



MIDDLE-CLASS JOBS FOR A FAST-GROWING REGION

APRIL 2019

Letter to Inland Empire Leaders

Riverside and San Bernardino Counties play a pivotal role in the California economy. Our two-county region is a driving force in industries such as manufacturing, logistics and healthcare. While there is plenty of potential for future growth and regional innovation, as evidenced by significant corporate interest and investment in the area, much of what we have seen so far has not been inclusive. Cost of living has increased significantly in Southern California, and our two-county region is no exception. At the same time, average wages for jobs (new and existing) have not kept pace.

How can we develop actionable strategies and tactics, along with commitments for implementation, focused on growing more middle-skill/middle-income jobs, and ensure access to them? How have other regions tackled this challenge? An assessment of those markets revealed several themes: cooperation between stakeholders, a supportive fiscal and regulatory environment, and investments in educational and training programs.

In partnership with The Brookings Institution's Metropolitan Policy Program and with extensive research and consultation with Inland Empire business, educational, government and community leaders, the Inland Economic Growth and Opportunity (IEGO) campaign has uncovered several promising ways forward.

First, we can make the region a global hub for innovation in logistics, trade and e-commerce. This means fostering coordinated and strategic investments, establishing clear and effective policies, and, perhaps most importantly, scaling up training that leads to good industry jobs. Second, we can strengthen the competitiveness of the region's advanced manufacturers. While we already have investment in this industry, we need to build a stronger entrepreneurial network, support and grow workforce training initiatives, and help small and mid-sized firms take advantage of international markets. Third, we need to consider accelerating the growth of promising emerging industries

in areas with the potential to grow higher-wage jobs for those with mid-level skills. This can be done via a cluster approach that connects industry and educational institutions, aligning needs with skills. Finally, we must work to distinguish our two-county region as a national leader in the adoption of work-based career and technical education. There are models—in this region and outside—that underscore the importance of community-employer engagement, customized and accelerated training, and workforce development systems alignment.

We invite you to consider the strategies presented in this report and how they may be applied. We also invite you to consider how you can help support this endeavor as it requires significant commitments that cross jurisdictional lines and spans sectors.

Our two-county region has not yet fully explored the possibilities for inclusive growth. We need to develop innovative ways to build technical expertise, capacity and experience under a consistent strategic vision. We hope this publication will start a conversation about how we can build up an ecosystem that fosters middle-income job growth and expanded opportunity. By promoting innovation in logistics, strengthening the competitiveness of the region's advanced manufacturing, nurturing the growth of promising emerging industries and creating an educational and training pipeline, we can ensure economic opportunity for all and make our region a more appealing place to live, work and do business.

Alfred J. Arguello

Inland Empire Market President Bank of America

Paulette Brown-Hinds

Founder, Voice Media Ventures Board Member, The James Irvine Foundation

Executive Summary

The Inland Economic Growth & Opportunity (IEGO) campaign unites a diverse set of community leaders from the combined metropolitan area of Riverside County and San Bernardino County, a 4.5 million-resident region also known as the "Inland Empire" or "Inland Southern California." Leaders in the region are steadfast in their commitment to expanding access to full-time jobs that enable working families to make ends meet.

Part of the solution is increasing access to higher education, and efforts are already well underway to increase the level of four-year college attainment in the region. Just as important, the region needs to support the growth of sectors and firms that provide economic mobility via skills training and career pathways, and increase access to those jobs for all residents, reflecting the diversity of the region.¹

Extensive research, including original work by The Brookings Institution, and the active engagement of dozens of leaders from business, education, government, and civic groups focused on identifying Opportunity Industries – those that generate more solid middle-skill jobs and hold the potential to create greater economic opportunity for more people in the region.

The resulting strategy addresses that goal through four major components:

Increase the number of quality jobs available in the region. This includes making the region a global hub for innovation in logistics, leveraging the industry's strong presence with support for technology development that will grow value for workers. This means fostering coordinated and strategic investments between public and private sectors, establishing clear and effective policies, and scaling up training for good industry jobs.

2 Expand advanced manufacturing in the region by strengthening the competitiveness of existing firms and ecosystems. While manufacturing has declined throughout the U.S., the region maintains a solid foundation in advanced manufacturing, which holds promise for generating more good jobs.

Accelerate the growth of promising emerging industries (such as IT and cybersecurity, emissions technology, solar energy and battery storage) with the potential to grow higher-wage jobs for those with mid-level skills.

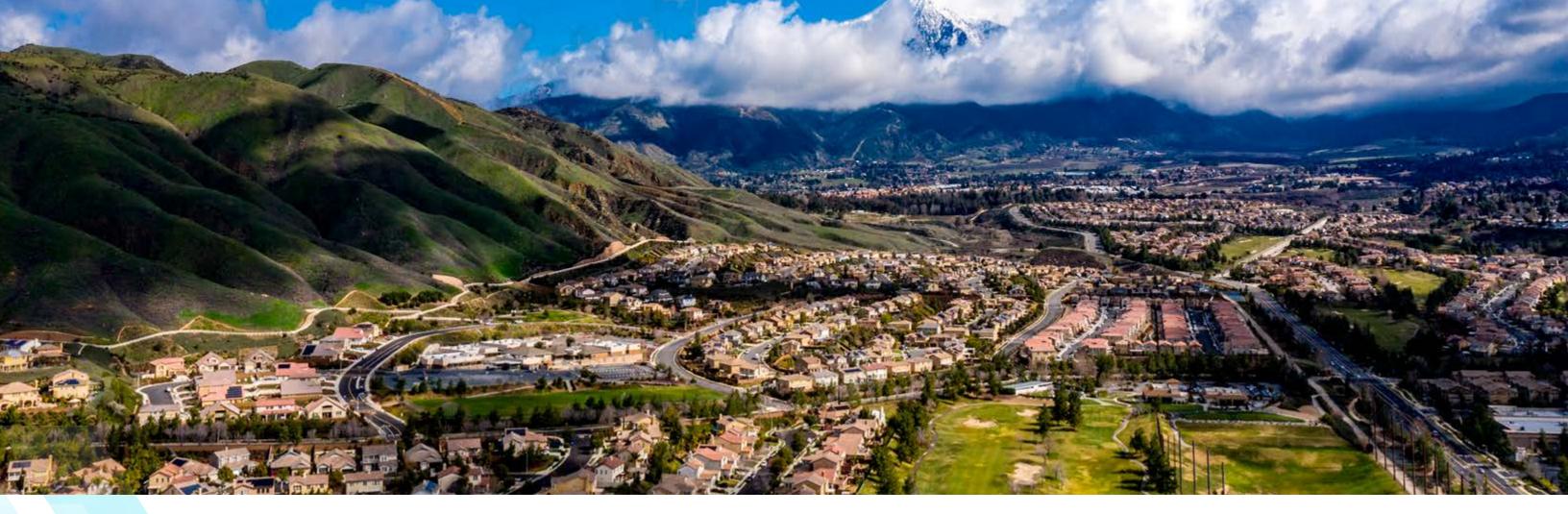
"Leaders in the region are steadfast in their commitment to expanding access to full-time jobs that enable working families to make ends meet."

Connect more residents to quality jobs by distinguishing the region as a national leader in the adoption of work-based career and technical education.

A formal and sustained commitment to long-term collaboration among key partners is important for successful implementation of these strategies. This is particularly true for an area the scale of the Inland Empire, where economic development responsibilities are fragmented. Over the last few years, the region has made significant strides in developing the capacity for equitable innovation through collaboration, across counties and across sectors. Implementing these strategies, to significantly grow middle-class jobs and boost the region's economic competitiveness, will further unify the region in its quest for inclusive and equitable development.

2 I INLAND ECONOMIC GROWTH & OPPORTUNITY

MIDDLE-CLASS JOBS FOR A FAST-GROWING REGION | 3



Introduction

The metropolitan area of Riverside and San Bernardino counties spans more than 27,000 square miles, larger than ten states in the country. The region is also one of the most populous in California, with 4.5 million residents accounting for about one in 9 state residents. The Inland Empire is projected to reach over 7 million in 2045, making the region one of the top ten largest metro areas in the United States by 2046.²

For many years, the Inland Empire has maintained a spot in the top ranks of U.S. regions for economic growth, and that trend is projected to continue. Despite this extraordinary growth, Riverside and San Bernardino Counties are falling behind in the creation of high-quality jobs that pay good wages for vast numbers of residents. In fact, 41 percent of the region's residents are part of working families that struggle to make ends meet.

The region need not resign itself to the conclusion that four-year college degrees are the only pathways to jobs with middle-class wages, predictable hours, and benefits. The Inland Economic Growth and Opportunity (IEGO) campaign aims to increase viable pathways to the middle class for the bulk of residents in the region, whose highest levels of educational attainment is a high-school degree, associate degree, or technical education.

Increasing access to middle-class jobs in the region requires development strategies that recognize key features of the region's labor force. The region exhibits relatively low levels of fouryear college attainment; almost half of all Inland Empire adults have no post-secondary education.³ According to recent data from the College Futures Foundation, for every thousand high school freshmen in the region today, only 230 will complete an undergraduate degree.⁴ Additionally, a majority of workers in the region are people of color,⁵ making the issue of inclusive economic growth particularly salient.

One key strategy to improve inclusive economic growth in the region is to boost the college graduation rates of its future

workforce. The region is already well underway in implementing Growing Inland Achievement, a collective effort to boost the attendance and graduation at four-year colleges.⁶ Just as important, however, is increasing middle-class job opportunities that are accessible to those without four-year college degrees.⁷

The IEGO campaign specifically targets Opportunity Industries – i.e., those that generate middle skill jobs and have the potential to create economic opportunity for more of the region's residents, including the 46 percent of adults in the labor force with a high school diploma but not four-year college degrees.

Anchored in regional strengths and assets, the IEGO strategy is aimed towards better integrating economic development and workforce development activities, and scaling up those investments to achieve large impact. A key aspect of the strategy is that post-secondary education credentials are essential for

"...the IEGO strategy is aimed towards better integrating economic development and workforce development activities, and scaling up those investments..."

career development at the individual level, and inclusive and adaptable economic development at the regional level.

The IEGO campaign focuses intentionally on traded sectors, those that do business outside the region, exporting to national and international markets. Traded sectors tend to have higher productivity, pay higher wages, and bring new resources into the region rather than just serving local markets.⁸ The strategic approach is also based on the theory of "cluster strategies," where public policy and investment foster the geographic concentration of competing firms and complementary activities that generate greater economic value and larger talent pools to access higher-wage jobs.

The research and recommendations in this report are built on 16 months of data gathering, stakeholder input, and deep analysis by The Brookings Institution and over 100 leaders from business, government, labor, civic groups, advocacy groups, the academy, and philanthropy. That process produced a detailed assessment of market conditions, an inventory of existing program activities and promising practices, and an understanding of the civic climate and culture that guides development in the region.

The region then moved from research to strategy development. Dozens of community leaders participated in a daylong "design thinking session" that laid the foundation for strategy development. Next, working groups of leaders from across the region spent several months digging deeper into the key drivers of economic growth in the region and fleshing out ambitious yet viable strategies that dramatically increase access to good jobs in the region.

Economic Trends in the Region

Advancing economic opportunity for more workers and families is a challenge for cities and regions in the United States, including Riverside and San Bernardino counties. The Inland Empire is vast, populous, and diverse. It has evolved from farming communities, into a center of defense contracting, and then into a global logistics hub. Over time, it has become more connected with adjacent regions in Southern California.

This progression has taken a toll on the region's prosperity. The decline of the region's defense industries following the Cold War claimed many of its middle-class jobs. Although logistics has taken over as the region's dominant base industry and added tens of thousands of new jobs, the pay and benefits are not comparable to prior jobs in defense and manufacturing. Meanwhile, the Great Recession undid many of the region's prior economic gains.

This section summarizes key patterns and trends in regional job growth from a market assessment conducted by The Brookings Institution,⁹ paying particular attention to differences by sector and measures of inclusion and equity with respect to access to good jobs.

Trends in Growth and Prosperity

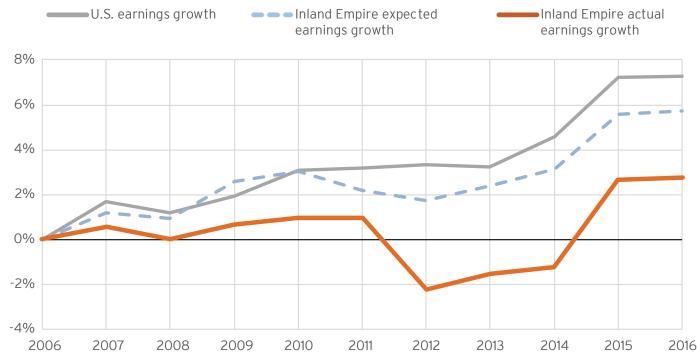
The region's jobs recovery exceeded expectations

The ten years from 2006 to 2016 were turbulent for the region, with a steep recession followed by a gradual recovery (Figure 1). The recovery has been significant and prolonged enough that cumulative job growth from recession to recovery has exceeded the nation's. Yet the region's growth has also left it particularly vulnerable to severe job losses in future recessions. Transportation and warehousing, wholesale trade, and construction have fueled much of the job growth since 2006, leaving the regional economy less diversified and more reliant on a handful of industries than before.



Figure 1. Inland Empire job growth compared to the nation's since 2006

Figure 2. Inland Empire average annual earnings growth compared to the nation's since 2006



Source: Shearer, Shah, and Gootman (Brookings Metropolitan Policy Program, 2019)

The region's earnings growth has lagged the nation's

Although the region's job growth in recent years has been noteworthy, earnings have not risen comparably. Nationwide, average annual earnings increased 7.3 percent in real terms from 2006 to 2016, to \$65,700 per job. 10 By contrast, the Inland Empire's average annual earnings grew by just 2.8 percent, to \$56,200 (Figure 2). Notably, other metropolitan areas in California, including San Diego, Bakersfield, and El Centro, have seen faster increases in annual earnings.

More workers and families now struggle to make ends meet

Although the region's economic recovery restored its job base to pre-recession levels, increasing numbers of workers have trouble finding a job that pays a family-sustaining wage, and it appears that younger workers have a harder time finding opportunities that allow them to advance their careers.

Just prior to the recession, nearly 1.3 million residents, or 36 percent of the population, belonged to families that struggled to make ends meet. This number increased by an additional 560,000 individuals over the course of the recession, reaching a peak of

nearly 1.9 million people or 47 percent of the population by 2012. Since then, few workers and families have realized the economic security of the middle class. Nearly 1.7 million people, or 41 percent of the region's population, belonged to struggling families in 2016.

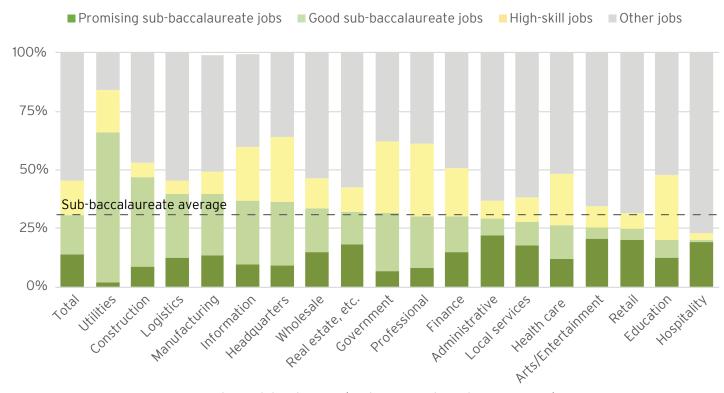
The region must also contend with disruptive external forces

A series of disruptive external forces continues to reshape the region's economy and the opportunity provided. Intensifying international trade competition, disruptive technologies, and changing work arrangements have shaken up regional labor markets throughout the nation in recent years, and the Inland Empire is no exception.

As in other regions, these forces cut in different ways. Whereas globalization has accelerated declines in manufacturing, it has also fueled the growth of logistics industries. While automation will entail increasing losses in particular types of jobs, the region's assets (such as job training and apprenticeship programs, anchor educational institutions and a growing research and development ecosystem) enable viable strategies for growing new jobs that ensure economic competitiveness and shared prosperity.

6 INLAND ECONOMIC GROWTH & OPPORTUNITY

Figure 3. Concentration of good and promising jobs by industry sector, 2017



Source: Shearer, Shah, and Gootman (Brookings Metropolitan Policy Program, 2019)

Opportunity Industry Findings

The region needs more good and promising jobs than it currently provides

Brookings research identifies good jobs as full-time jobs of at least 35 hours a week that pay at least \$18 an hour with employer benefits. "Promising jobs" are those occupations with the potential—based on the evidence of actual career pathways taken by thousands of workers—to lead to good jobs over a tenyear period.

Based on these definitions, the Inland Empire currently provides about 246,000 good jobs and about 199,000 promising jobs. ¹² While numerous, these jobs are not enough, accounting for only 17 percent and 14 percent, respectively, of the region's total 1.4 million jobs, and only 45 percent of jobs for those without a bachelor's degree. Growing more of these jobs remains a critical challenge for the region.

Opportunity industries concentrate the region's good and promising jobs

Regional leaders can advance economic opportunity for the region's workers by investing in strategies that strengthen and

grow its Opportunity Industries. These are sectors where good and promising jobs for sub-baccalaureate workers exceed the regional average (Figure 3).

In the Inland Empire, industries that fuel the region's trade with other regions, including logistics, wholesale, and manufacturing, together account for 23 percent of the region's good and promising jobs. Locally-serving industries such as retail, hospitality, and administrative services have higher-than average shares of promising jobs, but relatively low shares of good jobs.

Pathways to the region's good jobs involve moves between occupations

The region's Opportunity Industries encompass jobs in many different types of occupations, from production occupations like machinists and welders to administrative occupations like secretaries. Brookings analysis¹³ of the types of occupations that make up the region's good and promising jobs reveals that:

1 Good and promising jobs for sub-baccalaureate workers are concentrated in traditional blue-collar occupations such as installation, maintenance and repair, construction trades, production occupations in manufacturing, and transportation occupations in logistics;



The vast majority of sub-baccalaureate workers in promising jobs will make a major career switch to obtain a good job; and

Earnings growth will be closely tied to the ability of all workers to learn not only specialized skills but also the ability to reason, communicate, and engage in complex problem-solving.

Serious disparities by race and gender mark access to good and promising jobs

Workers face different odds of obtaining a good job based on several factors, including not only their educational attainment, but also their race and gender. Women are far less likely than men to hold jobs in opportunity industries. Women also hold the majority of jobs in occupations such as food service, healthcare support, maintenance, and personal care where 70 percent of jobs do not provide a family-sustaining wage of \$18 an hour. Finally, Black and Hispanic/Latino workers, who account for 6 percent and 48 percent, respectively, of the region's workforce, are much less likely to work in good jobs and promising jobs than Asian or White workers who account for 7 percent and 37 percent, respectively, of the region's workforce.¹⁴

Overall, the Brookings market assessment shows the need to increase the number of good and promising jobs, to reduce racial and gender disparities in access to those jobs, and to increase opportunities to grow jobs those sectors where the region is strong.

8 INLAND ECONOMIC GROWTH & OPPORTUNITY



Key Strategy Findings

Extensive research and analysis over the last two years generated a set of conclusions about how the region needs to change its growth trajectory.

This work identified a compelling need for:

1 a long-term Inland Empire economic strategy focused on Opportunity Industries in traded sectors to generate more middle-skill, middle-income jobs, and enable access to them; and

2 deeply engaged business leadership invested in shaping the course of the region, elevating the role of civic leadership and the private sector.

Working groups of leaders from across the region spent several months digging deeper into the drivers of economic growth and opportunity in the region and to flesh out an ambitious strategy designed to accelerate growth in the region's opportunity industries

A detailed exploration of the region's civic culture—the networks of relationships and interactions among leaders across the public and private sector—found promising signs of collaboration across sectors and between the two counties. The region is clearly moving past prior histories of fragmentation and zero-sum frameworks of competition.

Two sectors with a major footprint in the Inland Empire (logistics and advanced manufacturing) represent foundational industries for expanding good jobs. The region defines foundational industries as those involving trade in global markets, bringing new resources into the region and a significant number of jobs.

Several smaller but emerging tech sectors also hold promise for new growth and middle-skill opportunities, if the region adopts a targeting strategy to focus its resources on clusters of related firms concentrated in specific areas.

Finally, the Inland Empire is at the forefront of state efforts to pioneer new approaches to career and technical education—in

which the region already has some notable assets—particularly to expand accelerated certification programs and hands-on learning in workplace settings through models such as apprenticeships.

Building on these areas of strength in economic and workforce development, four key findings inform IEGO's strategies for inclusive economic growth.

Key Finding #1: Automation presents opportunities as well as threats for logistics

With waves of digitization and automation disrupting the logistics industry, the Inland Empire must focus on improving the productivity and competitiveness of the sector to generate better quality jobs and leverage its strengths into new commercial opportunities.

Both in automation and in artificial intelligence, the prospect of change represents both an offensive and a defensive move—because as waves of automation move through the industry, higher-wage jobs will cluster in regions that distinguish themselves as leaders in this field. Other regions with a major logistics presence have already adopted such a course, including Atlanta, Georgia, Indianapolis, Indiana, and Louisville, Kentucky.

Taking advantage of the opportunity for better jobs in logistics will require proactive and strategic partnerships between government and industry, even more so than in the past. This can drive an agenda for change designed to serve both the industry and the region, with the main goal of securing higher-quality jobs.

In other regions pursuing such a strategy, targeted efforts have connected industry leaders with university-driven research and technology to make the logistics sector more productive and competitive. These efforts serve a dual purpose: advancing the industry to make it sustainable and ensuring that the good jobs related to logistics technology stay in the regional home. They have also expanded on goods movement infrastructure for growth in related industries such as information technology and advanced manufacturing.

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Because of the dominance of the logistics sector in job creation and economic activity, goods movement has long been identified as a regional priority in transportation and infrastructure planning. For example, the idea of creating an "inland port," with the intersection of air, rail, and trucking facilities near Ontario International Airport has garnered some interest, with the goal of streamlining goods movement in the region.

The region has made some progress in connecting workforce development efforts with innovations in logistics and supply chain management. For example, Norco College in Riverside County has built a national center to train workers in supply chain automation, with over \$4 million in support from the National Science Foundation and partnerships with colleges in 19 states with the greatest concentrations of supply chain activity and employment. Norco College also prepares workers for middle management jobs in this sector by offering certificates and Associate of Science degrees in logistics management. These workforce development efforts need to be spread to other community colleges in the region, scaled up with more industry

partnerships and investments, and better integrated with fledgling efforts in transportation and supply chain research and development at California State University, San Bernardino and the University of California, Riverside.

Key Finding #2: The region has important assets and initiatives that can grow advanced manufacturing

While the manufacturing footprint in the Inland Empire has declined – as it has across the United States – advanced manufacturing remains a significant force in the region's economic vitality, offering a disproportionate number of middle-income job opportunities for middle-skill workers.

Recognizing those assets and the importance of manufacturing as a generator of good jobs, the region can take deliberate steps to nurture the industry's growth and expansion by supporting entrepreneurial activity, along with career education programs

designed to make manufacturing more attractive as a career choice for young workers.

Manufacturing employers in the region have demonstrated their commitment to building the region's workforce through the Chaffey College Industrial Technical (InTech) Learning Center, a nationally recognized model of employer-supported training. Through a public-private partnership with California Steel, the Center is housed in the company's Fontana campus. Its manufacturing emphases include machining, automation and robotics, metal fabrication and welding. There are also important partnerships between industry and higher education through two-year associate degree programs, accelerated certificate programs, and large-scale apprenticeship networks.

There are also promising signs of manufacturing revitalization in the form of job growth and firm growth. The number of manufacturing firms in Riverside County has grown from 1,389 firms employing 38,000 workers in 2011 to 1,591 firms employing 43,000 workers in 2017. During the same period, San Bernardino County has seen the number of manufacturing firms grow from 1,772 to 1,896 and employment grow from 46,000 to 55,000. Still, manufacturing employment in the Inland Empire remains at about 24,000 jobs below 2006 levels. ¹⁶ Efforts to organize the industry through the Manufacturers' Council of the Inland Empire (MCIE) and strategic investments in economic development by county governments will be important to ensure future growth and vitality in this sector.

Key Finding #3: Emerging sectors offer opportunities for economic diversification and middle-class growth

Small but promising innovation or technology-oriented sectors have gained a foothold in the region and have the potential to generate middle-skill, middle-income jobs. Several emerging industries—ranging from life sciences and agricultural technology, to aviation-related fields and advanced business services—show promise.

Over the last several years, the region has built a network of incubators and other supports for innovation and entrepreneurial activity, but those efforts have not focused on the ability to generate good jobs for those without a four-year college degree.

The decision by the California Air Resources Board (CARB) to relocate its Southern California research headquarters to Riverside presents an opportunity to build an innovation cluster related to environmental controls, emissions technology and other "green jobs," leveraging the University of California,

Riverside's nationally recognized programs in air quality and transportation.

Leveraging the economic impact of the CARB relocation will require development of a full cluster strategy, including exploration of the potential for growth in adjacent fields such as clean energy and other environmental technology fields. UC Riverside has partnered with both Riverside County and the City of Riverside to create the Entrepreneurial, Proof of concept, and Innovation Center (EPIC) and ExCITE—initiatives to accelerate the growth of innovation-based jobs in the region. Coordination and support is needed to grow and scale these initiatives and others focused on building the pipeline of high-growth companies that will attract investment into the region.

The IEGO campaign also identified information technology and cybersecurity as areas for promising investment to grow middle-class jobs in tradable sectors. CSU San Bernardino already has a nationally recognized program training students in cybersecurity, and its Inland Empire Center for Entrepreneurship is working to grow and support startups in the fields of information technology and cybersecurity.

Finally, the region has the opportunity to build on the already significant concentration of firms involved in solar panel manufacturing and deployment. A California mandate that all new homes have solar panels by 2020 is an opportunity to develop a manufacturing/installation plan, with new focus on developing technologies to reduce the cost of solar installation and energy storage.

The IEGO campaign identified other areas of growth in emerging industries: 1) aviation technology and servicing connected to the region's airports; 2) agricultural technology that leverages partnerships and talent in higher education and industry alike; and 3) a growing ecosystem of research in life sciences and biotechnology among higher education incubated by Loma Linda University, University of California, Riverside, California Baptist University, and others.

These emerging sectors would benefit from stronger connections to venture capital in Southern California and beyond, and need to develop strategies to grow large numbers of middle-skills jobs in manufacturing and servicing that complement the growth of high-skills jobs in these sectors.

Key Finding #4: Workforce development efforts in the region are promising, and need to be scaled up and better connected across the region.

12 INLAND ECONOMIC GROWTH & OPPORTUNITY

MIDDLE-CLASS JOBS FOR A FAST-GROWING REGION | 13

Similar to elsewhere in the country, career pathway programs have emerged as important models for workforce development. These programs are tailored to meet regional workforce demands, and provide a "step model" that enables workers to obtain successively higher credentials in well-defined pathways to better jobs with higher earnings. Career pathways offer important alternatives to career development outside of four-year college and graduate degree attainment, and they allow individuals and regions to be resilient and adaptive to the changing dynamics of economic development and industrial specialization.

"the challenge in workforce development is building the scale and reach of programs to make them accessible to lower-skilled workers across the vast two-county region. Efforts already underway indicate that achieving that goal is attainable..."

Career pathway work in the Inland Empire involves considerable cross-county and cross-sectoral collaboration. Indeed, the two county workforce development boards operate jointly through the Inland Empire Regional Collaborative, part of a growing trend of cross-county collaboration in a region previously marked by deep county divisions. ¹⁷ In addition, the Inland Empire/Desert Regional Consortium coordinates the career and technical education work of the region's 12 community colleges, ¹⁸ providing financial and other support to expand some of the region's most effective new models of Career and Technical education throughout the community college system in order to reach more students.

Industry partners are key to the success of workforce development programs. The region has seen significant involvement by industry partners in workforce development boards and in the implementation of innovative and highly successful programs such as the InTech Learning Center at Chaffey College (see page 13) and the Local Apprenticeship Uniting a Network of Colleges & High Schools (LAUNCH) program at Norco College.

InTech was initially funded as part of a \$14.9 million regional award from a U.S. Department of Labor Trade Adjustment Assistance Community College and Career Training grant. California Steel also played a critical role in the Center's development, with financial contributions, use of its 33,000 square-foot facility, and partnership on curricular development and employer engagement.

As a public/private partnership, InTech Center combines a particular focus on manufacturing and an eye towards making



a larger-scale regional impact on improving access to good jobs. Currently, it has five areas of emphasis: pre-engineering/engineering technology, industrial electrical and mechanical, machining, automation and robotics, metal fabrication and welding. The Center also focuses on soft skills development and has a specialist who facilitates job placement and long-term career development. Within three years of launching in February 2016, InTech was up-skilling over 500 incumbent workers and re-skilling 240 students annually, and had a 88 percent career placement rate for its graduates.¹⁹

Norco College has invested in similar programs over the last several years. For several years, Norco College ran the Accelerated Certificate & Employment (ACE) program, which enabled students to obtain a technical certificate with over 700 hours of training within a seven-month period. The program offered an industry-driven curriculum with training in facility maintenance, machine

operations, business information systems, and industrial operations. As of 2017, ACE had served over 100 students in the region, with a 100 percent placement rate and with wages ranging from \$18-\$34 an hour.²⁰

Like so many exceptional programs, the challenge in workforce development is building the scale and reach of programs to make them accessible to lower-skilled workers across the vast two-county region. Efforts already underway indicate that achieving that goal is attainable – but requires ramping up employer engagement, deep involvement of the region's full network of community colleges, and elevating the perceived value of career and technical education to secure good jobs.

There are promising steps forward in this regard. Building on the success of ACE, Norco College is now leading the Local Apprenticeships Uniting a Network of Colleges and High schools (LAUNCH) regional initiative, which partners with the California Apprenticeship Initiative and positions the state and region for sustained growth in apprenticeship programs in professional pathways outside the building trades.²¹ In addition, the two county workforce development boards are implementing strategic partnerships involving industry partners and educational institutions under the California Slingshot Initiative, with a focus on manufacturing and health care jobs.²²

The region has taken significant steps to come together to address its historic low levels of educational attainment, forming Growing Inland Achievement, a consortium of primary, secondary, and post-secondary education institutions. Now it has the opportunity to deploy its considerable workforce development assets—and high-performing institutional networks—to expand its drive for united action to the challenge of 21st Century Career and Technical Education.

14 INLAND ECONOMIC GROWTH & OPPORTUNITY

MIDDLE-CLASS JOBS FOR A FAST-GROWING REGION | 15

Four Strategies for Inclusive Growth

The Inland Economic Growth and Opportunity (IEGO) campaign calls on the region to take bold steps to generate more middle-skill jobs that earn middle-income wages and to make them more accessible to the majority of workers in the region.



Make the region a home of global innovation in the logistics industry

- ➤ Establish a Consortium of Excellence focused on innovations and technologies including participation from universities and the business community for research, management-level education, commercialization, and adoption.
- ➤ Establish a logistics training collaborative focused on securing access for workers to good industry jobs.
- ➤ Establish clear and effective policies on land use, infrastructure, and permitting to address private and public needs and expectations.
- ➤ Secure investments to establish the region as a model for advanced transportation infrastructure and innovation, through development of multi-modal goods movement alternatives and technology applications that enable economic growth and improve quality of life in the region.

2 Strengthen the competitiveness of the region's advanced manufacturers

- ➤ Build a stronger network of advanced manufacturing entrepreneurial start-up programs and assets.
- ➤ Scale up educational partnerships and communications efforts designed to generate interest in manufacturing careers.
- ➤ Develop education programs that support small and mid-sized firms to control utility costs through energy efficiency.
- ➤ Strengthen programs for small and mid-sized advanced manufacturing firms to take advantage of export potential and target regional efforts to attract more foreign investment in the sector.

Accelerate the development of promising emerging industries in areas with the potential to grow more middle-skill/higher-wage jobs

- ➤ Emissions Control: Create a robust innovation cluster around air quality/sustainability that leverages the region's expertise and track record, utilizing the presence of CARB for growth and attraction of firms in emissions-related technology.
- ➤ Solar energy/storage: Build on the existing footprint in solar installation/maintenance by developing a manufacturing/installation plan to capitalize on the California mandate that all new homes have solar panels by 2020; develop technologies and methods to accelerate the cost reduction of solar installation and energy storage.
- ➤ Information Technology and Cybersecurity: Establish formal industry collaboratives to drive entrepreneurship and small business development; identify needed skills and align them with curriculum and training.

Distinguish the Inland Empire as a national leader and innovator in the adoption of work-based career and technical education, with a particular focus on attracting women and communities of color.

- ➤ Establish a Center for Work-Based Learning as a "one stop" hub serving all regional businesses that promotes employer engagement with community colleges, expedites state and federal approvals, and grows enrollment of students in both established and non-traditional programs.
- ➤ Expand customized and accelerated training, replicating ACE and InTech models in other sectors and occupations with a priority focus on middle-skill/middle-wage jobs in Opportunity Industries.
- ➤ Expand the mission and membership of Growing Inland Achievement to focus on systems alignment throughout the network of entities and institutions involved in workforce development (workforce investment/development boards, industry groups, and secondary and post-secondary educational institutions). ■

16 INLAND ECONOMIC GROWTH & OPPORTUNITY

MIDDLE-CLASS JOBS FOR A FAST-GROWING REGION | 17

Implementation: Potential Pathways

Taking note of key assets in the region and opportunities for innovation and collective action, the IEGO campaign has identified both short- and long-term implementation goals, with operational frameworks to ensure sustainable results.

Logistics and advanced manufacturing

The region already boasts various centers and programs preparing workers for the changing technological landscape of logistics and advanced manufacturing. Economic developments efforts are limited, however, as they are almost entirely county-led, requiring greater participation and ownership by the region's industry groups, and better coordination across research institutions.

The Consortium of Excellence in Logistics can be built on existing centers at higher education institutions in the short term. The longer-term success of the Consortium, however, will depend on significant commitments and investments by industry leaders in logistics and supply chain management, particularly those who are part of the Southern California Logistics Council. Similarly, the Manufacturers' Council of the Inland Empire could play a bigger role in promoting economic development, connecting workforce development efforts in high schools and community colleges with entrepreneurial support programs and engineering programs involving the region's four-year colleges and universities.

Emerging industries

Implementation strategies for the emerging industries identified in this campaign will vary according to sector. The region already has one of the nation's best cybersecurity training programs at CSU San Bernardino, but most graduates leave the region and find lucrative employment across the country. More coordinated public and private investments would help establish a vibrant ecosystem of small businesses that can subsequently attract or grow larger cybersecurity firms. In emissions technology, a public-private partnership can play a critical role in supporting small business development prior to the opening of the California Air Resources Board (CARB) facility in 2020, and supporting various types of firms once the emissions ecosystem develops more fully. Finally, improved regional planning could help solar and battery storage facilities achieve a much bigger scale in the region.

Workforce development

The region has already made significant progress on workforce development, with notable signs of cross-county collaboration and partnership with educational institutions and industry

partners. These partners can ensure improved outcomes in the short term by: 1) improving marketing and outreach to increase awareness about innovative career pathway programs, particularly among women and communities of color; 2) replicating and standardizing career pathway programs that meet industry needs and certification requirements across subregions in the vast two-county area; and 3) improving tracking and evaluation across programs, with a focus on increasing the degree and scale of impact. Longer term advancements include substantially increasing the scale of philanthropic and corporate investments in workforce development, and better connecting workforce development with college attainment efforts and economic development efforts in the region.

Implementation frameworks

Public-private partnerships on economic development spanning both counties can take on various forms. The region could adopt a distributed implementation model sector by sector, adapting its successful workforce development collaboration models to economic development. This framework may be more realistic, but the efforts could be inconsistent and fragmented.

Alternatively, the region could take an ambitious step towards investing in an economic development corporation, with significant support from both counties and a variety of industries. This framework offers greater coordination and accountability than a piecemeal approach, but currently lacks the requisite political capital and economic investment necessary to succeed.

Finally, a middle ground may achieve the best of both frameworks, with a community foundation and a handful of partners incubating a public-private project promoting inclusive economic development in the short term that can prove itself before growing into a more robust economic development corporation in the long run.

Regardless of the framework chosen, it is vital that leadership in these efforts be broadly inclusive, reflecting the geographic and demographic diversity of the region and including representation from private, public, and civic sectors. It is also essential that implementation partners are able to demonstrate trustworthiness and capacity for sustained collective action.

Call to Action

The Inland Empire has seen tremendous employment gains since the Great Recession, exceeding growth rates nationally and statewide. We now have the opportunity to ensure that future economic growth means greater prosperity for everyone in the region.

The Inland Economic Growth & Opportunity (IEGO) campaign has identified strategies for inclusive economic development that have broad support across the region. These strategies build on areas of existing strength in logistics and advanced manufacturing, and call for strategic investments in emerging sectors that will diversify the region's economic base. Importantly, these economic development strategies will be paired with workforce development strategies that are already strong in the region, and are poised to grow in size and scope.

The IEGO campaign is ambitious, and will require committed, sustained support by various stakeholders. The region cannot rest on its laurels; incremental changes will leave the region ill-prepared for the next economic downturn and unable to address ongoing challenges associated with job automation.

Over the last few years, the region has made significant strides in developing the capacity for equitable innovation through collaboration. The time is ripe for bold, coordinated action that can leverage these efforts into something even bigger, putting the region on a sustainable growth path that provides ladders of economic mobility for all.

Endnotes

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- 10 The Brookings Institution analysis of EMSI data
- 11 The \$18/hour threshold is based on research at the University of Washington, and widely adopted, that benchmarks wages

- to the ability to meet essential household expenses including housing, food, and transportation.
- 12 Shearer, Shah, and Gootman, op. cit.
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- 14 Center for Social Innovation, op. cit.; Shearer, Shah, and Gootman, op. cit.
- 15 National Science Foundation. 2017.
 National Center for Supply Chain Automation.
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- 16 State of California Employment Development Department. 2018. Quarterly Census of Employment and Wages.
- 17 Other instances of cross-county collaboration include Growing Inland Achievement (see page 15), work on Census 2020 outreach, and the investment, governance, and work involved with this Inland Economic Growth and Opportunity campaign.
- 18 The Inland Empire/Desert Regional Consortium consists of 12 community colleges and serves as a regional framework to communicate, coordinate, collaborate, promote and plan career and technical education and workforce and economic development in the Inland Empire/Desert Region. Priority and Emerging Sectors include: advanced manufacturing; advanced transportation & logistics; business and entrepreneurship; energy, construction & utilities; healthcare; and information communication technology/digital media. For more information see: http://www.desertcolleges.org/index.php
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Jamil Dada**	Provident Bank
Jamil Dada** Michele Decker*	Provident Bank The Community Foundation
	The Community
Michele Decker*	The Community Foundation
Michele Decker* Anil Deolalikar*	The Community Foundation UC Riverside
Michele Decker* Anil Deolalikar* Greg Devereaux*	The Community Foundation UC Riverside Consultant UCR Technology
Michele Decker* Anil Deolalikar* Greg Devereaux* Taj Ahmed Eldridge*	The Community Foundation UC Riverside Consultant UCR Technology Partnerships
Michele Decker* Anil Deolalikar* Greg Devereaux* Taj Ahmed Eldridge* Matt Englhard**	The Community Foundation UC Riverside Consultant UCR Technology Partnerships Proficiency Capital LLC ABC Southern California
Michele Decker* Anil Deolalikar* Greg Devereaux* Taj Ahmed Eldridge* Matt Englhard** Dave Everett*	The Community Foundation UC Riverside Consultant UCR Technology Partnerships Proficiency Capital LLC ABC Southern California Chapter
Michele Decker* Anil Deolalikar* Greg Devereaux* Taj Ahmed Eldridge* Matt Englhard** Dave Everett* Kevin Fleming*	The Community Foundation UC Riverside Consultant UCR Technology Partnerships Proficiency Capital LLC ABC Southern California Chapter Norco College
Michele Decker* Anil Deolalikar* Greg Devereaux* Taj Ahmed Eldridge* Matt Englhard** Dave Everett* Kevin Fleming* Josh Fryday*	The Community Foundation UC Riverside Consultant UCR Technology Partnerships Proficiency Capital LLC ABC Southern California Chapter Norco College Golden State Opportunity
Michele Decker* Anil Deolalikar* Greg Devereaux* Taj Ahmed Eldridge* Matt Englhard** Dave Everett* Kevin Fleming* Josh Fryday* Andrejs Galenieks^	The Community Foundation UC Riverside Consultant UCR Technology Partnerships Proficiency Capital LLC ABC Southern California Chapter Norco College Golden State Opportunity Loma Linda University
Michele Decker* Anil Deolalikar* Greg Devereaux* Taj Ahmed Eldridge* Matt Englhard** Dave Everett* Kevin Fleming* Josh Fryday* Andrejs Galenieks^ Luz Gallegos*	The Community Foundation UC Riverside Consultant UCR Technology Partnerships Proficiency Capital LLC ABC Southern California Chapter Norco College Golden State Opportunity Loma Linda University TODEC Legal Center Inland Empire Economic
Michele Decker* Anil Deolalikar* Greg Devereaux* Taj Ahmed Eldridge* Matt Englhard** Dave Everett* Kevin Fleming* Josh Fryday* Andrejs Galenieks^ Luz Gallegos* Paul Granillo**	The Community Foundation UC Riverside Consultant UCR Technology Partnerships Proficiency Capital LLC ABC Southern California Chapter Norco College Golden State Opportunity Loma Linda University TODEC Legal Center Inland Empire Economic Partnership
Michele Decker* Anil Deolalikar* Greg Devereaux* Taj Ahmed Eldridge* Matt Englhard** Dave Everett* Kevin Fleming* Josh Fryday* Andrejs Galenieks^ Luz Gallegos* Paul Granillo** Brett Guge**	The Community Foundation UC Riverside Consultant UCR Technology Partnerships Proficiency Capital LLC ABC Southern California Chapter Norco College Golden State Opportunity Loma Linda University TODEC Legal Center Inland Empire Economic Partnership California Steel
Michele Decker* Anil Deolalikar* Greg Devereaux* Taj Ahmed Eldridge* Matt Englhard** Dave Everett* Kevin Fleming* Josh Fryday* Andrejs Galenieks^ Luz Gallegos* Paul Granillo** Brett Guge** Carrie Harmon^*	The Community Foundation UC Riverside Consultant UCR Technology Partnerships Proficiency Capital LLC ABC Southern California Chapter Norco College Golden State Opportunity Loma Linda University TODEC Legal Center Inland Empire Economic Partnership California Steel County of Riverside

John Husing^	Economics & Politics, Inc./ IEEP
Wolde-Ab Isaac**	Riverside Community College District
Reg Javier^*	County of San Bernardino
Kevin Jeffries*	County of Riverside
George Johnson**	County of Riverside
Jessica Kaczmarek**	The James Irvine Foundation
Mark Kaenel**	AltaPacific Bank
Sheheryar Kaoosji+*	Warehouse Workers Resource Center
Richard Keeler^	Riverside Community College District
Danielle Kelly++	March JPA
Randy Korgan+	Teamsters Local 1932
Steve Lambert	The 20/20 Network
Pamela Langford*	CSU San Bernardino
Toni Lawrence+	UC Riverside
Fred Latuperissa+	US Department of Commerce (Ret.)
Randall Lewis*	Lewis Group of Companies
Ching Liu+	SolarMax
Patricia Lock Dawson*	Riverside Unified School District
Ron Loveridge**	University of California Riverside
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L. Dennis Michael*	City of Rancho Cucamonga
Johannes Moenius^	University of Redlands
Steve Monteros++	Convergence One
Lou Monville**	Raincross Corporate Group
Tomás Morales**	CSU San Bernardino
Steve Moore^	University of Redlands
Robert Moran^	County of Riverside
Tom Mullen*	County of Riverside (Ret.)
Henry Nickel+	County of San Bernardino
Cory Nomura^	University of Redlands
Rosibel Ochoa+	UCR Technology Partnerships
Mary Jane Olhasso^	County of San Bernardino (Ret.)
Jay Orr*	County of Riverside (Ret.)

Julie Pehkonen+	Riverside Community College District
Bill Perez*	Riverside/San Bernardino Building Trades Council
Deborah Phares*	Inland Empowerment
Steve PonTell**	National CORE
Karthick Ramakrishnan**	UC Riverside
Elizabeth Romero*	UCR Government Relations
Cindy Roth*	Greater Riverside Chambers of Commerce
Janice Rutherford*	County of San Bernardino Board of Supervisors
Michael Samardzija^	Loma Linda University
Joe Sanberg**	Golden State Opportunity
Kristine Scott**	Sempra Energy
Barbara Sirotnik^	CSU San Bernardino
Bob Stockton*	Rick Engineering
Stan Stosel	IBEW Local 47
Ken Stream**	Gresham, Savage et al
Nathan Strout^	University of Redlands
Mike Stull^	CSU San Bernardino
Beth Tamayose~	UCR School of Public Policy
John Tavaglione*	County of Riverside (Ret.)
Chris Thornberg^	Beacon Economic Forecasting/UCR
John Thomas+	La Sierra University
Mark Thorpe*	Ontario International Airport
Tracey Vackar*	Riverside Community College District
Qingfang Wang^	UCR School of Public Policy
Alan Wapner*	City of Ontario
Matt Webb*	Albert A. Webb Associates
Hassan Webb+	Bank of America
Kim Wilcox**	UC Riverside
Henrietta Williams+	The Convergence
David Willmon~	UCR School of Public Policy
Gerald Winslow**	Loma Linda University Health
Annalisa Wurm~	UCR School of Public Policy

^{**} Members of the Executive Committee * Members of the Steering Committee * Members of Working Groups ** Co-chairs of Working Groups