
Good Jobs in the Inland Empire: Economic Recovery & Resilience

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Photo Credit: Laura James/Pexels

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EXECUTIVE SUMMARY

The Inland Empire (IE) has long been a place of opportunity for many in the Southern California region, ranging from access to affordable housing; to employment and educational opportunities; to recreational areas and to arts, cultural, and community institutions. Anchored by its higher educational institutions, the region has made significant strides in research and commercialization in health, clean technology, geographic information systems, and cybersecurity—areas are poised to usher in significant gains in opportunity for upward mobility.

The region, however, has also seen significant growth in industries that are largely concentrated around service, warehousing, and hospitality work, all of which have not traditionally been viewed as “good” jobs. In particular, the growing workforce that has been concentrated in these industries has experienced a sort of reckoning due to the COVID-19 pandemic with harsh light being shed on these jobs’ low wages, lack of benefits (including paid sick leave), and instability. While the economy is just starting to show signs of long-term recovery as of this report’s publication, there is an opportunity to dig deeper into what this recovery could look like, and how it can address some persistent, and entrenched issues in the region’s employment landscape. It is with this backdrop that this report analyzes the state of good jobs in the Inland Empire, before, through, and after the height of the pandemic.

The concept of a ‘good job’ universally centers around a job that provides stable and relatively high compensation to the workers therein. We define good jobs according to earnings, provision of benefits, and weeks and hours of work. It is important to note that the notion of a ‘good job’ should be updated in future research. With better systematic data collection by government agencies (including measures of injury and turnover, for example), this definition of good jobs can evolve .

Prior to the pandemic, employment, earnings (with caveats), and inequality were growing in Southern California and the Inland Empire specifically. This was driven largely by growth in good jobs, particularly those requiring a Bachelor’s degree (BA). A smaller share of the jobs in the IE are high-paying, stable, and carry benefits (good jobs) than in the rest of Southern California. Good sub-BA jobs are less concentrated in industries. Within this category, healthcare is the largest employing industry. There has been less growth in good sub-BA jobs in the region more broadly, although there has been some noticeable growth in good sub-BA jobs in warehousing from a low baseline since 2015.

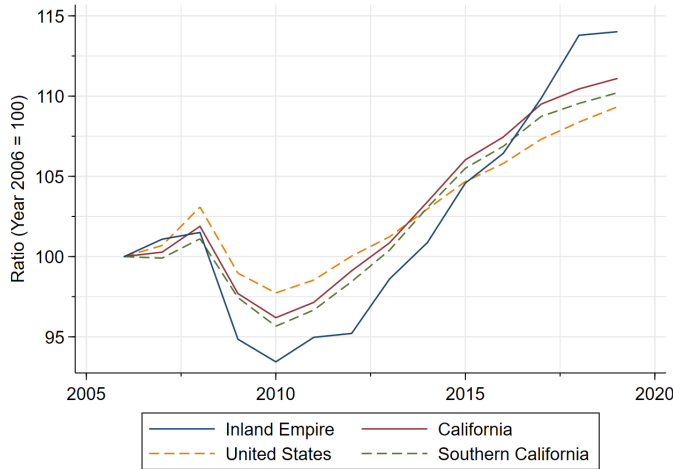
The COVID-19 recession has been more dramatic than the Great Recession nationally, statewide, and regionally. Employment in the IE fell particularly sharply. Good jobs requiring a BA have fared best, whereas those without a BA have been hit particularly hard with comparable employment declines in good sub-BA jobs and other sub-BA jobs. Within the IE the most affected occupations have been in Personal Care and Food Preparation. The most affected major industries have been Hospitality, Other Services, and Manufacturing. Sub-BA job postings have remained high in the IE unlike the rest of Southern California, though there has been a decline in postings for workers with a BA.

The national, state, and local labor markets are recovering. In the IE the unemployment rate is now lower than a year into the Great Recession though the employment to population ratio remains lower than at any point during the Great Recession. The top 5 employing industries in the IE - Retail, Health Care, Construction, Education, and Hospitality - have all begun to recover since the pandemic-induced economic trough of June, 2020. Employment in Construction and Health Care has grown since the start of the pandemic and employment in Education has remained relatively constant. Employment in Retail and Hospitality still significantly lag behind pre-pandemic levels. The industries in which employment remains most harmed are Manufacturing; Professional, Scientific, and Technical Services; Hospitality; and Retail.

Much like the virus itself which attacks those with preexisting and underlying conditions most viciously, the economic effect of COVID-19 has been to further accentuate the preexisting conditions that persisted in the economy before the crisis. And while these problems have been exacerbated, there is now a window – and an imperative – to act. During the recovery, which is already underway, it is important for our region that we do better than “returning to normal” and use this opportunity to rebuild better with equity and sustainability as core values.

Rebuilding better is critical not only for recovery, but also for long-term resilience, especially in the Inland Empire. By building a more robust jobs base fueled by innovation, diverse talent and vibrant local communities, we can strengthen our region’s economic and social assets which could enable the IE to better withstand inevitable future shocks. Pursuing a resilient, inclusive, sustainable, and equitable (RISE) recovery will take more time and resources than typical past efforts to restore local economies. And while a “return to normal” is no longer an acceptable option, we have the opportunity to not only invest and strengthen good jobs

FIGURE 1 - TOTAL EMPLOYED PERSONS BY REGION



Source: ACS 2006-2019

in the IE, but to do so with essential values helping us to rebuild smarter, more sustainable, more resilient, and with more justice.

INTRODUCTION

There are many different definitions and concepts about what constitutes a ‘good job’. This report helps to start the conversation around how to better quantify and understand good jobs in the Inland Empire. The report covers a working definition of what a “good” job is and introduces the employment landscape prior to the pandemic. It then covers the impact of the pandemic, including at its peak impact on the economy in May/June 2020 and the recovery trends since then. The report then closes with policy recommendations that can help strengthen the employment sector and create a more resilient economic environment.

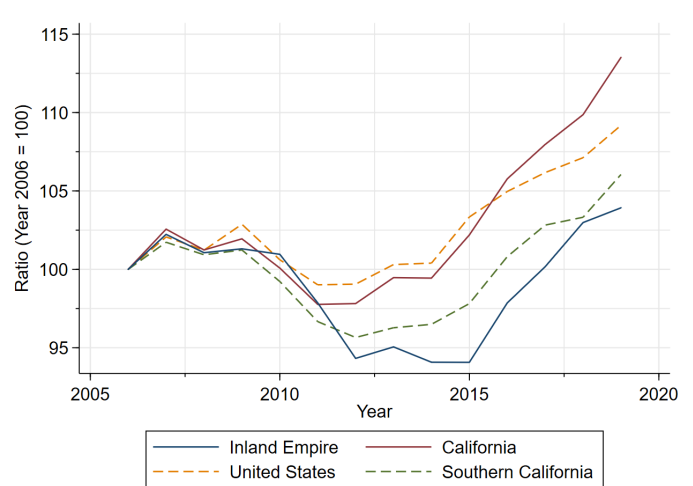
When considering the drastic impacts the COVID-19 pandemic continues to have on our local economy and the health of our communities and workers, it is essential that we strive to support the growth and creation of good jobs as a collective region.

Additional data and figures can be found in the ‘Good Jobs in the Inland Empire: Data Appendix.’

AVERAGE EARNINGS GROWTH

Prior to the recession induced by the spread of COVID-19, employment and average real earnings in the United States, California, Southern California and the Inland Empire were rising. **Figures 1 and 2**, show the growth in employment and the average of real earnings as a percentage of the levels present in 2006 prior to the Great Recession. By 2019, employment in the Inland Empire had risen 14%, out-pacing the 10% growth seen in general in Southern California. Average real wage

FIGURE 2 - REAL AVERAGE WAGE INCOME BY REGION



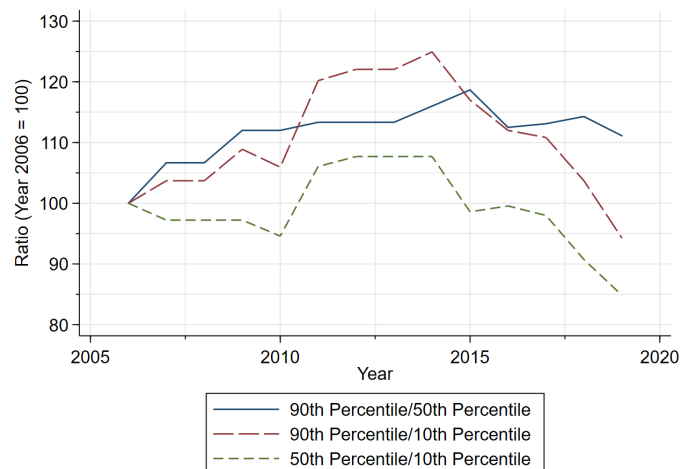
Source: ACS 2006-2019, Consumer Price Index (CPI) from the Bureau of Labor Statistics (BLS)

income had risen by 4% over what earnings had been in 2006 in the Inland Empire, though it is important to note that this growth in earnings lags behind the growth seen in the region, the state, and the rest of the country.

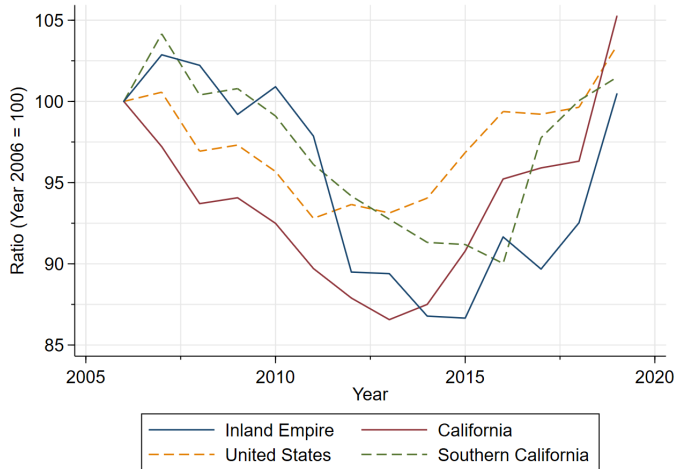
GROWING INEQUALITY

As average labor earnings rise, we explore whether these gains are broad-based with all stakeholders sharing in this growth. We examine three simple measures of inequality to illustrate how inequality in the Inland Empire changed over this period of difficulty and recovery: the 90/10, 90/50, and 50/10. The 90/10 is a simple, broad-based measure of inequality, which reflects how many times more someone earning more than 90% of the earners in the Inland Empire makes over someone earning more than just 10% of earners. The 90/50 and 50/10 are similarly constructed with the 90/50 showing inequality in the top end of the earnings distribution,

FIGURE 3 - NOMINAL HOURLY WAGE IN THE INLAND EMPIRE



Source: ACS 2006-2019

FIGURE 4 - REAL MEDIAN WAGE INCOME BY REGION

Source: ACS 2006-2019, CPI from the BLS

while the 50/10 reflects earning inequality between median earners and those who are relatively poor.

Figure 3 shows how these measures have evolved since just before the Great Recession. The red line (90/10) shows that after a dramatic rise through and in the immediate recovery from the Great Recession, inequality has fallen back to its previous levels. Looking at the 90/50 in blue and the 50/10 in green, we see that the growth in inequality during the Great Recession was driven by those at the bottom falling further behind median earners, whereas the growth in inequality during the recovery was driven by top earnings outpacing median earners wage growth by nearly 10%. Indeed, looking at the real median incomes since 2006 in **Figure 4**, we see that real median incomes only recovered to the 2006 level in the Inland Empire in 2019.

DEFINING GOOD JOBS

We define good jobs according to earnings, provision of benefits, and weeks and hours of work. We use the national median in earnings (\$36,237 in 2017 dollars) as our threshold for relatively high earnings. For jobs to be classified as good jobs, they have to pay no less than this threshold, adjusted for local costs of living. We believe good jobs entail more than simply relatively high pay. In order to provide a pathway to the middle class, it is important that jobs provide stability in the form of continuous employment and insurance against adverse health events. Accordingly, we further require jobs to provide employer-sponsored health insurance and be full-time (at least 35 hours a week) and full-year (at least 50 weeks).

Adding benefits and stability requirements is significant. While roughly 39% of the jobs in the Inland Empire pay relatively high earnings, only 29.7% also provide benefits and full employment. That gap is largest among

THIS REPORT DEFINES GOOD JOBS AS

- A job with wages above national median earnings and adjusted for local price level (2019)
 - \$42,920 in the Inland Empire
 - \$47,520 in LA County and Orange County
 - \$47,160 in San Diego County
- A job that offers benefits, including health benefits
- A job that is full-time and full-year

For this analysis we split good jobs into two categories: Good Jobs that require a bachelor's degree (BA jobs), and Good Jobs that do not require a bachelor's degree (Sub-BA jobs)

those without BA degrees. With this definition, the Los Angeles MSA has the largest share of good jobs in Southern California with 33.4% followed by the Ventura-Oxnard-Thousand Oaks MSA at 32.1% and El Centro at 31.8%.

While such classifications of job quality provide useful statistics for thinking about the differences in the job composition of local labor markets, it is important to dig deeper and consider differences within those classifications across regions as well. For example, Figure A7 in the accompanying data appendix shows differences in job quality within the good jobs classification by region. Within the classification of good jobs, jobs in coastal areas have much higher wage dispersion (particularly at the higher end of earnings) and are more likely to require a BA degree.

We supplement this information with data on job vacancy postings from Burning Glass Technologies (BGT), a firm which scrapes over 40,000 online job boards and parses and codes that data for business and research analysis. The company notes that their data reflects near universal coverage of online job postings. These online job-postings skew much more toward the occupations and industries that provide good jobs than their prevalence in the market. Yet according to this measure as well, we see that the Inland Empire lags behind in prevalence of good job postings (36.6%) compared with the Los Angeles County (42.5%).

Figures 5 and **6** display the composition of jobs both in terms of job postings and actual jobs, utilizing data from the American Community Survey and Burning Glass

TABLE #1 - SHARE OF GOOD JOBS BY RACE AND GENDER, 2018-19

Race & Gender	Inland Empire	LA County	Orange County	San Diego County	Southern CA	California (State)
Asian Male	42.5%	44.2%	48.1%	48.8%	45.7%	50.1%
Asian Female	36.9%	38.9%	37.8%	36.9%	38.3%	41.3%
Black Male	31.9%	34.8%	39%	27.4%	33.6%	35.7%
Black Female	31%	33.7%	34.4%	23.2%	32.2%	32.3%
Latino Male	27.2%	22.9%	26.1%	28.1%	24.8%	26.2%
Latina Female	16.2%	17.1%	16.7%	17.2%	17%	18.1%
Other Male	37.7%	39.7%	43.8%	37.3%	39.4%	41.4%
Other Female	33.6%	39%	34.1%	33.1%	35.7%	37.4%
White Male	48.4%	52.9%	54.3%	52.1%	52.1%	54.6%
White Female	35.8%	42.5%	42.9%	40.9%	40.9%	42.4%
Total Male	34.9%	35.5%	41.2%	41.8%	37.3%	41%
Total Female	25.3%	29.7%	31.7%	31.4%	29.5%	32.4%
Total by Region, all Genders	30.4%	32.8%	36.8%	36.9%	33.7%	37%

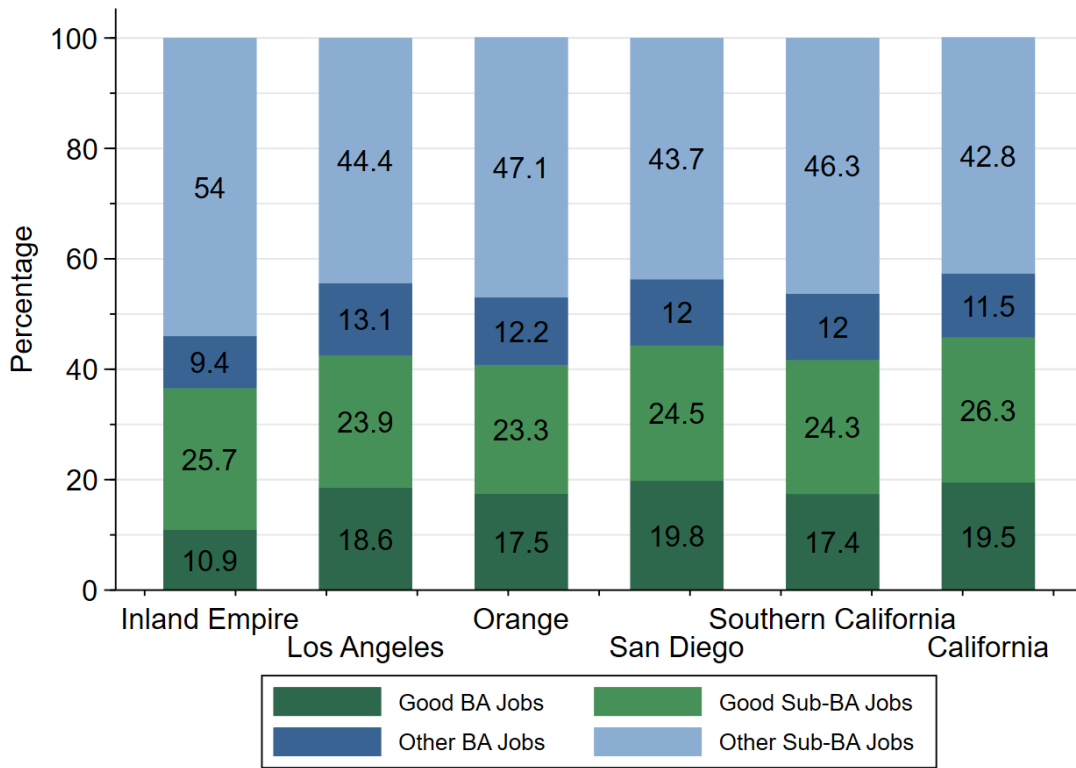
Source: ACS 2018 - 2019

TABLE #2 - SHARE OF GOOD JOBS BY RACE AND REGION, 2018-19

Race	Inland Empire	LA County	Orange County	San Diego County	Southern CA	California (State)
Asian	39.6%	41.5%	43%	42.7%	42%	45.8%
Black	31.4%	34.2%	36.8%	25.6%	32.9%	34%
Latino	22.3%	20.3%	22%	23.1%	21.3%	22.6%
Other	35.7%	39.4%	39.6%	35.3%	37.6%	39.5%
White	42.4%	48.2%	49%	46.9%	47%	48.9%
Total	30.4%	32.8%	36.8%	36.9%	33.7%	37%

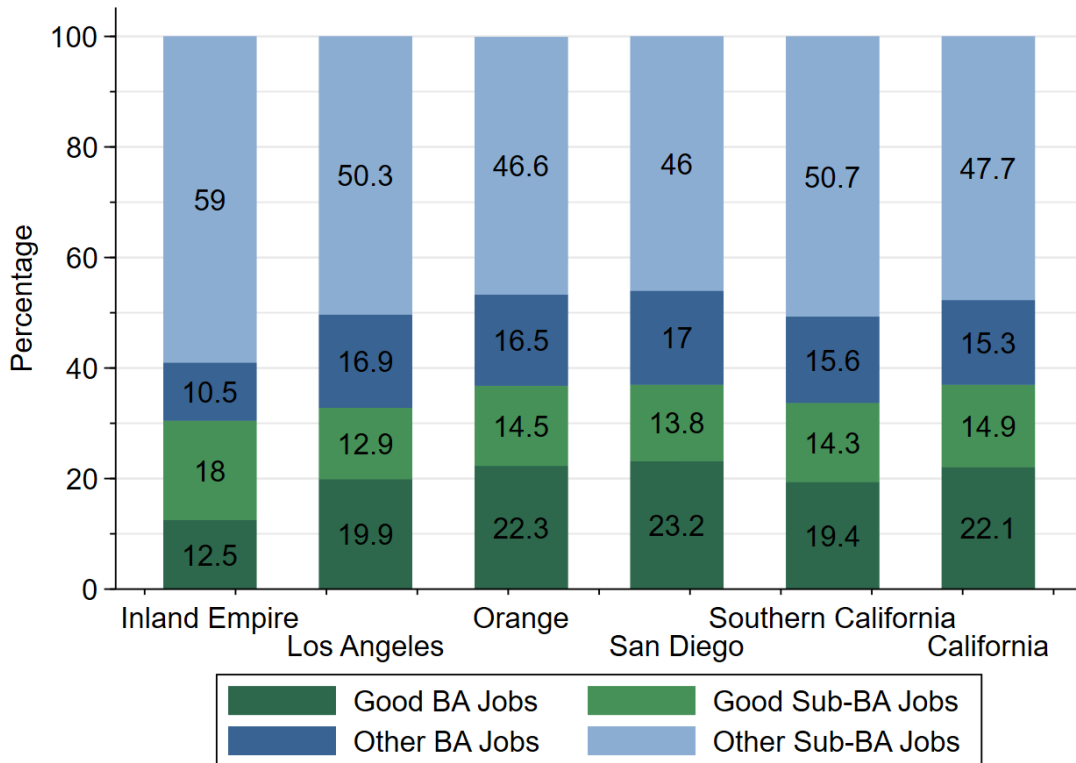
Source: ACS 2018 - 2019

FIGURE 5 - COMPOSITION OF JOB POSTINGS BY REGION



Source: ACS 2018-2019, Burning Glass Technologies

FIGURE 6 - COMPOSITION OF ACTUAL JOBS BY REGION



Source: ACS 2018 - 2019

FIGURE 7 - TOTAL JOBS IN THE INLAND EMPIRE



Source: ACS 2006-2019

Technologies. Overall, the Inland Empire has fewer good jobs than other counties. Notably, among the good jobs in the Inland Empire there is a high proportion of good jobs available that do not require a BA degree.

For more details about how we define good jobs, please see the *Good Jobs in the Inland Empire: Data Appendix* available online at <https://socialinnovation.ucr.edu/research>

REPRESENTATION IN GOOD JOBS

It is important to note the importance and impact of an individual’s intersectionality on their job access and opportunity. Economists have long explored different types of occupational segregation including along the lines of race, gender, disability, age, citizenship status, previously incarcerated individuals, and many other groups (Autor et al. 2006; Cotter et al., 2004; Dwyer, 2013; Sutton et al., 2016). Limiting the opportunities of workers from marginalized backgrounds maintains wage inequality, further limiting economic security, and constrains the potential of the overall economy (Sun 2020).

For example, the data in **Table 1** show that overall by region, the Inland Empire (30.4%) has the lowest share of good jobs. In contrast the state average is 37%. By race, the IE falls below the state average for each racial group. For example, 31.4% of Blacks in the Inland Empire have good jobs compared to 34% at the state level.

When breaking down the data by gender, the data in **Table 3** show that women in the IE (25.3%) have the lowest share of good jobs when compared to each region. For example, the state average is 32.4%. When we further disaggregate the data, we find that Latina women in the Inland Empire have the lowest share of good jobs when

compared to all other regions and races with 16.2% with good jobs. In contrast, Latino men in the Inland Empire (27.2%) actually have a high share of good jobs when compared to other regions, slightly beating the state average of Latino men (26.2%).

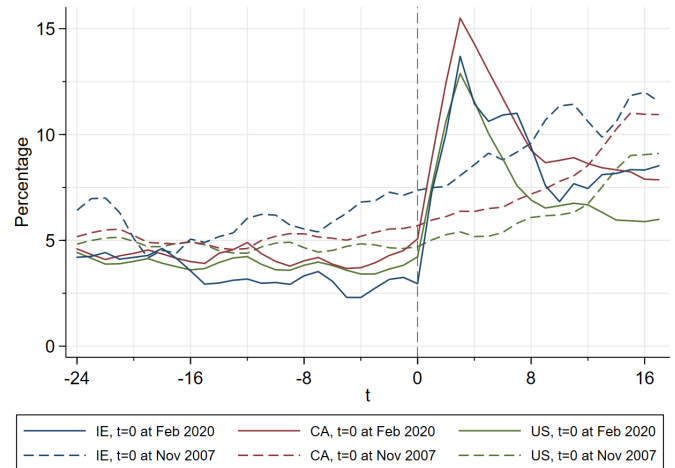
CHANGING COMPOSITION OF JOBS

We care not only about job growth, but also about what kinds of jobs have grown, and by how much. What industries and occupations supply these good BA high-education and good sub-BA accessible jobs? What has happened to them over the last decade? **Figure 7** decomposes job growth in the Inland Empire during the Great Recession and subsequent economic recovery into these four categories. The first headline is good news for the region, as job growth has occurred in each category with the highest growth in the highest-paying good-BA job category. This positive headline is tempered by the fact that growth in good sub-BA jobs has lagged significantly. This may be evidence of the hollowing out of the labor market--a phenomenon that has been observed across many labor markets of the developed world.

We dig deeper by examining the industry breakdown of this growth. **Table 3** [on pg. 8] lists the 20 industries providing the most good BA jobs in the Inland Empire. It further shows the employment share of those industries in 2019 and how the employment share has changed for those industries since before the Great Recession.

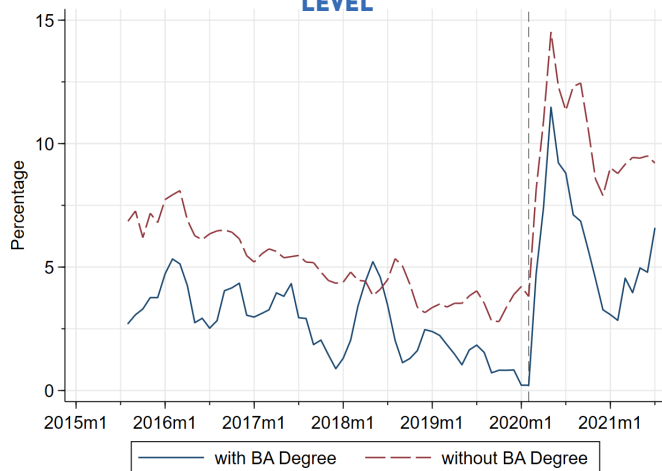
The largest providers of good BA jobs in the region are Educational Services, Hospitals, and Professional, Scientific, and Technical Services. Together they provide 43.8% of good BA jobs in the Inland Empire and each is experiencing growth. Hospitals and Professional,

FIGURE 8 - UNEMPLOYMENT RATE DURING THE GREAT RECESSION AND COVID-19 PANDEMIC



Source: CPS 2005-2021

FIGURE 9 - UNEMPLOYMENT RATE IN THE I.E. BY EDUCATION LEVEL



Source: CPS 2015-2021

Scientific, and Technical Services have seen particularly rapid growth increasing their labor share by 36.6% and 25.8% respectively. In fact, 4 of 5 and 7 of 10 largest providers of good BA jobs experienced growth over the last 12 years.

Table 4 provides the same information about the 20 industries providing the most sub-BA good jobs in the Inland Empire. First note that sub-BA good jobs are much less concentrated in industries than are good BA jobs. The top three industries (Hospitals; Administration of Environment Quality, Housing, Economic and Space Research Programs; Professional, Scientific, and Technical Services) cumulatively offer only 15.7% of the sub-BA good jobs in the region. Furthermore, there has been somewhat less growth among these industries as only 3 of 5 and 6 of 10 of the top providing industries of good sub-BA jobs experienced growth.

IMPACTS FROM THE COVID-19 PANDEMIC

The COVID-19 pandemic and the resulting economic downturn drastically increased the number of unemployed Americans. In regions that already faced employment and income disparities, the impact has been even greater. The pandemic has shone a bright light on previous inequities, while at the same time widening these gaps. Keeping in mind that this is an ever changing and evolving situation, we explore the current impact of COVID-19 on workers in the nation, state of California, and the Inland Empire.

While there is no perfect comparison to the economic turmoil the country is currently facing, the Great Recession of 2008 is a useful proxy. The Great Recession was a period of marked general decline observed in national

economies that occurred between 2007–2009. The causes of the Great Recession include a combination of vulnerabilities that developed in the financial system, along with a series of triggering events that began with the bursting of the United States housing bubble between 2005 and 2006. The Great Recession was a global phenomenon, much like the current pandemic, affecting most countries of the world to varying degrees.

Using current data (up to July 2021 of the Current Population Survey and online job posting data from Burning Glass Technologies), we compare employment to population ratio and unemployment rate in the current environment against the same indicators during the Great Recession. We look at these indicators overall, and decompose them by whether workers have completed college. Finally, we examine changes in employment and job postings by the 15 most prevalent industry and occupation classifications for the Inland Empire.

The data show that the COVID-19 induced recession has so far been more dramatic than the Great Recession. This is true nationally and statewide. Regionally, the Inland Empire has been hit particularly hard. Employment fell more rapidly and unemployment rose quicker than at any point during the Great Recession.

Workers without a Bachelor's degree (or BA) have seen the largest fall in employment. Further, whereas workers with a BA in the Inland Empire have seen some recovery in employment, low employment levels from the height of the pandemic in June 2020 have persisted for workers without a BA. Thus, the fall in unemployment among workers without a BA is likely due to these workers dropping out of the labor market.

The most affected occupations have been in Hospitality, Other Services, and Manufacturing. The most affected major industries have been Accommodation and Food Services, Other Services, and Manufacturing. Each of which has seen steeper declines in employment than the industries have seen nationwide. Construction, Education, and Transportation have so far grown or been unaffected.

UNEMPLOYMENT

Unemployment is the most common labor force indicator used to summarize the state of the labor market. It shows out of all the people working or looking for work, what share are unable to find employment. We see that while prior to the pandemic, the Inland Empire had a lower unemployment rate than the rest of the state or nation as a whole, COVID-19 has been particularly hard on the region. In **Figure 8**, the unemployment rate rose from 3% just prior to the pandemic to a peak of 13.7%

TABLE #3 - CHANGE IN EMPLOYMENT SHARE FOR TOP 20 INDUSTRIES WITH GOOD BA JOBS

Industry Title	Employment Share 2006/07	Employment Share 2018/19	Percent Change	Share of Good BA 2018/19
Educational Services	8.2%	8.7%	6.1%	22.2%
Hospitals	3.5%	4.8%	37.1%	12.0%
Professional, Scientific, and Technical Services	3.4%	4.2%	23.5%	9.6%
Administration of environmental quality, housing, economic and space research programs	2.6%	2.3%	-11.5%	6.2%
Ambulatory health care services	3.6%	4.8%	33.3%	6.1%
Executive , legislative, and other general government support	1.1%	1.2%	9.1%	3.2%
Social assistance	2.0%	2.3%	15.0%	2.4%
Administrative and support services	4.2%	4.2%	0.0%	1.9%
Insurance carriers and related activities	1.2%	1.0%	-16.7%	1.9%
Merchant wholesalers, durable goods	2.2%	1.7%	-22.7%	1.8%
Banking and related activities, and securities, commodities, funds, trusts, and other financial investments	1.1%	0.9%	-18.2%	1.6%
Administration of human resource programs	0.4%	1.0%	150.0%	1.5%
Religious, grantmaking, civic professional, and similar organizations	0.9%	1.0%	11.1%	1.5%
Utilities	0.8%	0.9%	12.5%	1.3%
Amusement, gambling, and recreation industries	2.0%	1.9%	-5.0%	1.3%
Real estate	2.1%	1.5%	-28.6%	1.2%
Merchant wholesalers, nondurable goods	1.6%	1.5%	-6.3%	1.2%
Transportation equipment manufacturing	1.3%	1.0%	-23.1%	1.1%
Chemical manufacturing	0.6%	0.6%	0.0%	0.9%
Nursing and residential care facilities	1.0%	1.2%	20.0%	0.9%

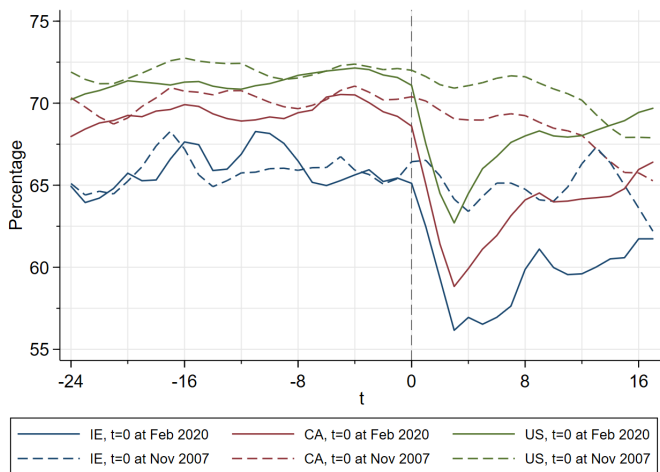
Source: ACS 2006, 2007, 2018, 2019 - All monetary terms are deflated using CPI for urban consumers from BLS.

TABLE #4 - CHANGE IN EMPLOYMENT SHARE FOR TOP 20 INDUSTRIES WITH GOOD SUB/BA JOBS

Industry Title	Employment Share 2006/07	Employment Share 2018/19	Percentage Change	Share of Good Sub-BA 2018/19
Hospitals	3.5%	4.8%	37.1%	6.5%
Administration of environmental quality, housing, economic and space research programs	2.6%	2.3%	-11.5%	5.3%
Professional, scientific, and technical services	3.4%	4.2%	23.5%	3.9%
Truck transportation	2.0%	1.9%	-5.0%	3.7%
Ambulatory health care services	3.6%	4.8%	33.3%	3.7%
Educational services	8.2%	8.7%	6.1%	3.0%
Utilities	0.8%	0.9%	12.5%	2.7%
Merchant wholesalers, durable goods	2.2%	1.7%	-22.7%	2.6%
Administrative and support services	4.2%	4.2%	0.0%	2.6%
Merchant wholesalers, nondurable goods	1.6%	1.5%	-6.3%	2.5%
Motor vehicle and parts dealers	1.8%	1.4%	-22.2%	2.3%
Food and beverage stores	2.6%	2.2%	-15.4%	2.0%
Food services and drinking places	6.8%	7.8%	14.7%	2.0%
Warehousing and storage	1.0%	3.5%	250.0%	2.0%
Repair and maintenance	1.8%	1.7%	-5.6%	1.9%
Real estate	2.1%	1.5%	-28.6%	1.8%
Executive legislative, and other general government support	1.1%	1.2%	9.1%	1.8%
Amusement, gambling, and recreation industries	2.0%	1.9%	-5.0%	1.7%
Transportation equipment manufacturing	1.3%	1.0%	-23.1%	1.6%
General merchandise stores	2.9%	2.1%	-27.6%	1.6%

Source: ACS 2006, 2007, 2018, 2019 - All monetary terms are deflated using CPI for urban consumers from BLS.

FIGURE 10 - EMPLOYMENT TO POPULATION RATIO AT THE GREAT RECESSION AND THE COVID-19 PANDEMIC

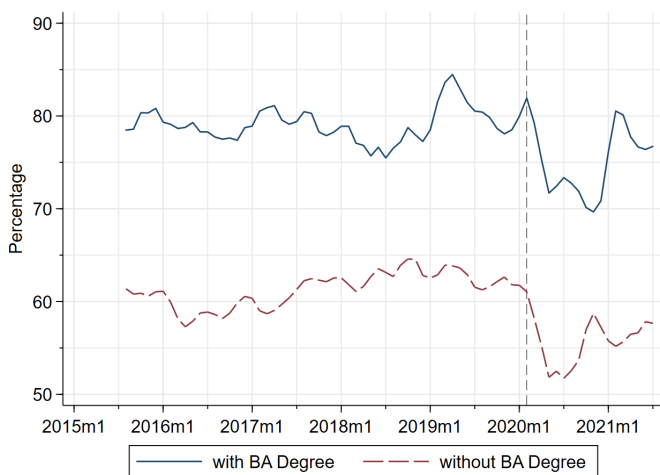


Source: ACS 2018-2019, CPS 2015-2021

in just three months, stayed over 10% for another four months, and declined to around 8% more recently. That outpaces the rise in the unemployment rate in the United States overall, while the state of California sees the highest increase.

In contrast, over the first 7 months of the Great Recession, unemployment only rose 1.8 percentage points in the Inland Empire, 1.2 percentage points in California and 0.8 percentage points in the United States overall. Workers without a BA have been particularly hard hit. Workers without a BA in the Inland Empire faced an unemployment rate of 14.5 percent at the peak, and has always been higher than workers with a BA degree. Unlike in the rest of the state and nation, entering 2021, the unemployment rate in the Inland Empire has stopped falling from its June, 2020 peak and appears to be on a rising trajectory again for both workers with and without a BA degree.

FIGURE 11 - EMPLOYMENT TO POPULATION RATIO IN THE I.E. BY EDUCATION LEVEL



Source: CPS 2015-2021

FIGURE 12 - TOTAL JOBS IN THE SCAG REGION



Source: ACS 2018-2019, CPS 2015-2021

Figure 8 depicts the unemployment rate for the Inland Empire, state of California, and US during both the Great Recession (solid lines), and the current COVID-19 recession (dotted lines). Clearly the spikes in unemployment during the current recession are drastically higher than during the Great Recession.

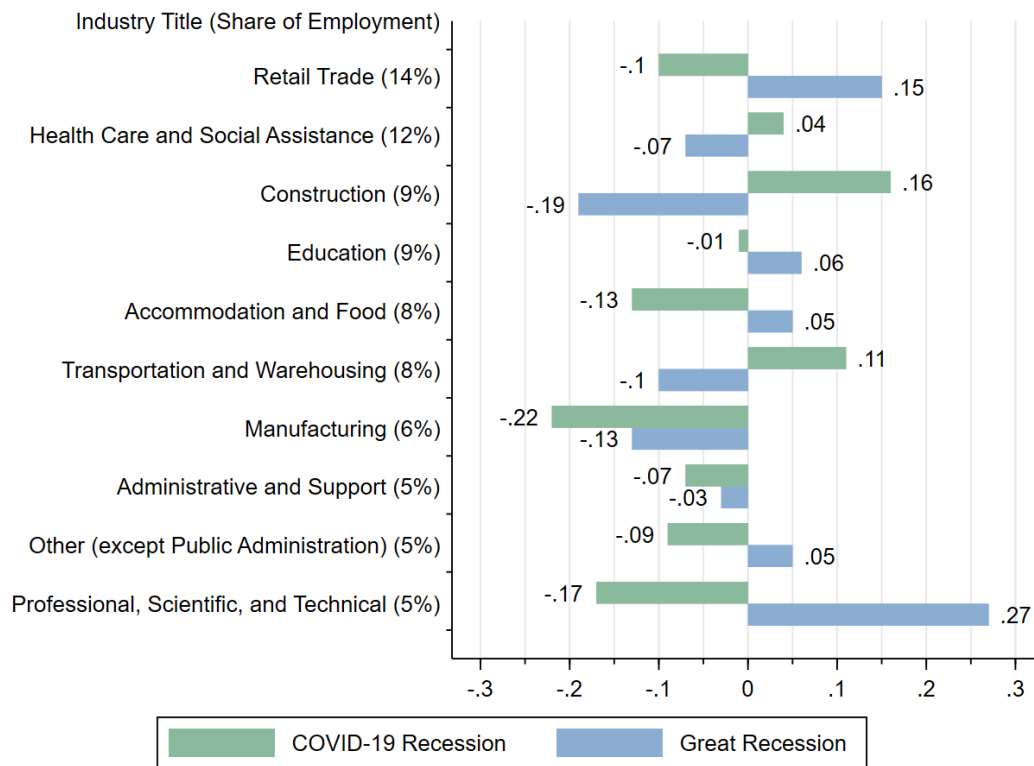
Figure 9 shows that the current recession is not impacting all workers evenly. The unemployment rate for workers without a BA was higher here in the Inland Empire prior to the outbreak of COVID-19 and that gap has grown in its wake.

EMPLOYMENT TO POPULATION RATIO

Despite its wide usage, the unemployment rate may overlook key elements of the labor market. In particular, only non-working persons who are looking for employment are counted by the measure. As many people may have left the labor force due to fear of infection or child care demands, we also examine the employment to population ratio which provides a more inclusive measure, incorporating such situations. Again we observe a dramatic change, seen in **Figure 10**. From March 2020 to October 2020, the employment to population ratio has dropped by 7.5 percentage points in the Inland Empire, 5.4 percentage points in California, and 3.5 percentage points in the United States. Each is far more dramatic than the 1 to 1.7 percentage point drop in employment to population ratio that occurred during the first 7 months of the Great Recession. Again, the drop has been larger (8.5 in the Inland Empire) among workers without a BA. Further, in the Inland Empire, the employment to population ratio reveals a sign of slower recovery for workers without a BA.

Figure 10 depicts the employment to population ratio for the Inland Empire, state of California, and the US

FIGURE 15 - SHORT-TERM IMPACT ON EMPLOYMENT BY INDUSTRY IN THE INLAND EMPIRE 2020 VS. 2008



Source: Current Population Survey (CPS). Note: Sample sizes may be small for some industries in the region. We use 6 month averages to pool data.

overall during both recessions. Again, the solid lines represent the Great Recession and the dotted lines represent the current recession due to the pandemic. At the start of the current recession, it is clear that the employment to population ratio has significantly decreased in comparison to the data from the Great Recession.

Figure 11 depicts the employment to population ratio for the Inland Empire leading up to the start of the COVID-19 recession for workers with and without a BA degree. A clear disparity can be seen before the start of the recession, with this gap appearing to grow larger in the following months. This data suggests a slow economic recovery, particularly for workers without BA degrees.

PANDEMIC IMPACTS ON GOOD JOBS

Figure 12 shows the percent changes in each classification of jobs in the SCAG region over the last five years. The Southern California Association of Governments (or SCAG) region includes the following six counties: Imperial, Los Angeles, Ventura, Riverside, Orange, and San Bernardino. It reflects recent growth in employment prior to the pandemic in all job categories, and particular growth in good jobs requiring a BA. It also shows that each classification of jobs saw dramatic declines

with the spread of COVID-19. However, cutting the data again by education is informative. Good sub-BA jobs have been severely affected by the pandemic. Good BA jobs have faced smaller declines such that employment in these jobs remains nearly 5 percent higher than it was in September, 2015.

With the near universe of online job postings from Burning Glass, we can look at subregions within SCAG to examine more local potential job creation. We see in **Figure 13** that the Inland Empire has seen the largest growth in job postings prior to the pandemic. Furthermore, postings in the region have remained high throughout the pandemic whereas the rest of the region has seen significant declines in job postings. **Figure 14** shows the types of job postings that have been driving these trends within the Inland Empire. We see that while all job types were seeing drastic growth in postings prior to the pandemic, those requiring a BA dropped drastically with the spread of COVID-19, and still have not returned to pre-pandemic levels. Some deeper-level analysis of CPS data by industry since 2015 suggests that some of this growth is likely due to improved wages and benefits in warehouse work from employers such as Amazon, although it is important to note that these increases come on a relatively low baseline of good jobs in warehousing work (see our online technical appendix).

INDUSTRY IMPACTS

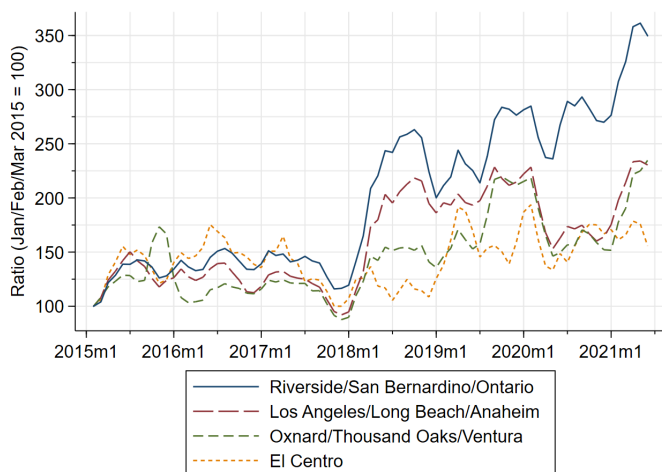
We dig deeper into the effects of the pandemic on major industries in the Inland Empire. Below we list the top employing industry sectors in the Inland Empire. We show the average change in employment during the primary drop in employment due to COVID-19 (March, 2020 - July, 2020) from the six months prior (September, 2019 - February, 2020). Using data from Burning Glass Technologies, we examine how job availability has changed on average during the pandemic in each industry.

The most affected major industries during this initial period have been Hospitality, Other Services, and Manufacturing with declines of 36%, 25%, and 31% respectively. Each of which has seen steeper declines in employment than the industries have seen nationwide. Construction, Education, and Transportation have so far grown or persisted in the Inland Empire. However, among those only Transportation saw an increase in job postings, and it has been substantial.

More than a year after the start of the COVID-19 induced recession the cumulative employment impacts show us that employment in many major industries is still well behind where it was at the start. Employment in Manufacturing, Professional, Scientific, and Technical Services, Retail, and Hospitality is more than 10 percentage points below where it was at the beginning of 2020. These industries previously provided a large share of the good jobs in the area.

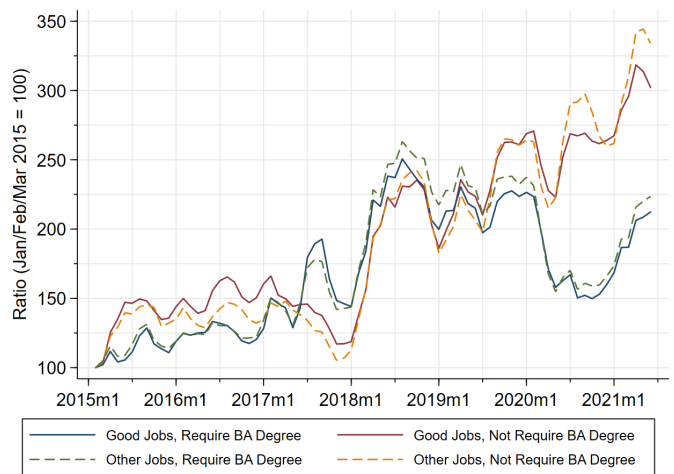
We examine employment changes in each industry since the trough of July, 2020 to see in which industries the recovery has started. We see the largest growth in Hospitality, Other Services, and Health Care, each

FIGURE 13 - TOTAL JOB POSTINGS IN THE SCAG REGION



Source: Burning Glass Technologies

FIGURE 14 - TOTAL JOB POSTINGS IN THE INLAND EMPIRE



Source: ACS 2018-2019, Burning Glass Technologies

of which had large falls in employment from which to recover. Notably, employment in Manufacturing and Professional, Scientific, and Technical Services has seen little recovery from its initial decline. Declines we have seen since the start of the recession in Manufacturing, Professional, Scientific, and Technical Services, and Hospitality each surpass the largest declines seen by this point following the start of the Great Recession. While there is some hope for a rapid recovery, the recovery so far has been uneven, and it is yet to be seen whether that unevenness is only in timing or whether there will be a permanent shift in the composition of the local labor market.

POLICY OPTIONS

There are several policy options that could help facilitate and support new good job growth in the Inland Empire. In addition to the data from this report, the Center for Social Innovation released the State of Innovation in the Inland Empire report, and has been working with partners on inclusive economic development research and best practices. Findings from this report and the center’s extensive research (both qualitative and quantitative) have led to several policy recommendations that would be especially helpful in our local context.

PUBLIC HEALTH/VACCINES/HEALTHCARE

As the US economy begins to pick up after record job losses in 2020, the demand for workers in all sectors is strengthening, particularly in the Inland Empire. However, the COVID-19 pandemic has caused many to rethink their work situation. Currently there is an uncharacteristically high number of job vacancies given the relatively high number of adults without work. While rising pay will induce many to return to work, COVID-19 continues

to depress labor supply as safety concerns, transmission concerns, and lack of stable childcare form significant barriers to labor market engagement. In order to bring these workers back to work it is paramount to first tackle our current public health crisis. Accordingly, the most acutely needed labor market interventions are the same interventions needed to lower COVID-19 transmission, such as raising vaccination rates and encouraging masking and social distancing practices.

Secondly, it is essential that policies adequately address the impacts of this health crisis on all workers. Greater access to healthcare and benefits like paid sick leave are now particularly important. Putting the health needs of workers first, and building up a robust health safety net could help the region not only get back to work, but to be more resilient in terms of other future health crises. Currently, both Inland Empire counties have efforts to promote vaccine equity. Additionally, numerous community organizations have organized to collaborate and maximize these vaccination efforts.

WORKFORCE DEVELOPMENT

In the longer term, workforce development can be key for setting the region up for sustained high quality job growth in the future. In the past, workers with a high school diploma or less were able to attain jobs with middle-class wages in the American economy. These jobs were available in manufacturing and other blue-collar industries that employed large numbers of high school educated workers. However, the rise of automation, globalization, and other significant policy- and investment-related changes have led to major structural shifts in the economy, and more closely aligning economic opportunity with more educated workers with higher skill levels.

Research on addressing this gap has highlighted the role of continuing education, training, apprenticeship, and career pathways programs can play in increasing wages and providing means to access good jobs (Lewis 2008; Schwartz 2016; Card 1999). There is also a growing movement among large tech companies like Apple and IBM, in coordination with the federal government, to bring awareness to how paths like coding bootcamps, apprenticeships, and certifications can help job applicants compete for similar job opportunities to those with a BA. While employers have traditionally required a fairly standard path of education and skills requirements, expanding the amount of career pathways available could make significant inroads for many who have the interest but not the funds to complete a degree program.

For example, apprenticeship-specific programs are a key way to provide opportunities for up-skilling and reskilling, do not necessarily rely on higher educational attainment, and often can be complemented with youth options, which can lead to a degree or certification. This period of transition for so many workers can be an opportunity to up-skill or reestablish labor market attachment in more promising occupations and industries.

Improving the ties between community colleges, workforce institutions, and employers would help more workers gain the skills needed for 'good' jobs. In addition, evidence shows that training programs linked to employers and good-paying jobs are often cost-effective (Holzer 2012). Developing and implementing such programs and systems could help raise worker earnings and ultimately reduce inequality.

Another key aspect of development is mentorship and support, especially for women and people of color who are often underrepresented. Mentorship programs can help build up leadership within our region, which could ultimately lead to external positions of influence. Additionally, supporting and nurturing local talent can help create an ecosystem that is conducive to innovation, facilitating the creation and growth of more good jobs.

SUPPORT & INVESTMENT IN RESEARCH AND DEVELOPMENT (R&D)

The creation and growth of good jobs can also be tied to support and investment in research and development. As industry and research institutions create innovative new technologies, processes, and/or services good jobs often will follow. In terms of education, there is an opportunity to increase support for higher education partnerships with industry, and strengthen partnership between two and four-year institutions. There are also opportunities to provide experiential learning opportunities through partnerships between K-12 and higher education.

Joint efforts like research parks also can facilitate unique opportunities for collaboration between higher education, continuing education, and industry. These types of partnerships can become catalyst projects, attracting further investment and leveraging educational investment into good jobs and economic productivity.

LEVERAGING REGULATIONS & INCENTIVES

While regulations are typically tied to physical developments, traditionally in the form of waiving certain fees or fast-tracking review processes, some scholars have suggested they instead be used for people-based economic development. For example, Bartik and Austin

(2019) suggest that these incentives can instead incorporate expansion of infrastructure and skills development programs in order to promote well-designed and cost-effective local economic growth. They point out that a 55-year-old may benefit from job creation, whereas they most likely would not gain much from job training programs. Incentives can potentially be targeted to things such as addressing high unemployment or geographically aimed at focusing on high tech areas.

For the Inland Empire region, the CARB relocation has spurred efforts to establish the region, and specifically Riverside, as a hub of clean technology. Examples of regulations and incentives that could be particularly useful for this type of scenario include: flexible zoning to accommodate green technology industry within the general plan, streamlining permitting and leveraging incentives and exemptions, leveraging opportunity zone designations, and establishing partnerships for workforce development and technology incubation.

It should be noted that this report primarily defines a 'good job' as an outcome of negotiable aspects, e.g., pay rate, security, and whether or not it provides benefits. It also acknowledges that aspects such as opportunities for up-skilling and upward mobility are additionally part of the overall picture of a "good" job. Both of these can be achieved through a variety of methods, including support for unions and collective bargaining. Providing an environment conducive to fair, open, and credible negotiation is perhaps the most essential role of regulation for facilitating productive job matches.

UPDATING OUR REGIONAL NARRATIVE AND MINDSETS

Beyond monetary resources and investment, it is also important that as a collective region we update our narratives and mindsets from a deficit perspective to one of opportunity. Not only does this aid in attracting more funds to the region, but it also helps local entrepreneurs and investors dream big. Along with spurring innovation, changing mindsets would help to encourage more collaborative efforts and action. For example, IE Squared (or the Inland Empire Innovation Ecosystem) is a collaboration of regional partners seeking to support and advocate for strengthening the innovation ecosystem in the Inland Empire. *For more information visit IESquared.org.* These types of collective efforts and partnerships are essential for encouraging not only the growth of good jobs in the region, but the entire economic ecosystem as a whole.

Another way to build up our regional narrative and coordination is through applying new and innovative frame-

works. Having a standardized framework in place can help the Inland Empire provide greater clarity and accountability for post-pandemic projects, initiatives, and investments in good jobs and beyond. For example the RISE and Ready Framework, which has been developed through research, community learning sessions, and local community engagement work, is a concrete way to improve over standard definitions of "shovel-ready" projects and investments by employing a standardized framework. The RISE (Resilience, Inclusion, Sustainability, Equity) aspect of the framework includes a set of measurable standards to track progress on key values and priorities, while the Ready aspect of the framework measures a community's workforce and infrastructural readiness, with respect to receiving new investments and completing projects in a timely manner. In practical terms, these could be in relation to economic mobility, access to good jobs (wages + benefits), more inclusive communities, economic development, better collaboration between stakeholders, an improved jobs/housing balance, greater environmental stewardship/positive outcomes, greater civic/public engagement, etc.

PROMISING PROGRAMS & INITIATIVES

There are several examples within the region of initiatives targeted at increasing the amount and share of good jobs. Many of these center around workforce education, training, and bolstering the economic base. While the following list of initiatives is by no means comprehensive, it is meant to illustrate the variety of ways the region is collectively working toward increasing access to good jobs and economic opportunity.

High Road Training Partnership (H RTP)

The High Road Training Partnership is a state demonstration project spanning several industries to model partnership strategies that are equitable, sustainable, and promote job quality.

LAUNCH Apprenticeship Network

The LAUNCH Apprenticeship Network leverages the region's workforce and education systems by integrating apprenticeship programs into both in order to act as an intermediary and education provider toward adoption of apprenticeship models.

Inland Economic Growth and Opportunity (IEGO)

IEGO is composed of a range of community leaders from Riverside and San Bernardino counties to advance inclusive economic growth and expand middle class opportunity through creation of more quality middle-skill jobs that are accessible to workers throughout

the region, including for those who lack a four-year degree. The two-county collaborative effort is in its fifth year, and has prioritized the growth of good jobs in sustainable logistics, clean technology, cybersecurity, and advanced manufacturing.

Guided Pathways (GIA)

Growing Inland Achievement coordinates and facilitates Guided Pathways support for all Community Colleges in Riverside and San Bernardino counties, including piloting student case management toward timely advising and degree completion.

Generation Go/Vision2Succeed

Generation Go/Vision2Succeed is a collaborative initiative between education and workforce development in San Bernardino to strengthen local workforce skills and provide career opportunity training.

Job Driven SlingShot Initiative

The Job Driven SlingShot Initiative is a collaboration between the Riverside and San Bernardino County Workforce Development Boards which focuses on improving economic outcomes and increasing income mobility.

MARS Career Promise

MARS is a regional economic development initiative including a regional jobs center and career training that aligns industry-based workforce needs with STEM and career technical education training in middle and high schools.

Riverside County Workforce Development

The Riverside County Workforce Development Board provides oversight for Riverside County Workforce Innovation and Opportunity Act programs, provides seamless services among various workforce programs, and provides leadership around workforce issues.

San Bernardino Workforce Development

The San Bernardino Workforce Development Board supervises the allocation of federal funding to strengthen the local workforce, offers comprehensive strategies to meet the local skilled workforce needs, and creates opportunities for job seekers to prepare for and enter into well-paying careers.

California State University San Bernardino Cybersecurity Center

The Cybersecurity Center provides pioneering cybersecurity education, and has been designated by the

National Security Agency and the Department of Homeland Security as a Center of Academic Excellence in Information Assurance.

ExCITE - UC Riverside

ExCITE is an incubator partnership between the City of Riverside, Riverside County, and the University of California Riverside for high tech, high-growth science and technology startups, that uniquely brings together higher education and community resources.

RELATED LEGISLATION & EFFORTS

While much has been reported about the number of jobs added to the economy, there remain important questions about how 'good' these jobs actually are. For instance, although warehousing jobs such as those found through employers like Amazon may pay decently well, by many accounts the working conditions are less than desirable. For example, research by the UC Berkeley Labor Center in October 2019 found a disproportionately high level of worker injury and turnover at Amazon connected with deskilling and work intensification, and these kinds of outcomes are not adequately captured in existing government workforce data (CITE). Relatedly, California Bill AB 701 recently passed the legislature and is one attempt to change working conditions, through requiring employers to disclose quota requirements to their employees..⁵

Legislation that has similarly targeted how corporations like Uber and Lyft treat their workers has also made its way to California ballots. While voters supported Proposition 22 in 2020, which kept workers classified as contractors and not as employees, a lawsuit brought on by SEIU resulted in California's Superior Court invalidating the proposition in August 2021.

In light of the pandemic and major structural shifts in our economy, it is increasingly important to pay attention to legislation at both the state and local level that can help support good jobs and equitable economic opportunity and prosperity.

ADDITIONAL RESEARCH

It is important to note that there are certain limitations to the data we present in this report. First, job openings data was based on what Burning Glass has in their database. As mentioned earlier, while the company advertises that their data reflects almost all online job postings, the very nature of online job postings skews toward occupations and industries that provide the types of jobs that this report identifies as good. Despite this shortcoming, Burning Glass data is unique

in collecting almost comprehensive and real-time job postings that allows us to understand the type of workers needed by employers. Considering the impacts of the pandemic, the demand side of the market is likely atypical. Such information can be crucial to policy makers in helping match displaced workers with potential employers. Future research could also take into account what County Workforce Development divisions have in their databases to get a fuller understanding of the employment situation and what data government agencies have access to as they seek to up-skill workers and also get prospective employees ready for the job market. Additionally, there is a time lag between what is included in county databases and what the current openings are, and sometimes these databases do not have as much granularity.

Second, our analysis does not fully take into consideration atypical situations such as severe injuries (outside of what would be addressed by healthcare and benefits/short-term disability/sick leave), length of job tenure, and the fact that many people are living longer and also working longer (either by choice or by necessity). Additionally, in reality there are other aspects to a “good” job than what data are quantitatively collected and available - things like workplace conditions, evaluation metrics, opportunities for advancement, etc.

Finally, the notion of “good jobs” will need to be updated in the future research, ideally benefiting from more systematic data collection by government agencies (e.g., including information on injury rates and turnover). While some work has already been done to address what the future of work may look like (Gutelius and Theodore 2019), more research is needed to understand the fuller employment picture, and how policy can help address systematic limitations.

IMPLICATIONS & NEXT STEPS

In his 2021-2022 budget, Gov. Gavin Newsom has allocated \$600 million for a Community Economic Resilience Fund to accelerate California’s post-pandemic recovery. While as of late summer the details of this fund are still being worked out, this investment is poised to be one of California’s most significant investments into prioritizing the type of jobs that will lay the foundation for a more sustainable and inclusive future for a state whose economy is the largest in the US. Because California is a nationwide leader in policy, this focus on resiliency and equity - backed up by hundreds of millions of dollars in state investment - is poised to move the needle for so many people in so many ways.

Overall, this report begins to paint a picture in terms of the severe impacts of the pandemic on employment in the region and beyond. As previously noted, employment fell more rapidly and unemployment rose quicker than at any point during the Great Recession. As we continue to recover economically, the uncertainty of the future, along with the new threat from the Delta Variant of COVID-19, has continued to impact and disrupt the lives of people all over the Inland Empire and the country.

While this analysis only offers a glimpse into the local economic impact of the pandemic, the current data is concerning. The battle against the pandemic needs to be comprehensive and fought at the federal, state, and local level. More funds and resources are needed at each of these levels to combat not only the concerning data we have presented here, but the future impacts of the virus as we continue to learn and improve our response.

Having an equitable economic recovery, with a focus on good jobs, is essential for our region to thrive and be sustainable long-term. As a region, we have an extraordinary opportunity to expand on our current assets and invest in our future ensuring that future growth is rooted in resilience, inclusion, sustainability, and equity. California’s \$600 million fund to support and foster economic resilience would provide key support toward realizing these goals. The fund is designed to nurture “high-road transition collaboratives ..., quality job creation, and accessible career-pathways into future-looking industries.” Additionally, the fund notes that its identified collaboratives shall include “representation from labor, business, community, government, and other stakeholders, including, but not limited to, education, philanthropy, and workforce partners.” By prioritizing these elements and inviting a broad range of groups to the table, most notably including those that have not traditionally been a part of economic development decisions, California is making a bold commitment to “build back better” for all communities.

APPENDIX

OUR DATA SOURCES

The following section catalogs that various data sources that were utilized for this report. It also notes both the strengths and limitations of each source. For more detailed information see the *Good Jobs in the Inland Empire: Data Appendix* online at: <https://socialinnovation.ucr.edu/research>

BURNING GLASS TECHNOLOGIES

Burning Glass Technologies is an analytics software company that provides real-time data on job growth, skills in demand, and labor market trends.

This data is the most up-to-date in terms of demand for jobs. In addition it allows the user to identify the specific location of jobs, allowing for both general and local analysis. In terms of limitations, the data is under represents jobs where openings are unlikely to be posted online.

AMERICAN COMMUNITY SURVEY (ACS)

The American Community Survey (ACS) is an ongoing survey that provides vital information on a yearly basis about the US and its residents.

The ACS contains comprehensive survey data with large sample sizes. It also covers many topics including social-economics, demographics, health, politics, and much more. In terms of limitations, the data lags behind with 2019 being the most up-to-date.

CURRENT POPULATION SURVEY (CPS)

The Current Population Survey (CPS), sponsored jointly by the US Census Bureau and the US Bureau of Labor Statistics (BLS), is the primary source of labor force statistics for the population of the United States

The CPS contains large scale survey data, that is up-to-date. As of this report the most recent data is from July 2021. The monthly data the CPS provides allows data analysis within a year. The CPS also has detailed questions focused on employment and earnings. In terms of limitations, there are relatively small sample sizes when the data is disaggregated.

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ENDNOTES

- 1 The same exercise is repeated for occupations in the data appendix
- 2 We aggregate to the SCAG region due to limited samples in the CPS at finer geographical levels
- 3 The same is done for occupations in the data appendix
- 4 For more information please visit: <https://esd.dof.ca.gov/dofpublic/public/trailerBill/pdf/482>
- 5 Read the full bill: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB701



The Center for Social Innovation provides a credible research voice that spurs civic leadership and policy innovation. Its reputation is built on the key pillars of social science, strategic policy awareness, innovation mindsets, and deep community partnerships. CSI integrates researchers, community organizations, and civic stakeholders in collaborative projects and long-term partnerships that strengthen shared values of resilience, inclusion, sustainability, and equity (RISE). Importantly, the Center seeks to shift away from a “problem” narrative to an “opportunity” narrative for marginalized communities and localities.

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