FACULTY INNOVATION HUB FALL RETREAT

October, 28 2022

THE CALIFORNIA ENDOWMENT

1000 NORTH ALAMEDA ST
LOS ANGELES 90012

Fri., October 28, 2022
8:30am-4:00pm

LARC
LOS ANGELES REGIONAL CONSORTIUM

Schedule

9:15 AM Welcome

9:45 AM: SWP Project History

10:00 AM: Improving Student Retention and Increasing Enrollment among Adult Learners

11:30 AM: Lunch

12:00 PM Project Updates

12:45 AM: Deans and Faculty brainstorm on regional at-scale curriculum project opportunities

1:30 PM: Break

1:45 PM: COE Local LMI Requests and Incenting colleges for regional projects

2:20 PM Regional Project Convergence and Development

3:15 PM: Introductory conversation on AB 1705 (CE and GE working together to create student success)

3:45 PM: Next Steps

4:00 PM: It's a Wrap!

Outcomes

1. Bring additional faculty leaders from 19 colleges up –to-speed on the LARC Faculty Curriculum Innovation Hub, and the two pilot curriculum projects
2. Examine new data that have impacts on Enrollment and Retention of students
3. Examine and assess ‘curriculum innovation’ within discipline, and uncover ideas to innovate the classroom/curriculum, using only ideas that are in the control of faculty
4. Create ideas to increase enrollment of Adult Learners by innovating curriculum to encourage adult learners to upskill, and/or reskill for middle skill, middle wage jobs
5. Identify potential new project ideas for the Hub. This is a curriculum project that could impact all 19 colleges.
6. Develop the final program chosen.

Tips for working together in your groups:

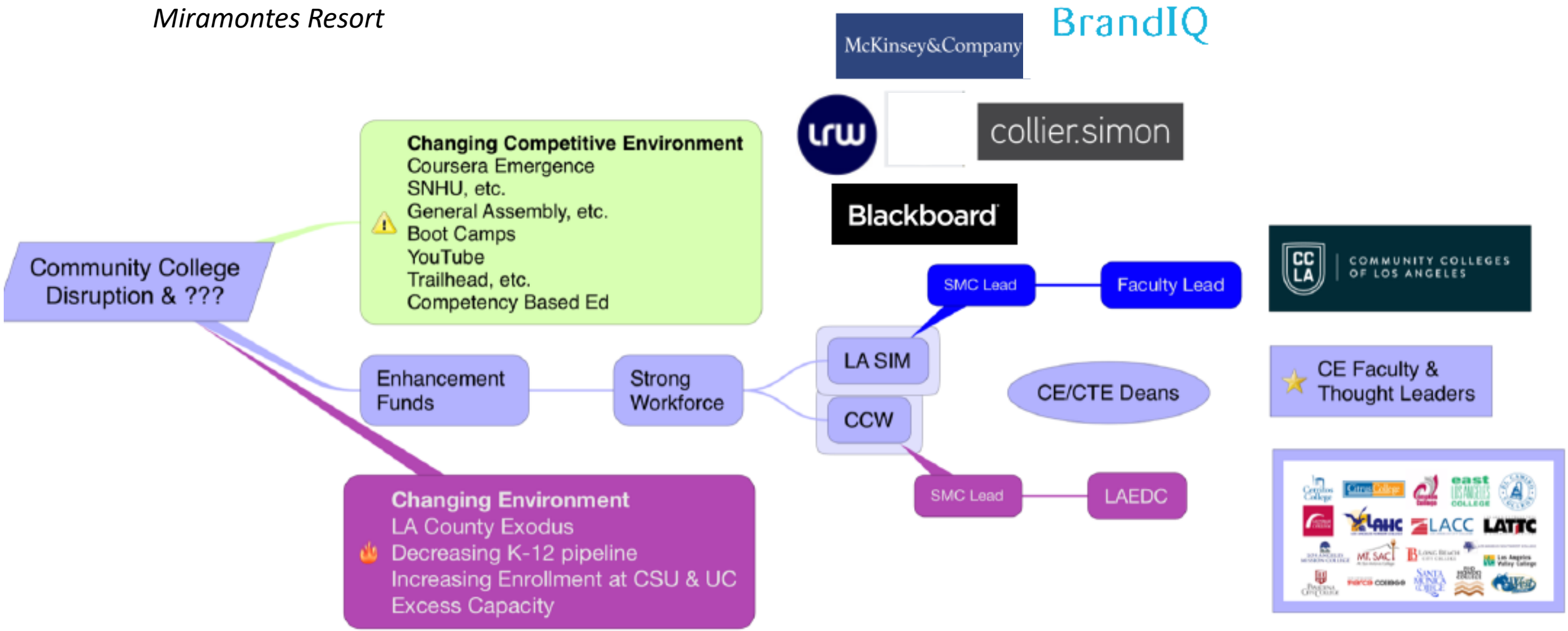
- Stay open-minded
- Build on each other's ideas by saying "Yes and?" and using "I wish" statements
- Be brave, be kind—please express what's on your mind
- We also ask for your undivided attention—so please access your cell phone at breaks
- Have Fun!!!!!!!!!!!!!!!!!!!

LARC Faculty Curriculum Innovation Hub History

Sal Veas, SMC
Business

Circa, Oct. 2019

Miramontes Resort



The pandemic and the 4th industrial revolution have accelerated the need to skill, up-skill/re-skill workers to keep up with evolving technologies

Inequality represents the greatest societal concern associated with the 4th Industrial Revolution

There is a **rising gap in wealth** between those dependent on capital, versus dependent on labor

There is a need for ***highly skilled*** **workers for "new collar jobs"**

RETHINK WHAT'S POSSIBLE

A **regional opportunity** to solve shared challenges through a collaborative Faculty Innovation Hub for the benefit of our students & local economy

Disruptive Change

The world has changed, have we?

2030: The Workplace Revolution

Need to upskill / reskill

New enrollment expansion segment (Pragmatic Skillers)

Hard to Convert Classes

Declining Enrollments

Sourcing our students / increasing competition (For-Profit, 4yr)

Student preferences for education, including course content & delivery

Need to change perceptions

Support Local Economy

SWP Recs / Taskforce

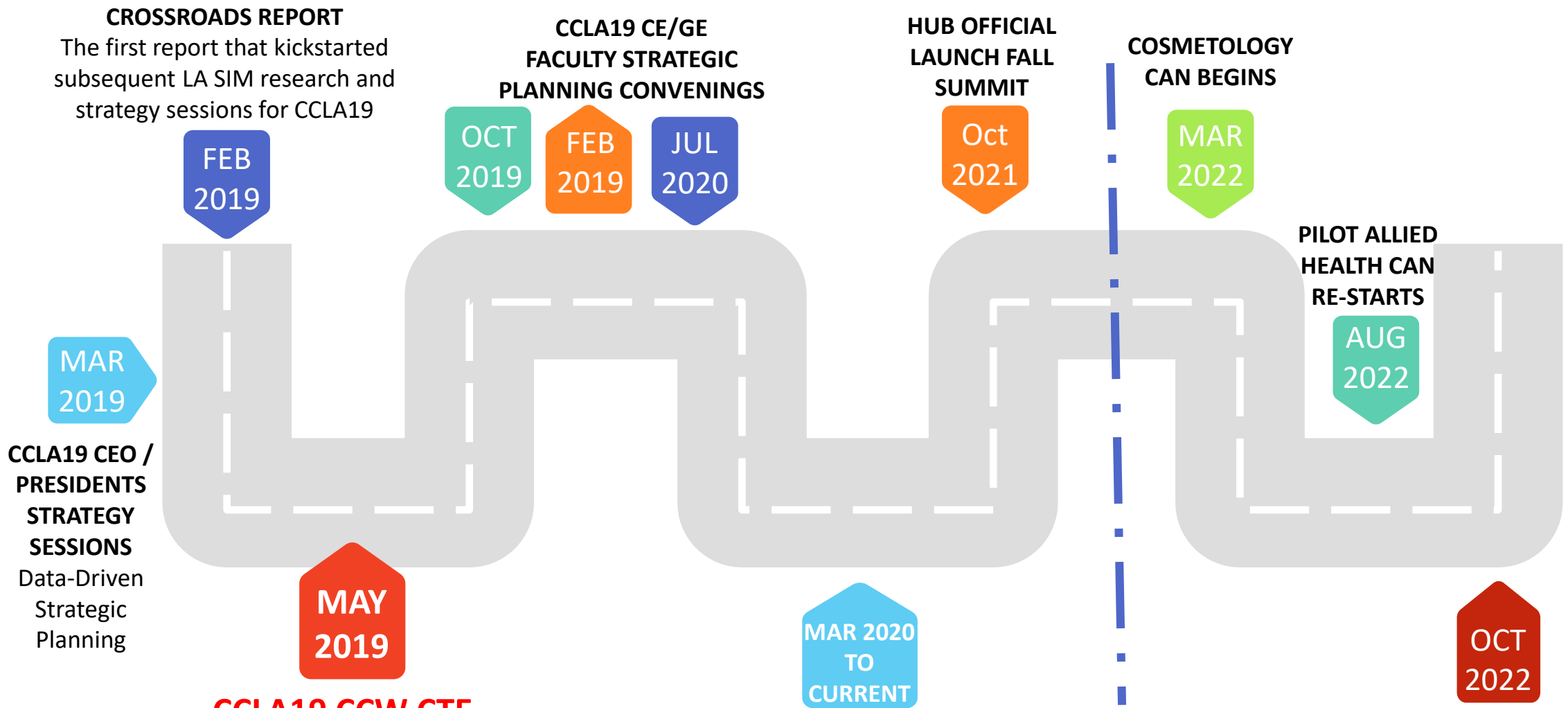
Curricular alignment with business and industry, and job placement

Community College Talent Development Pipeline

Benefits of Regional Collaboration:

1. Shared resources (not just $$$)
2. Creating efficiencies that could allow for channeling more funds to areas District is not currently funded
3. Access to scalable, yet customizable solutions for curriculum
4. Greater appeal to industry partners (e.g., Tesla, AWS, LA County DHS)

Three years of planning after a decade + of laying the groundwork by many of you, created this regional resource



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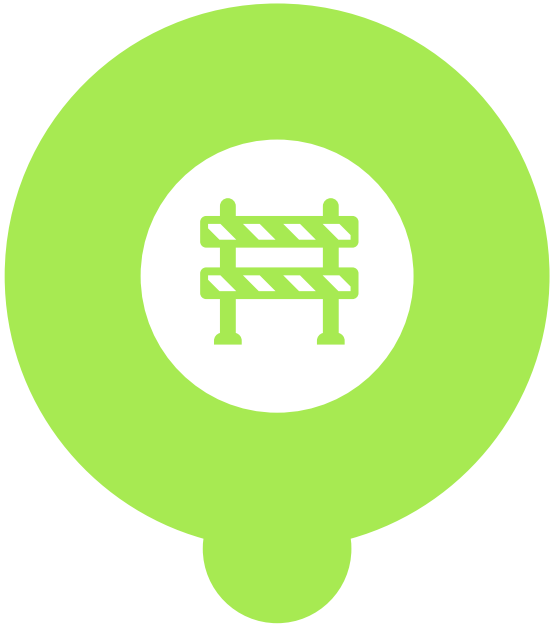
Faculty Hub Top 2 Goals/Priorities for 2021 and 2022

Invest & support faculty that want to innovate

Create Time, Space and Framework For Collaborative regional 'At-Scale' Innovation To happen more quickly in high growth, middle-skill, higher wage occupations



Solving innovation barriers

Structural changes in Employer Engagement
'Co-Creation' to meet their needs
And improve outcomes in:
Enrollment, completion, stackable skills, work-based learning, pathways into middle-skill level jobs

Systems change with respect to workforce development
refers to efforts and initiatives that go beyond providing direct services to individual jobseekers
and aim to *transform* how LARC can effectively support employers and the workforce, especially in *high growth, high demand, higher wage jobs.*

LARC LOS ANGELES REGIONAL CONSORTIUM

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LARC Faculty Curriculum Innovation HUB

(Only faculty created and led project)

Steering Committee

Strategic Planning 2-3 years, Stakeholder Engagement, Governance

Steering Committee

20 meetings annually

Allied Health

Non-Credit CNA/Credit + Allied Health Career Ladders program

Working Group CAN 1

Faculty re-started work Aug, 2022

Cosmetology

Cosmetology regional curriculum and employer program ***standardization***

Working Group CAN 2

Faculty began work Mar, 2022

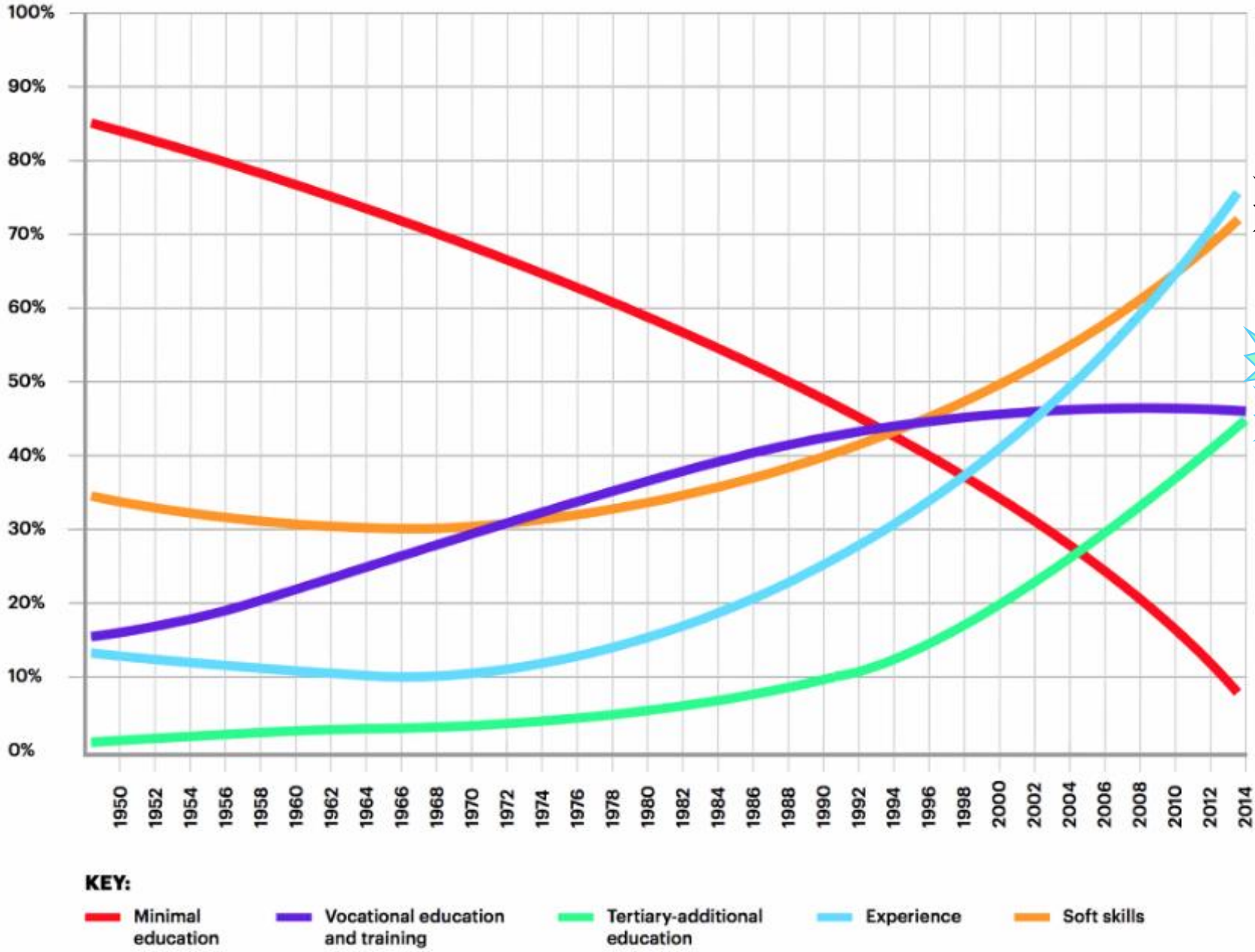
Work-based Learning

Catapult *'Work based learning'* professional development

Working Group 3

Sponsored and Promoted Keynote Masterclasses started Sept 12

Sharing Jobs Data
Mike Murphy, BrandIQ



(Source: Based on data given to the authors by those responsible for the Job Market Monitor, University of Zurich.)

Job Market Demand 1950-2014

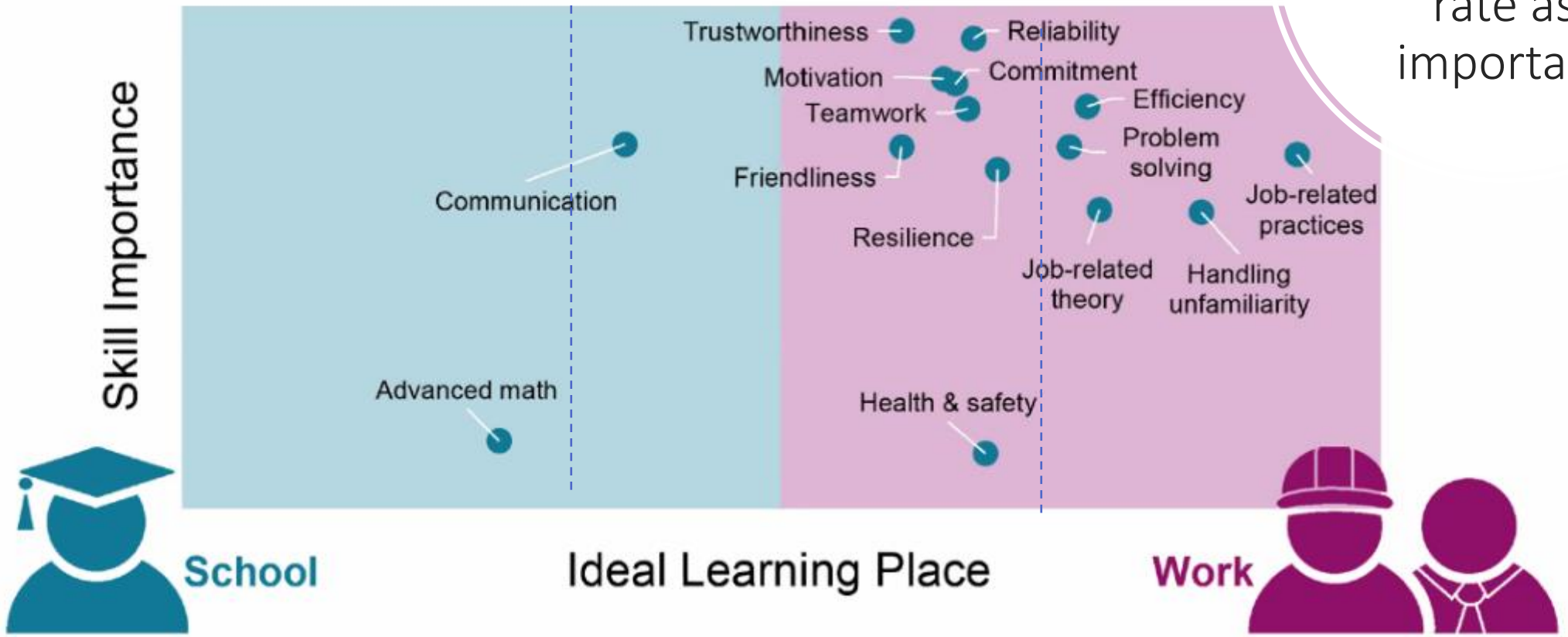
60 year trend line

Employers are looking for more soft skills

From Dr. Katie Caves, KOF, ETH Zurich

Evidence from CO: Where are key skills best learned?

What employers want, and rate as important



Only 1/5 go onto a college degree

2021

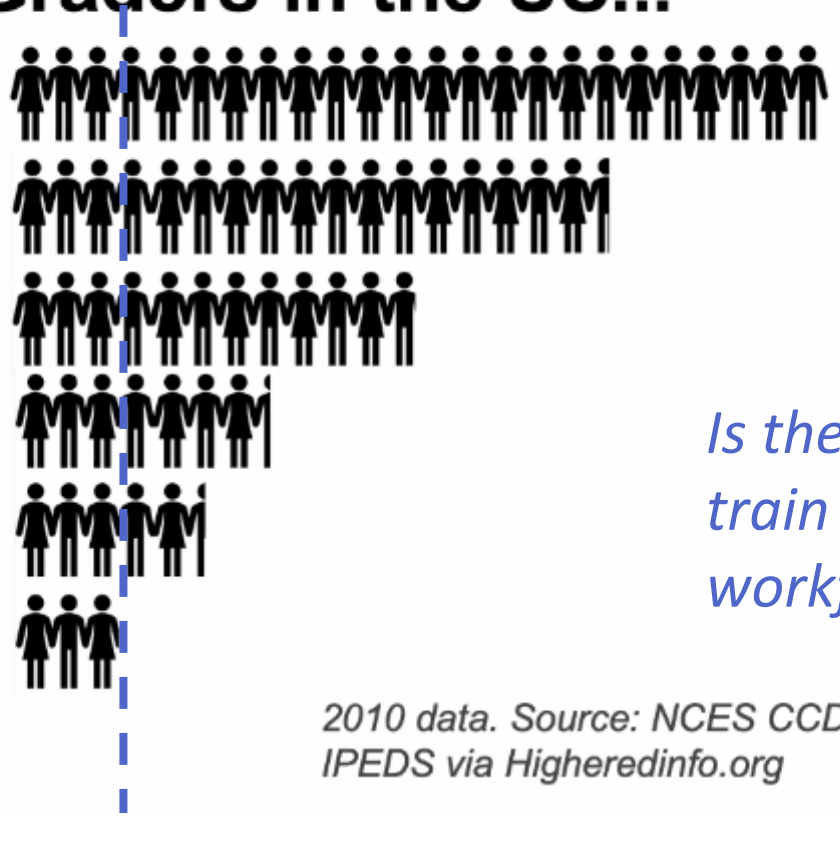
37% - B.A. or higher

10% -Associates Degrees

53% - All other workforce training

College for All: How Are We Doing?

For every 100 9th Graders in the US...



74.2 Graduate HS on time

45.8 Start college by age 24

30.4 Stay enrolled a year after

22.4 Earn a degree within 6 years

12.2 Earn a 4-year degree

2010 data. Source: NCES CCD IPEDS via Higheredinfo.org

63% Workforce Opportunity

Is there an opportunity to help train and lift-up the rest of the workforce?

In examining available EMSI data, these sectors continue to represent significant parts of the economy in terms of overall jobs and number of businesses.

- All of the sectors **provide earnings above the region's average personal income of $65,094**, with the exception of Leisure and Hospitality.

Sector	Jobs (2020)	% Change, 2020-25	Average Earnings	Payroll Business Locations
Construction	220,152	+3.9%	$72,071	17,237
Selected Manufacturing	164,387	-12.0%	$160,758	5,393
Logistics	449,317	+1.4%	$78,740	30,208
Entertainment & Infotech	205,147	+2.9%	$156,261	12,803
Health Services	462,621	+9.1%	$78,580	29,291
Leisure and Hospitality	418,281	+4.5%	$31,478	23,414

EMSI Jobs Data

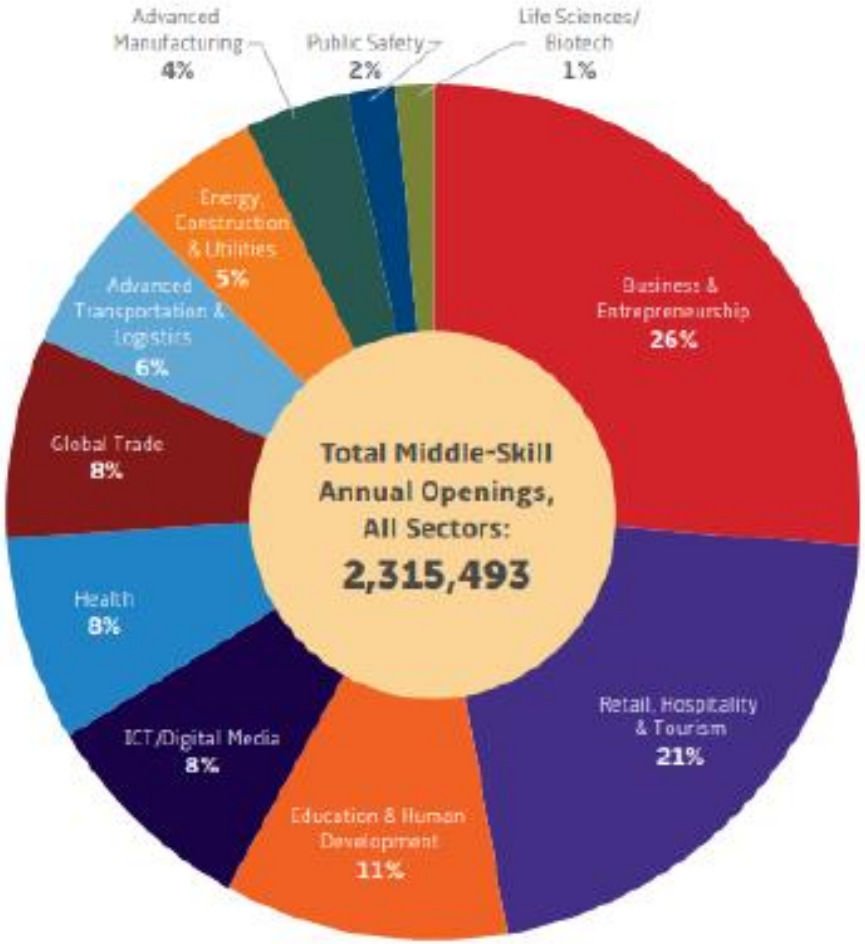
- The LAEDC identified **THREE HIGH GROWTH** industries as likely to grow in the next five years and that offer middle skilled jobs: **Construction, Healthcare, and Transportation and Warehousing**.

- Of the 500,000 total **jobs that are expected to be added back between 2020-2024 in the region, 139,000 are projected to be in middle skill occupations (28%),** which could potentially provide career pathways to living wages jobs for displaced workers in the hardest hit industries.

Key Finding

The business & entrepreneurship sector will offer the greatest number of annual openings, more than 57,600, accounting for nearly a third of all annual openings across the 11 sectors.

Exhibit 3. Percent annual openings by sector

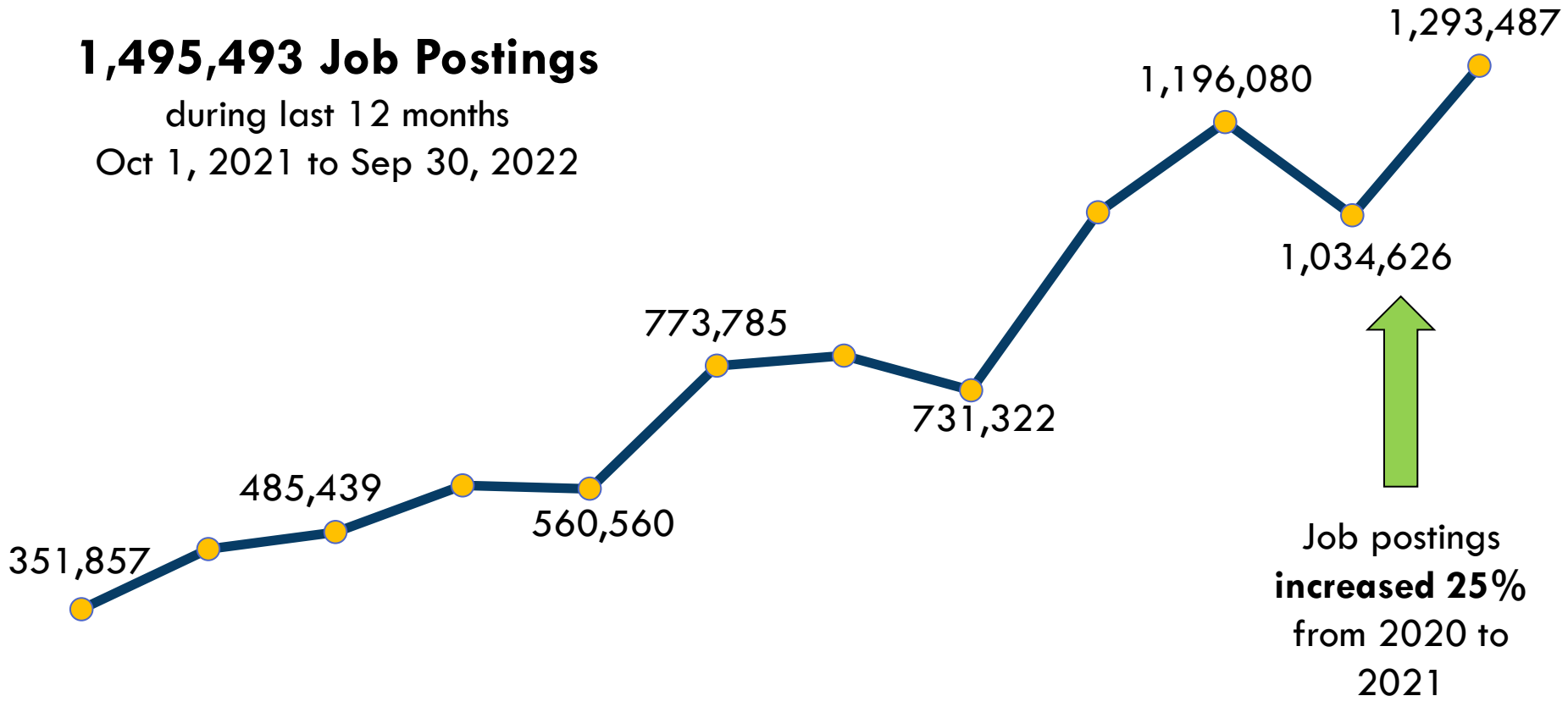


Sector	Annual Openings
Business & Entrepreneurship	57,625
Retail, Hospitality & Tourism	46,115
Education & Human Development	23,634
ICT/Digital Media	18,207
Health	17,105
Global Trade	16,593
Advanced Transportation & Logistics	12,890
Energy, Construction & Utilities	11,704
Advanced Manufacturing	8,602
Public Safety	4,048
Life Sciences/Biotech	3,107

LA Job Postings 2021

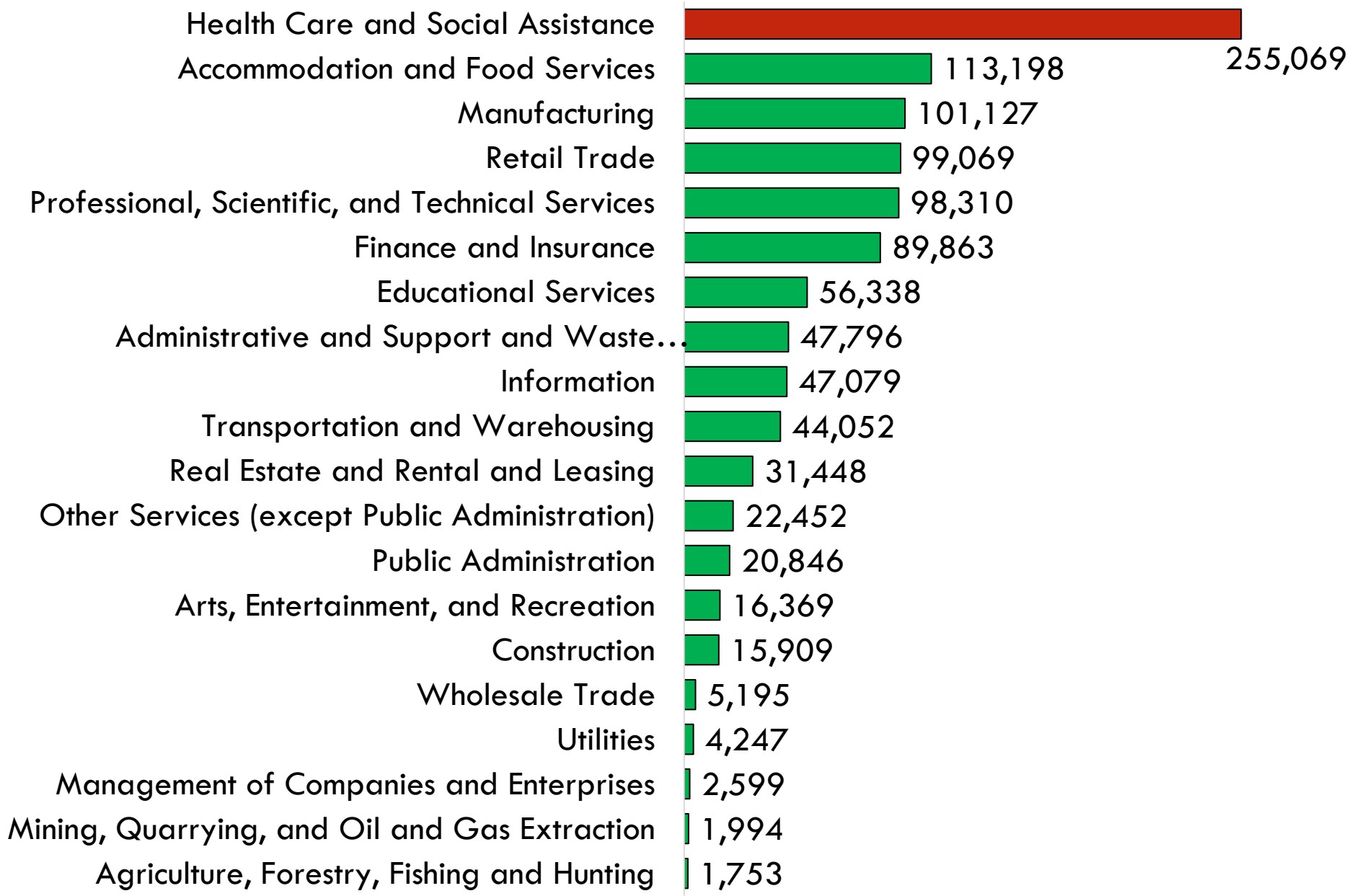
LA Job Postings

1,495,493 Job Postings
during last 12 months
Oct 1, 2021 to Sep 30, 2022

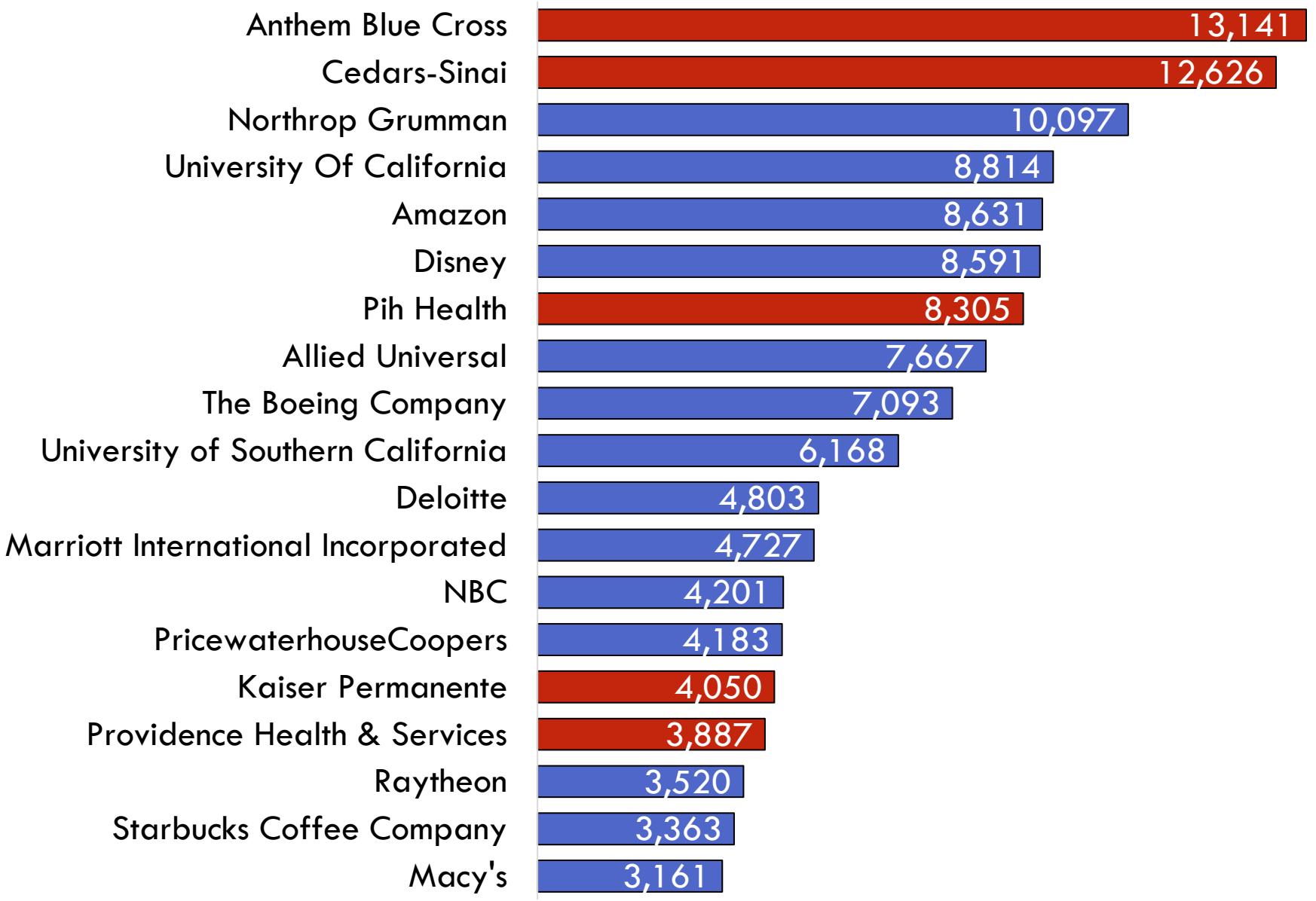


Job postings **increased 25%** from 2020 to 2021

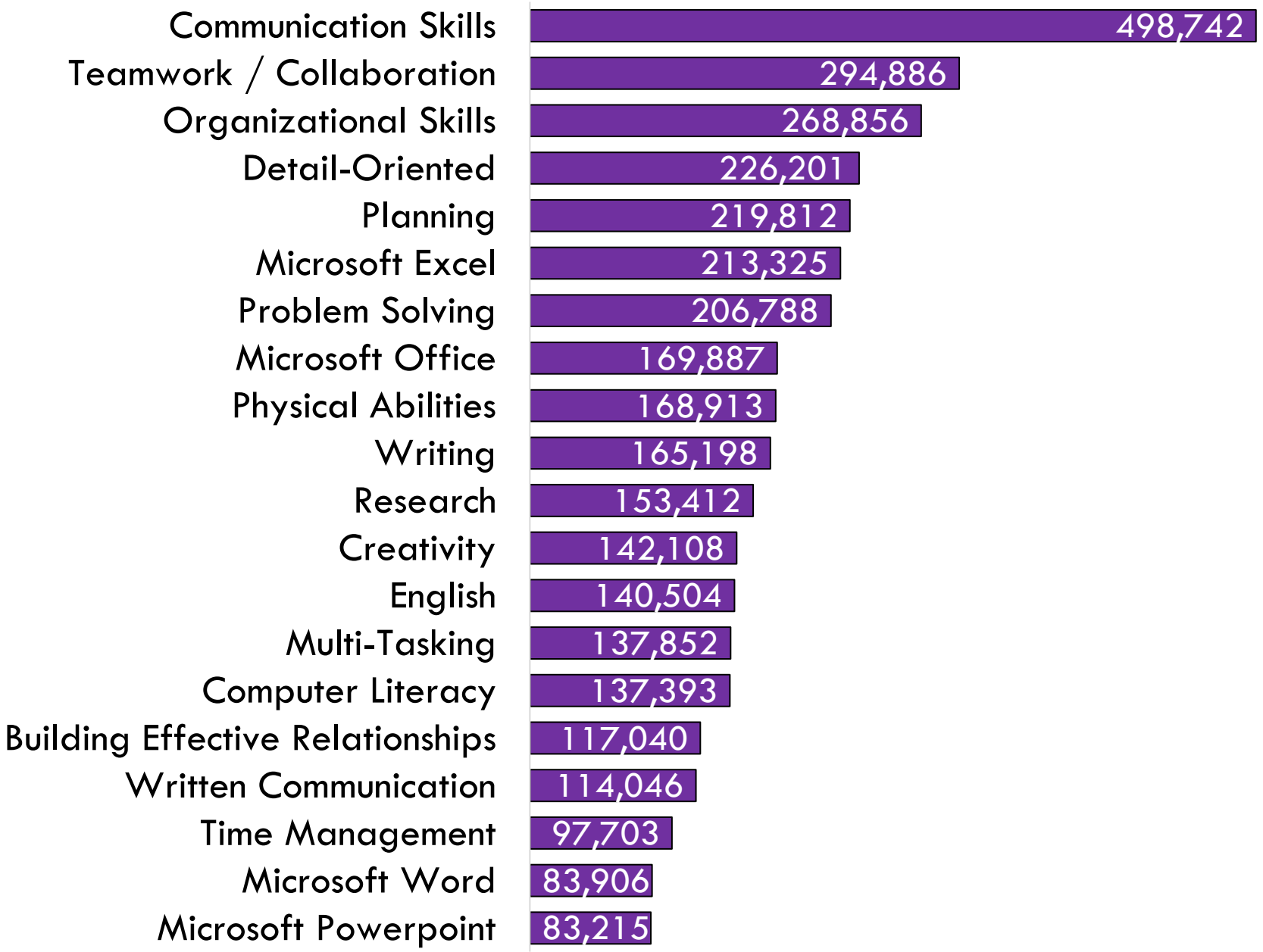
Top Industries LA County



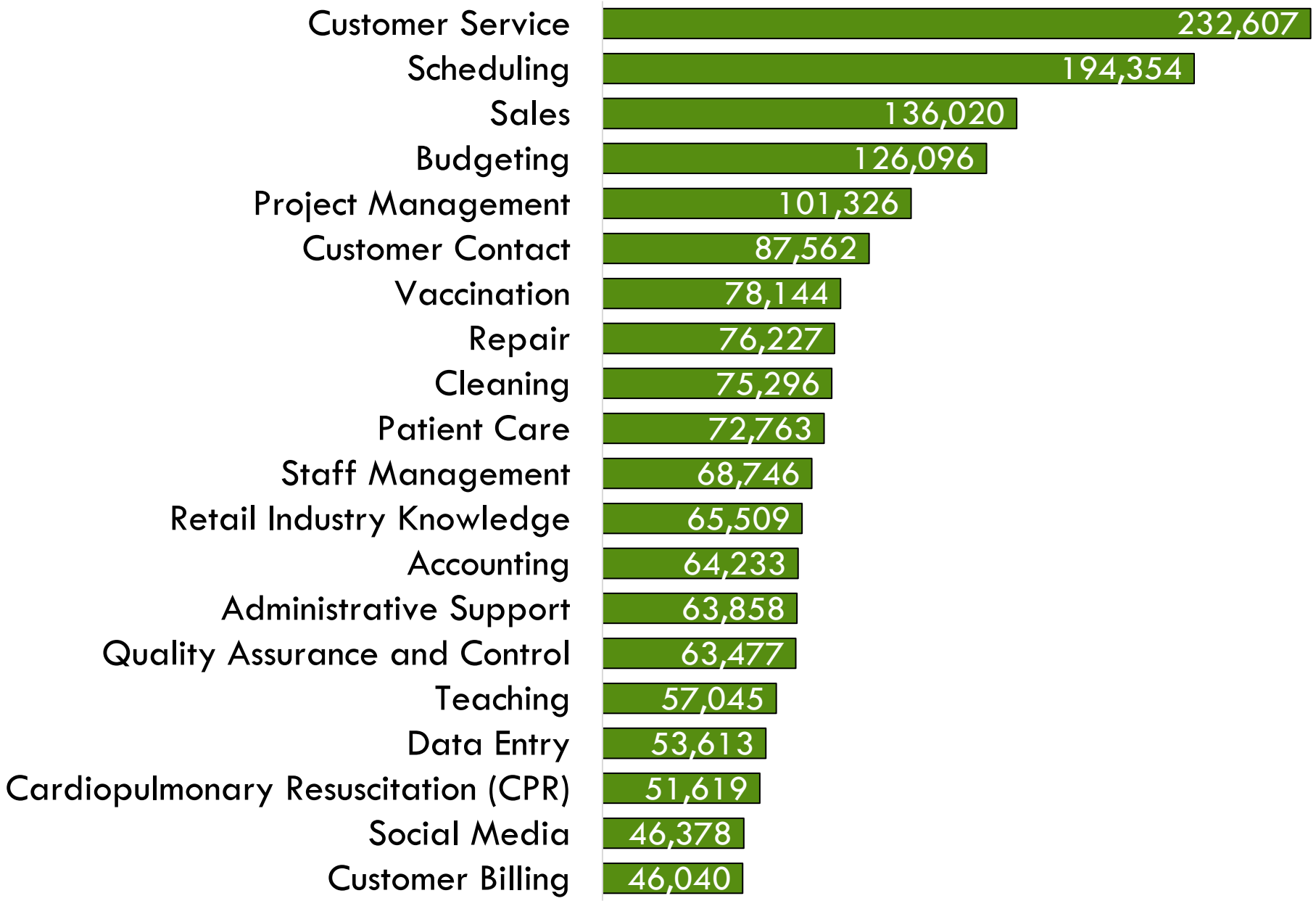
Top Employers LA County



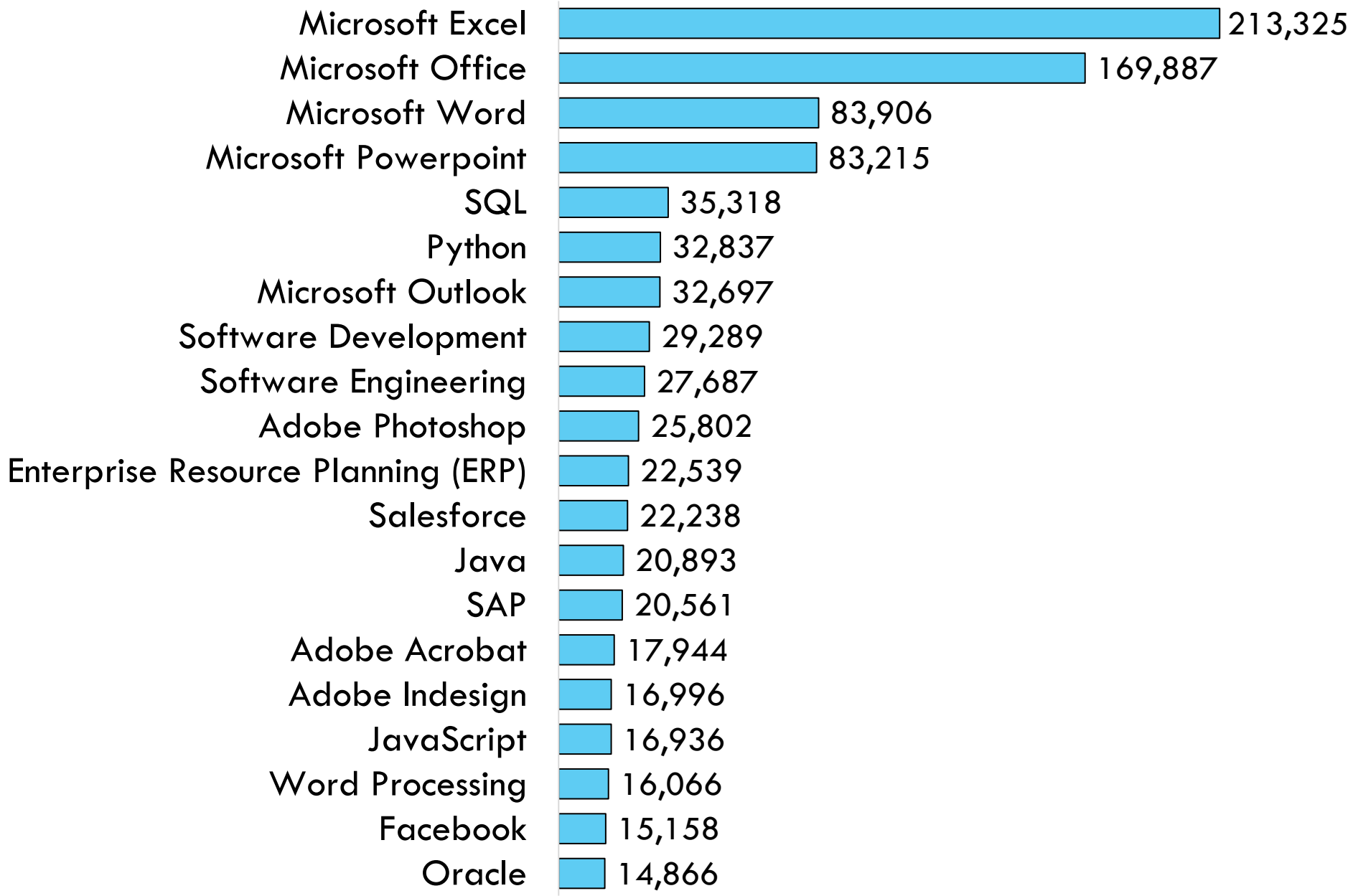
Top Baseline Skills LA County



Top Specialized Skills LA County



Top Software Skills LA County



Top Skills by Industry LA County

Healthcare

- Patient Care
- Scheduling
- Treatment Planning
- CPR
- Advanced Cardiac Life Support (ACLS)

Accommodation and Food Services

- Cleaning
- Customer Service
- Cooking
- Scheduling
- Guest Services

Manufacturing

- Scheduling
- Project Management
- Customer Service
- Budgeting
- Repair

Retail Trade

- Customer Service
- Sales
- Retail Industry Knowledge
- Merchandising
- Customer Contact

Professional, Scientific, and Technical Services

- Project Management
- Customer Service
- Budgeting
- Scheduling
- Customer Contact

Finance and Insurance

- Customer Service
- Sales
- Budgeting
- Customer Contact
- Scheduling

Educational Services

- Teaching
- Scheduling
- Budgeting
- Vaccination
- Customer Service

Information

- Project Management
- Scheduling
- Customer Service
- Sales
- Budgeting

Top Skills by Occupation LA County

Registered Nurses	Sales Reps	Managers, All Other	Software Developers, Applications
• Patient Care • Advanced Cardiac Life Support (ACLS) • Treatment Planning • Acute Care • Life Support	• Sales • Customer Service • Sales Goals • Prospective Clients • Customer Contact	• Project Management • Budgeting • Scheduling • Staff Management • Customer Service	• Software Engineering • Software Development • Java • Python • SQL

Retail Salespersons	Customer Service Representatives	First-Line Supervisors of Retail Sales Workers	Secretaries and Admin Assistants
• Sales • Customer Service • Retail Industry Knowledge • Retail Sales • Merchandising	• Customer Service • Customer Contact • Sales • Scheduling • Data Entry	• Retail Industry Knowledge • Store Management • Customer Service • Sales • Merchandising	• Administrative Support • Scheduling • Customer Service • Appointment Setting • Data Entry

LARC Faculty Curriculum Innovation Hub Steering Committee Update

Elisa Meyer, SMC
Dept Chair English
Chair of Senate Dept Chairs Committee

Roger Dickes, GCC
Animation and Visual Effects
Academic Senate President

Steering Committee Members

Khai Lu
Computer Information Systems

Christian Nova
Music and Commercial Music

Joshua Christ
Technical Theater, Scenic Design and Technical Direction

Elisa Meyer
English Chair

Roger Dickes
Animation and Visual Effects
Senate President

Kevin McKenna
Building Construction

Les Howard
Allied Health SWP/ Innovation and Program Developer

Artemio Navarro
Engineering
Past Senate President

Velveth Klee
Physics and Engineering

Strategies to be Accomplished

1 **Create the space for faculty curriculum innovation**

- **2 LARC Faculty Convenings**
- Hub Launch Faculty Fall Summit, October 2021
- Faculty Fall Retreat, California Endowment, October 28, 2022

2 **LARC Faculty Innovation Hub Website**

- Phase 1 content is complete
- Content Planned (2-3 phases)

3 **Implement Hub-LARC Supported Projects**

- Design guidance on piloting new initiatives
  - Like the current Work Based Learning Masterclasses

4 **LARC Hub faculty – only organized and structured standing CE/GE faculty workgroup**

- Cross college/cross discipline
- Build the faculty voice into projects
- Demonstrating the value of working together in collegiality for greater regional impact vs. competitiveness

5 **Guidance on grants (assigned and prospective), additional sources of funding**

- Good Jobs Challenge
- Green Jobs Initiative
- 2022-2024 Faculty Hub projects ***(todays work will inform)***

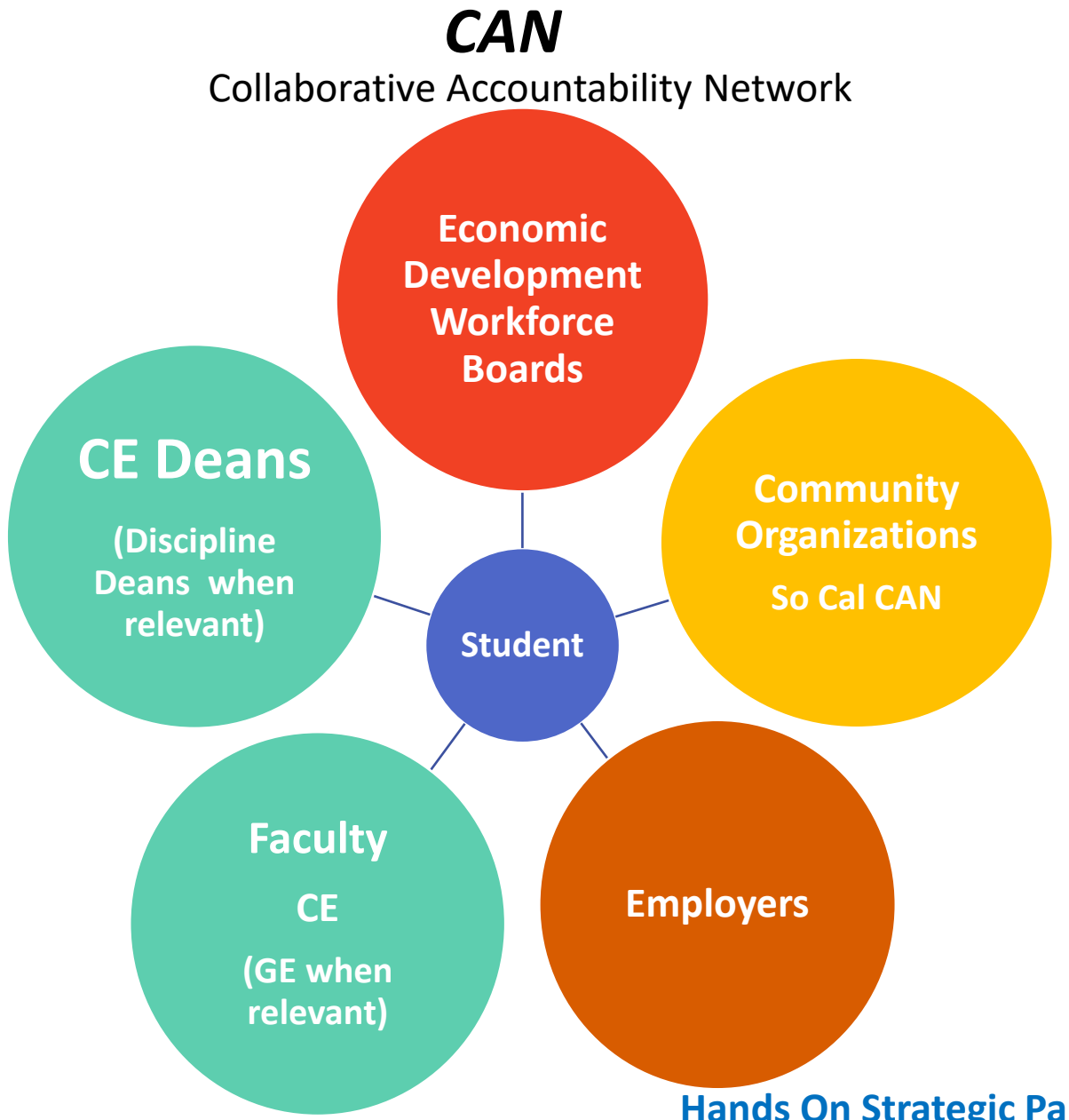
6 **Stakeholder Engagement to collaborate and coordinate on curriculum development and job efforts**

- Inspiring an on-going “coalition of the willing” through Collective Impact
  - Administration, Deans, faculty
  - Workforce Boards, AJCC’s, Community-Based organizations
  - Public and private regional industry partners

Best Practices for Curriculum Project

Collective Impact

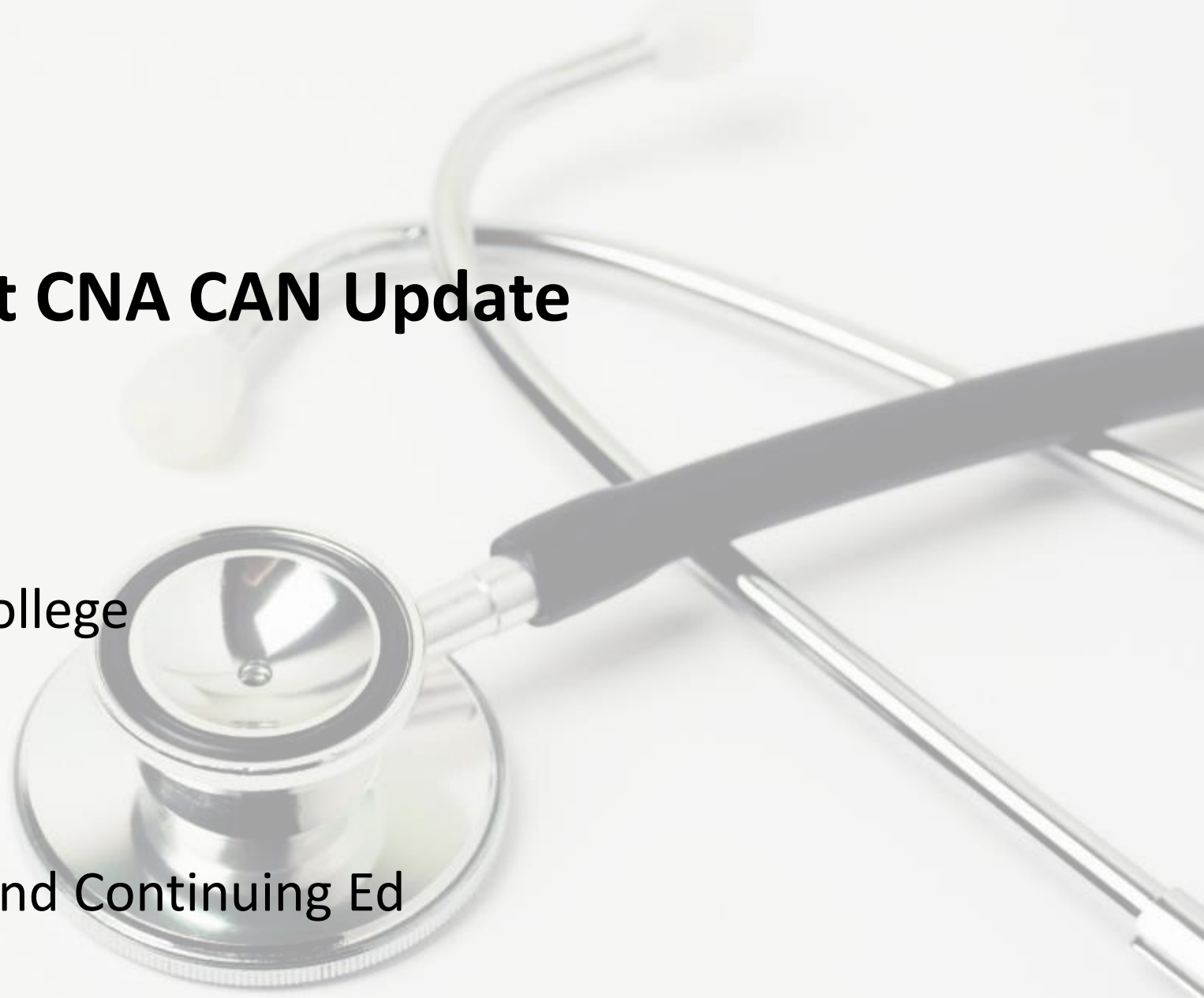
- Using **repeatable, scalable "results" frameworks** that are continually improved with evidence
- Strategic approach to building employer-driven, regional talent pipeline that address skill gaps and create meaningful pathways within a sector
- On-going faculty-driven Curriculum and Program Development Creative Sessions 16x/yr 2 hours each



Move from **Advisory Partner** → **Hands On Strategic Partners, Co-Leader and Co-Investor**


LAHC
LOS ANGELES HARBOR COLLEGE
Lynn Yamakawa
Past Member:
Cheri Almond
department of economic opportunity
COUNTY OF LOS ANGELES
MT. SAC
Mt. San Antonio College
Venus Soriano
Pacific Gateway
Connect to Opportunity
elac
EAST LOS ANGELES COLLEGE
Leticia Barajas
Past Members:
Monica Thurston
Dorothy Hendrix
Economic Development Workforce Boards
CE Deans
(Discipline Deans when relevant)
Community Organizations
SOCAL CAN
College Access Network
Student
LONG BEACH CITY COLLEGE
Patty Bucho
HOLA
HEART OF LOS ANGELES
Compton College
Dr. Linda Thierry
Dr. Shirley Thomas
Faculty
CE
(GE when relevant)
Employers
PASADENA CITY COLLEGE
Jeong O
Joyce Muyingo
AltaMed
Health Services
LOS ANGELES COUNTY
Arosa
LivHOME
Past Member:
Aracely
Molina
LOS ANGELES MISSION
maxim
healthcare group

Allied Health Non-Credit CNA CAN Update



Mike Murphy, BrandIQ

Dr. Shirley Thomas, Compton College
Ass't Director Nursing

Leticia Barajas, ELAC,
Vice Chair/Faculty Non-Credit and Continuing Ed

Joel Moreno, Maxim Health

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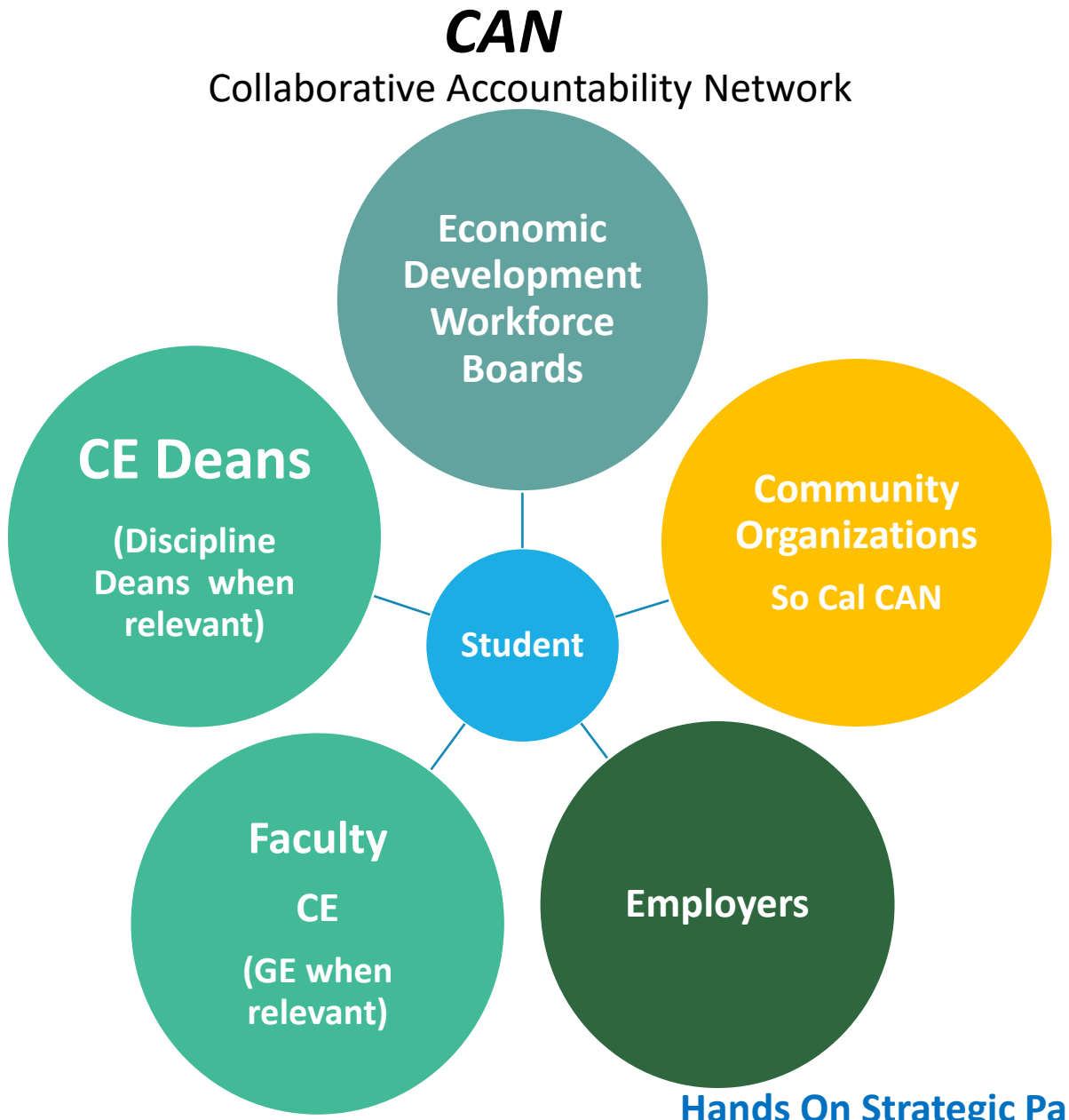

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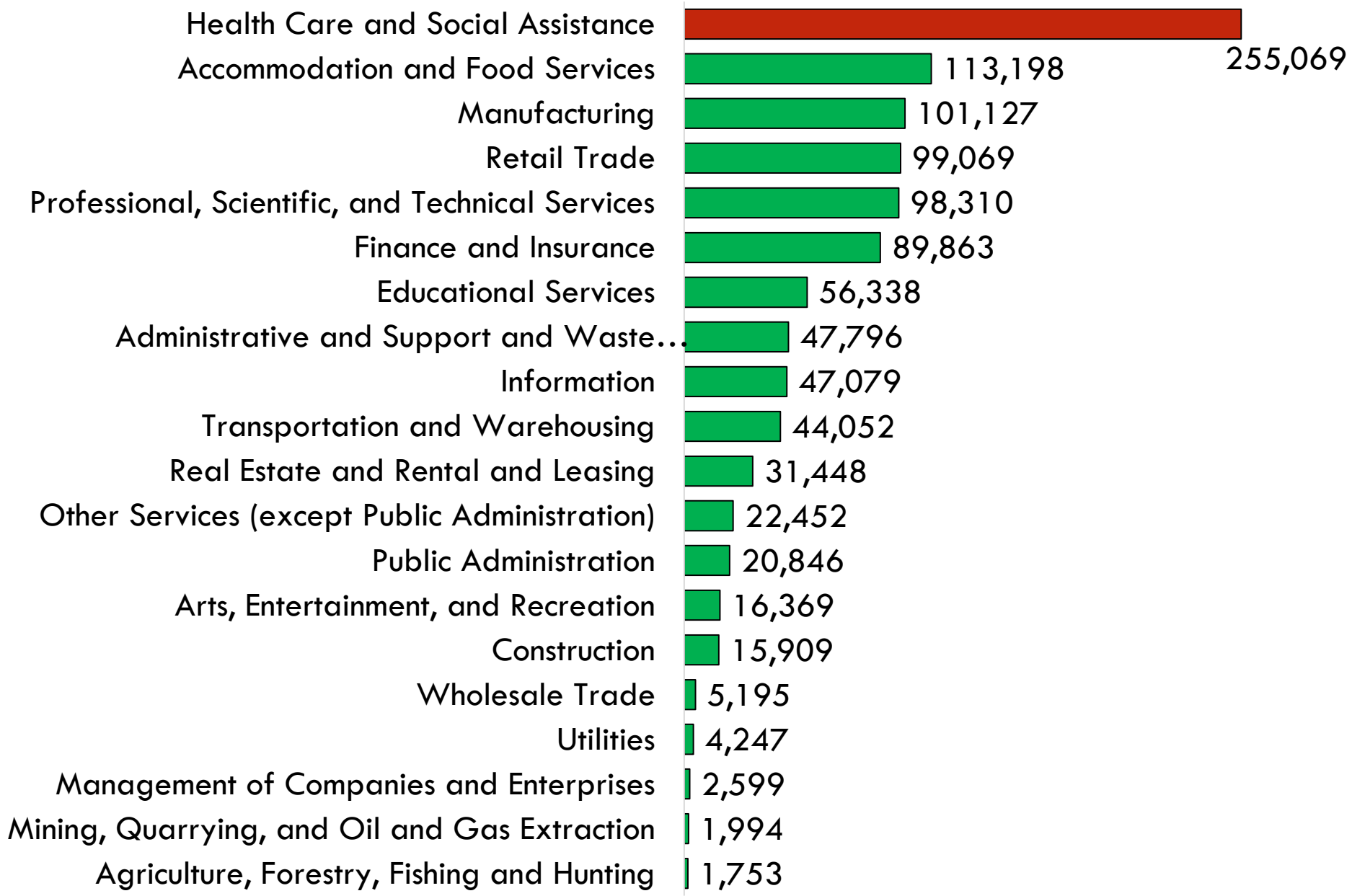
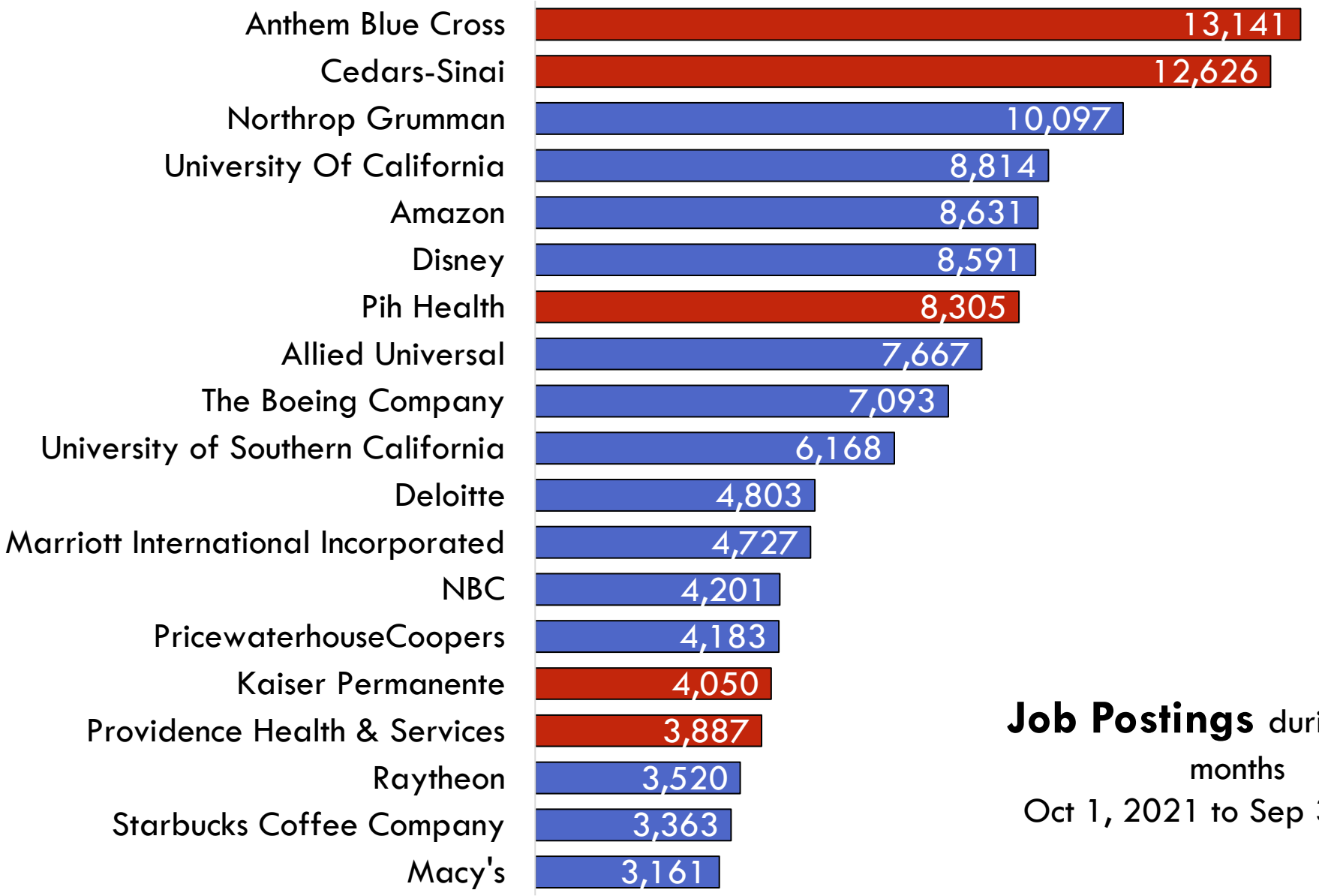
Top Industries



Top Employers



Job Postings during last 12 months
Oct 1, 2021 to Sep 30, 2022

Why Non-Credit CNA as the starting place

- Low-income, BIPOC, and LGBTQ+ and non-traditional students **will be aware and take advantage of *free access* to Allied Health careers using an entry-level CNA** (Certified Nursing Assistant) **jobs in medically underserved communities**

- Faculty, students, and employers **collaborate to build something of value for the region by educating** and **employing** the next generation of Non-Credit CNA cohort's with **employment opportunities** through a "transitional" entry point job

- Students will have **in-demand** skills, experience, and **more latticed opportunities into any one of 50+ Allied Health fields** using micro, stackable certificates
  - Home Health
  - Clinical
  - Administration
  - Nursing

- A strength of this **Non-Credit CNA Program is that it braids**:
  - Non-credit opportunities
  - Opportunities with Credit for Prior Learning
  - Collaboration Regional program (which the State encourages)
- **Everyone** can arrive at the table of **choices, opportunity, & affordability**

- Program is **aligned with California Adult Education Program Goals**

- Colleges **eligible for enhanced CDCP funding**

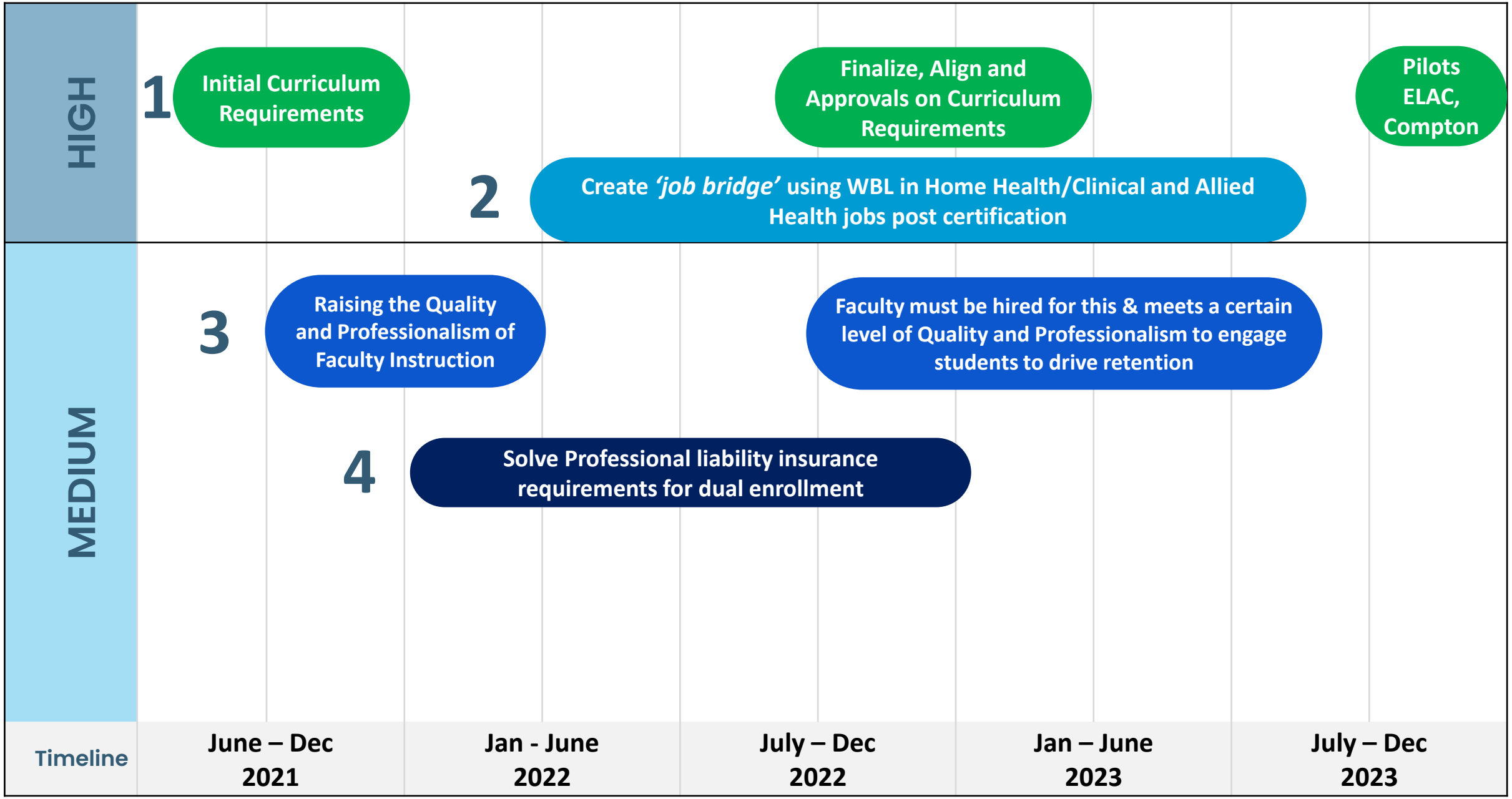
Allied Health Results Statement

Develop and implement a CNA program as an ***entry point*** to a successful career and educational pathway in healthcare.

The comprehensive program will be ***recognized and expand beyond the traditional career model*** throughout the state of California, nationally and globally.

The program will accomplish this by working together collaboratively to promote effective outcomes ***(complete program, certificate, employment, and a livable wage)*** **and mastering transferable skills.**

Strategies to Achieve the Result - Mapped Plan 2022/2023



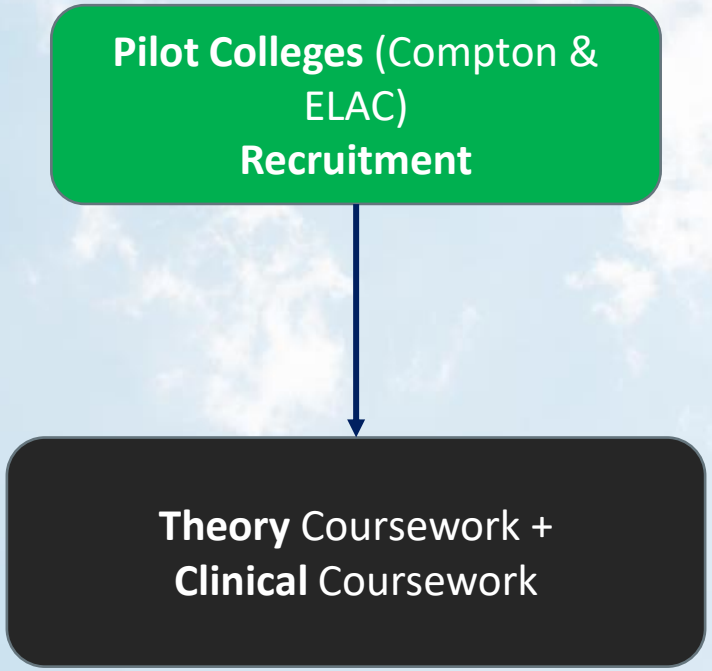
Accomplishments Thus Far

13 Workshops

Sub Committee Work

1. Allied Health/Nursing and Non-Credit faculty working together across 7 colleges to share best practices
2. 4 large regional employer partners and the Workforce Board have been at the table for almost every workshop co-creating the curriculum and jobs solutions
3. Uncovering barriers at the colleges to student success, and designed innovative program to overcome reasons for non-completion and under-employment
4. Standardize some curriculum elements while allowing for customization
5. Large regional employer partnerships have been cultivated by the project that will benefit other colleges with Allied Health programs
6. Commitments by employer partners to offer paid work-based-learning to each student and up to 150 certified students hired out of the first cohort
7. Approval process underway at Compton *(approval process starting at ELAC, PCC, LBCC and Harbor)*

Current CNA Framework



The Innovation of this Innovation Hub Project

AJCC (Rancho Dominquez & East LA)
Recruitment and Tracking

Pilot Colleges (Compton & ELAC)
Recruitment

Joint Enrollment Responsibility

Orientation Course

(with **Faculty** & **AJCC Case Workers** as Co-Presenters)

Theory Coursework + **Clinical** Coursework *(Bilingual at ELAC)*

Paid On-The-Job Training (OTJT)
$18-$20/hr.
(**WIOA** Dollars are paid to Employer Partners for up to 6 months

MAXIM*

DHS (2 Medical Centers)

EMPLOYER C

EMPLOYER D

Equitable Supports for passing licensing *(when needed)*

Post-Certification Full Time Job Commitments

FREE Created pathway for securing available funds to make program ***completely free*** (e.g., **CAEP**, **Student Equity Funds**, & **Perkins**)

Pilot Program Launch: Curriculum

Best-In-Class
Non-Credit CNA curriculum

Students will be exposed to a distinguished curriculum that will be the benchmark for the region, making them competitive candidates for benefited healthcare jobs

Related Strategy:
Professional liability insurance for dual enrollment

Curriculum & Pilot Update

Pilot Program Launch: Student Employment Outcomes

Student Employment Outcomes

Students in this Non-Credit CNA program will have a *direct connection to benefited jobs*
[Union and Civil Service job commitments from employer partners]

Equitable support and services for students placed in LA County jobs to pass their exams (*if needed*)

Curriculum Subcommittee Meeting Update:

What are the specific CDPH requirements for CNA program approval and CNA Certification/Licensure?

Overview CDPH Requirements for Program Approval
1. CNA State Requirements Minimum 66 HOURS **THEORY** ** /Minimum 100 HOURS **CLINICAL** **
2. Students must have Background Checks (e.g., Live Scan)
3. Physical Exam and Clearance
4. Basic Life Support Provider Certification for Healthcare Provider
5. State Identification/SS# Other Documentation

***Breaks must be added 10-15 minutes for each hour of instruction. This takes total hours up to 208.**

Strategy: Curriculum Requirements

Related Strategy: Solve Professional liability insurance requirements for dual enrollment

Curriculum Subcommittee Meeting Update: Noncredit Programmatic Design & Benefits

Curricular Flexibility & Benefits

- Noncredit Course Hour Ranges - Flexibility in scheduling and offering
- Career Development College Pre Funding (CDCP) Funding – Two-Course Requirement for CDCP Program
  1) Overview and Preparation
  2) CNA Training Course
     **Option to add Program Electives to program – Home Health Care, Vocational ESL,

- Establish Pipeline - Prep course can be offered multiple times a year, creates a continuous, qualified student pipeline (3 Preps to get 1 Cohort of 100% ready students)
- Collect apportionment on faculty-led orientations (Overview and Prep Course)
- Existing **credit CNA** courses can be mirrored to noncredit format
- Promotes diversity, equity and inclusion for curricular offerings by being FREE
- Opportunities for targeted cohorts to address

Pilot Program Launch: WBL

Work-Based Learning

Students have the
option as an elective to be employed in work-based learning
by Employer partners while completing their
Non-Credit CNA certificates
[Home Health -or- Clinical]

Equity-Driven Employer Training with services and support for program students and certificate holders to bridge the gap between education and industry needs

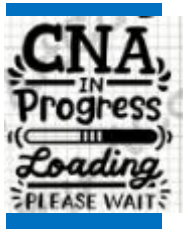
Employer Jobs Program Subcommittee Meeting Update:

Who-What-How Snapshot EXAMPLE

SKILLS NEED FOR HIRE

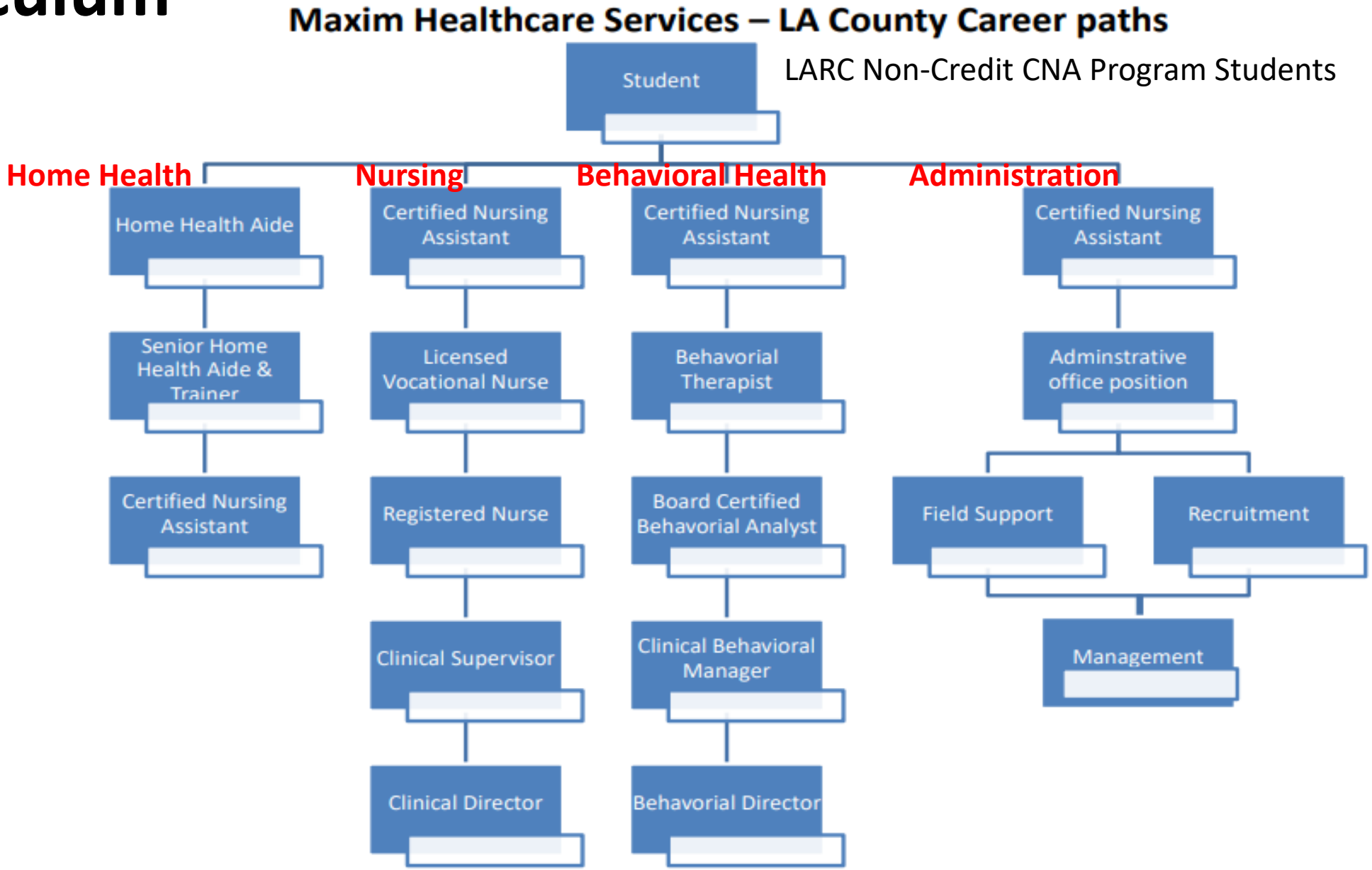
maxim healthcare group

	What are the potential jobs & pay?	Program Strategies
1. Licensed to work in CA 2. Interest in teaching others	C.N.A - $22/hr	Working as a C.N.A for home health
1. Interest in working in the ABA field. 2. Trained by a BCBA, 40 hrs of Maxim training	Senior HHA & Trainer - $23/hr	Working as Senior HHA and trainer for new students
	Behavioral Technician - $24 - $31/hr	Maxim will promote high performing employees that are interested in ABA.



1. Willingness to learn from others 2. Strong sense of customer service and improving patient satisfaction.	Home Health Aide $17 - $19/hr	Maxim will hire student so they can start to gain experience in healthcare They will be paired with a Recruiter to guide them through the hiring steps A tenured Caregiver to shadow, and supervisory visits to improve their skills

Curriculum



LARC Non-Credit CNA Program Students

Cosmetology CAN Update

Charlene Brewer-Smith, ECC
Associate Professor, Senate

Scott Botma, LATTC
Associate Professor

Cosmetology CAN Members
A Round Table of Diverse Contributors

Charlene Brewer-Smith
Associate Professor/Incumbent
Academic President Elect

Sean Moore
Associate Professor/
Curriculum Committee Chair

Richard Allen
Department Chair

Maria Fischer
Faculty

Scott Botma
Associate Professor

Debbie Perret
Department Chair

Cosmetology CAN Overview

Result Statement

Through a high-quality education, prospective Barbering, Cosmetology, Nail and Skin Care students from all backgrounds will achieve technical & soft skills and licensure that could lead to gainful employment.

5 Strategies to Achieve this Result

DEVELOP NEW LARC REGIONAL CURRICULUM

Identifying opportunities to standardize some curriculum; Including a first of its kind test bank to deploy across region

CREATE K-12 PIPELINE IN COSMETOLOGY ENROLLMENT

Focused on high school juniors and seniors to inspire enrollment in Cosmetology programs

EMPLOYER PARTNERSHIPS

Engage employers to connect with cosmetology students through internships, professional development, and job opportunities

DEVELOP ENTRY/STARTER KITS FOR THOSE IN NEED

Provide kits for those that can't afford them to ensure success for all

ENABLE TECHNOLOGY IN COSMETOLOGY PROGRAMS

Especially important in a Post-COVID environment; Ensure access to tech for all

Prioritized and Working on Currently

Cosmetology CAN Overview

Result Statement

Through a high-quality education, prospective Barbering, Cosmetology, Nail and Skin Care students from all backgrounds will achieve technical & soft skills and licensure that could lead to gainful employment.

5 Strategies to Achieve this Result

DEVELOP NEW LARC REGIONAL CURRICULUM

Identifying opportunities to standardize some curriculum;

Regional standardized Test Bank

CREATE K-12 PIPELINE IN COSMETOLOGY ENROLLMENT

Focused on high school juniors and seniors to inspire enrollment in Cosmetology programs

EMPLOYER PARTNERSHIPS

Engage employers to connect with programs at regional level and hire cosmetology students

Regional Advisory Council Meeting

DEVELOP ENTRY/STARTER KITS FOR THOSE IN NEED

Provide kits for those that can't afford them to ensure success for all

TEACH BUSINESS SKILLS TO ENSURE SUCCESS IN PROFESSION

Provide students with hard and soft skills that will help them thrive after graduation

Prioritized and Working on Currently

Accomplishments Thus Far

Developed a prioritized strategic plan with approaches and tactics for accelerated success

Sharing of best practices across the region; a first among our colleges

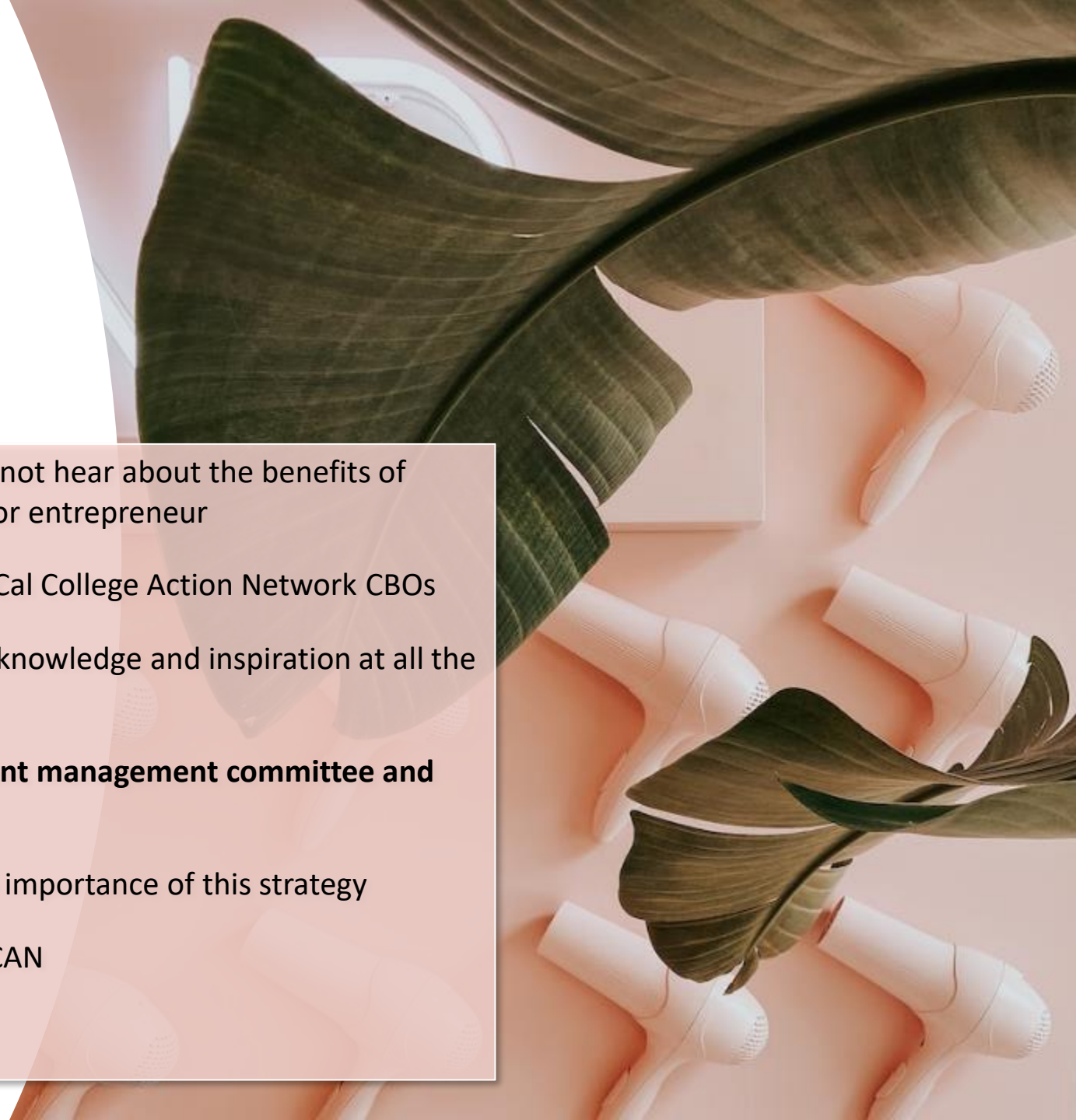
Collection of timecards across the region to determine commonalities, differences, gaps, and opportunities for alignment on curriculum/electives

Developed awareness across the region on how each college is approaching the new state standards

Tactical Plan
New Regional Curriculum

- Identify areas that could be standardized across ALL the colleges
- Developing a standardized free online platform, where students can learn and practice the certification/licensing tests
    - This will ensure improved completion and certifications, and lift ALL the college metrics
    - Engage LARC leadership and funding necessary to ensure this is FREE for ALL students

Tactical Plan
K-12 Pipeline



- Focus on **high school juniors and seniors** that currently do not hear about the benefits of Cosmetology as an enriching career pathway as employee or entrepreneur
- **Leverage channels already in existence** like LARC K-12, So Cal College Action Network CBOs
- **Improve stakeholder engagement** by providing consistent knowledge and inspiration at all the colleges
    - Share strategies and desired outcomes with **enrollment management committee and vice president of student services at each college**
    - Engage **academic senate presidents and CEOs** on the importance of this strategy
    - Engage **Pathway Specialists** and involve them in the CAN
- **Expand dual enrollment** opportunities

Tactical Plan
Employer Partnerships

An initial brainstorm and prioritization of ideas, strategies, tasks, and outcomes on how to engage employer partners was developed

Significant new regional focus on rental and commission salons as industry partners for program experience and jobs (including lab externships and leveraging local advisory councils into regional resources)

Stakeholder Engagement	Work-Based Leaning	Jobs	Standardize
Connect, inform, inspire workforce development department and career services to educate students on a Cosmetology career	Establish what the BBC requirements are for externships	Assess where students want to work	Determine the college requirements, which include instructor involvement and scheduling program curriculum
Plan on how to leverage workforce boards	After 75% of education, student can work 25hrs/week in a lab-based externship program	Assess who is hiring our current students	Guest speakers
Leverage advisory councils in new and different ways	Create a corporate apprenticeship program	Partner only with best-in-class salons/employer partners	Product partners

Lunch Exercise

Inspiration

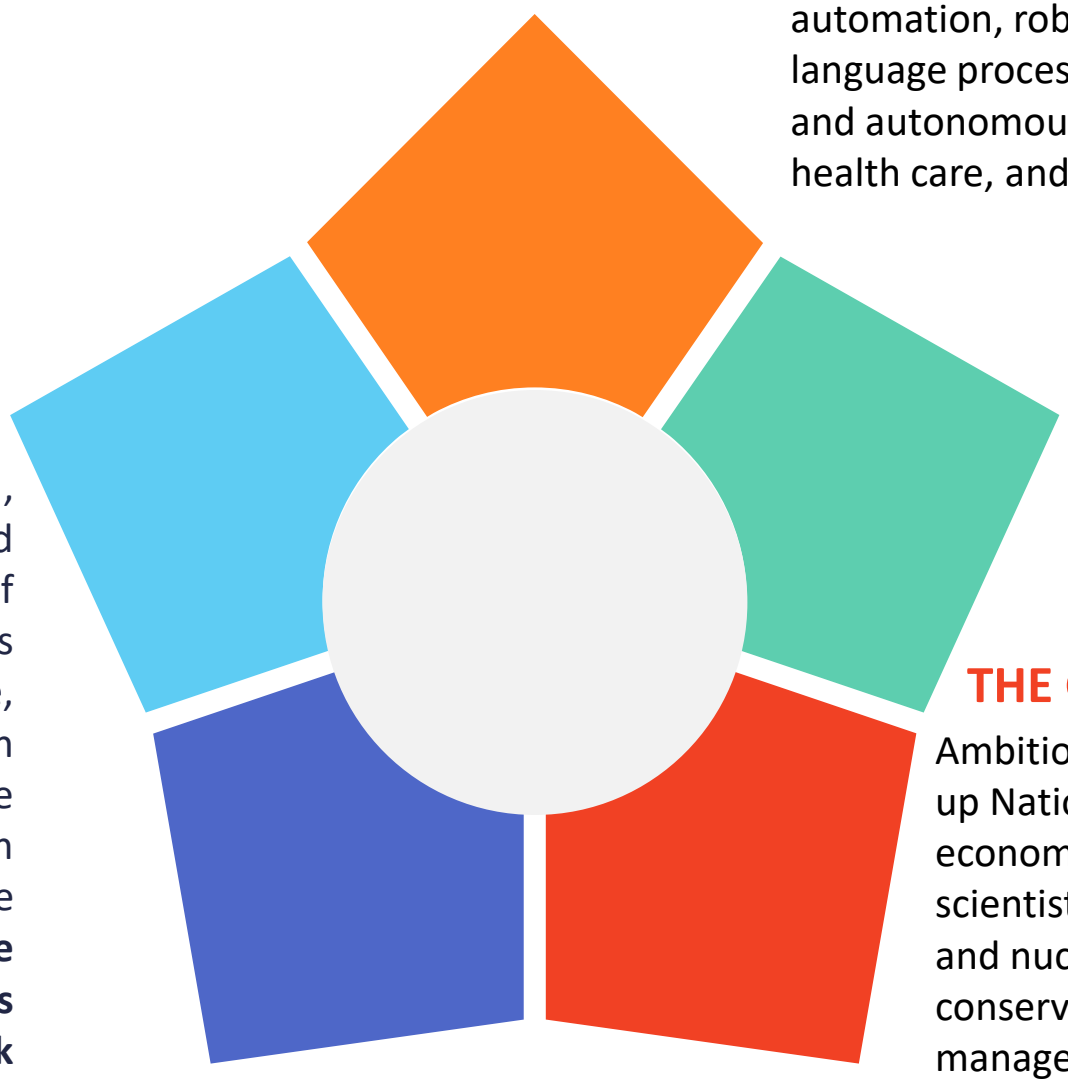
Five Distinct Fields Will Shape The Post-Pandemic Recovery

THE LOGISTICS ECONOMY

Supply chains failed under sudden new demands of pandemic. Will be growth in **advanced logistic skills, advanced manufacturing, and Internet of Things** specific to the supply chain; and industrial big data analytics will become more critical to creating efficient & resilient chains.

THE READINESS ECONOMY

Includes sub-sectors involved in biotech, public health, infrastructure and cybersecurity, relates our level of preparedness for crises such as cybersecurity breaches, power grid failure, environmental disasters, or health pandemics like COVID-19 that have the power to disrupt economies on an international scale. Roles like **cybersecurity experts, software engineers, patient care, project managers and other organizers of work**



THE AUTOMATED ECONOMY

Pandemic will likely accelerate adoption of process automation, robotics & artificial intelligence. Also, natural language processing, machine learning, computer vision and autonomous driving, AI (diagnosis) and robotics in health care, and AI in finance and investments.

THE REMOTE ECONOMY

Shift to remote work forced by pandemic likely to be permanent. **Dependence on data, software, and networks will drive change**, while eventually artificial and virtual reality will play a larger role.

THE GREEN ECONOMY

Ambitious climate goals & incentives speeding up Nation's energy system to renewables. This economy is comprised of environmental scientists, engineers and technicians, fuel cell and nuclear power, natural resource conservation, pollution removal, waste management and recycling, as well as renewable energy.

burningglass TECHNOLOGIES

Burning Glass (EMSI) - Key Takeaways

1

NEW JOBS CREATED

These roles are projected to account for 15.5 million to **18 million new jobs** created over the next five years.

2

FRACTIONS OF LABOR MARKET

These jobs represent **significant fractions of the labor market**: currently 13% of demand and 10% of employment.

3

GROWTH

Jobs in these new "economies" are projected to **grow at almost double the rate** of the job market overall (15% vs. 8%).

4

PROPORTION OF ALL JOBS

These five growth economies will come to comprise **one in six jobs** by 2026 (16%).

5

PAY

These jobs pay well, with the **median salary** for all five economies at roughly $59,000 per year, **34% above the national median**.

6

VERSUS OVERALL ECONOMY

Growth in these economies outperformed the overall economy at the height of COVID-19. Between March and September 2020, job postings in these economies were up 11% even as the overall market fell -12%.

burningglass TECHNOLOGIES

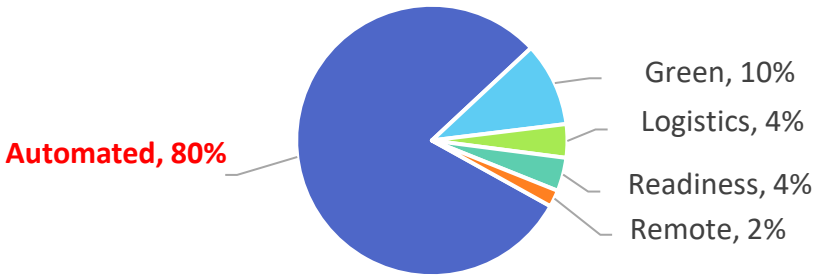
Initial Lens on Localized Relevance

25%

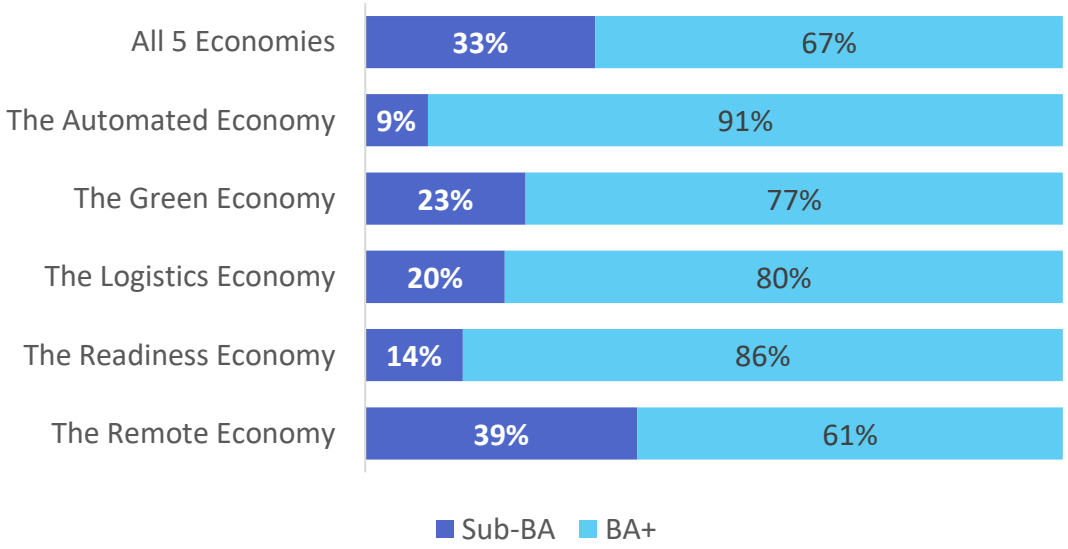
of online job postings in LA County were within one of the five Recovery Economies

(260,628 of 1,037,378 online job postings in 2020)

% of postings by Economy



156,914 (60%) of these postings required a *minimum education level*



Of the top 20 occupations in each Recovery Economy, 32% are considered middle-skill

These middle-skill occupations account for 39% of all Recovery Economy postings.

Source: "The Five Recovery Economies LA County" Report by Centers of Excellence

Exhibit 5: Top five In-Demand skills by category for all recovery Economies in Los Angeles County, 2020 (n=244,307)

Of the top 20 occupations, eight are considered middle-skill occupations. Additionally, three of the top four occupations in this Recovery Economy are considered middle-skill.

THE REMOTE ECONOMY

The middle-skill occupation with the highest number of job postings in the Remote Economy in 2020 was sales representatives, wholesale and manufacturing, except technical and scientific products, followed by customer service representatives (24,182 postings), and secretaries and administrative assistants, except legal, medical, and executive (14,287 postings).

		EDU LEVEL	2020 DEMAND
The Remote Economy	Table 23: AR/VR	BA+	1,344
The Remote Economy	Table 23: AR/VR	BA+	488
The Remote Economy	Table 23: AR/VR	Sub-BA	128
The Remote Economy	Table 24: Cloud	BA+	19,790
The Remote Economy	Table 24: Cloud	BA+	15,676
The Remote Economy	Table 24: Cloud	BA+	10,052
The Remote Economy	Table 24: Cloud	Sub-BA	649
The Remote Economy	Table 25: E-Commerce	BA+	1,323
The Remote Economy	Table 25: E-Commerce	BA+	960
The Remote Economy	Table 25: E-Commerce	Sub-BA	217,871
The Remote Economy	Table 25: E-Commerce	Sub-BA	147,633
The Remote Economy	Table 26: EdTech	BA+	915
The Remote Economy	Table 26: EdTech	BA+	452
The Remote Economy	Table 26: EdTech	BA+	317
The Remote Economy	Table 26: EdTech	Sub-BA	36
The Remote Economy	Table 27: Network Systems	BA+	103,295
The Remote Economy	Table 27: Network Systems	BA+	18,548
The Remote Economy	Table 27: Network Systems	Sub-BA	3,273

THE REMOTE ECONOMY

Though employers seeking candidates in this economy were predominately seeking workers with a bachelor's degree, this economy also has the ***highest percentage of postings, 33% (39,466), that requested a high school diploma or vocational training of all five Recovery Economies***

Exhibit 9a: Top Occupations for the Remote Economy in Los Angeles County, 2020 (n=207,390)

SOC Code	Occupation	Job Postings
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products*	30,507
43-4051	Customer Service Representatives*	24,182
11-9111	Medical and Health Services Managers	14,854
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive*	14,287
11-2022	Sales Managers	10,968
11-1021	General and Operations Managers	10,912
43-9061	Office Clerks, General	6,488
43-6013	Medical Secretaries and Administrative Assistants*	6,354
43-1011	First-Line Supervisors of Office and Administrative Support Workers*	6,120
27-1026	Merchandise Displayers and Window Trimmers	5,016
43-4171	Receptionists and Information Clerks	4,811
41-9022	Real Estate Sales Agents*	4,626
17-2199	Engineers, All Other	4,253
19-1042	Medical Scientists, Except Epidemiologists	3,594
17-2051	Civil Engineers	3,248
11-9041	Architectural and Engineering Managers	3,245
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel*	3,044
11-3051	Industrial Production Managers*	2,965
27-3031	Public Relations Specialists	2,931
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	2,859

**Middle-Skill Job* *Source: Burning Glass*

Exhibit 9c: Top Skills for the Remote Economy in Los Angeles County, 2020 (n=192,786)

Specialized Skills	Job Postings	Soft Skills	Job Postings	Software Skills	Job Postings
Customer Service	51,901	Communication Skills	86,802	Microsoft Excel	41,756
Sales	46,703	Organizational Skills	43,542	Microsoft Office	34,477
Scheduling	34,919	Microsoft Excel	41,756	Microsoft Word	19,286
Administrative Support	23,625	Teamwork / Collaboration	40,761	Microsoft Powerpoint	16,680
Budgeting	22,087	Detail-Oriented	36,683	Microsoft Outlook	7,674
Customer Contact	17,440	Microsoft Office	34,477	Salesforce	5,738
Project Management	14,639	Problem Solving	30,843	Word Processing	4,816
Appointment Setting	13,266	Writing	27,370	Customer Relationship Management (CRM)	3,772
Data Entry	12,163	Computer Literacy	26,527	Enterprise Resource Planning (ERP)	3,055
Staff Management	11,957	Planning	26,107	Quickbooks	2,751
Business Development	11,590	Multi-Tasking	25,940	AutoCAD	2,691
Quality Assurance and Control	11,052	Building Effective Relationships	24,086	Adobe Photoshop	2,537
Retail Industry Knowledge	11,023	Research	22,344	SAP	2,522
Customer Billing	10,387	English	22,155	Facebook	2,372
Sales Goals	9,897	Creativity	21,606	Python	2,300
Prospective Clients	9,635	Written Communication	20,492	Microsoft Access	2,176
Product Sales	9,504	Microsoft Word	19,286	Software as a Service (SaaS)	2,066
Sales Management	8,118	Spanish	18,325	Adobe Acrobat	1,824
Merchandising	8,095	Time Management	18,247	Microsoft Windows	1,681
Social Media	7,549	Bilingual	18,174	Adobe Indesign	1,594

Source: Burning Glass

Of the top 20 occupations, seven are considered middle-skill occupations

The middle-skill occupation with the highest number of job postings in the Green Economy in 2020 was environmental science and protection technicians, including health (268 postings); followed by solar photovoltaic installers (253 postings); project management specialists and business operations specialists, all other (146 postings); and first-line supervisors of construction trades and extraction workers (102 postings).

		EDU LEVEL	2020 DEMAND
The Green Economy	Table 18: Environmental Scientists, Engineers, and Technicians	BA+	2,260
The Green Economy	Table 18: Environmental Scientists, Engineers, and Technicians	BA+	1,872
The Green Economy	Table 18: Environmental Scientists, Engineers, and Technicians	Sub-BA	10,244
The Green Economy	Table 19: Fuel Cell and Nuclear	BA+	904
The Green Economy	Table 19: Fuel Cell and Nuclear	BA+	350
The Green Economy	Table 19: Fuel Cell and Nuclear	Sub-BA	928
The Green Economy	Table 20: Natural Resource Conservation	BA+	3,153
The Green Economy	Table 20: Natural Resource Conservation	BA+	2,701
The Green Economy	Table 20: Natural Resource Conservation	Sub-BA	5,013
The Green Economy	Table 21: Pollution Removal, Waste Management, and Recycling	BA+	4,718
The Green Economy	Table 21: Pollution Removal, Waste Management, and Recycling	Sub-BA	6,783
The Green Economy	Table 21: Pollution Removal, Waste Management, and Recycling	Sub-BA	4,192
The Green Economy	Table 22: Renewable Energy	BA+	1,478
The Green Economy	Table 22: Renewable Energy	BA+	701
The Green Economy	Table 22: Renewable Energy	Sub-BA	12,089
The Green Economy	Table 22: Renewable Energy	Sub-BA	7,344

THE GREEN ECONOMY

Exhibit 8a: Top Occupations for the Green Economy in Los Angeles County, 2020 (n=5,813)

SOC Code	Occupation	Job Postings
11-9121	Natural Sciences Managers	1,670
17-2081	Environmental Engineers	459

SOC Code	Occupation	Job Postings
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	458
19-2041	Environmental Scientists and Specialists, Including Health	269
19-4042	Environmental Science and Protection Technicians, Including Health*	268
47-2231	Solar Photovoltaic Installers*	253
53-7081	Refuse and Recyclable Material Collectors	148
13-1198	Project Management Specialists and Business Operations Specialists, All Other*	146
13-1041	Compliance Officers	111
17-2199	Engineers, All Other	103
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers*	102
51-8031	Water and Wastewater Treatment Plant and System Operators*	101
11-2011	Advertising and Promotions Managers	97
19-2042	Geoscientists, Except Hydrologists and Geographers	93

** Middle skill job*

Exhibit 8c: Top Skills for the Green Economy in Los Angeles County, 2020 (n=5,281)

Specialized Skills	Job Postings	Soft Skills	Job Postings	Software Skills	Job Postings
Clinical Research	1,034	Communication Skills	1,979	Microsoft Excel	819
Budgeting	982	Research	1,450	Microsoft Office	759
Scheduling	943	Teamwork / Collaboration	1,125	Microsoft Word	419
Project Management	859	Detail-Oriented	991	Microsoft Powerpoint	387
Sales	751	Organizational Skills	977	Salesforce	206
Clinical Trials	674	Writing	907	Microsoft Project	118
Customer Service	629	Microsoft Excel	819	Python	86
Good Clinical Practices (GCP)	519	Planning	788	AutoCAD	83
Solar Sales	489	Microsoft Office	759	Microsoft Outlook	79
Investigational Review Board (IRB)	451	Physical Abilities	726	Microsoft Access	72
Occupational Health and Safety	432	Problem Solving	715	Word Processing	64
Customer Contact	421	Written Communication	619	SQL	63
Appointment Setting	393	Computer Literacy	575	Facebook	56
Quality Assurance and	379	English	523	ArcGIS	53

Of the top 20 occupations, six are considered middle-skill occupations

The middle-skill occupation with the highest number of job postings in the Readiness Economy in 2020 was computer occupations, all other (2,632 postings), followed by computer network architects (803 postings), network and computer systems administrators (682 postings), and computer user support specialists (546 postings).

The majority of the postings in this Recovery Economy are for above middle-skill occupations, which is reflected by the large portion of postings requiring a bachelor's degree

		Edu LEVEL	2020 DEMAND
The Readiness Economy	Table 9: Biotechnology	BA+	1,913
The Readiness Economy	Table 9: Biotechnology	BA+	818
The Readiness Economy	Table 9: Biotechnology	BA+	1,661
The Readiness Economy	Table 9: Biotechnology	Sub-BA	389
The Readiness Economy	Table 10: Cybersecurity	BA+	31,086
The Readiness Economy	Table 10: Cybersecurity	BA+	4,456
The Readiness Economy	Table 10: Cybersecurity	BA+	864
The Readiness Economy	Table 11: Infrastructure	BA+	17,318
The Readiness Economy	Table 11: Infrastructure	BA+	7,268
The Readiness Economy	Table 11: Infrastructure	BA+	4,901
The Readiness Economy	Table 11: Infrastructure	Sub-BA	2,430
The Readiness Economy	Table 11: Infrastructure	Sub-BA	2,626
The Readiness Economy	Table 12: Public Health	BA+	306
The Readiness Economy	Table 12: Public Health	BA+	218
The Readiness Economy	Table 12: Public Health	Sub-BA	748

Exhibit 6a: Top Occupations for the Readiness Economy in Los Angeles County, 2020 (n= 24,298)

SOC Code	Occupation	Job Postings
15-1212	Information Security Analysts	4,077
15-1299	Computer Occupations, All Other*	2,632
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	1,745
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	1,382
15-1241	Computer Network Architects*	803
15-1244	Network and Computer Systems Administrators*	682
15-1232	Computer User Support Specialists*	546
17-2051	Civil Engineers	546
13-2011	Accountants and Auditors	470
17-2199	Engineers, All Other	370
13-1111	Management Analysts	364
33-9032	Security Guards	348
15-1211	Computer Systems Analysts	330
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products*	314
13-2098	Financial and Investment Analysts, Financial Risk Specialists, and Financial Specialists, All Other	313
19-1042	Medical Scientists, Except Epidemiologists	301
13-1198	Project Management Specialists and Business Operations Specialists, All Other*	268
11-3021	Computer and Information Systems Managers	262
11-9041	Architectural and Engineering Managers	233
11-9111	Medical and Health Services Managers	227

**Middle-Skill Job* *Source: Burning Glass*

Exhibit 6c: Top Skills for the Readiness Economy in Los Angeles County, 2020 (n= 24,584)

Specialized Skills	Job Postings	Soft Skills	Job Postings	Software Skills	Job Postings
Information Security	6,544	Communication Skills	10,429	Microsoft Excel	4,097
Project Management	5,238	Teamwork / Collaboration	6,447	Microsoft Office	3,405
Budgeting	3,600	Planning	5,803	Linux	2,876
Scheduling	3,144	Troubleshooting	4,396	Python	2,431
Customer Service	2,926	Problem Solving	4,283	Microsoft Powerpoint	2,418
Information Systems	2,925	Microsoft Excel	4,097	Microsoft Word	2,120
Linux	2,876	Writing	4,091	Software Development	1,960
Python	2,431	Research	3,888	SQL	1,798
Network Security	2,364	Microsoft Office	3,405	SAP	1,597
Systems Engineering	2,325	Organizational Skills	3,364	Java	1,569

Of the top 20 occupations, eight are considered middle-skill occupations

The middle-skill occupation with the highest number of job postings in the Readiness Economy in 2020 was **sales representatives, wholesale and manufacturing,** except technical and scientific products; followed by computer occupations, all other (751 postings), and heavy and tractor-trailer truck drivers (181 postings),

		EDU LEVEL	2020 DEMAND
The Logistics Economy	Table 13: Industrial Big Data Analytics	BA+	8,279
The Logistics Economy	Table 13: Industrial Big Data Analytics	BA+	3,631
The Logistics Economy	Table 13: Industrial Big Data Analytics	Sub-BA	2,342
The Logistics Economy	Table 14: IoT and Specifically in Supply Chain	BA+	4,795
The Logistics Economy	Table 14: IoT and Specifically in Supply Chain	BA+	4,345
The Logistics Economy	Table 14: IoT and Specifically in Supply Chain	Sub-BA	1,437
The Logistics Economy	Table 15: Logistics and Supply Chain Management	BA+	1,599
The Logistics Economy	Table 15: Logistics and Supply Chain Management	BA+	1,164
The Logistics Economy	Table 15: Logistics and Supply Chain Management	Sub-BA	7,009
The Logistics Economy	Table 16: Manufacturing of Pharma	BA+	4,617
The Logistics Economy	Table 16: Manufacturing of Pharma	BA+	2,326
The Logistics Economy	Table 16: Manufacturing of Pharma	Sub-BA	2,508
The Logistics Economy	Table 17: Manufacturing of PPE and Medical Equipment	BA+	1,666
The Logistics Economy	Table 17: Manufacturing of PPE and Medical Equipment	BA+	1,311
The Logistics Economy	Table 17: Manufacturing of PPE and Medical Equipment	Sub-BA	1,428

73% (6,256) requested a bachelor's degree as the minimum education. Only 4% (375) requested an associate degree.

Exhibit 7a: Top Occupations for the Logistics Economy in Los Angeles County, 2020 (n=10,610)

SOC Code	Occupation	Job Postings
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products*	775
15-1299	Computer Occupations, All Other*	751
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	592
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	506
11-2022	Sales Managers	463
11-2021	Marketing Managers	342
11-9111	Medical and Health Services Managers	218
17-2199	Engineers, All Other	209
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	202
13-1111	Management Analysts	196
53-3032	Heavy and Tractor-Trailer Truck Drivers*	181
15-1211	Computer Systems Analysts	164
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	158
11-9121	Natural Sciences Managers	153
49-9071	Maintenance and Repair Workers, General*	150
11-1021	General and Operations Managers	147
43-4051	Customer Service Representatives*	132
15-1232	Computer User Support Specialists*	132
11-3051	Industrial Production Managers*	129
15-1244	Network and Computer Systems Administrators*	127

*Middle-Skill Job

Source: Burning Glass

Exhibit 7c: Top Skills for the Logistics Economy in Los Angeles County, 2020 (n= 10,547)

Specialized Skills	Job Postings	Soft Skills	Job Postings	Software Skills	Job Postings
Sales	2,025	Communication Skills	5,206	Microsoft Excel	2,201
Project Management	1,852	Teamwork / Collaboration	3,555	Microsoft Office	1,932
Customer Service	1,575	Problem Solving	2,416	Microsoft Powerpoint	1,427
Budgeting	1,439	Planning	2,270	Microsoft Word	1,053
Scheduling	1,212	Microsoft Excel	2,201	SQL	602
Biotechnology	1,169	Microsoft Office	1,932	SAP	594
Quality Assurance and Control	1,076	Detail-Oriented	1,834	Software Development	534
Customer Contact	894	Research	1,822	Salesforce	445

Of the top 20 occupations, only four are considered middle-skill occupations, the lowest portion across all five Recovery Economies.

The occupation that was posted most frequently was software developers and software quality assurance analysts and testers (1,575 postings)

		EDU LEVEL	2020 DEMAND
The Automated Economy	Table 28: AI and Robotics in Health Care	BA+	6,696
The Automated Economy	Table 28: AI and Robotics in Health Care	BA+	3,134
The Automated Economy	Table 28: AI and Robotics in Health Care	BA+	2,908
The Automated Economy	Table 28: AI and Robotics in Health Care	BA+	597
The Automated Economy	Table 29: AI in Finance and Investment	BA+	1,584
The Automated Economy	Table 29: AI in Finance and Investment	BA+	1,944
The Automated Economy	Table 29: AI in Finance and Investment	BA+	1,430
The Automated Economy	Table 30: AI, Natural Language Processing, and Machine Learning	BA+	25,955
The Automated Economy	Table 30: AI, Natural Language Processing, and Machine Learning	BA+	5,133
The Automated Economy	Table 30: AI, Natural Language Processing, and Machine Learning	BA+	4,776
The Automated Economy	Table 30: AI, Natural Language Processing, and Machine Learning	BA+	2,820
The Automated Economy	Table 30: AI, Natural Language Processing, and Machine Learning	Sub-BA	8
The Automated Economy	Table 30: AI, Natural Language Processing, and Machine Learning	Sub-BA	283
The Automated Economy	Table 31: Computer Vision and Autonomous Driving	BA+	5,430
The Automated Economy	Table 31: Computer Vision and Autonomous Driving	BA+	2,901
The Automated Economy	Table 31: Computer Vision and Autonomous Driving	BA+	625
The Automated Economy	Table 31: Computer Vision and Autonomous Driving	BA+	734
The Automated Economy	Table 31: Computer Vision and Autonomous Driving	Sub-BA	2,114
The Automated Economy	Table 32: Robotics and Process Automation	BA+	6,295
The Automated Economy	Table 32: Robotics and Process Automation	BA+	4,343
The Automated Economy	Table 32: Robotics and Process Automation	BA+	2,791
The Automated Economy	Table 32: Robotics and Process Automation	BA+	2,490
The Automated Economy	Table 32: Robotics and Process Automation	Sub-BA	3,168
The Automated Economy	Table 32: Robotics and Process Automation	Sub-BA	3,284

Exhibit 10a: Top Occupations for the Automated Economy in Los Angeles County, 2020 (n=10,531)

SOC Code	Occupation	Job Postings
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	1,575
15-1299	Computer Occupations, All Other*	1,414
15-1221	Computer and Information Research Scientists	774
15-1245	Database Administrators and Architects	330
17-2199	Engineers, All Other	295
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	266
11-2021	Marketing Managers	252
17-2141	Mechanical Engineers	236
15-1241	Computer Network Architects*	229
17-2071	Electrical Engineers	226
15-2031	Operations Research Analysts	215
15-1257	Web Developers and Digital Interface Designers	192
13-1111	Management Analysts	179
49-9071	Maintenance and Repair Workers, General*	167
15-1211	Computer Systems Analysts	161
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products*	144
15-1251	Computer Programmers	129
11-9041	Architectural and Engineering Managers	124
11-1021	General and Operations Managers	117
15-1212	Information Security Analysts	104

**Middle-Skill Job*

Source: Burning Glass

Exhibit 10c: Top Skills for the Automated Economy in Los Angeles County, 2020 (n=11,109)

Specialized Skills	Job Postings	Soft Skills	Job Postings	Software Skills	Job Postings
Machine Learning	4,890	Communication Skills	4,081	Python	4,113
Python	4,113	Teamwork / Collaboration	3,604	SQL	2,474
Robotics	2,686	Research	2,994	C++	1,745
Artificial Intelligence	2,474	Problem Solving	2,255	Software Development	1,707
SQL	2,474	Planning	1,884	Java	1,665
Data Science	2,400	Creativity	1,639	Software Engineering	1,634
C++	1,745	Writing	1,620	Microsoft Excel	1,191
Software Development	1,707	Troubleshooting	1,569	Linux	945
Java	1,665	Microsoft Excel	1,191	JavaScript	887
Software Engineering	1,634	Detail-Oriented	1,126	Apache Hadoop	874
Project Management	1,368	Organizational Skills	1,043	Tableau	865
Data Analysis	1,228	Written Communication	1,027	MATLAB	838
Big Data	1,149	Presentation Skills	899	Microsoft Office	724
Physics	970	Building Effective Relationships	737	Microsoft C#	671
Linux	945	Microsoft Office	724	Microsoft Powerpoint	616
Natural Language Processing	912	Mentoring	703	Data Visualization	608
JavaScript	887	Verbal / Oral Communication	679	Computer Engineering	549
Apache Hadoop	874	Leadership	647	Scala	518
Tableau	865	Microsoft Powerpoint	616	NoSQL	506
Deep Learning	864	Self-Starter	611	Git	498

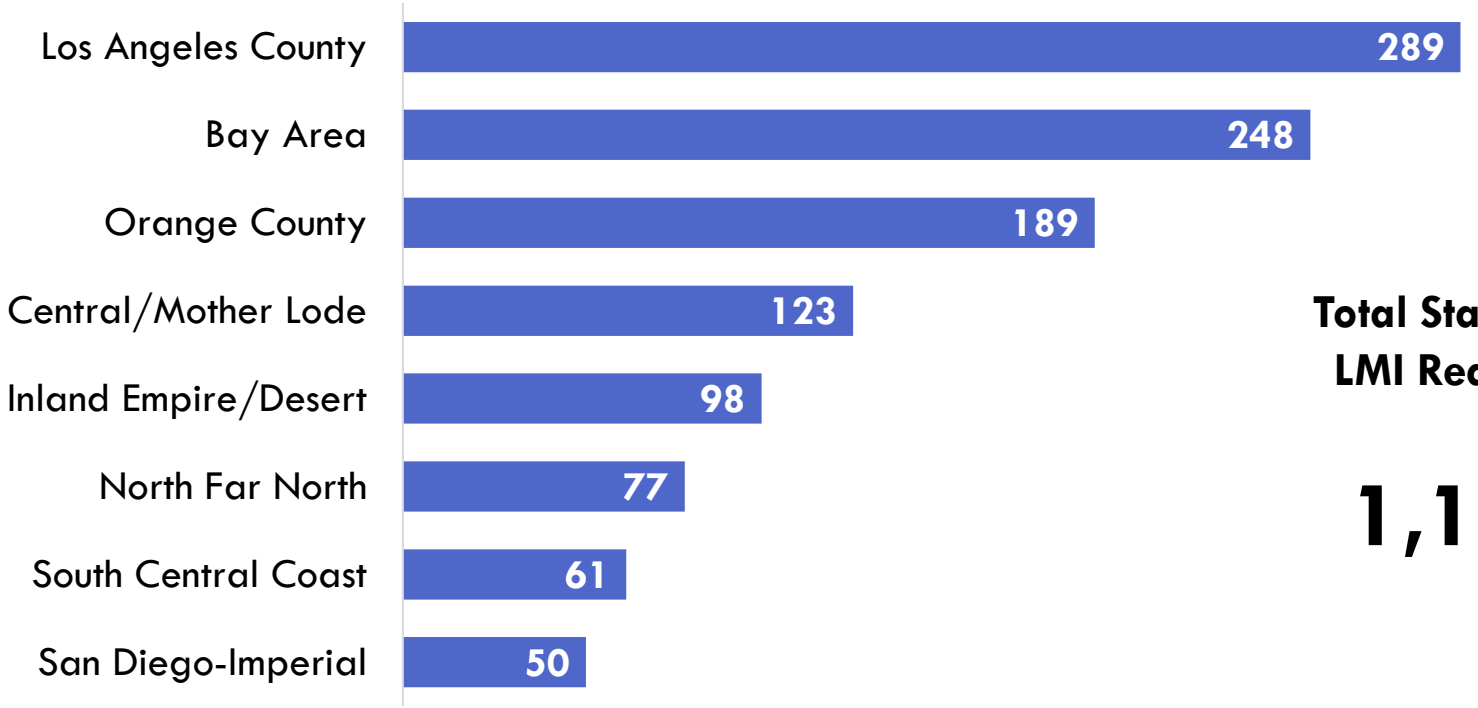
Source: Burning Glass

LA County LMI Requests PY 2021-22

Luke Meyer
Director, Center of Excellence
Los Angeles Region

C·O·E
CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

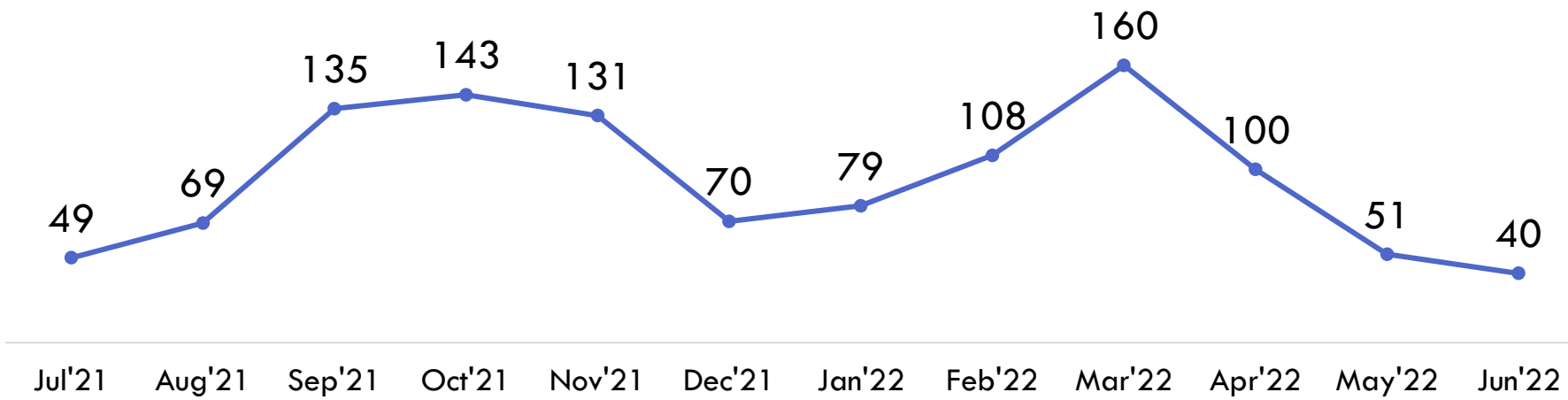
2021-22 LMI Requests



Total Statewide LMI Requests

1,135

LMI Requests by month



LA Requests by Sector

Sector	Count	% of Total
Information and Communication Technologies - Digital Media	67	23%
Health	48	17%
Business and Entrepreneurship	44	15%
Retail, Hospitality and Tourism	28	10%
Education and Human Development	19	7%
Public Safety	14	5%
Advanced Transportation and Logistics	13	4%
Advanced Manufacturing	12	4%
Energy, Construction and Utilities	11	4%
Life Sciences - Biotechnology	10	3%
Agriculture, Water and Environmental Technologies	2	1%
Global Trade	2	1%
Unassigned	*16*	*6%*
Non-CTE	*2*	*1%*
LA County Total	**277**	**100%**

Request Type	Count	% of Total
Regional program recommendation (new program)	108	37%
Program modification (substantial change)	91	31%
Exploratory purposes	36	12%
College/District program review	30	10%
Existing low unit, local certificate(s) for state chaptering	20	7%
Noncredit vocational program development	4	1%
Total	**289**	**100%**

College	*Requests*	College	*Requests*	College	*Requests*
Pasadena City	*50*	West LA	*13*	Rio Hondo	*5*
Mt. SAC	*37*	LA City	*11*	LA Valley	*4*
Long Beach City	*36*	Cerritos	*7*	LA Trade-Tech	*3*
Citrus	*31*	Compton	*6*	LA Harbor	*1*
LA Mission	*27*	El Camino	*6*	LA Pierce	*1*
Santa Monica	*26*	LA Southwest	*6*		
Glendale	*14*	East LA	*5*		

TOP – Program	Count
3007.00 Cosmetology and Barbering	13
1012.00 Applied Photography	9
0502.00 Accounting	8
1306.30 Culinary Arts	8
0702.00 Computer Information Systems	7
0934.00 Electronics and Electric Technology	7
0948.00 Automotive Technology	7
1305.00 Child Development/Early Care and Education	7
0430.00 Biotechnology and Biomedical Technology	6
0506.40 Small Business and Entrepreneurship	6
0511.00 Real Estate	5
0707.00 Computer Software Development	5
1230.10 Registered Nursing	5
1303.00 Fashion	5
0514.00 Office Technology/Office Computer Applications	5
0506.00 Business Management	4
0604.20 Television (including combined TV/Film/Video)	4
0835.20 Fitness Trainer	4

TOP – Program	Count
1005.00 Commercial Music	4
1303.10 Fashion Design	4
2133.50 Fire Academy	4
0612.20 Film Production	3
0614.40 Animation	3
1030.00 Graphic Art and Design	3
1201.00 Health Occupations, General	3
1210.00 Respiratory Care/Therapy	3
1230.20 Licensed Vocational Nursing	3
1305.20 Children with Special Needs	3
2105.40 Forensics, Evidence and Investigation	3
2133.00 Fire Technology	3
0201.00 Architecture and Architectural Technology	2
0508.00 International Business and Trade	2
0509.00 Marketing and Distribution	2
0514.40 Office Management	2
0516.00 Labor and Industrial Relations	2
0604.00 Radio and Television	2

Exercise 5 – AB1705 (and other legislation) that creates roadblocks for CE Students

Joshua Christ – Mt. San Antonio College

Professor - Technical Theater

Career Education Coordinator for MtSAC Academic Senate

1705 - Bill Text

- "This bill would, among other things, instead require a community college district or community college to maximize the probability that students will enter and complete transfer-level coursework in English and mathematics within a one-year timeframe of their initial attempt in the discipline, and for a student with a declared academic goal, that the transfer-level coursework satisfies the English and mathematics coursework requirements of the intended certificate or associate degree, or a requirement for transfer within the intended major, within a one-year timeframe of their initial attempt in the discipline."
- This bill would require all new and continuing United States high school graduate students and those who have been issued a high school equivalency certificate, who plan to pursue a certificate, degree, or transfer program offered by a California community college, to be directly placed into, and, when beginning coursework in English or mathematics, enrolled in, transfer-level English and mathematics, as provided.
- Item (j), subpoint (2) allows for an exclusion to this for: "Students enrolled in a certificate program without English or mathematics requirements."
    - Except: In order to enroll in a certificate program without English or Mathematics Requirements (typically our CE Programs), a student needs to opt OUT of the automatic enrollment into a transfer pathways

AB 928 -

- Primarily – Creates a single transfer pathway from CCC to CSU and UC. Many of our colleagues in Senate are discussing this, and how it will most likely impact the areas of “Lifelong Learning,” “Area C,” and Other General Education Impacts.
- Secondarily – and far less discussed at large in many academic senates – the following text of the bill:
  - (j) (1) On or before August 1, 2024, where ADTs for major pathways exist, the California Community Colleges shall place students on the ADT pathway if students declare a goal of transfer on their mandatory education plans pursuant to the Seymour-Campbell Student Success Act of 2012 (Article 1 (commencing with Section 78210) of Chapter 2 of Part 48 of Division 7) and such a pathway exists for their intended major, to maximize the probability that students will transfer into a four-year postsecondary educational institution and earn a degree in their chosen field of study in a timely manner, and to minimize the accrual of excess units.
  - Example: A student has done technical theater for 3 years of high school, and wants to work on Film, Television and Theater sets as a carpenter in a scene shop for a career. They enroll at Mt.SAC to take a step towards achieving these goals. MtSAC will automatically enroll this student into out Theater Arts ADT because the pathway exists, rather than the technical theater certificate.

These two combined:

- Where we really begin to see the issue, is where these two bills are passed and signed into law together, creating a multi-faceted problem:
  - A student is automatically placed into the ADT Pathway in the discipline they select, even if there are faster, cheaper, and better options for the career path they wish to pursue, unless they check a box saying they want to be on the certificate pathway.
  - A student who wants to be on that certificate pathway, is automatically enrolled in transfer level English and Math, because they didn't click the opt out box, and now they are taking a class they do not need, and spending time many of them do not have, to earn a grade (potentially negative grade) they do not care about.
  - This will not increase success metrics, or help the student, and is an active problem for instructors and administrators to solve.

This is exacerbated by the Success Metrics on the SCFF:

All students (per outcome)	2018-19
Associate degrees for transfer (ADT) granted	$1,760
Associate degrees granted (excluding ADT)	1,320
Baccalaureate degrees granted	1,320
Credit certificates (16 units or more) granted	880
Completion of transfer-level mathematics and English courses within first academic year of enrollment	880
Successful transfer to four-year university	660
Completion of nine or more CTE units	440
Attainment of regional living wage	440

2 Year Goal for State

2 Year Goal for CE

1 Year Goal for State

1 Year Goal for CE

SHOULD BE THE OVERALL GOAL FOR EVERYONE!!

Our Current Given Circumstances:

- We know that the legislature is actively making it harder for CE students who do not wish to transfer, and the incentivization of the college / district is encouraging transfer level English and Math, because the reward is greater for those students…
- While simultaneously, we know that CE students ranks are skewed disproportionately towards our traditionally underserved & systemically marginalized communities…
- AND that training a CE student costs the college significantly more than it does to prepare a student for General Education Transfer (smaller classes, more equipment, specialized instruction, etc…)

The Task:

- How can we adapt CE curriculum pathways to fit within new legislation; without requiring our students to take coursework that is not actively beneficial to their career pathways, “When will I ever use this in my job?”
- How can our colleagues in English and Math adapt the curriculum (not change the COR) to be more content aware to different CE Disciplines?
  - Ex: Technical Writing for HVAC or Transfer Level Math examining equations used in common welding

Next Steps

- BrandIQ will recap the retreat and send it out to attendees
- BrandIQ and steering committee will recap and develop the two leading project ideas
- The Attendees and Steering Committee will examine outcomes and make recommendations to LARC for future funding in Round 7
- Commitment to share Executive Summary of outcomes at a curriculum committee, CTE meeting and or Senate meeting
- Planning for a retreat next year in the desert

LARC Faculty Curriculum Innovation Hub
Fall Retreat

Lead Ideas for Round 7

LARC Faculty Curriculum Innovation Hub Cross Discipline CTE/GE Partnership

Top Idea #1 **Cross Discipline Contextualization of English and Math in priority CTE pathways**

The Problem or Motivation for this project

With the passage of 1705 and 928, together,

- A student is automatically placed into the ADT Pathway in the discipline they select, even if there are faster, cheaper, and better options for the career path they wish to pursue, unless they check a box saying they want to be on the certificate pathway.
- A student who wants to be on that certificate pathway, is automatically enrolled in transfer level English and Math, because they didn't click the opt out box, and now they are taking a class they do not need, and spending time many of them do not have, to earn a grade (potentially negative grade) they do not care about.
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This is exacerbated by the Success Metrics on the SCFF:

- We know that the legislature is actively making it harder for CE students who do not wish to transfer, and the incentivization of the college / district is encouraging transfer level English and Math, because the reward is greater for those students…
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2 Year Goal for State

2 Year Goal for CE

1 Year Goal for State

1 Year Goal for CE

SHOULD BE THE OVERALL GOAL FOR EVERYONE!!

LARC Faculty Curriculum Innovation Hub Cross Discipline CTE/GE Partnership

Cross Discipline Contextualization of English and Math in priority CTE pathways

Description

Developing Contextualization of Math and English specifically for priority CTE pathways. For example, English and Math for Welders.

Develop a new approach in teaching English and Math without recreating old systems of teaching it. Examine 2-3 different best-in-class new ways to teach models that could include competency-based learning and project-based learning. Consider a module approach.

Assess CTE occupational areas that could form clusters of similar English or Math skill mastery to create efficiency. This is potentially accomplished by developing applied modules by industry.

Also, develop relationships with non-credit and dual-enrollment to develop potential best-in-class solutions that could involve either or both approaches.

Develop the spirit of Masters level degrees, but with community college level skills.

To further encourage regional equity, examine and develop on-line or partially tech enabled.

Challenge

Need to solve for apportionment $$ issues

LARC Faculty Curriculum Innovation Hub Cross Discipline CTE/GE Partnership

Cross Discipline Contextualization of English and Math in priority CTE pathways

Activities

- Work with Deans and faculty at a convening to assess CTE programs and estimate the highest risks for students upon implementation of 1705/928. Use partnership with COE to help inform these decisions.
- Select priority pilot programs and add 1 sector, that is the most dynamic in LA, the “creative economy”
- Recruit and engage relevant employer partners
- Conduct research with employer partners hiring managers to identify English and Math technical and soft skills desired, and how these skills manifest themselves behaviorally on the job
- Conduct convenings/learning labs with English and Math faculty joining with employer partners, work force boards and counselors to flush out the implications to drive the new learning
- Partner with COE to develop a way to effectively measure results
- Identify and assess best-in-class new teaching models for pilot application for this CTE Industry Cluster Applied Math and English new curriculum modules
- Create a framework, and playbook for all 19 colleges on how to develop a plan and execute it, in any CTE program
- Share with ASCCC as a best-practice

LARC Faculty Curriculum Innovation Hub Cross Discipline CTE/GE Partnership

Cross Discipline Contextualization of English and Math in priority CTE pathways

Additional Preliminary Thinking On Creating Efficiencies

- The goal if doable, is to generalize the courses, as much as possible for industry/CTE/clusters instead of writing individual courses for each discipline/department.
- For example, with the transfer level English course, it seems like we would get the most bang for our buck if we simply took the framework for the current transfer level English course and reworked it around technical reading and writing for Industry.
- This way the requirements as far as problem solving, reading comprehension and critical thinking stay the same but the content is modified to feel more applicable to CTE students. More focus can be on the approach to teaching it to ensure student comprehension among all students, including our most vulnerable populations.
- The same thing can be done with transfer level math classes. By simply taking them out of the realm of theory, and making them an applied mathematics course. We can use the same math courses that are already being taught, but rework/reimagine them around the applications.
- Once again, this mathematics class could potentially NOT have to be industry specific, and can draw on examples from many different trades, and how they apply mathematics in the work they do.
- Applying better context and applicability to the courses that are already offered could drastically improve the interest level, success rates, and completions of students enrolled in CTE programs and may draw students that are not TE specific that are looking for a more practical application of both math and English.
- We will partner with COE to prove these hypotheses through accurate measurement and tracking

LARC Faculty Curriculum Innovation Hub Cross Discipline CTE/GE Partnership

Top Idea #2 **"Los Angeles E-Tech" (Engineering Technologies)**

The Problem or Motivation for this project ***Engineering LA's Future***

- Climate change is having a profound effect on life in Los Angeles. Significant behavioral changes and infrastructure is already changing dramatically in response to this. Water, fire, sea level rise, food production.
- Growth in engineering in new economies that are highly relevant to life in Los Angeles
- This project ties high growth certifications in engineering, but in new fields that will allow them to work in something they can be skilled in, earn middle wages, but also enable them to follow their PASSIONS in things that are unique to LA
- Field will only increase in demand with even sizable SUB-BA demand

Description

- This program leverages, optimizes and then scales programs that already exist at some select colleges like SMC and ECC
- It produces quick entry into the field and then creates good springboards into many other adjacent areas with ever increasing skills and pay
- Examples of Engineering Tech Focus:
  - Car Culture – Automotive – EV – Hydrogen -Alt Fuels
  - Creating New Buildings – Construction/Architecture – New Materials, Solar
  - Ocean – Harnessing and protecting the ocean – Aquaculture, Bluetech
  - Water Resources –
    - Hydrology and Agriculture tech
    - Water Resource Management tech
    - Drought and Fire resistance Resilience tech
    - Desalination tech
    - Hydro Electric plant tech
    - Drought resistant landscape/horticulture
    - Repair, maintenance and operation of fruit and vegetable picking robots in indoor vertical farming
    - Automation in robot maintenance and repair

***Note*:** Information Technology (IT) underpins all sectors and could be cross cutting

LARC Faculty Curriculum Innovation Hub Cross Discipline CTE/GE Partnership

Top Idea #2

"Los Angeles E-Tech" (Engineering Technologies)
Engineering LA's Future

Description

- Urban Farming
  - Not everyone has green space, but everyone has space
    - Another layer could be urban gardens, composting and biodegradable
    - No one knows where their food comes from? K-12 program
    - This meets new legislation
    - Connects to landscape architect degree

LARC Faculty Curriculum Innovation Hub Cross Discipline CTE/GE Partnership

“Los Angeles E-Tech” (Engineering Technologies)
Engineering LA’s Future

Activities

Assess CTE programs

Which colleges have programs and are interested in participating, to amplify what they are doing to build the next stage of the program for scalability across 19 colleges

Create a Regional Workforce Alliance

Partnerships established with CBOs, workforce boards, Labor Unions, employers; Leverage and advance existing job development activities; Provide advisement, guidance, and collaboration. A potential lead partner is Southern California College Action Network and coalition of 70 non-profits with after school schools programs trying to educate kids on bright career options.

Opportunities

High demand employment opportunities with industry leaders and small and large businesses; Employment with career pathways and family sustaining wages; Business attraction, retention, and expansion support.

Workforce

Focus on reaching historically underserved populations and communities of color, women, and other groups facing labor market barriers such as persons with disabilities, opportunity youth, individuals in recovery, re-entering citizens, veterans, and minorities; Supportive services offered to participants to overcome barriers to participate (e.g., career coaching, resume building, job placement).

LARC Faculty Curriculum Innovation Hub Cross Discipline CTE/GE Partnership

"Los Angeles E-Tech" (Engineering Technologies)
Engineering LA's Future

Activities Details

- Conduct convenings with faculty, employer partners
- Identify and assess best-in-class new teaching models for pilot
- Conduct research with employer partners hiring managers to identify English and Math technical and soft skills desired and how these skills manifest themselves behaviorally on the job
- Develop cross-disciplinary convenings/Learning Labs to educate, create buy in, and build innovative new trials with a couple key apprenticeship programs as pilots in these high-growth develop apprenticeships and pre-apprenticeships in the LA Etech. Participants are faculty, counseling, Deans, key employer partners and workforce boards.
- Also, create Work-based learning built as electives within curriculum as non-credit
- Create curated knowledge and partner with LAVC and WLA to creatively archive all frameworks built and record all key presentations, etc
    - Chancellor's Office
    - LARC
    - LARC Website
    - Each college

Top Idea #3

Perkins core indicator reduction initiative -----faculty Innovation Hub driven - locally executed,

- Create Perkins **COMPREHENSIVE LOCAL NEEDS ASSESSMENT (CLNA)** reporting synthesis to identify regionally where the largest gaps exist in the core indicators measuring **completions, retention, placement and non-traditional participation** including *Perkins special populations data and ethnicity, gender, and retention of these groups*.
  - Aggregate all District's core indicator and aggregate this
  - Examine all college's core indicator
  - Overall Gap Across all Programs
    - Including soft skills/employability skills (starting in early grades, designed for special populations)
- Faculty professional development through Hub activities to convene faculty and counseling from the 19 colleges:
  - to inform
  - have faculty weigh in on implications
  - create faculty driven solutions around completions and retention
  - have them collaborate in convenings with stakeholders on placement and non-traditional participation including Perkins special populations
  - Partner with LAVC and WLA to record and help curate the knowledge and frameworks for later use at Chancellor's office, LARC and Local colleges
  - Workshops/Learning Labs to help faculty leaders facilitate local workshops where they can share the data, facilitate workshops that involve discussions, and local problem solving using "results" frameworks to get local faculty leaders to take action commitments to improve gaps. Those ideas then get brought back to the HUB for synthesis and implementation guidance for the region improves and then goes back again to local colleges as phase 2 implementation begins again.