

The Future of Work

LEAP 2021 Business Plan

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Background

The Future of Work refers to the global, economic, political, social and educational factors that will impact and define the types of jobs that will be in demand, along with the skills needed to perform them, starting now and looking into the next 3-5 years.

- COVID-19 has disrupted our working lives in the short term and is likely to impact them in the long-term.
- COVID-19 has also accelerated the adoption of digitization and automation technologies into the workplace; as a result, the mix of jobs that will emerge after COVID-19 will be different from the jobs that were lost.
- People with the lowest educational attainment have been disproportionately affected, creating greater challenges of achieving economic mobility and equity.

A needs analysis was conducted by the Future of Work Commission which falls under the California Labor and Workforce Development Agency (2020). The following is the list of questions asked during the needs analysis:

1. Jobs and Work; What is the current state in California?
2. What are the factors associated with the future of work?
3. What is the vision of the future for jobs and work?
4. What is the path to achieve our vision?

The Commission established the follow goals based upon the needs analysis:

- Research and outline jobs for the future in California (vacant and new jobs).
- Determine the impact of technology as it relates to work, people, and society.
- Find the best methods (best practices) for better job quality, wages, and working conditions by incorporating technology (new and old).
- Bring the workplace to safer working conditions (technology?).
- Preserve good jobs, get the workforce ready, incorporate lifelong learning, and leave a positive impact for everyone.

B. Five Priority Recommendations for California

The Commission puts forward five Priority Recommendations for California. For each priority, we outline a measurable moonshot goal for California to achieve by 2030, the actions required to make progress toward that goal, and an initial set of proposed initiatives toward these goals to be further developed and adopted by a variety of stakeholders.

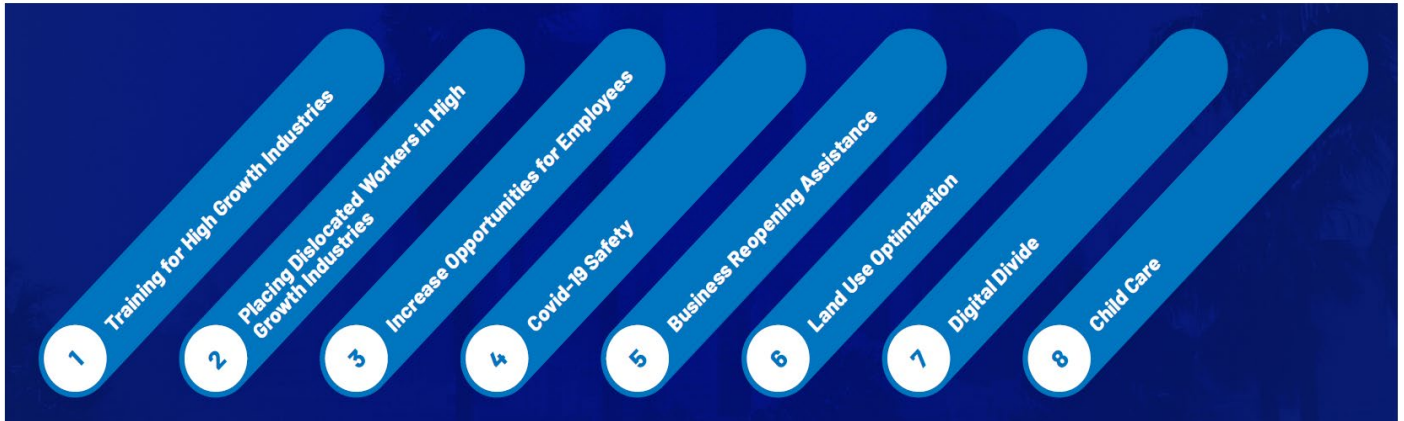


Regional Goals: LA County Pathways for Economic Resiliency

Despite the pandemic, there are certain industries that are projected to grow in the next five years. These industries will provide a base for economic recovery and potential pathways to middle skills jobs that pay above living wage in Los Angeles County in the coming years. Middle skills jobs are accessible with just some post-high school education, pay well and with job openings anticipated in LA County, and thus can be a significant factor in re-employing displaced workers. As we look towards 2021 and beyond, this report identifies sectors with growth potentials; Transportation & Warehousing, Healthcare, and Construction. In total, we expect that of the over 500,000 total jobs will be added between 2020 and 2024 in Los Angeles County, 139,000 of those will be in middle skill occupations — accounting for over a quarter of

the total. These growth sectors could provide a pathway to living-wage jobs for displaced workers in the hardest hit industries.

From the key findings in the RRBA report, a set of recommendations has been identified to support the inclusive recovery of the Los Angeles economy based on the analyses of the most impacted workers and industries and the direct input from industry partners and businesses offered during industry convening meetings in late 2020.



LA County is prioritizing it's focus on employment training programs for individuals coming through the local workforce system on skills that will be most transferable post-pan-demic. WDACS should convene a cohort of employers and develop training programs at community colleges that focus on in-demand skills such as:

Soft skills: Technical Writing, P&L Reporting, Customer Service, Data Input, Management, Scheduling, and Budgeting

Technical skills: Microsoft Office, Coding Languages, Social Media Platforms

County work across all departments delivering economic development services, including the Los Angeles County Development Authority, the Department of Consumer and Business Affairs, and the Department of Regional Planning to deploy a first-of-its-kind County strategy on business attraction and expansion in key growth industries. An effective strategy will do the following:

- Target Key Growth Industries: advanced manufacturing and green infrastructure, aerospace, healthcare, trade & logistics, and bio/life sciences industries
- Develop industry advisory councils to help identify employers' skill and workforce needs
- Develop recruiting, assessment, and training strategies to help employers match workers that have successfully completed County affiliated training programs with appropriate skills.

- Identify and outreach to businesses/companies/organizations and establish contractual agreements for employers to hire those workers that go through training programs.
- Offer industry recognized certifications
- Provide funding/stipends for registered apprenticeship programs in high growth industries. Identify land use incentives for growing businesses in targeted industries that have committed to hiring workers that have completed County affiliated training programs.

In addition, the County needs to invest in the expansion and enhancement of an online system to rapidly match displaced workers with upskilling programs and job opportunities. This should include the establishment of a Displaced Workers Program, which would entail the creation of an online matching platform to streamline existing services with partner organizations to share data and information about employers and jobseekers. The online matching platform will integrate the information of jobseekers from the existing AJCC database with the existing information about training and upskilling programs through the Los Angeles Community Colleges and information and data about employers seeking to hire from CalJobs.

LA County should expand their investment in outreach programs in partnership with local community based organizations, non-profits, economic development organizations and business associations to enroll newly displaced workers, jobseekers and potential employers targeted to communities most impacted by the pandemic as identified by the report.

Five Models for Economic Recovery

If the U.S. is going to have a recovery that not only brings the economy back to where it was but also ensures a more equitable future, it is crucial to understand what jobs and skills are likely to drive the recovery. How will the new economic patterns be translated into specific roles and skills for workers? How can workers, training institutions, and employers anticipate what will be needed?

In their report, *Burning Glass Technologies* used their database of more than 1 billion current and historical job postings, along with the best available expert views, to anticipate what jobs will be most important in the post-pandemic labor market. From that data they identified five distinct fields that will shape the recovery:

The Readiness Economy

The pandemic has shown the weaknesses in health care, cybersecurity, insurance, and a range of other fields that provide social resilience. Roles like cybersecurity experts and software engineers will be in demand, but so will project managers and other organizers of work.

The Logistics Economy

Anyone who tried to buy a roll of toilet paper in the spring of 2020 knows how supply chains failed under the sudden new demands of the pandemic. Besides new demand for advanced logistics skills, there will likely also be growth in advanced manufacturing, and the Internet of Things will become more critical to creating chains that are both efficient and resilient.

The Green Economy

Even before the Biden administration's new emphasis on climate policy, the nation's energy system was slowly but steadily shifting to renewables. Ambitious climate goals and incentives are likely to speed the shift.

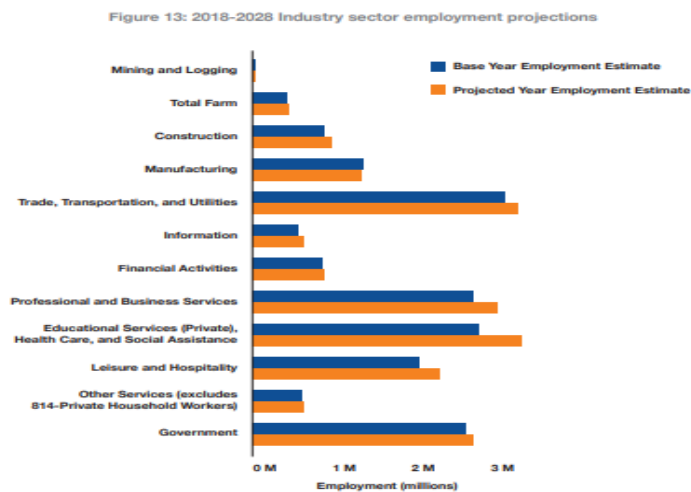
The Remote Economy

In at least some fields and roles, the shift to remote work forced by the pandemic is likely to be permanent. A growing dependence on data, software, and networks will drive change, while eventually artificial and virtual reality will play a larger role.

The Automated Economy

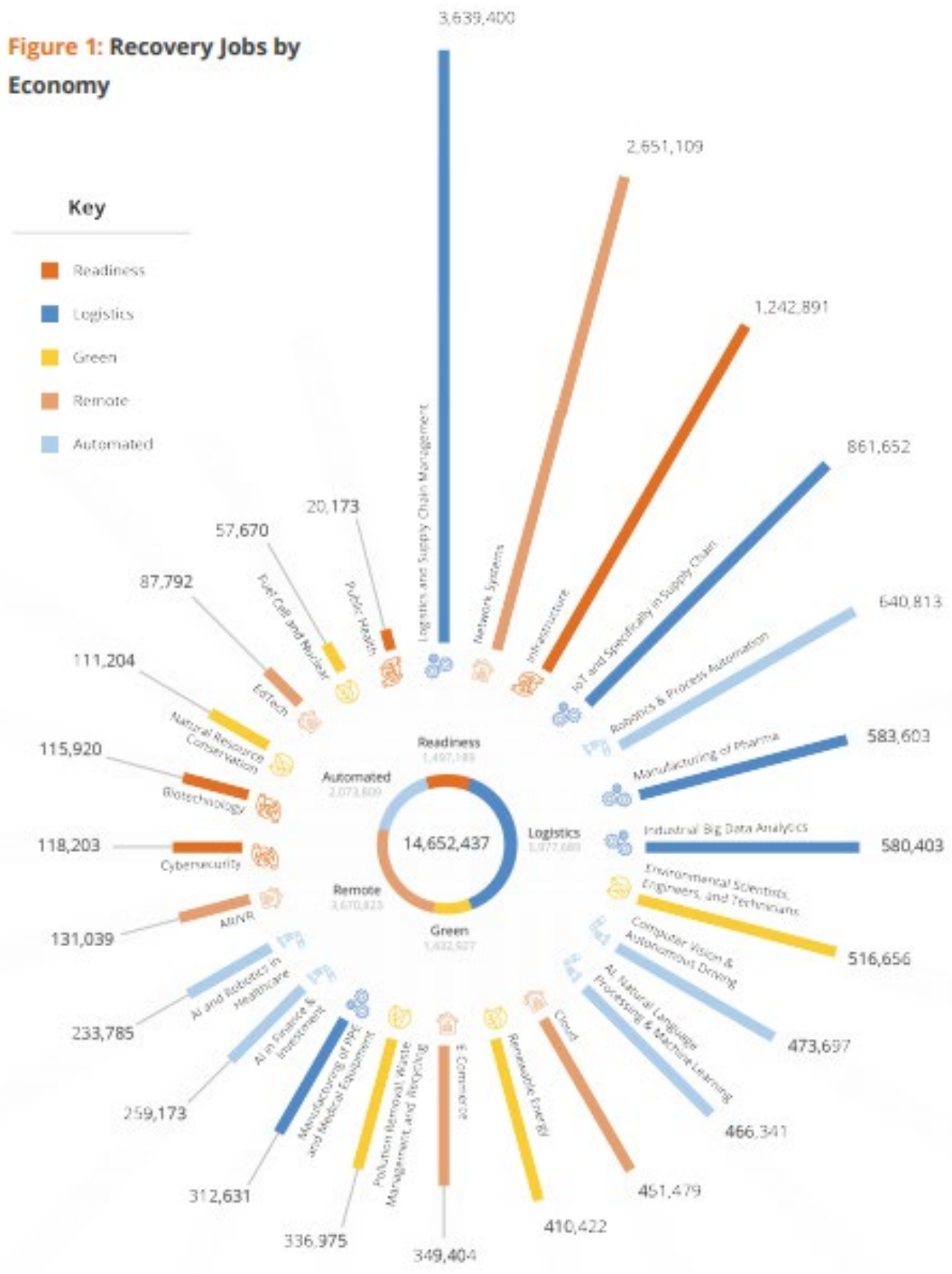
The pandemic won't slow down the adoption of automation and artificial intelligence—if anything it will accelerate the trend. Employers will prioritize automation over hiring back low-value workers. Jobs developing—and driving—automation will thrive.

Figure 13 shows employment projections by industry in California by 2028. There are notable projected employment increases in professional and business services; educational services, health care and social assistance; and leisure and hospitality (which includes food service).



Source: California Employment Development Department

Figure 1: Recovery Jobs by Economy



Foundational Skills for New Economy

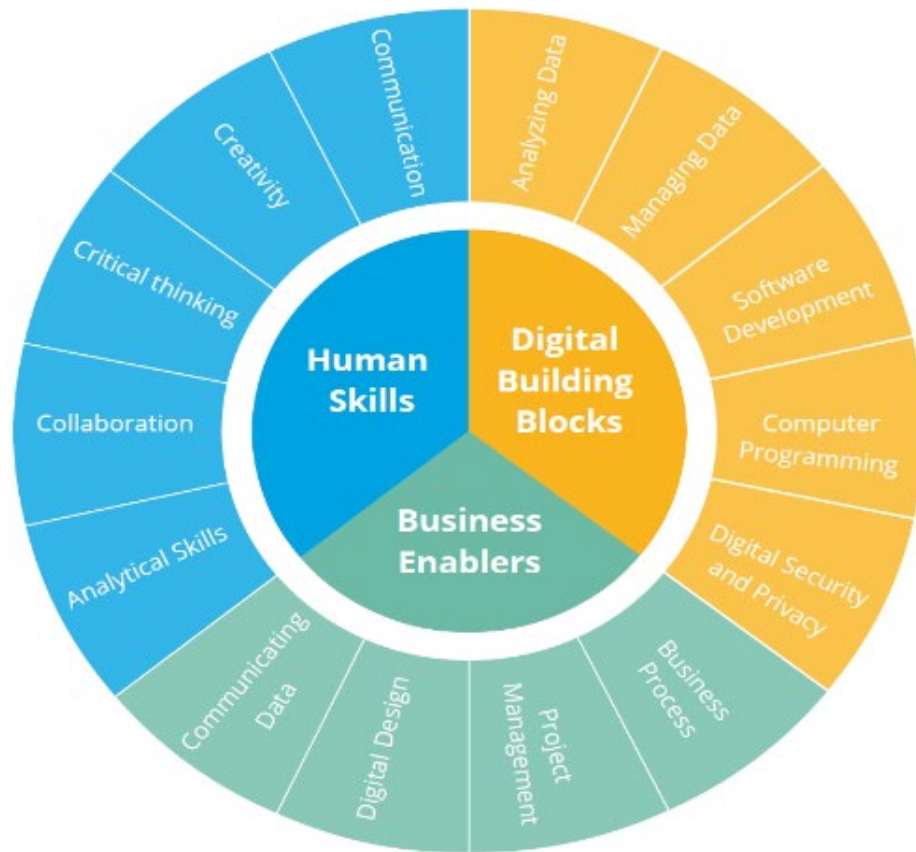
How and when do evolving skills change the job market? Which skills are in demand in both digitally intensive jobs, and more broadly? Which skills retain their value over time? If such a set of emergent, critical skills exists, how do the skills interact, and what do they mean for job seekers and incumbent employees, educators, and employers?

To find out, the Business-Higher Education Forum (BHEF) commissioned Burning Glass Technologies to examine skills in the job market by drawing from a set of more than 150 million unique U.S. job postings, dating back to 2007. The research identified 14 skills that have become foundational in the new economy, which converge in three interrelated groups: Human Skills, business skills, and digital skills. Human Skills have a long history of close study, so BHEF and Burning Glass are especially pleased to subject these two other major segments of the skills continuum, Business Enabler and Digital Building Block Skills.

These 14 foundational skills play major roles in the economy and in the lives of job seekers and incumbent employees. They increase in value when used in combination. They often command salary premiums. They help individuals and institutions keep pace with change. Critically, they are in high demand in multiple sectors, and are spreading rapidly throughout the wider economy.

The job seekers and incumbent employees who are building a range of capacities across these groups of skills form a new cohort we call blended digital professionals. Their mixed abilities give them and their employer substantial advantages, and position them to thrive in current and future markets and workplaces. Educators and employers alike will be wise to explore the most effective ways to foster the continued emergence of these much-needed professionals, who are destined to play a large role in the future of the workplace and the global economy.

The New Foundational Skills for the Digital Economy



The New Foundational Skills for the digital economy emerged in three groups:

Human Skills apply social, creative and critical intelligence. These skills –critical thinking, creativity, communication, analytical skills, collaboration, and relationship building – appear on many lists of sought-after “soft skills,” and are still in high demand across the digitally intensive economy.

Digital Building Block Skills are critical to many vocations, and increasingly useful outside traditional digitally intense job families. These skills are especially useful to current or aspiring functional analysts and data-driven decision makers. These skills include analyzing data, managing data, software development, computer programming, and digital security and privacy.

Business Enabler Skills play a synthesizing, integrative role in the workplace. These skills allow the other skills to be put to work in practical situations, and include project management, business process, communicating data, and digital design.

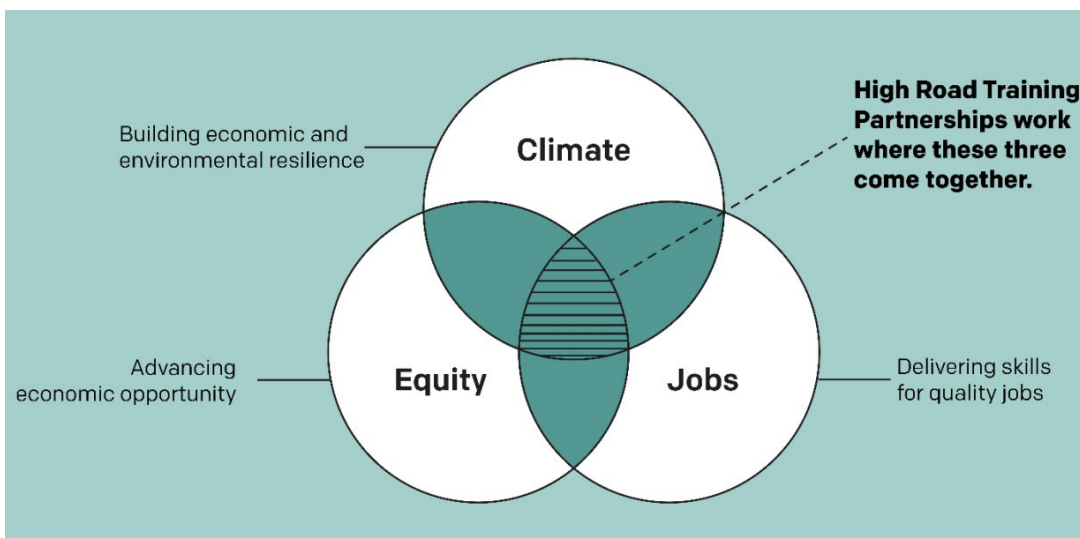
High Road Training Partnerships

In June of 2017, the California Workforce Development Board (CWDB) launched the High Road Training Partnership (H RTP) initiative demonstration project. It was designed to establish a work-force development framework in which partnerships of industry leaders—employers, workers, and representatives from unions—work together to ensure that, in a state as economically prosperous as California, employers have a skilled workforce and increased market competitiveness and the workforce has ample opportunities for economic mobility.

The H RTPs provide an infrastructure of support in which industry leaders work collaboratively to address industry and workforce needs in real time. Each H RTP is tasked with developing and achieving goals in three areas:

- **Equity:** building economic opportunity and mobility for those who have been margin-alized, disadvantaged, and/or denied opportunity and mobility.
- **Climate resilience:** mitigating and supporting adaptation to climate change; increasing environmental sustainability; building community and economic resilience.
- **Job quality:** engaging with high road employers and workers to design skills-based solutions and pathways to quality jobs that answer their shared needs.

With new RFA's coming from the CCCCCO it is evident that H RTPs are a priority for the state and we will need to adopt this model moving forward. As College of the Canyons looks to establish new partnerships within the business community it is of critical importance that we take H RTPs into consideration and advocate when appropriate.



Market Analysis

Organizational Skills Needed for the Future of Work

TEAM International (2020) reported that the future of work included both organizational skills and individual skills. Here are the organizational skills needed by companies who were involved with the future of work:

- Human intelligence and decision-making.
- Adaptive thinking and complex problem-solving.
- Social intelligence and virtual collaboration.
- Cognitive load management.
- Organization-wide service orientation.

(TEAM International, 2020)

Individual Skills Needed for the Future of Work

As previously mentioned, there are individual skills that need to be developed in potential future employees. Brower (2021) reported that the following individual skills are necessary of people to be successful in the workplace:

- Ambiguity
- Curiosity
- Openness
- Entrepreneurship and Empathy
- Resilience
- Optimism and Imagination
- Rapport and Relationships
- Action

Whiting (2020) posted a similar article listing the following individual skills necessary to be successful in the workplace by 2025:

- Analytical Thinking and Innovation
- Active Learning and Learning Strategies
- Complex Problem-Solving
- Critical Thinking and Analysis
- Creativity, Originality, and Initiative
- Leadership and Social Influence
- Technology Use, Monitoring, and Control
- Technology Design and Programming
- Resilience, Stress Tolerance, and Flexibility

- Reasoning, Problem-solving, and Ideation

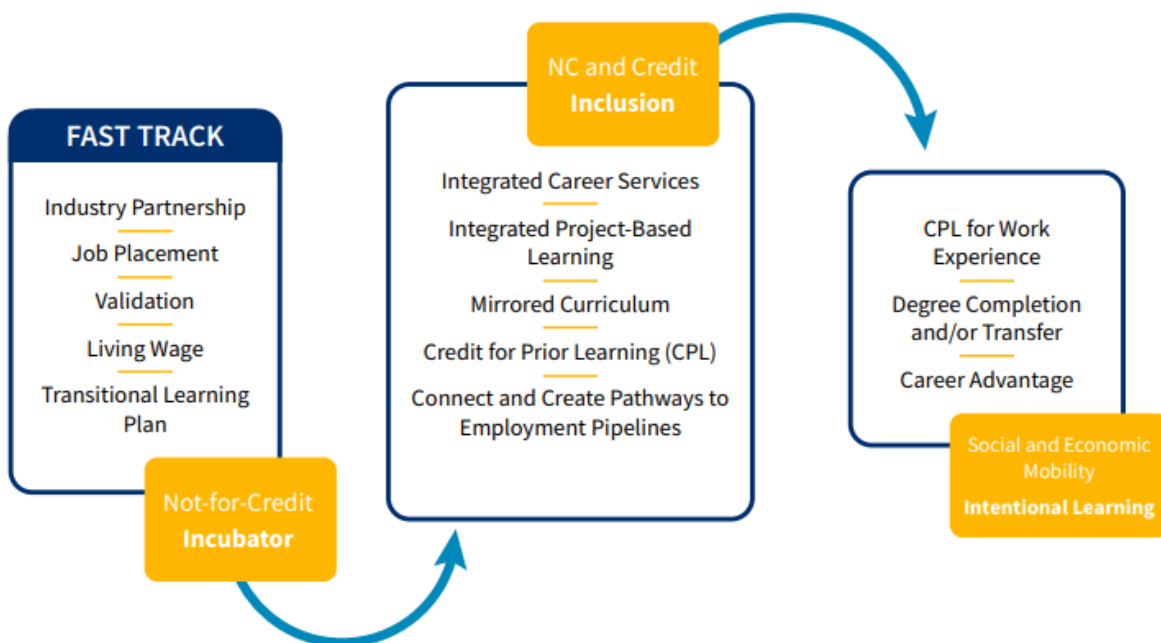
Whiting went to describe the following four skill type categories: problem-solving, self-management, working with people, and technology use and development. In addition to the individual skills listed above, Whiting (2020) suggested that people consider learning the follow skill sets based upon their interests:

- People and Culture Training
- Content Writing
- Sales and Marketing Skills
- Product Development
- Data and Analytical Skills
- Cloud Computing
- Engineering Skills

As you can see from this market analysis, there are many skills that need to be learned by individuals and organizations to ensure the success in the future of work.

Operational Plan

CALIFORNIA COMMUNITY COLLEGE ECONOMIC RECOVERY MODEL



So how can we implement the new legislation and regulations coming from the legislature and CCCCCO while also being mindful of what businesses need from their workforce?

The graphic above shows how College of the Canyons can be responsive to business needs by utilizing the Employee Training Institute's (ETI) Not-for-Credit programs to rapidly respond in collaboration with Instruction. This research & development phase will demonstrate program viability, job demand and provide time for Instruction to determine if the college wants to institutionalize the program. During this incubation phase we will discuss H RTPs with business partners as well.

From there these participants are now connected to COC and we can help them become lifelong learners at COC through our Credit, noncredit and Not-for-Credit programs. Adult learners can take advantage of our Credit for Prior Learning (CPL) policy to earn credits for previous skill attainment or work experience while advancing in their journey. These on ramps create better access for students while promoting inclusive environments for continuous learning.

When we think about how to structure the programs and courses that meet the Future of Work demands it is critical we structure curriculum that:

- Accelerated, online, accessible
- Skills/Competency-based
- Focus on Credentials v. Diploma
- Work-based learning component
- Assessment of Prior Learning update
- Competency-Based Education

Marketing Strategy

Given the difficult enrollment trends as a result of the coronavirus, there are several critical questions that community colleges need to answer in order to create effective recruitment strategies:

- Who are the students most likely to enroll in the school's offerings and where are they located?

- What are the current barriers and motivators these prospective students face in today's environment?
- Why will their lives change if they engage with your CTE programs?
- Where are vulnerable populations located and what is their current mindset when it comes to considering training and education options?
- What are the best mediums to reach prospective students given information overload due to COVID-19?
- What is the enrollment drop pattern within your programs and how much churn is happening within your service area?
- How are you planning to retain and keep the students you have through proactive outreach?
- What are the best strategies and tactics for retention during COVID-19?
- What are the overall broad messages that will engage prospective students with CTE in general, as well as those areas that need an enrollment boost at COC?

To better understand our landscape and answer the questions posed in the approach above, we need to work with a marketing firm to conduct a thorough review of various demographic data and enrollment reports to quantify the number of potential students in the region that fit the student user profile. This demographic data is merged with psychographics will help uncover why and how students are motivated to engage with COC and/or their barriers to engagement.

The upfront research used in the customer-center model to develop targeted, emotional messaging is an important investment for any student recruitment campaign. These messages would be applied to generate awareness and interest among targeted market segments to drive prospective students to provide contact information through a digital ad campaign. Digital advertising is a very cost effective medium to reach prospective students using zip code overlays and demographic/psychographic profiles. Display ads with compelling images and copy and/or video may be used to capture leads for a student recruitment campaign.

Embedded within all the marketing materials will be the *COC Competitive Advantage*. What is the Return on Investment (ROI) for students who take courses at COC? Are we able to connect them with internships, apprenticeships and job opportunities? Are we providing the new Transformational Skills of the Future so they are employable? We as a college need to come up with consistent messaging that highlights our competitive advantage in a short succinct message that appeals to students, adult learners and parents.

Proposed Pathways and Opportunities

There are a number of programs a pathways that College of the Canyons should focus on bringing on to meet the skills demand for the future of work as well as the jobs of the future. There are a number of programs currently under constructions using the Economic Recovery model and a number of programs that can be supported under our Advanced Technology Center (ATC) efforts. Since this is an ongoing topic this is not a static list but rather an adaptive list that needs to be discussed frequently.

Low Observable (Partnership with Northrop Grumman, Currently underway)

Milling & Tooling (Partnership with Northrop Grumman, Currently underway)

Facilities Management Certification (Partnership with IFMA, Currently underway)

Manufacturing Skills Standards Council (MSSC) (Currently underway)

- Certified Logistics Associate/Technician (CLA/CLT)
- Certified Production Technician + Skills Boss (CPT+)
- Certified Technician - Supply Chain Automation (CT-SCA)

Mechatronics (Electrical, Hydraulics, Pneumatics, PLCs, Electrical Systems, etc)

Integrated Advanced Manufacturing/Computerized Machining

Construction Technology (Carpentry, Masonry, Plumbing, Concrete, etc.)

Logistics and Supply Chain Automation

Network Systems, Internet of Things, Artificial Intelligence & Cloud Technology

Cybersecurity

Pre-Apprenticeship & Apprenticeship Opportunities

Develop robust business, union and industry association partnerships

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