Jobs overall. In fact, all priority clusters within Working Lands – Food, Agriculture, Wood Economy (product manufacturing) and Wood Economy (logging) – have a higher share of mid-skill opportunity jobs than jobs in the region overall and jobs in the priority clusters of the other three high-potential tradable sectors.

The average earnings and quality jobs share of Working Lands is an area of concern within the region, given how much the sector makes up in the regional economy and, in particular, the economies of more rural subregions. However, with the greater accessibility of opportunity jobs to mid-skilled workers, jobs in this sector could provide a more attainable path toward economic mobility. But other mechanisms will be needed – new business models, technology adoption, and skills training can help boost productivity and increase wages, particularly in currently labor-intensive fields such as agriculture. A combination of policy and program interventions – better employer human resource capabilities, earn-and-learn opportunities, incumbent worker training, universal basic income programs – might be considered to address this challenge at scale.

Input from Community Outreach and Engagement – Leadership Council and Subregional Community Conveners

Leadership Council members have highlighted opportunities in value added food and agriculture within the Food & Agriculture cluster of Working Lands. As part of Wood Economy, they have highlighted opportunities in biomass processing facilities, such as the upcoming construction of a biomass plant in Yuba County that will help clean up the forest and thereby reduce wildfire risk and severity by taking woody debris and other fire fuel material and converting it into electrical energy for the grid.

In the Yuba/Sutter subregion and Colusa County, community conveners noted that most of the jobs are, by a wide margin, Agriculture jobs. However, the quality of these jobs varies widely and a significant proportion of employment is in low-wage seasonal positions. The seasonality of this work creates large swings in labor force participation rates as Agriculture workers cycle between jobs and unemployment. The financial instability that many workers experience as a result severely limits their ability to improve their economic situation.

In Yuba/Sutter, community outreach and engagement revealed a willingness among workers to seek better opportunities if those opportunities offer higher wages, more consistent hours, and reduced impact from weather-related interruptions. However, changing industries is also seen as a significant risk, as learning new skills or transitioning to new industries often requires time and resources that these workers may not have. Another area with challenges was employment opportunities in Camptonville, located Northeast of Yuba County. Residents of the area stated that there is opportunity for employment in trades like forestry and watershed management. There is also opportunity to build around the watershed and build other industries that will protect and improve the surrounding communities in terms of forest health.

In Colusa County, the Food and Agriculture cluster encompasses virtually every aspect of food production, processing and manufacturing, packaging, distribution, and wholesale and retail sales. The community convener noted that there is opportunity for quality jobs in value-added agriculture – food manufacturing and processing – if these activities can be enhanced. Currently, Colusa grows raw crops but doesn't ship out many finished products. For example, there's rice but not rice cakes or rice-based cereal. Additionally, the emergence of three proposed biomass projects has the potential to use agricultural byproducts to produce electricity.

Similarly, in the El Dorado/Placer subregion, community outreach and engagement in El Dorado County revealed opportunities for growth within value-added Agriculture. The community convener also noted, however, that these opportunities may need to be implemented in tandem with strategies that connect communities to already available jobs in local-serving sectors, such as healthcare and construction, because the reorientation to value-added Agriculture may take some time.

In Nevada County, the community convener noted that Agriculture has long offered entry level employment and now with the increase in technology within the industry, this could represent an area of potential development. Assisting small Agriculture producers in accessing and adapting this technology can create more employment opportunities and pathways to sustainable employment. Another example is cannabis – with further deregulation of cannabis, there will be an increased need for a workforce to support its production and distribution.

In the Tahoe subregion, the community convener noted that environmental innovation, including sustainable wood processing, not only enhances community resilience but also taps into economic opportunities, such as the development of eco-friendly products and services.

Regional Assets

Working Lands have powered the region's economy since before California gained statehood in 1850. Core natural assets of abundant fertile farmland, long growing seasons, forested expanses, and proximity to the food production in the Central Valley are boosted by the unique presence of UC Davis – ranked as the world's leading university for agriculture and forestry. Promoted as America's Farm-to-Fork Capital, the

region also has concentrated recently on boosting agritourism and a restaurant community as part of the ecosystem.

The agriculture industry shows up differently across the region. Small and mid-size operations reign in El Dorado/Placer, Nevada, and Yuba/Sutter subregions, where the vast majority of farms are under 50 acres. Growers produce a variety of crops, including rice, walnuts, apples, and wine grapes. In Sacramento/Yolo, fruit and nuts, seed crops, grains, and wine grapes prevail, with 60% of farms having 50 acres or fewer. The Colusa subregion is a mix of crop production, ranches, and tomato processing facilities, many of which are larger operations – just over 25% of farms and ranches in the subregion cover more than 500 acres. In recent years, Colusa has been hit hard by drought, with consequences for productivity, jobs, food access, and wildlife habitats.

Climate change has accelerated the need for more sustainable growing practices. The University of California Cooperative Extension (UCCE), which has the trust of growers in the region, plays a vital role in connecting farm owners with the information, technologies, and resources they need to cope with climate impacts and comply with state climate regulations while running successful operations. Programs that upskill farmworkers and farm managers such as those offered by the Center for Land-Based Learning will help ensure that farm employees have the skills they need as conditions evolve. The rise of the next generation of farm owners may also help drive transformation within the industry. California FarmLink, a Community Development Financial Institution (CDFI) focused on sustainable and inclusive agriculture, is expanding its activities to improve access to capital for generational land transfers in the region.

Within the Food cluster, Alchemist Public Market offers business basics, an incubator program and shared commercial kitchen space for would-be food entrepreneurs from Sacramento's lower-income communities.

Research and Development – Agriculture/Food Technology and BioTech

Sector Definition and Prioritization

The Research and Development sector includes research and development in the physical, engineering, life sciences, biotechnology, social sciences and humanities, and nanotechnology. Well-known research and innovation capabilities in agricultural and biological science offer cross-cutting potential for capturing even greater commercial benefits in the region. Agricultural science represents one-third of peer-reviewed regional innovation outputs, spinning out more than 900 worldwide patents and 12 companies with 50 deals receiving $1.4 billion in growth capital over ten years. Investment intensity in Capital Region agricultural innovation is three to 30 times the national average. Biological sciences for human health anchored in pharmaceuticals and biotech, devices, and traded health services represents another 45% of peer-reviewed outputs, representing some 40,000 articles leading to 4,400 new patented therapies and 130 regional startups securing growth capital totaling $1.7 billion over ten years.

Research and Development Key Takeaways

- The average earnings and quality jobs share of jobs within the Research and Development sector are exceptional, even compared to jobs in the other three high-potential tradable sectors. However, these jobs are also the least accessible, with less than a fifth of them available to mid-skilled workers, and many of them requiring advanced degrees.
- The region is a powerhouse in basic and applied research, with particular emphasis on sciences relevant to agriculture. It has a solid innovation ecosystem anchored by globally recognized research institutions and leading-edge firms.

The following table is a snapshot of the Research and Development sector in 2022:

Research and Development	
Gross Regional Product (GRP)	$2,144,557,032
Payroll	$1,726,767,138
Jobs	7,663

Table 7
Source: Capital Clusters Metrics (Slide 4)

This was informed by quantitative input from the cluster-specific metrics and the talent demand analysis; qualitative community input from Leadership Council members and the community outreach and engagement conducted by subregional community conveners; and preliminary qualitative industry input. The table below is a high-level snapshot of these three input sources, all discussed in further detail below:

	Total Number of Jobs	**Number of Quality Jobs**	**Number of Mid-Skill Opportunity Jobs**	**Subregional Community Ambassador Identification** *0 out of 5 scale*
Research & Development	7,663	5,471	1,276	3

Agricultural / Food Technology	-	-	-	3
Bio Tech	-	-	-	3

Table 8: This table highlights key findings from the quantitative input from the cluster-specific metrics and the talent demand analysis, and indicates how many subregions out of five total subregions noted specific opportunities in the Research and Development sector. Initial data research by Cities GPS focused on the large Research & Development sector, further research and analysis are being conducted on the two identified clusters.

Job Numbers, Concentration, and Growth[45]

In 2022, jobs in Research and Development made up about 5% of total jobs in the four high-potential tradable sectors in the region.

This sector has the fourth largest share of jobs among all four high-potential tradable sectors in each subregion. Almost all of these jobs are located in the Sacramento/Yolo subregion; the Placer/El Dorado subregion has less than 200, and every other subregion has less than 50. Colusa County has zero. This variation in the number of Research and Development jobs across subregions illustrates how each subregional economy has specific needs and opportunities, particularly between rural and urban counties. It also makes clear that each of these high-potential tradable sectors and the clusters within them plays a specific role in growing the regional economy as a whole, and connecting disinvested communities to opportunities that increase economic mobility.

The job multiplier effect of Research and Development is the most significant among all fourth high-potential tradable sectors – for every job created in the sector, 3.09 are added to the rest of the region's economy.

Research and Development jobs are highly concentrated in the region, more so than any of the other three high-potential tradable sectors. Research and Development comprises 4.04[46] times more of the region's private-sector jobs than they did nationwide in 2022. This implies a unique advantage in the region, making it a competitive place for this sector.

[45] The data in this section, and additional data on job numbers, concentration, and growth for Research and Development can be found in Slides 6, 7, and 8 of the Capital Clusters Metrics.

[46] A value of 1 or greater means that a cluster represents a greater portion of the region's private-sector jobs than it does nationwide.

Research and Development in the region also grew at pace with its national counterparts – from 2012 to 2022, it had a job growth rate of 23.3%, higher than expected. This signals a competitive advantage for future growth, if investment and resources are applied.

Job Quality and Access[47]

Research and Development jobs boast higher average earnings than jobs in the region overall – 155% higher ($225,324, compared to $88,338) – and in other priority sectors or any of the clusters within them. The quality jobs share is also exceptionally high – 71.4% of Research and Development jobs are quality jobs. These quality jobs, however, tend to be much less accessible to mid-skilled workers than quality jobs in the other three high-potential tradable sectors. Mid-skill opportunity jobs make up only 19.1% of jobs, and a majority of jobs require advanced degrees, even beyond a Bachelor's degree.

Input from Community Outreach and Engagement – Leadership Council and Subregional Community Conveners

Within the Research and Development sector, Leadership Council members highlighted the presence of both upcoming and already established centers of innovation and regional anchors – UC Davis and CSU Sacramento, as well as Aggie Square, The Plant, and the California Mobility Center.

Rural subregions whose economies are centered on Agriculture, such as Colusa County, have noted the areas of Agriculture and Food Technology as opportunity areas for the region.

Regional Assets

The Capital Region is a powerhouse in basic and applied research, with particular emphasis on sciences relevant to agriculture. It has a solid innovation ecosystem anchored by globally recognized research institutions and leading-edge firms. Research activity in the region is geographically concentrated, with the majority taking place in the Sacramento-Yolo subregion, home to UC Davis and CSU Sacramento.

UC Davis sits at the heart of the region's innovation ecosystem. A top-tier (R-1) land grant university and federally designated Hispanic-Serving Institution (HSI), it is far and away the most innovation-oriented entity in the region, representing some 90% of research activity. It is a global leader in life and earth sciences as well as biomedical and health sciences, which aligns with the region's strengths in industries such as agriculture and biologics. The university as a whole is particularly strong in food systems research, with expertise in practically every field of study. Interdisciplinary applied research is a priority at UC Davis, with special research programs and centers such as the the Center for Regional Change, the Innovation Institute for Food and Health, the Institute of the Environment, the Gene Therapy Center, the Energy and

[47] The data in this section, and additional data on job quality and access in Research and Development can be found in Slide 10 of the Capital Clusters Metrics.

Efficiency Institute, and the Center for Nano and Micro Manufacturing (CNM2). During the 2022-2023 academic year, UC Davis researchers brought in more than $1 billion in external research funding, a feat achieved by only a handful of U.S. public universities.

UC Davis is also the future home of Aggie Square, a 1.1 million-square-foot district focused on translating food and biotechnology innovations into needed products and services. Once complete, Aggie Square will offer needed wet lab facilities, startup and scale-up space for food bioeconomy entrepreneurs, offices, mixed-use space, housing, and other amenities. A Community Benefits Partnership Agreement among UC Davis, the City of Sacramento and developer Wexford Science & Technology will ensure that Aggie Square also benefits local communities and boosts inclusive economic growth. The district is slated to open its doors in the first part of 2025, with students moving into Aggie Square residential halls later that fall. The university recently selected a Chief Innovation and Economic Development Officer who will lead Aggie Square development and build stronger connections between the university, Capital Region communities, and the regional innovation ecosystem.

Two other planned projects will further expand the region's innovation capacity. The Plant at Woodland Research and Technology Park will create a new node for food, agriculture, and health R&D. Led by University of California Agriculture and Natural Resources (UCANR) with strong support from Valley Vision and other partners, this catalytic investment will accelerate commercialization by providing the facilities and programming needed for early-stage firm scale-up, open innovation, and corporate research, all within close proximity to UC Davis. The Plant is in the process of securing federal funds for the construction design and planning phase; as a whole, the entire project will require significant investment. The Woodland Research and Technology Park will be a major asset for the region, with dedicated research, innovation, and manufacturing facilities that build on the the City of Woodland's Food Front Initiative. The project is moving forward, though build-out will require improvements to utilities and roadway infrastructure in and around the park.

Many of these regional assets are also interwoven with the entrepreneurial ecosystem. Nonprofit entrepreneurial support organization AgStart works with high-potential entrepreneurs in the fields of agriculture, food, and health. Its wet lab facility, The Lab@AgStart, provides affordable shared equipment and lab space for early-stage bench research. This facility also features a food lab for researchers testing ingredients and prototyping food products.

Talent Demand Analysis

A talent demand analysis is an important lens for identifying our region's sector strategies and confirming their viability, because it gives a clear idea of how ready the region's workforce is for quality jobs in the region's four high-potential tradable sectors – Business Services, Precision Manufacturing, Working Lands, and Research and Development. Specifically, a talent demand analysis reveals whether workers have the

education level and talent (i.e., knowledge, skills, and abilities) needed to qualify for these quality jobs and, if not, what workforce development strategies need to be implemented to get them to that point.[48]

Given the overarching goal of moving more people into quality jobs to improve their economic mobility and quality of life, with a particular emphasis on disinvested communities, our region undertook its talent demand analysis from the perspective of the "struggling worker" – a worker who is unable to make ends meet, based on the estimated cost of living. Broadly, the analysis looked at the talent of the average struggling worker, and compared it to the talent needed for quality jobs in Business Services, Precision Manufacturing, Working Lands, Research and Development, and the priority clusters within them. The result of that comparison revealed how qualified or not qualified the average struggling worker is for particular sectors/cluster jobs, and indicated what types of training strategies or programs would help make them more qualified.

Key Talent Demand Analysis Takeaways

Our region's struggling workers are about as qualified for jobs in the four high-potential tradable sectors as they are for jobs in other parts of the regional economy, signaling that qualifying these workers for jobs in the four high-potential tradable sectors is within reach, as long as workforce development investments and efforts are targeted towards addressing the talent needs and gaps of jobs within those sectors.

The jobs within each four high-potential tradable sectors have their own unique set of talent requirements, and generally employ different types of workers. Nonetheless, there are some commonalities.

- The knowledge, skills, and abilities related to business operations and technical aspects (e.g., computers, technology, and programming), as well as advanced reasoning and problem solving, are all important to jobs in the Business Services, Precision Manufacturing, and Research and Development sectors.
- On the other hand, jobs in Working Lands prize a different set of knowledge, skills, and abilities (e.g., equipment or machinery operating and monitoring, or knowledge of production, processing, and logistics).

As a starting point, our region looked at the average talent overlap between jobs in the four high-potential tradable sectors and jobs in other parts of the economy. This talent overlap can be quantified as a percentage. As illustrated in the chart below, the region's struggling workers are, on average, more qualified for jobs in the four high-potential tradable sectors (85.6% qualified) than they are for jobs in other

[48] The data in this section can be found in Slide 12, Slide 13, and Slide 14 of the Capital Clusters Metrics.

tradable sectors (83.2% qualified). They are about as qualified for jobs in the four high-potential tradable sectors (85.6% qualified) as they are for jobs in other parts of the regional economy (85.5% qualified). They are most qualified for jobs in local-serving sectors (89.1% qualified).[49]

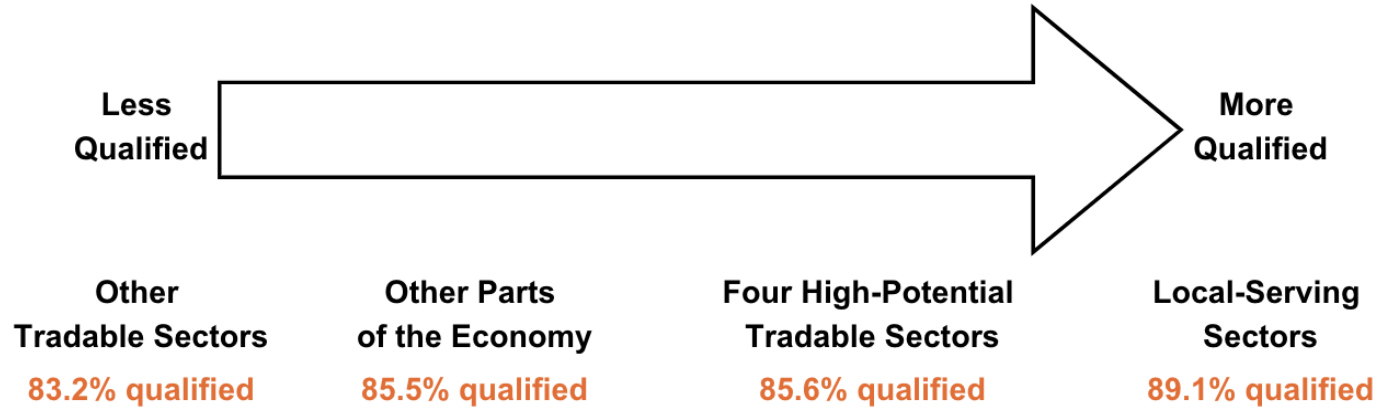


Chart 7

There is some variance by sector, as illustrated in the table below – for example, workers tend to be more qualified for quality jobs in Working Lands (89%), but less qualified for those in Business Services (83.2%).

Table 9: This table illustrates how qualified struggling workers are for jobs in each of the four high-potential tradable sectors, and the priority clusters within those sectors.

Sector	% Qualified	Clusters	% Qualified
Business Services	83.2%	Technical Services	82.1%
		Business Administration	84.2%
Agriculture & Food	84.4%	Instrumentation and Microelectronics Manufacturing	84.4%
		Machinery Manufacturing	86.7%

[49] *This is consistent with the fact that, as the state capital, our region has historically had stronger performance in its local-serving sectors, due largely to the high number of government jobs# that continuously grows as California advances economically.*

		Next Generation Mobility	84%
Working Lands	89.9%	Agriculture	87.9%
		Food	90.6%
		Wood Economy	89%
Research and Development	78.2%	Research and Development	78.2%

There is also variance in workers' qualification within a sector, depending on their education and domain.[50] For example, workers with a high school diploma qualify for quality jobs in Instrumentation and Microelectronics because of their skills, while workers with an associate degree qualify for quality jobs in Machinery Manufacturing because of their knowledge.

Next, our region looked at the relative importance of education level and talent to quality jobs in the four high-potential tradable sectors, compared to their importance in the current jobs of struggling workers.

Compared to struggling workers' current jobs, jobs in these four high-potential tradable sectors prize business or technical talent, meaning they need knowledge, skills, and abilities related to business operations and technical aspects, such as computers, technology, and programming. Advanced reasoning and problem solving are also important. These talent facets – business or technical talent and problem solving – are important for workers, regardless of their educational attainment, in the Business Services, Precision Manufacturing, and Research and Development sectors. On the other hand, jobs in Working Lands prize a different set of knowledge, skills, and abilities (e.g., equipment or machinery operating and monitoring, or knowledge of production, processing, and logistics).[51] Table 22 below, illustrates this in full by listing the top 10 most critical talents in each of the four high-potential tradable sectors, and then indicating, via check mark, which talents are critical to each sector. Talents with multiple check marks indicate that the talent is critical across multiple sectors. The table is organized in order of most common to least common talents.

[50] The term "domain" refers to workers' actual knowledge, skills, and ability, as opposed to the formal level of education they have achieved.

[51] See Slide 17 of the Capital Clusters Metrics for the full analysis of the top 50 most critical human capital facets (of 120) compared to struggling workers' current job for workers of all levels of education, broken down by sector.

Apart from business or technical talent and problem solving, occupations within the four high-potential tradable sectors have few common talent requirements and employ different types of workers. Close to half of workers in Business Services are employed in management, business, finance, or computer occupations. By contrast, half of workers in Working Lands work in either agricultural, transportation, or production occupations. These differences are emblematic of the distinctive talent needs of each sector. Across all four high-potential tradable sectors, however, the most common opportunity jobs are in technical fields with computer, engineering, and business-related occupations, for workers of all education levels.

Table 10: This table lists the top 10 most critical talents in each of the four high-potential tradable sectors – Business Services, Precision Manufacturing, Research and Development, and Working Lands – and indicates, via check mark, which talents are critical to which sectors. The table is organized in order of most common to least common talents (i.e., according to which talents are in the top ten most critical talents of three out of the four sectors, two out of the four sectors, or one out of the four sectors). The purpose of this table is to illustrate that Business Services, Precision Manufacturing, and Research and Development have many of their top ten most critical talents in common; Working Lands, on the other hand, has a unique set of critical talents.

Most Critical Talents* **Top 10 in Business Services (BS), Precision Manufacturing (PM), Research and Development (R&D), and Working Lands(WL)*	**BS**	**PM**	**R&D**	**WL**
*In the top ten most critical talents of **three sectors:***				
Knowledge: Computer and Electronics	✔	✔	✔	
Skills: Operations Analysis	✔	✔	✔	
Skill: Programming	✔	✔	✔	
Skill: Systems Analysis	✔	✔	✔	
Skill: Systems Evaluation	✔	✔	✔	
*In the top ten most critical talents of **two sectors:***				
Knowledge: Engineering and Technology		✔	✔	
Knowledge: Production and Processing		✔		✔
Knowledge: Administration and Management	✔			✔
Skill: Complex Problem Solving	✔		✔	
Skill: Technology Design		✔	✔	

*In the top ten most critical talents of **one sector***				
Knowledge: Design		✔		
Knowledge: Mathematics		✔		
Knowledge: Sales and Marketing				✔
Knowledge: Transportation				✔
Skill: Operation and Control				✔
Skill: Operations Monitoring				✔
Skill: Reading Comprehension	✔			
Skill: Science			✔	
Ability: Control Precision				✔
Ability: Depth Perception				✔
Ability: Fluency of Ideas	✔			
Ability: Mathematical Reasoning			✔	
Ability: Rate Control				✔
Ability: Reaction Time				✔
Ability: Written Comprehension	✔			

Finally, our region looked at the talent gaps between struggling workers and jobs in the four high-potential tradable sectors. There is a critical talent gap that must be addressed, particularly within the Business Services, Precision Manufacturing, and Research and Development sectors, in order to continue growing these clusters and to effectively connect disinvested communities to the quality jobs within them. In these three high-potential tradable sectors, there is a significant overlap between the most critical talents and most critical talent gaps.

- In Business Services, six of the most critical talents for jobs in that sector are also within the top 10 most critical talent gaps.
- In Precision Manufacturing, seven of the most critical talents for jobs in that sector are also within the top 10 most critical talent gaps.

- In Research and Development, eight of the most critical talents for jobs in that sector are also within the top 10 most critical talent gaps.

There is less of an overlap present in the Working Lands sector (only three out of the top 10 most critical talent gaps).

Tables 23-27 below illustrate this in full. Overall, the most critical talent gaps across all four high-potential tradable sectors relate to operational and technical skills.

Table 11: This table illustrates which of the top 10 most critical Business Services talents are also in the top 10 most critical talent gaps. The purpose of this table is to illustrate that many of the talents needed to qualify for a job in Business Services are talents that the average struggling worker does not have (six out of 10). It highlights the importance of targeting workforce development investments and efforts towards addressing these gaps.

Business Services	
Top 10 Most Critical Business Services Talents	**Top 10 Most Critical Business Services Talent Gaps**
Knowledge: Administration and Management	✔
Knowledge: Computer and Electronics	✔
Skill: Complex Problem Solving	
Skill: Operations Analysis	✔
Skill: Programming	✔
Skill: Reading Comprehension	
Skill: Systems Analysis	✔
Skill: Systems Evaluation	✔
Ability: Fluency of Ideas	
Ability: Written Comprehension	

Table 12: This table illustrates which of the top 10 most critical Precision Manufacturing talents are also in the top 10 most critical talent gaps. The purpose of this table is to illustrate that many of the talents needed to qualify for a job in Precision Manufacturing are talents that the average struggling worker does not have (seven out of 10). It highlights the importance of targeting workforce development investments and efforts towards addressing these gaps.

Precision Manufacturing	
Top 10 Most Critical Precision Manufacturing Talents	**Top 10 Most Critical Precision Manufacturing Talent Gaps**
Knowledge: Computer and Electronics	✔
Knowledge: Design	✔
Knowledge: Engineering and Technology	✔
Knowledge: Mathematics	
Knowledge: Production and Processing	
Skills: Operations Analysis	✔
Skill: Programming	✔
Skill: Systems Analysis	✔
Skill: Systems Evaluation	
Skill: Technology Design	✔

Table 13: This table illustrates which of the top 10 most critical Research and Development talents are also in the top 10 most critical talent gaps. The purpose of this table is to illustrate that many of the talents needed to qualify for a job in Research and Development are talents that the average struggling worker does not have (eight out of 10). It highlights the importance of targeting workforce development investments and efforts towards addressing these gaps.

Research and Development	
Top 10 Most Critical Research and Development Talents	**Top 10 Most Critical Research and Development Talent Gaps**
Knowledge: Computer and Electronics	✔
Knowledge: Engineering and Technology	✔
Skill: Complex Problem Solving	
Skills: Operations Analysis	✔
Skill: Programming	✔
Skill: Science	✔

Skill: Systems Analysis	✔
Skill: Systems Evaluation	✔
Skill: Technology Design	✔
Ability: Mathematical Reasoning	

Table 14: This table illustrates which of the top 10 most critical Working Lands talents are also in the top 10 most critical talent gaps. Notably, the overlap is significantly less than the overlap in Business Services, Precision Manufacturing, and Research and Development (only three out of 10).

Working Lands	
Top 10 Most Critical Working Lands Talents	**Top 10 Most Critical Working Lands Talent Gaps**
Knowledge: Production and Processing	
Knowledge: Administration and Management	
Knowledge: Sales and Marketing	
Knowledge: Transportation	✔
Skill: Operation and Control	✔
Skill: Operations Monitoring	
Ability: Control Precision	
Ability: Depth Perception	
Ability: Rate Control	✔
Ability: Reaction Time	

Implications for Strategy Implementation Across All Sectors

- In addition to creating high quality jobs in Business Services, Precision Manufacturing, Research and Development, and Working Lands, improving access to these jobs through skills training is necessary. Mechanisms will be needed to expand and improve access to quality

jobs. A combination of policy and program interventions – earn-and-learn opportunities, incumbent worker training – can address these challenges.

- The region could develop a general curriculum for mid-skilled jobs in most of the four high-potential sectors within a few key competencies, including reasoning and problem-solving, systems thinking and evaluation, and communication. Additional specialized classroom or on-the-job training may also be required, however, around specific knowledge and hard skills (e.g., in computer systems, programming, engineering, and production/maintenance).
- The Working Lands cluster has different talent needs and may not benefit from the same training programs. Additionally, many of the quality jobs for mid-skilled workers in that cluster are in logistics, which could be substantially automated in years to come. Arming workers with future-proof skill sets will be critical.

SECTION FIVE

Sector-Neutral and Economic Mobility Strategies

As discussed in the Vision and Goals section of this report, there are three key action areas within our We Prosper Together North Star that have led to the strategies included in our regional economic development plan:

- Growing and creating high quality jobs in priority tradable clusters.
- Connecting disinvested communities to currently available quality jobs in both tradable and local sectors.
- Operationalizing strategies that foster inclusion and ensure equitable outcomes.

This section of the report discusses the economic mobility strategies that our region has identified to connect disinvested communities to currently available quality jobs and ensure that growth across our tradable sectors result in equitable outcomes for the region's residents. These Sector-Neutral and Economic Mobility Strategies are meant to work across our high-potential tradable sector and cluster priorities, leveraging regional assets and collaboration, to remove barriers, create pathways,and connect to infrastructure and services.

The section will proceed as follows (clicking on the links below lead to that specific section of the report):

I. Identifying Sector-Neutral and Economic Mobility Strategies: An overview of the process our region undertook to identify these economic mobility strategies.

II. The Capital Region Economic Equity Priorities**:** An overview of the priorities that sets out the conditions, and their indicators, that must be in place in order to successfully and sustainably operationalize our region's economic mobility strategies.

III. Workforce Development**,** Outreach and Awareness**,** Transportation**,** Childcare, and Housing: A deeper dive into each of these economic mobility strategies, including challenges and opportunities, regional assets, and tactics for implementation.

Identifying Sector-Neutral and Economic Mobility Strategies

Growing tradable sectors and increasing the number of quality jobs is only one part of the equation for advancing towards a prosperous, resilient, equitable, and sustainable economy. The other core component is ensuring that residents have the skills, services, and infrastructure needed to qualify for and participate in these quality jobs. In the context of this work, it is crucial to center the experience and needs of disinvested communities, who are often left out of economic development conversations and not able to fully reap the benefits of economic growth.

The population and economic diversity of our region means that each of our eight subregions has communities with distinct needs. Through our subregional community conveners, our region undertook a ten-month process of robust community outreach and engagement to gather qualitative input and surface the challenges and opportunities across all subregions. This led to the development of the Capital Region Economic Equity Priorities and the identification of priority economic mobility strategies, both discussed in greater detail below.

Broadly, subregional community conveners began by identifying their target populations and reaching out to networks of nonprofits, community-based organizations (CBOs), businesses, community members and other stakeholders. This was followed by a variety of outreach and engagement methods to gather input. The following are some examples:

- One-on-one interviews and conversation (virtual and in-person).
- Focus group discussions and listening sessions (virtual and in-person).
- Community or regional roundtables and creative charrettes; also, some industry-specific roundtables.
- Surveys (online and printed).

To reach target populations, materials were often translated and made available in Spanish, and surveys specifically were translated into multiple languages. Additionally, subregional community conveners strived to leverage existing outreach and engagement processes and events, to make it as easy as possible for community members to participate and reduce the risk of “burnout” among target populations – for example, engagement activities around local economic development plans or initiatives, and pre-planned nonprofit or CBO events.

Outcomes from community outreach and engagement were considered in tandem with data from the Capital Region Economic Assessment's Cost of Living Analysis,[52] as well as highlights from the Capital Region Inclusive Economy Poll, to assess what the greatest and most common needs are across the region and what it would cost to address those needs. The following chart is a high-level snapshot of this analysis.

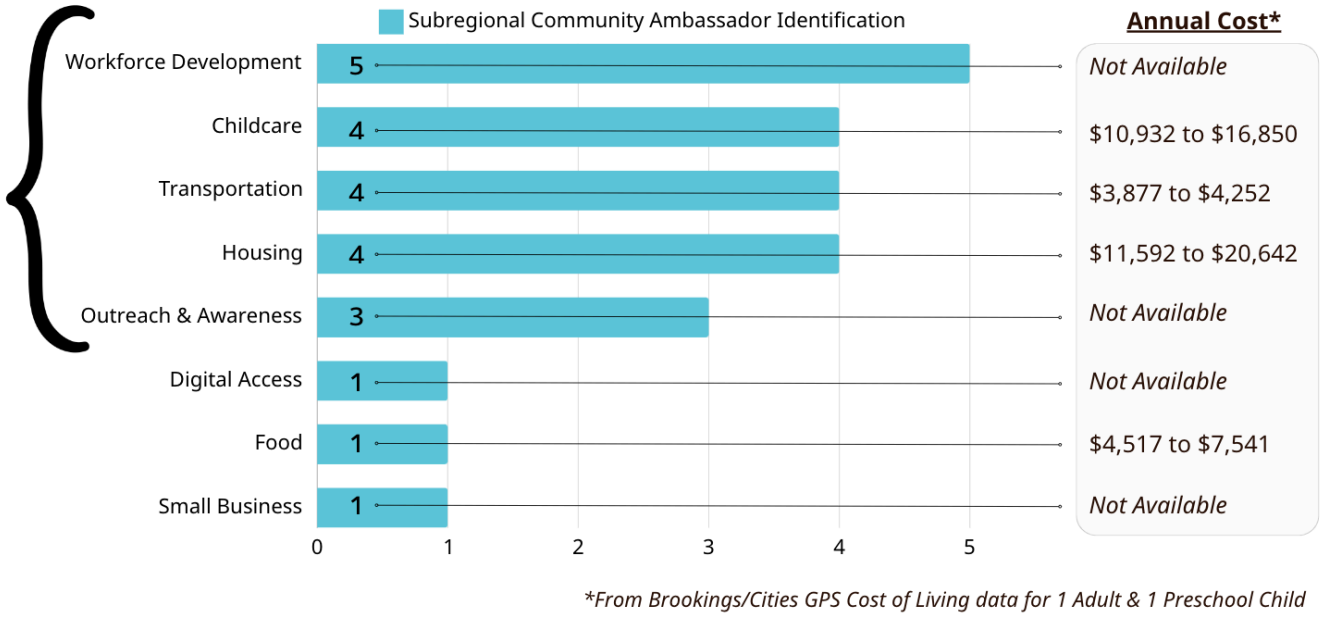


Chart 8

This analysis surfaced five priority economic mobility strategies for the region:

- Workforce Development
- Outreach and Awareness
- Transportation
- Childcare
- Housing

These economic mobility strategies reflect common challenges across all five subregions – Sacramento/Yolo, El Dorado/Placer, Yuba/Sutter, Tahoe/Nevada, and Colusa County – that impact residents in different ways and call for tailored solutions, depending on the population. For example, the workforce development challenges in more rural counties with agriculture-dependent economies are different from the challenges facing communities in the region's urban core.

[52] See Slides 19-28 of the Capital Region's Economic Assessment.

Each of these five economic mobility strategies are discussed in greater detail below. Workforce development[53] surfaced as a priority economic mobility strategy in all five subregions, reinforcing its significance as a critical equity component alongside job creation, in tandem with Outreach and Awareness to make residents aware of available training opportunities and career pathways. The other three economic mobility strategies – transportation, childcare, and housing – could be a part of wrap-around services to support residents to ensure their success in workforce development training programs, as well as qualifying for and working in quality jobs.

While the We Prosper Together initiative represents a significant step forward, it is important to recognize these efforts and funding alone cannot fully address the deep-rooted barriers to prosperity and livability in our region, which stem from generations of systemic economic inequity. However, the intention of this work is to center disinvested communities and those most impacted by these barriers, to ensure that the targeted investment and effort of this program goes beyond "business as usual" to benefit these communities and equitably grow our economy. We understand that individuals facing more entrenched barriers may require longer-term support and additional resources to achieve sustainable employment and economic stability, and we remain committed to fostering equitable growth for all community members.

Draft of the Capital Region Economic Equity Priorities

The Economic Equity Priorities are intended to guide We Prosper Together activities in the fair and just inclusion of disinvested communities into the economic fabric of the Capital Region.[54,55] Developed through the collective voices, engagement, and contributions of those involved in We Prosper Together, the Economic Equity Priorities are a testament to our shared commitment to transforming our communities across the eight-county Capital Region by creating a sustainable future where we can all prosper.[56,57] From the input of the Capital Region collaborative, the priorities identifies conditions necessary for We Prosper Together to be equitable in operation and indicators to assess progress and measure equitable impact. The following is a draft of the priorities, which is currently in the process of being edited and refined by an ad-hoc Economic Equity Priorities committee made up of community representatives and Leadership Council members from across the region.

---

[53] As an ieconomic mobility strategy, workforce development seeks to connect underinvested priority populations–such as those facing economic, educational, or systemic barriers– to employment opportunities by ensuring they have the skills and resources needed to qualify for and access quality, living-wage jobs.

[54] Informed by https://www.policylink.org/about-us/equity-manifesto

[55] WPT disinvested communities. https://www.weprospertogether.org/about-us/

[56] Leadership Council, Subregional Hubs, community members throughout the eight-county region, funded collaborative partners, and Valley Vision. https://www.weprospertogether.org/governance-structure/

[57] Source: https://www.weprospertogether.org/

About the Priorities

The Economic Equity Priorities provides criteria to guide We Prosper Together activities. The subsequent sections present three Equity Priority areas and description of conditions necessary for an inclusive economy. The aligned indicators that will accompany these areas and conditions are still being developed together with our community ambassadors and Leadership Council. Used together, these drivers have the potential to transform our current economic development model and trajectory of growth that marginalizes many populations and compromises the diversity that makes communities strong.[58]

- The priorities are designed to improve conditions for the inclusion of disinvested communities in We Prosper Together activities throughout the Capital Region.
- Each Equity Priority area condition may not be applicable for all We Prosper Together activities or projects. However, We Prosper Together will ensure the use of all Equity Priority area conditions when applicable to support the inclusion of disinvested communities throughout the Capital Region.

The Priorities

Equity Priority
People-Centered Inclusionary Practices Focus on people-centered, inclusionary practices that prioritize the unique and holistic needs, strengths, and perspectives of disinvested communities.
Conditions Needed for Economic Equity • WPT-related activities will include trusted messengers in the delivery of culturally relevant outreach and communication efforts that meaningfully engage the communities served by WPT. • WPT-related activities will include local community participation in decision-making, recruitment of people in disinvested communities for quality jobs, and outreach about opportunities.

[58] Adapted from Benner C. & Pastor M. (2016) Inclusive Economy Indicators: Framework & Indicator Recommendations. The Rockefeller Foundation. https://www.rockefellerfoundation.org/wp-content/uploads/Inclusive-Economies-Indicators-Full-Report-DEC6.pdf.

- Training programs funded will include the provision of or connection to holistic wraparound supports to reasonably ensure participation and perseverance for disinvested community members.

Equity Priority

Economic Inclusionary Approaches

Advancing economic mobility for residents of disinvested communities through participation as workers, consumers, and business owners.

Indicators

- Increase access to resources for small business growth, including access to capital to accelerate growth to compete in industry-focused markets for small businesses operating in disinvested communities.
- Percentage of population with job-related skill attainment.
- Accessibility of public regional transportation or commuter network services for youth and adults to connect disinvested communities to jobs, career, education, training, and other WPT-related service opportunities throughout the Capital Region.
- Percentage of residents with income that matches or surpasses the cost of living.

Equity Priority

Data Informed and Transparent Alignment and Coordination

Transparent programmatic procedures and community-involved decision-making to reduce disparities while enhancing the Capital Region as an economic landscape where all the communities can thrive.

Indicators

- Results of all WPT-funded programs are readily available and easy to access for all residents of the Capital Region.
- Progress toward established agreements for continued cross-county data collection to support the measurement of WPT-related activities.
- Coordinated strategies are used to meaningfully involve and inform community members of data collected by WPT-related activities and strategic approaches.

Workforce Development

As an economic mobility strategy, workforce development seeks to connect underinvested priority populations – such as those facing economic, educational, or systemic barriers – to employment opportunities by ensuring they have the skills and resources needed to qualify for and access quality, living-wage jobs.

Cultivating a skilled workforce is an important lever for ensuring regional competitiveness. Often, companies prioritize the strength of the existing workforce and the region's ability to prepare future workers to meet industry demand. Additionally, new job creation alone is not enough to close the quality jobs gap – consideration must also be given to upgrading the qualifications of the existing employment base through workforce development interventions that address the specific concerns of the diversity of historically marginalized workers, with special emphasis on providing support for disinvested communities.

Challenges and Opportunities

There are several key challenges to workforce development in the region. First and foremost is a skills gap for currently available quality jobs across both tradable sectors and local-serving sectors, like healthcare and construction. As noted in the Target Sector Strategies section of this report, most jobs in Business Services, Precision Manufacturing, and Research Development all require a similar mix of business operations, computers and programming, and problem-solving skills,[59] and these represent the most significant talent gaps for struggling workers. Employers have noted challenges in filling positions, and community members have expressed a strong desire for better access to quality jobs. Notwithstanding this demand, availability of industry-specific training programs and on-the-job training opportunities is also limited. In rural areas with heavily agriculture-dependent economies, job opportunities are monolithic and

[59] A more in-depth discussion of a talent demand analysis revealing the talent gaps in the four high-potential tradable, particularly Business Services, Precision Manufacturing, and Research and Development can be found in the Target Sector Strategies section of this report.

many available jobs are seasonal, do not pay a living wage, and offer limited opportunities for career advancement. Additionally, the skills needed to do these jobs – skills specific to Working Lands – are not always transferable to more quality jobs in other sectors, drastically hindering the ability of these workers to qualify for these jobs.

There is also a need to upskill for future quality job opportunities. Across the region, there are emergent sector opportunities that can increase the number of quality jobs and require a skilled workforce to meet the new talent demand. Some of these opportunities, particularly in the Food and Agriculture and the Wood Economy clusters, are around incorporating or expanding technology adoption, or exploring new business models.[60] In Colusa County, for example – known for its agricultural strength as California's leading producer of rice, almonds, tomatoes, walnuts, and meat products – there is opportunity to expand value-added agriculture and food production by leveraging untapped potential in processing, packaging, and marketing these products. Also in Colusa County, as well as other rural areas, the integration of biomass conversion with the Agriculture cluster presents workers in traditional farming roles with the opportunity to transition into more advanced positions within the renewable energy field. This transition, however, must be supported by targeted, equitable training programs and educational initiatives that equip the local workforce with the necessary skills to thrive in the emerging industry. Partnerships with academic institutions will play a pivotal role in this by offering specialized training programs, research opportunities, and certification courses that align with the needs of biomass facilities. In addition to these Working Lands emergent opportunities, technology firms across sectors have demonstrated their ability to locate and grow quickly in the region, highlighting the need for a ready workforce. For example, Unstructured – an AI/data-related startup based in Placer County raised $60 million dollars and created over 50 jobs in less than two years.

Career awareness among community members, workers and students poses yet another challenge. Many workers do not realize that jobs in manufacturing pay comparatively high wages and provide opportunities for upward mobility, including for those with less than a four-year degree. This lack of awareness also contributes to hiring challenges and under-enrolled educational and training programs. As retirements continue to increase labor demand, targeted outreach will be necessary to raise awareness of these opportunities, particularly among disinvested communities.

Addressing these challenges requires a multi-faceted approach that includes expanding access to education and training; improving outreach and awareness activities; establishing better support systems for workers; and incentivizing employer policies that complement these efforts. Some specific examples of tools that could be used include helping firms improve productivity and enable workers to garner higher wages through process innovations (e.g. technology adoption and training); supporting targeted pathways for workers to transition to jobs with higher job quality (e.g. incumbent training); providing technical

[60] These opportunities are discussed in greater detail under Working Lands in the Target Sector Strategies section of this report.

assistance to employers, particularly middle-market firms, in business practices that improve access and mobility for workers (e.g. hiring policies, human resource planning and operations, streamlined access to training subsidies); pursuing intermediary functions or employer collaboratives to provide scale in offering improved benefits to workers (e.g. childcare); and advancing peer and public policy action to "raise the floor" on working conditions (e.g. employer-of-choice status). By exploring these tools and operationalizing those that are high-impact, our region can take concrete steps toward building a more skilled and resilient workforce that is equipped to meet the demands of industry and has high quality of life.

Partnerships with community leaders and nonprofit and community-based organizations, particularly those whose services are directed towards disinvested communities, are likewise necessary to expand existing training programs and develop new ones. Robust collaboration would leverage existing community trust, cultural competency, and lived experience in ensuring that the programs are effective and inclusive. Small businesses can also play a critical role in workforce development in the region, if they are given the resources, tools, and support to include, as part of their operations, entry-level work with clear pathways for advancement.

Regional Assets

First and foremost, our region is home to a number of institutions of higher education, ranging from four-year research universities to community colleges. These postsecondary assets provide a solid anchor for the regional workforce development ecosystem. Workforce development boards, adult education programs, community-based organizations, and K-12 systems also contribute to this ecosystem, with chambers commerce, industry associations, and individual firms providing employer insights to inform workforce development plans. The region also has several key training program providers, some of which include:

- Greater Sacramento Urban League – Programs connecting youth and adults with employers looking to fill part-time, full-time, and seasonal positions focused on Black and other underserved populations.
- Golden Sierra Job Training Agency – Joint workforce board initiative of El Dorado, Placer, and Alpine counties providing hiring, on-the-job training, internship, and other support.
- La Familia Counseling Center – Sacramento-based on-the-job training and employment programs for at-risk youth and adults.
- North Central Counties Consortium – Joint powers workforce board for Colusa, Sutter, Yuba, and Glenn counties, providing job center services.
- Northern California Construction Training, Inc. – Non-profit pre-apprenticeship building trades program.

- Pride Industries – Nonprofit training and employment opportunities for people with disabilities.
- Sacramento Employment and Training Agency/Sacramento Works – Joint agency of the city and county of Sacramento for job training and matching, particularly serving people with barriers to employment.
- Yolo Works – Yolo County workforce board offering basic job center services, plus access to online certifications, bilingual digital skills training, and other programs.

In addition to education institutions, training providers and programs, there are also industry groups that work to strengthen lines of communication between companies, area community colleges, and local workforce development organizations. For example, the Sacramento Valley Manufacturing Alliance (SVMA) and the North State Building Industry Association partner with area community colleges and workforce boards to train and place workers.

Finally, ongoing alignment with workforce development strategies at the state level through the Sacramento K-16 Collaborative is also a considerable asset, because it better positions our region to leverage broader, intra-regional efforts as well as state, federal, and private sources of funding. The Sacramento K-16 Collaborative launched in 2022 as part of the California Regional K-16 Education Collaboratives Grant Program. It is committed to advancing educational equity and workforce opportunities by strengthening college and career pathways across California's Capital Region through an eight-county partnership between K-12 County Offices of Education and districts, higher education institutions, and employers. Our region's We Prosper Together efforts are actively aligning efforts and sector strategies to the work of this Collaborative.

Talent Pipeline Management

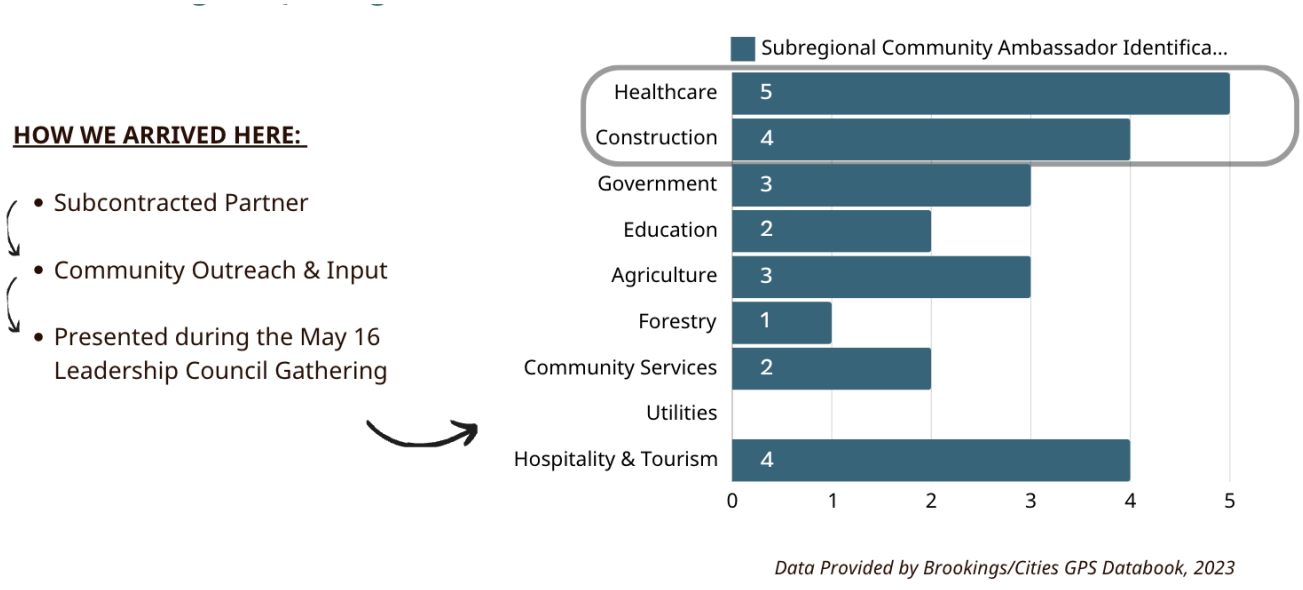
As part of the workforce development economic mobility strategy to connect communities to available jobs, our region will target investment and effort towards Talent Pipeline Management (TPM), an initiative of the U.S. Chamber of Commerce Foundation to advance authentic employer leadership in building high-performing talent pipelines. The TPM model provides employers and their education and workforce development partners with strategies and tools to co-design talent supply chains that connect learners and workers to jobs and career advancement opportunities. Largely in response to the recognition that the most effective workforce development ecosystems depend on active collaboration with area employers in target industries – and that this type of collaboration is what supports workers' economic mobility and provides reliable talent pipelines for firms – the TPM model is increasingly being uplifted and relied on in the region as a sector-specific workforce development tool.

The Roseville Area Chamber of Commerce is leading the charge in this space, utilizing TPM as a tool through five industry specific collaboratives, including, as discussed below, healthcare and construction. This initiative is playing a crucial role by strengthening the connection between employers and education

and training programs. By beginning with employer collaboratives that work together to identify their highest priority talent needs, this method allows for a clearer "prescription" to be provided to education and training providers to immediately bridge the gap and provide readily available employment. Additional efforts to partner with community organizations focused on reaching workers from disinvested communities can address the outreach and awareness challenges and link individuals to appropriate training opportunities, providing them with access to training, certifications, and job placement services that can lead to stable and well-paying careers. This approach not only helps fill critical staffing gaps, but also promotes economic mobility for disinvested communities.

Connecting Communities to Jobs in Local-Serving Sectors

While growing tradable sectors and increasing the number of jobs in those sectors is key to growing a prosperous, resilient, and sustainable economy, the direct benefit of this strategy to communities does not occur overnight. It can take time for investment targeted towards sector growth to create these new jobs, therefore it is equally important to invest in strategies to connect communities to currently available quality jobs, many of which are in local-serving sectors. Our region sought to identify which local-serving sectors should be prioritized, from a workforce development standpoint, to train residents and guide them to an on-ramp for career pathways to jobs in those sectors. Quantitative input from the Capital Region Economic Analysis was analyzed together with qualitative community input from the outreach and engagement effort by subregional community conveners, as well as input from Leadership Council members. This led to the identification of healthcare and construction. The following chart is a high-level snapshot of this analysis.



Data Provided by Brookings/Cities GPS Databook, 2023

Chart 10

Healthcare

The healthcare sector is a very large employer in the region, with major medical systems such as Adventist Health, Dignity Health, Kaiser Permanente, Sutter Health, and UC Davis Health. Somewhat unusually for a local-serving industry, healthcare as a whole concentrates a reasonably high proportion of opportunity jobs, with around 32.5% and 18% of jobs qualifying as quality and promising, respectively.[61] Several subsectors like hospitals and outpatient care centers feature even greater shares of occupational roles with higher wages, as well as well-established professional and credentialing ladders that create a clear pathway for workers to navigate toward economic mobility. Demand for healthcare workers also tends to be stable and unaffected by economic downturns, which means more job security compared to other sectors. Available jobs are accelerating with retirements of experienced workers alongside an aging population. It should also be noted, however, that very large healthcare subsectors actually do not offer opportunity. Jobs in home care services or skilled nursing, residential care, and assisted living facilities fail to reach the regional average of all industries for shares of opportunity jobs, with only 10% to 25% characterized as quality jobs.

The Healthcare Employer Collaborative initiated in 2022 that included Kaiser, Sutter Health, Dignity Health, and UC Davis Health is in the process of developing local talent providers within the Los Rios Community College District and Sierra College to source the talent needed for Surgical, Radiological and Cardiovascular Technicians. Specific training programs are being located at community colleges to provide low barrier entry into training and certification to disinvested communities.

Construction

The regional construction industry grew steadily between 2012 and 2022, with job growth in the sector accounting for more than 20% of all jobs created in the region during that period. Demand for skilled construction workers continues to rise, pushed higher by the need to backfill positions held by retiring workers. Federally funded infrastructure projects and climate adaptation measures are creating additional opportunities for industry growth. For example, California is receiving approximately $41.9B from the federal Infrastructure Investment and Jobs Act to pay for needed infrastructure projects throughout the state (including in the Capital Region). These investments can be leveraged for maximum effect if deliberate actions are taken to diversify contractor pools and expand access to pathways into these careers.

In early 2019, the construction collaborative for Kaiser Permanente launched a TPM model focused exclusively on union signatory jobs, aiming to build a skilled talent pipeline for construction trades. This initiative prioritized sourcing talent from low-income and disadvantaged populations, aligning training efforts with the needs of the twelve general contractors and subcontractors on the Kaiser Permanente building project. The TPM collaborative informed the development of a career scholarship program with

[61] See Page 108 of the Capital Region Economic Assessment.

work-based learning opportunities at Los Rios Community Colleges, where the related MC3 certifications are eligible for a higher point ranking within regional apprenticeship trades programs because of the direct employer engagement. Currently, the construction TPM collaborative is expanding to focus on residential construction in addition to the existing commercial building construction efforts using the same general and subcontractors.

Outreach & Awareness

As an economic mobility strategy, outreach and awareness seeks to inform residents, particularly disinvested communities, about training programs and high quality job opportunities available in industry sectors they may be unaware of. It seeks to address the disconnect that prevents residents from imagining and advancing on career pathways that offer higher opportunities for economic mobility as within our region's priority sectors. Traditionally underinvested communities generally lack the breadth of resources and information to fully participate in a vibrant economy. This economic mobility strategy seeks to remedy this through intentional, culturally relevant, outreach and awareness campaigns, tools and resources.

Outreach and engagement conducted by subregional community ambassadors revealed that residents across the region feel that they are not sufficiently aware of or connected to the full roster of opportunities, resources and programs available to them either through the government or an existing network of community services. This could include things like unemployment insurance that could potentially provide additional support in times of financial distress, or job center services that can provide assistance in navigating the job application process, particularly for those who are newer to the workforce or whose primary language is not English. This lack of awareness and connection most severely impacts the region's disinvested communities, who may end up continuously hindered by the same barriers because they are unaware of or unable to access available support systems. It points to the need for more effective outreach, as well as a thorough consideration of what factors are preventing residents from connecting to these employment opportunities, resources or programs and how to address them.

These issues are especially pronounced in more rural communities, where large geographic distances coupled with insufficient communication or transportation infrastructure and assets make it especially difficult to enable residents to stay informed. In these communities, the most effective communication methods often involve printed media posted in public gathering places, such as local post offices. In Colusa County, for example, there is limited access to reliable and inexpensive internet and only one weekly newsletter publication with limited circulation.

These limitations mean that many residents rely on community networks for their economic survival. In Yuba/Sutter, for example, the Punjabi-American community has developed an internal support system that helps members navigate economic challenges, the farmworker community has created a job network to identify reputable employers and avoid exploitative ones.

Often, the lack of awareness and connection can be exacerbated by a distrust of institutions that is a direct result of prior interactions in which community voice was not sought, or sought but not fully considered.

Across the region, there are many local governments and CBOs who have built trust within the communities they serve, and operate as information hubs and connectors to a wide array of services. These CBOs are ideal partners in effectively standing up and delivering onramps to training programs and/or wrap-around services, or expanding access to those that have already been established. They can also put together culturally relevant messages and resources that resonate with the specific needs of their communities and raise awareness about available support. Some examples of these entities and their programs are as follows:

- In El Dorado County, there are resources and programs to support individual economic sustainability, with a focus on education, job training, and healthcare support for underserved communities. The El Dorado County Office of Education offers a comprehensive adult education program, which enhances skills and improves employability. Association Guadalupana, Inc. provides free community ESL classes.
- PRIDE Industries offers opportunities for lasting employment for people with diverse abilities who often experience high numbers of unemployment and underemployment.
- The Latino Leadership Council based in Auburn connects LatinX communities to career development opportunities and pathways into healthcare, construction, trades, business, and innovative technology spaces.
- Colusa County's One-Stop Program connects residents with employment services.
- In Nevada County, Alliance for Workforce Development helps residents find local jobs and 211 Connecting Point provides information on services like transportation, as well as emergency or disaster recovery assistance.

While these entities and programs have made tremendous impact in the communities they serve, they have all noted that the effectiveness of their programs are hampered, to a certain degree, by a lack of awareness among community members that the resources and services they offer are available, as well as how and where to access them.

The following are potential strategies that would focus on leveraging regional assets to address some the challenges discussed above:

- Forming strategic partnerships with local governments and CBOs who have existing programs and services in place and are trusted in the communities they serve.

- Strengthening communications by working closely with organizations who have expertise in reaching specific communities, to design informational campaigns that share resources on available quality jobs, training programs, and job application processes.
- Meeting people where they are by expanding the promotion of existing programs and services, including by using multiple languages as needed. In the absence of reliable digital infrastructure, or in addition to it, this could also mean connecting with trusted community leaders within existing community networks as another way to spread awareness about available resources, programs, and services.

Transportation

As an economic mobility strategy, transportation seeks to reduce barriers that make it difficult for residents to move easily between where they live and where they work, as well as to other amenities and services that they need to access regularly.

Healthy regional economies need efficient and accessible transportation options. Improving transportation infrastructure is critical to the success of strategies to create more quality jobs (sector growth) and train workers for those jobs (workforce development), because it improves connectivity and supports access to job opportunities. In the outreach and engagement activities conducted by the subregional community ambassadors, community members across the region highlighted the need to prioritize investments in infrastructure improvements, like expanding roads and prioritizing active transportation. They also noted the need for improvements such as expanding routes and times within public transportation systems. These gaps in transportation infrastructure and operation are especially pronounced in more remote areas, where disinvested communities are significantly underserved by existing transportation infrastructure. Rural infrastructure in particular serves a relatively small number of people and tends to be expensive due to the remote locations involved. The cost to correct these large systematic infrastructure issues is proportionally much greater in rural than in urban areas. These factors make it difficult to compete for resources against projects that serve larger populations.

Emission reduction also surfaced as a priority within transportation, particularly in Sacramento County and the City of Roseville. The development of active transportation networks can also play a role here. These networks would include bike lanes, sidewalks, and multi-use trails. In addition to helping create vibrant communities by providing safe, comfortable, convenient, reliable, efficient, and affordable ways for people to get around, they also provide opportunities for affordable, low-emission or zero-emission trips while closing gaps between people and their next ride.[62]

[62] See the U.S. Department of Transportation for more information.

In addition to the infrastructure improvements discussed above, communities also noted that investing in growing a skilled, local workforce is another intervention point, so that workers can qualify for jobs in their county of residence, and employers have the option to hire locally.

Improving infrastructure, developing active transportation networks, and growing a skilled, local workforce are all long-term, high-investment strategies. In addition to these, communities also surfaced additional strategies for intervention that are more cost feasible in the short term, and presently ease existing transportation barriers:

- Incorporating financial assistance into project applications and implementation, in the form of travel stipends or reimbursement for private transportation expenses (e.g., fuel, insurance, parking), public transportation, or rideshare.
- Working together with local governments and other economic development and workforce partners, incentivizing employers to:
    - Enable remote work and flexible schedule work arrangements, where and when possible, to reduce travel and assist parents and families who have limited modes of transportation and have to balance other priorities, like school drop-off.
    - Where the active transportation networks are present, incentivize commuting via active transportation, and providing amenities like bicycle parking infrastructure at job sites.
    - Establish employer-sponsored programs to provide assistance and support to employees who may experience transportation emergencies, such as unexpected and costly care repairs. Additionally, allow for time-off or excused absences for certain transportation-related issues, such as delayed public transit or minor vehicle accidents.

Childcare

This economic mobility strategy seeks to make childcare available, accessible, and affordable for parents and guardians in the region. The persistent shortage of childcare is a long-standing problem that disproportionately affects low-income households and historically disadvantaged communities. The number of licensed childcare spaces is wanting in every part of the Capital Region. Across all eight counties, more than half of childcare needs go unmet, forcing families to make tough choices between needed income and care work demands. Depending on the county, childcare costs make up anywhere from 17% to 21% of the cost share of the self-sufficiency standard for a family of two full time workers with two school age children.[63]

[63] See Slide 20 of the Capital Region Economic Assessment for additional details.

Families that need childcare in the evenings, weekends, or overnight hours, and those with temporary employment situations or inconsistency in work assignments and locations, face even steeper challenges. The majority of childcare facilities and childcare spaces are available only during regular business hours. This reality poses a particular challenge for shift workers, who can find their schedules severely curtailed by their lack of access to childcare. The sole exception is in Colusa County, where fully 63% of home-based providers are open during off hours.

The negative effects of childcare shortages and high costs reverberate across the regional economy, acting as a brake on the economy by reducing the number of available workers:

- It forces many young, unskilled workers to choose between working low wage positions and paying for childcare, or staying home to avoid those high costs.
- Dual-income households are often reduced to single-income households because childcare expenses outweigh the benefits of a second income.
- It undermines gender diversity by limiting women's participation in the workforce, given that historically women have been responsible for unpaid care work within the home.

It also poses a problem for many business owners and employers, some of whom will grapple with the financial and logistical challenges to provide childcare for their workers to avoid a dwindling workforce.

In considering how to address these challenges, it should be noted that there are regional assets that can be leveraged to help reduce these barriers. In Placer County, several organizations, such as the Small Business Development Center and the Growth Factory, provide daycare training programs. SBDC in particular has an in-home daycare training program that offers services in collaboration with county education offices. In El Dorado County, affordable child care services are offered through extended school day programs. In addition to these regional assets, community members also surfaced the following tactics for consideration:

- Incentivizing employers to provide job flexibility (e.g., remote work or flexible hours) and care benefits to support the parents in their workforce including, for example, stipends or other childcare-related benefits, in addition to dental, health, paid time off, 401k, and others. Expanding or extending more traditional childcare-related benefits – maternity/paternity leave or paid time off to care for sick children – are perhaps even more feasible tactics and should also be thoroughly explored.
- Incentivizing employers to operationalize consistent work schedules for employees, or sufficient advance notice of any changes, to allow workers to make childcare arrangements as needed.

- Exploring opportunities for childcare services on worksites. It should be noted, however, that there are significant liability issues that would need to be considered by the employer. Additionally, many employers in the region are small businesses, which may not have the regulatory framework available to them to stand up this service. Fully operationalizing this tactic might require broader local government and policy support, in the form of tax incentives and subsidies.
- Working together with local governments and other economic development and workforce partners to explore a co-op model for childcare services, to provide childcare to parents employed by businesses that are located close together.
- Working with local governments and school districts to expand affordable after school programs.
- Connecting employers with existing local childcare providers or nonprofits supporting these services, so they can in turn connect their workers to these resources if desired.

Housing

This economic mobility strategy is a clear priority across all subregions, and arguably the highest-cost and most-complex. Housing cost burden is a critical and increasingly challenging issue in the region. Depending on the county, housing costs make up anywhere from 18% to 24% of the cost share of the self-sufficiency standard for a family of two full time workers with two school age children.[64] Additionally, the lack of affordable housing does not just impact struggling workers. In the Tahoe/Nevada subregion, for example, even residents with quality jobs struggle to find housing, given that more than 50% of our residents have to pay more than 30% of their income towards housing costs. Barriers to access transportation and affordable housing go hand in hand, and are felt by both workers and employers. The inadequacy of affordable housing means that many workers have to reside in a different county from their place of work, requiring long and expensive daily commutes. For some workers, inadequate public transportation and the high cost of private transportation (e.g., fuel and car insurance) is enough to cut off access to many jobs completely, preventing them from fully participating in the labor force. Disinvested communities bear the brunt of this burden.

The challenge with identifying and implementing tactics to advance this economic mobility strategy is that many of them require broader jurisdictional buy-in, as well as policy and regulatory shifts at the city, county, or state level – for example, streamlined permitting processes, affordable housing incentives, or pre-approved plans for single-family infill and accessory dwelling units. While advocating for and supporting these efforts is critical, other types of solutions that are more feasible in the shorter-term, from both a cost and timeframe perspective, also need to be considered. One example is the Home Share

[64] See Slide 20 of the Capital Region Economic Assessment for additional details.

American River project, which seeks to match opportunity with need – for example, by connecting elderly homeowners living in underutilized homes to young workers who are enrolled in school or employed in entry level positions and can provide assistance with tasks like yard care, minor house maintenance, or driving to run errands. It enables young students and workers to have suitable living arrangements with lower living costs, while allowing them the flexibility to pursue their desired education or career pathways. Another example of a more feasible, but equally critical, solution is to include housing as part of negotiated community benefits agreements – for example, by including anti-displacement clauses that address both direct and indirect displacement.

Additionally, our region seeks to work with local government and regional and state partners to advocate for investment in housing and promote future growth.

SECTION SIX

Our Path Forward: Remarks to Conclude the Planning Phase

Areas for Continued Exploration

As much as the official conclusion of the Planning Phase is a milestone that marks the end of a long, robust process of identifying our priorities, it is important to recognize that there is still work to be done to further vet and refine our regional strategies. The following are specific areas that our region will be prioritizing for further work and exploration, to ensure that Catalyst Phase investments are targeted to yield the greatest benefit to our communities.

Target-Sector Focused Industry and Employer Engagement

While preliminary qualitative industry input was gathered from conferring with our region's economic development council and other partners and stakeholders, we recognize a need for additional engagement to get on-the-ground confirmation of strategy viability. Qualitative industry input is ongoing in August and September, and includes target employer outreach through industry-specific focus group discussions and one-on-one interviews. Focus group discussions will be convened around semiconductors; FoodTech, AgTech and working lands; business services; biosciences; cleantech; and precision manufacturing. Interviews will be conducted with top executives in precision manufacturing, business services, research and development, and working lands. The topics covered will include firm background and regional presence, economic and regulatory environment, workforce profile, and recruitment and retention strategies.

Tourism

This local-serving sector has historically been an important contributor to our regional economy, particularly in the Tahoe subregion. Businesses in this industry run the gamut from small and microbusinesses to casinos, outdoor expedition providers, boutique hotels, convention venues, and major resorts owned by multinational corporations. Tribal casinos are major employers and produce the revenue needed for infrastructure investments, social services, philanthropic giving to non-Native communities, required state and county contributions, commitments to non-gaming Tribes, and other expenditures made by the affiliated Tribal Nation. Wineries and agritourism operations attract people to agricultural areas and provide much-needed revenue for rural communities.Outdoor recreation provides a major draw for visitors from throughout California and beyond.

But tourism jobs tend to be low-wage, seasonal, with limited opportunity for advancement. Although it represented nearly 12% of regional job growth between 2012 and 2022, just 4.1% of positions in the sector meet the criteria for a quality job.

Our region also recognizes that there are both emerging challenges and opportunities in the sector. The climate crisis poses a clear and present danger to these activities – wildfires, flooding, and severe snowstorms in recent years have taken a toll, often resulting in long periods of lost revenue for employees and business owners alike. At the same time, growing interest in sustainable tourism, as evidenced by the Envision Tahoe Prosperity Playbook, is creating new possibilities for more responsible enjoyment of the region's natural landscapes.

This sector requires further exploration of this sector to determine its role in investing and implementing our target sector and economic mobility strategies. This includes continued engagement with the Tahoe subregion and other communities that rely on this sector for revenue and employment, as well as further refining target sector strategies (e.g., Working Lands) to ensure benefit to rural economies in the region.

Creative Economy

Outreach and engagement across the different subregions revealed the desire for arts and the creative economy to be better represented across the industry clusters, given that they play a crucial role in almost every industry (e.g., through design, marketing, etc.). Our region recognizes the need to include the creative economy within the broader job market by integrating it into various sectors, promoting job opportunities, and fostering a culture that appreciates and utilizes creative skills. Possible strategies include:

- Encouraging partnerships between creative professionals and other industries to integrate creative skills into various business processes;
- Developing and offering training programs that enhance the skills of creative professionals and prepare them for cross-sector roles;
- Launching campaigns to raise awareness about the value and impact of the creative economy on society and the economy; and
- Advocating for policies that support the creative economy, such as tax incentives for businesses that hire creative professionals or invest in creative projects.

These strategies, and the sector as a whole, require further exploration of this sector to determine its role in investing and implementing our target sector and economic mobility strategies. This includes additional engagement with creative economy stakeholders, as well as further refining target sector strategies to consider the role that creative economy workers play in those sectors.

Systems Change in the Planning Phase

As noted in the introduction of this report, the vision of We Prosper Together is to come together around a shared regional identity and build consensus around a set of priorities to guide investment and effectively grow a prosperous, resilient, equitable, and sustainable economy. While the target sector and sector-neutral strategies outlined in this report are key outcomes, it is equally important to recognize the tremendous systems change that has taken place in our region as a direct result of the efforts of the last eighteen months. Throughout the core activities of the Planning Phase – operationalizing a formal governance structure, completing a thorough regional economic assessment, and establishing a network of community ambassadors – our region has strengthened community partnerships, built capacity, and stood up practices that help institutionalize a more inclusive economic development process.

Community ambassadors across all subregions brought crucial economic data to community members (e.g., data on tradable sector potential) by meeting them where they are. Simultaneously, they also created space for community members to share their own experience of specific challenges and opportunities in their counties and cities. Community members were able to consider and engage with the data, and ultimately round it out through the lens of lived experience. Establishing this feedback loop and, more broadly, ensuring a consistent interaction between data and community represents a shift in the way our region identifies its priorities for moving towards a future of economic equity.

Additionally, this process of outreach and engagement both leveraged and added capacity to existing planning efforts that enabled subregions to better position themselves to compete for investment dollars from federal, state, private, and philanthropic funding sources. In our subregions, community ambassadors worked closely with stakeholders across different sectors to prepare projects for inclusion in local plans or funding applications. In many cases, this led to stronger and more active connections among local jurisdictions, private firms, non-profit organizations, and community groups, effectively laying the groundwork for broader and more effective coalition-building as part of future planning and implementation efforts.

These systems change outcomes reflect a shift towards centering economic equity that will continue to benefit our region, even beyond the Regional Investment Initiative. At the same time, it is important to recognize that the trust-building that took place and was crucial to the success of this Planning Phase was, in no small way, reliant on the state's commitment to invest in priorities that surface as part of a regions-up process. While our region appreciates the incredible challenge of having to direct a finite amount of resources to an infinitely wide range of needs, we believe that remaining consistent to the core process and values that were set out at the inception of this program – regions-up economic development with a focus on equity and centering disinvested communities – is crucial to ensuring its continued success.

Operationalizing Our Continued Commitment to Economic Equity

As our region transitions from the Planning Phase to Catalyst Phase, we are mindful of the need to continue centering disinvested communities throughout implementation. The following are some specific ways that our region plans to carry this out:

- We continue to refine the Capital Region Economic Equity Priorities, which is intended to guide We Prosper Together activities in the fair and just inclusion of disinvested communities into the economic fabric of the region. This Economic Equity Priorities provides criteria – priority areas, descriptions of conditions necessary for an inclusive economy, and aligned indicators – that, used together, will have the potential to transform our current economic development model and trajectory of growth to center equity and community.

- Our We Prosper Together Leadership Council – made up of a diverse set of stakeholders and represents the full geography of our eight-county region – will continue in its function as the representative decision-making body of our broader regional collaborative. Their role in the Catalyst and Implementation phases will include supporting the development of the Catalyst project selection criteria and reviewing and endorsing Implementation Phase project applications.

- Valley Vision has released a Request for Proposals to identify organizations capable of providing continued community outreach and engagement services in the Catalyst Phase. This network of community ambassadors would conduct outreach to ensure necessary partners are represented at their county tables; gather input to help inform target sector and sector-neutral strategies; support overall advancement of the Economic Equity Priorities; expand outreach and awareness regarding workforce development and career pipeline programs as they align with sector strategies; and encourage project applications/assist with connectivity between local funded projects and community tables.

- We will continue to work closely with our labor and tribal community ambassadors, to ensure that the perspective and interests of their communities are represented throughout implementation. This includes supporting parallel efforts like the state's Tribal Investment Initiative.

We are grateful for the continued partnership of the State, and look forward to continuing the work of the Regional Investment Initiative.