

February 2019

LA Area Community Colleges at a Crossroads

A MARKET ASSESSMENT AND CALL TO ACTION

LAEDC

FOREWORD

LA Area community college enrollment levels are experiencing downward pressure challenges due to increased competition, fluctuating perceptions, shifting learner demographics and fast-changing employer demands. This report delivers insights and enabling actions to address these challenges and exploit the opportunities brought on by these trends, together with recommendations about the “product”, target populations and the marketing of the product to those target populations, to help LA’s community colleges remain relevant and preferred.

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This report was funded through the California Community Colleges

Every reasonable effort has been made to ensure that the data contained herein reflect the most accurate and timely information possible.

Additional documents available with content from four workshops with LA Area community college leaders, including faculty, school administration leaders, deans, vice presidents, and presidents.

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Purpose of this effort

The Los Angeles (LA) Area community colleges¹ represent a vital part of the education and talent development landscape, educating more than half a million post-secondary students across LA County. But, the pace of change outside of the community college system threatens its future viability as the first choice for post-secondary students and adult learners. Exacerbating matters, automation and other capital-labor substituting technologies, such as artificial intelligence (AI) and robotics, could put tens of thousands of workers in the LA Area at risk of dislocation and of not having the skills they need to be reabsorbed and succeed in the new economy, putting more pressure on the community college system and broader LA Area economy as many of these workers will consider attending community college to retrain and upskill in the coming years.

At the same time that this future bears down on us, community college enrollment is declining amid competition from an increasingly complex landscape of traditional and non-traditional education providers, which are competing with and, in a number of cases, outperforming community colleges in terms of marketing to and attracting key learner segments. Now is a critical moment for the LA Area community colleges to adapt to the changing landscape of education and the future of work in a way that better serves LA's learners, that meets the changing labor market demands of industry and that addresses declining enrollment levels. Make no mistake, if the pace of change outside of the community colleges continues to outpace the rate of change within the LA Area community colleges, then, as Jack Welch² famously cautioned, “the end is near.”

Summary of the work

A collaboration between the Los Angeles County Economic Development Corporation (LAEDC) and LA Area community colleges achieved five key objectives:

1. Assessed the value proposition, key differentiators and market position of LA Area community colleges
2. Identified important trends, threats and opportunities affecting the LA Area community colleges
3. Developed a preliminary set of potential short-term “enabling” initiatives for LA Area community colleges to adapt to the future of work and fast-changing education and training provider landscape
4. Developed a high-level path forward, with guiding principles, for achieving these enabling initiatives
5. Convened a group of LA Area leaders to share and further refine key findings

“Today the pace of change has never been faster, and at the same time it will never again be this slow.”

TIM WELSH, Vice Chairman–Consumer Banking Sales and Support, US Bank³

¹ Includes: Cerritos Community College District; Citrus Community College District; Compton Community College District; East Los Angeles College; El Camino Community College District; Glendale Community College District; Los Angeles Community College District; Los Angeles City College; Los Angeles Harbor College; Los Angeles Mission College; Los Angeles Pierce College; Los Angeles Southwest College; Los Angeles Trade-Technical College; Los Angeles Valley College; Mt. San Antonio Community College District; Long Beach Community College District; Pasadena Community College District; Rio Hondo Community College District; Santa Monica Community College District; and West Los Angeles College.

² Former Chairman and CEO of General Electric (“If the rate of change outside exceeds the rate of change on the inside, the end is near.”)

³ LAEDC 2019 Economic Forecast, February 20, 2019

Executive Summary

"Community colleges need shorter-term, more industry precise programs that eliminate prerequisites and course sequencing."⁴

Adult High School Diploma Holder

Trends

This report identified four key higher education and workforce trends, which are directly impacting LA Area community colleges and, as such, should be considered as principal drivers of a future strategy:

1. Shifting demographics and learner segment beliefs
2. Changing labor market conditions and automation
3. Shifting economics, business models and training provider landscape
4. Broader utilization of technology to transform learning

Threats

As a result of these trends, LA Area community colleges face a number of imminent challenges, including:

1. Challenges to enrollment—both today and in the future, and increasing challenges meeting diverse learner needs both inside and outside the classroom
2. Challenges with the product delivered to employers—a key constituent, as many learners are graduating unprepared to work on day one
3. Challenges with new entrants into higher education that employ more labor market-adaptive business, financial and programmatic models, which are targeted towards and enticing to key learner segments, especially adults
4. Challenges with absorbing new technologies into the full student experience—from recruitment and application to enrollment and class selection to instruction—that are accelerating the pace of change more rapidly than before and motivating learners to demand new classroom experiences

⁴ Focus Group: Adult High School Diploma Holders, Atkins Research Group (February 13, 2019).

Opportunities

Although LA Area community colleges face many challenges, these threats also represent opportunities if the LA Area community colleges can responsively address them. To this end, this report recommends four types of potential interventions:

1. Upgrade the end-to-end student experience by better responding to student needs (and desires) throughout the student journey, from before enrollment through completion and job placement
2. Improve perceptions of community colleges through targeted outreach and marketing, especially targeting growing learner segments, i.e., adults, as well under-tapped communities with more flexible and “life-adaptive” training and education options
3. Address labor market readiness through employer-education linkages to ensure learners are graduating with the skills they need to be successful in the workforce of tomorrow
4. Foster a culture of innovation through strategic partnerships and internal reforms to create the enabling conditions for collaborative, cross-institutional change at the regional level

The LA Area community college leaders that convened during this effort articulated a shared vision for a new paradigm across the above four intervention categories; one characterized by enhanced innovation and cross-institutional regional collaboration. To achieve this vision, LA Area community colleges will need to implement many new initiatives both at the campus-level and collectively across the region.

Initial recommended “enabling” actions

As a starting point, this report identifies potential “enabling actions” that can build momentum for longer-term change across the above four intervention categories. Although each campus will be at a different starting point for these and similar initiatives, this report details a high-level implementation path forward for the following recommended “enabling actions”:

1. Expand the use of advanced analytics to identify early “pain points” in the student journey to address problems such as enrollment, dropout, persistence and completion
2. Conduct market research to understand learner beliefs and preferences (including the right channels) for key target segments, i.e., adult learners
3. Form a regional labor market partnership focused on curriculum development and employer partnerships in one to three fast-growth occupations that have traditionally been “neglected” by community colleges
4. Stand up or identify a regional entity as the relational infrastructure to act as a convener and decision-maker for regional collaborations across priority intervention areas

These potential “enabling actions” are only the initial steps towards a longer-term, system-wide transformation. To support ongoing and allied reform efforts, this report also suggests following a set of guiding principles, which are detailed further hereunder, that can help support implementation and mitigate common pitfalls.

Market research
defining what is
at stake

Higher education and workforce trends impacting community colleges

There are four key higher education and workforce trends impacting LA Area community colleges that should be considered as key inputs to a future strategy.⁵

-
- 1 Shifting demographics and beliefs**
 - The number of high school graduates in LA is flat, and there are corresponding declines in undergraduate enrollment.
 - Undergraduates are increasingly more ethnically and socioeconomically diverse, especially due to a growing Hispanic population.
 - Learners are increasingly choosing 4-year degrees.
 - 2 Changing labor market conditions and automation**
 - Structural changes in the labor market are increasing the need for lifelong learning, e.g., in California automation has the potential to disrupt 6.7M jobs. Key low-automation potential growth sectors include health care and Information Technology.
 - New soft and technical skills are needed to succeed in the labor market of the future, but 60 percent of employers agree that college graduates currently lack these skills.
 - 3 Shifting economics and competitive landscape**
 - Community colleges are competing with online and for-profit institutions, as well as nontraditional education providers, for key learner segments, including adults.
 - To demonstrate the return on investment (ROI) of degrees, institutions are innovating with shorter, more flexible, online and blended programs.
 - 4 Transformation of learning through technology**
 - More students (35%) are taking online courses and are utilizing online learning options for self-improvement and specialized skill development, e.g., coding.
 - Technology is enabling improvements across the end-to-end student journey, e.g., data collection and analytics are allowing for more personalized, self-directed learning journeys.

⁵ These trends were developed through interviews with higher education leaders, policy makers, individuals and business leaders nationally, and then applied to LA County's unique circumstances and trends.

1. Shifting demographics

Fewer young people

Over the last five years, the number of high school graduates in LA is flat, and that number is likely to stay flat because the population of under-25-year-olds is projected to stay constant or decline through 2025 due to lower replacement rates and an aging population. (Appendix Fig A.)

Correspondingly, undergraduate enrollment is expected to remain flat, or even decline in the future,⁶ as the California Department of Finance projects (Fig 1), unless high school graduation rates improve, superseding these demographic trends and causing the number of high-school graduates to rise.

LA's learners are more diverse

The composition of enrollees is becoming more ethnically and socioeconomically diverse over time, with the number of Hispanic high school graduates projected to grow by one percent (1%) annually. Already, Hispanic learners make up nearly half of all enrolled undergraduates in LA and are also the fastest-growing undergraduate segment, growing four percent (4%) annually. Currently, three quarters of Hispanic undergraduate learners go to LA Area community colleges. (Appendix Figs A, B.)

⁶ It should be noted that adult learner enrollment in for-profits is growing 3% annually but these institutions have only 4% of the adult learner market.

Undergraduate enrollment is likely to stay flat or decline

Overall, first-time undergraduate enrollment in the LA Area is declining three percent (3%) annually due primarily to demographic shifts, as described above.

While community colleges currently have 63 percent market share of undergraduate enrollments in LA, this is down four percentage points from 67 percent in 2008-09 and declining at the same rate as overall undergraduate enrollments (3%) annually. (Appendix Fig C.)

Conversely, public 4-year institutions are growing three percent (3%) annually; however, this growth is likely to plateau due to capacity constraints at University of California (UC)/California State University (CSU) campuses.

FIGURE 1

| | Annual growth rate, LA high school graduates | Projected # of high school graduates in LA 2026-27* |
|--|--|---|
| Projection through 2026 Based on historical growth from 2011-12 to 2016-2017 | - 0.1% | 103,064 |
| DoF projection 2015-16 to 2026-27 | - 1.3% | 90,799 |

* The historical growth rate projection is created using the growth rate in high school graduates in LA County between 2011-12 and 2016-17 and applying it through 2026-27. The DoF growth rate projection is taken from the DoF Public K-12 Graded Enrollment and High School Graduate Projections by County

SOURCE: CA Department of Finance; CA Department of Education

For-profit institutions operating in LA are declining at 10 percent annually, and their market share has dropped two points from six percent (6%) to four percent (4%) since late-2008.

At the same time, fewer adult learners are enrolling in higher education, as enrollment for this segment has declined one percent (1%) annually since 2009-10, likely due to a tightening labor market. Although adult learner enrollment in community colleges is declining, community colleges still have 80 percent of the adult learner market in the LA Area.

This adult learner segment may grow in importance as the population ages, during a recession, as more incumbent worker-learners return for reskilling and additional retraining, or as automation displaces a significant number of adults from their jobs, leading more adults back to school.

More students are eligible for and choosing 4-year degrees

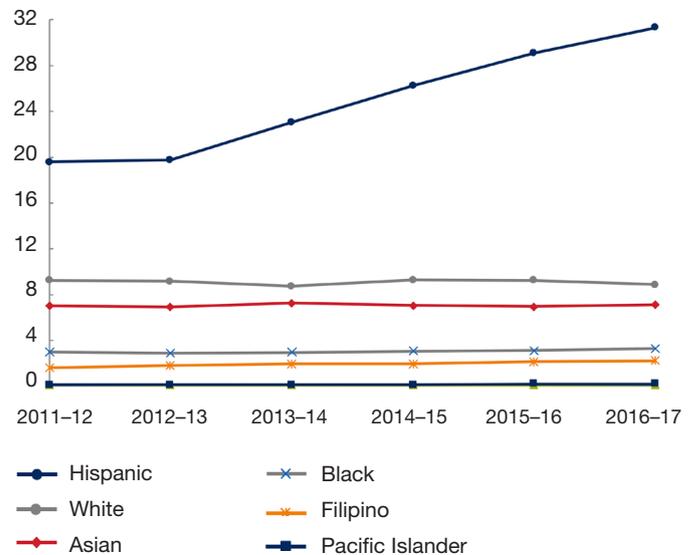
While community colleges still control three-quarters of the young learner market, young learners (those under age 25) and Hispanic learners, in particular, are increasingly A-G eligible and are choosing to enroll directly in UC and CSU institutions; in fact, A-G eligibility is growing four percent (4%) annually and Hispanic student eligibility is growing 12 percent annually (Fig 2). Eligibility is growing more modestly for other groups, e.g. Asian (1%), Black (3%), Pacific Islander (5%). Overall, enrollment in 4-year public and nonprofit programs is growing one to two percent (1-2%) annually. Fewer young undergraduates are choosing for-profit institutions, with enrollment declining two percent (2%) annually. (Appendix Fig D.)

Although four of the top seven colleges in California for Associate degrees are in LA County, less than half of the students who show intent to transfer from LA Area community colleges make it to a four year institution. This fact, together with the shift toward 4-year degrees, suggests that community colleges have an opportunity to attract more young learners and Bachelor's-aspiring Hispanic students, in particular, by improving transfer pathways. (Appendix Fig E.)

FIGURE 2

A-G eligible high school graduates in LA County by race/ethnicity

Number of graduates, thousands



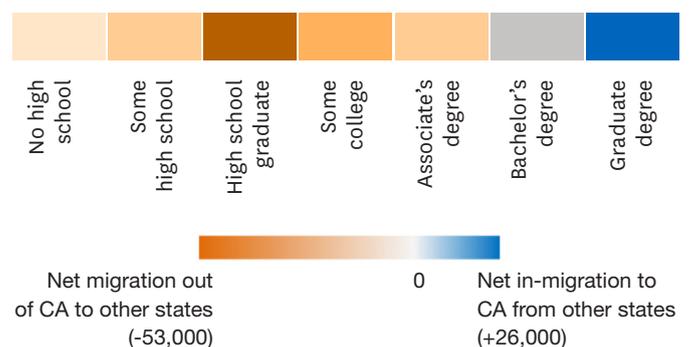
SOURCE: California Department of Education

Migration patterns are unfavorable to community colleges

Target learners for LA Area community colleges are increasingly migrating out of California. Out-migration is highest for individuals age 25 and over with high school or some college, due to the high cost of living, while in-migration is highest for individuals with graduate degrees (Fig 3).

FIGURE 3

Migration between California and other states by education 2007-2016 (Population Over 25)



SOURCE: California Legislative Analyst's Office

2. Changing labor market conditions and automation

The LA Area labor market, similar to the rest of the nation, finds itself amid great technological upheaval. The “digital revolution” is radically altering almost every aspect of labor, with information technologies, automation, robotics, AI, machine learning, internet of things and ever more powerful computers changing the nature of work, the need for labor, the organization of firms, and the rewards that workers now earn. Pillars of past economic success, such as solid middle-income jobs, are giving way to an LA Area economy based on mechanization, outsourcing, temporary or contract working relationships, and low-wage, low-skilled service sector jobs.

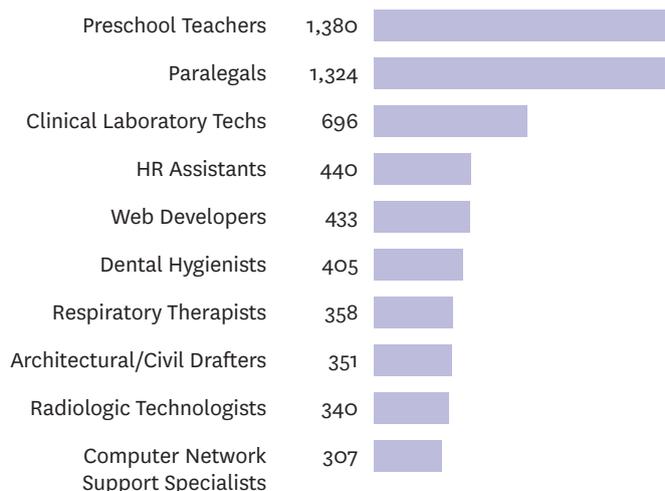
Key sectors and occupations in LA are shifting

In the LA Area, many production-related jobs are declining, while sectors such as health care, hospitality, retail, information technology (IT) and professional services are growing. Of the LA Area’s fastest-growth industries, health care will create the most jobs, and IT-related occupational categories will have the highest earning potential. Overall, the top growth occupations include preschool teachers, paralegals and lab technicians, with the greatest number of job openings for people with Associates degrees in health care (Fig 4). (Appendix Fig F.)

FIGURE 4

Top occupations by expected annual job openings for occupations requiring an Associate’s degree in LA, 2017-2027

Number of annual job openings



SOURCE: EMSI

Automation and other work trends quickly affecting the future of work in LA

The labor-technology substitution trend due to automation and robotics, along with AI and machine learning, is expected to accelerate over time as continued innovation allows the capabilities of machines to surpass the productivity of humans in many tasks, while the cost of technology will continue to decline markedly over time. For these reasons, automation and robotics have the potential to displace a significant percentage of predictable physical and cognitive job activities, as the “disaggregation” of job functions continues, with

the skilled tasks of jobs becoming increasingly more skilled and thus more highly rewarded, and the lower skilled, more routine activities of a job becoming automated. This trend is quickly increasing the need for lifelong learning. (Appendix Fig G.)

In the LA Area, up to 165,000 workers in occupations requiring an Associate degree may be displaced due to automation and other capital-labor substituting technologies by 2030 (Fig 5). Health care and IT occupations are attractive training targets, as they are

FIGURE 5
Associate degree-level occupations at risk of displacement due to automation by 2030

| Sector/occupation | LA employment (# projected for occupations requiring an AS degree, 2030) | Up to the following number of jobs could be impacted by automation in 2030 (# projected, 2030) |
|-------------------|--|--|
| Health care | 364,319 | 65,766 |
| Admin & support | 92,901 | 20,721 |
| Prof services | 84,011 | 24,118 |
| Manufacturing | 80,412 | 26,651 |
| Retail | 47,538 | 14,030 |
| Transportation | 26,165 | 8,302 |
| Food services | 25,924 | 5,823 |

SOURCE: McKinsey Global Institute analysis

both fast-growing and have low automation potential. Alternatively, occupations in other large growth industries in LA, such as hospitality, food services, transportation, retail and professional services, may be less attractive because they have high automation potential. (Appendix Fig G.)

Automation will shift skills required in the LA Area labor market away from an increasing number of predictable / routine physical activities toward both ‘soft skill’ competencies (i.e. social and emotional proficiency) and technological skills, which presents an opportunity for LA Area community colleges to train, retool and/or upskill learners in these key competencies of the future (Fig 6).

Shift towards more independent earners

Approximately 55 percent of employed people in the LA Area are “independent earners,” and the majority of them are in their occupations by choice and use these jobs as a primary source of income. An independent earner is defined as someone who chooses how much to work, when to work, moves between jobs fluidly, and typically has multiple employers, assignments, or clients over the course of a year. They can include the self-employed, independent contractors, freelancers, business owners and temporary workers (including those assigned through temporary staffing agencies).

Given the growing importance of “gig economy” occupations, LA Area community colleges may need to train learners in competencies and skills specific to independent work.

FIGURE 6
Projected skills shifts in occupations in major LA industries

Change in number of hours spent by people in industry occupations, 2016-2030

| Industry | Basic cognitive skills | Higher cognitive skills | Physical and manual skills | Social and emotional skills | Technological skills |
|---------------------------------|------------------------|-------------------------|----------------------------|-----------------------------|----------------------|
| Accommodation and Food Services | -2% | -3% | -4% | 1% | 8% |
| Administrative & Support | -5% | -1% | -3% | 4% | 4% |
| Health care | -3% | -1% | -1% | 3% | 2% |
| Manufacturing | -2% | 2% | -11% | 3% | 8% |
| Professional Services | -4% | -1% | 0.3% | 3% | 2% |
| Retail | -4% | -0.1% | -9% | 3% | 9% |
| Transportation | -1% | -0.2% | -9% | 5% | 5% |

SOURCE: McKinsey Global Institute analysis

3. Shifting economics of education and training provider landscape

LA Area community colleges compete with six main competitors (also potential partners) both in key learner segments (i.e., younger students and adults) and for industry relationships (Fig 7). Traditional competitors (and partners) and new entrants are

disrupting the training provider market and targeting the two primary learner segments: younger students and adult learners, critical to the marketplace competitiveness and the financial future of LA Area community colleges.

FIGURE 7
Six Main Competitors to LA Area Community Colleges

| Competitor archetype | Description | Target learner segment | Competitive Threat | Examples | |
|---|---|---|---|--|---|
| TRADITIONAL HIGHER EDUCATION INSTITUTION | 1. Online | Large online institutions providing AS/ certificates through Bachelor's degrees | <ul style="list-style-type: none"> Adult learners | Medium/High: Rapid enrollment growth for adult learners is a threat given likely future importance of adult learner segment due to the future of work and need for lifelong learning and reskilling | WGU Southern New Hampshire University (snhu.edu) |
| | 2. Out-of-state, public | Out-of-state 4-year public institutions, often offer in-state tuition matches for CA undergraduates | <ul style="list-style-type: none"> Recent high school graduates | Low: As UC/CSU institutions turn students away due to lack of capacity, out-of-state institutions are offering financial incentives to CA learners; currently small but growing segment enrolls | ASU University of Nevada |
| | 3. For-profit | 2- and 4-year for-profit institutions, largely LA-based | <ul style="list-style-type: none"> Adult learners Recent high-school graduates | Low/Medium: Overall for-profit institutions are declining in LA, but key players are growing rapidly and are strong in some fast-growth sectors (e.g., health care) | American Career College Brightwood College |
| | 4. In-state, 4-year | UC & CSU institutions | <ul style="list-style-type: none"> Recent high school graduates | Low/Medium: As A-G eligibility improves, more high school grads will be eligible for UC/CSU. LA Area CCs can be complementary to public 4-year institutions by improving transfer pathways | CSU University of California |
| 5. Nontraditional education provider | MOOCs, bootcamps, short-term skills training/certification, nanodegrees | <ul style="list-style-type: none"> Adult learners | Medium: Gaining traction, but currently supplementary to traditional degrees and target higher-skilled professionals. Threat will grow if recognized by more employers | Lynda.com Coursera Udacity | |
| 6. Employer | Employers who hire students directly out of high school | <ul style="list-style-type: none"> Recent high school graduates | Low: Likely the most cyclical based on health of job market. With automation, more working learners will need to return to school while employed | Starbucks Costco | |

At present, **online institutions** competing for adult learners pose the greatest competitive threat to area community colleges due to rapidly expanding enrollments and the growing importance of the adult learner segment (Figs 8, 9). And, while LA Area community colleges still educate a supermajority (80%) of the adult learner segment, they have lost four points of market share since 2010, very likely due to online programs (Fig 10).

FIGURE 8
Online undergraduate enrollment
Number of undergraduates, thousands

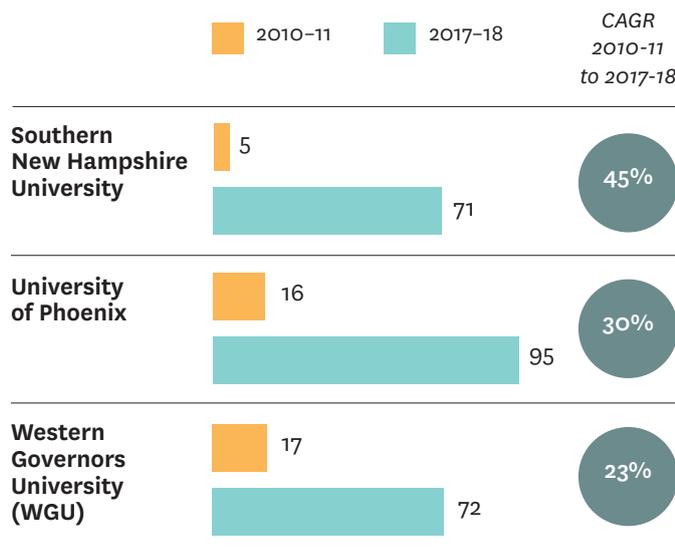
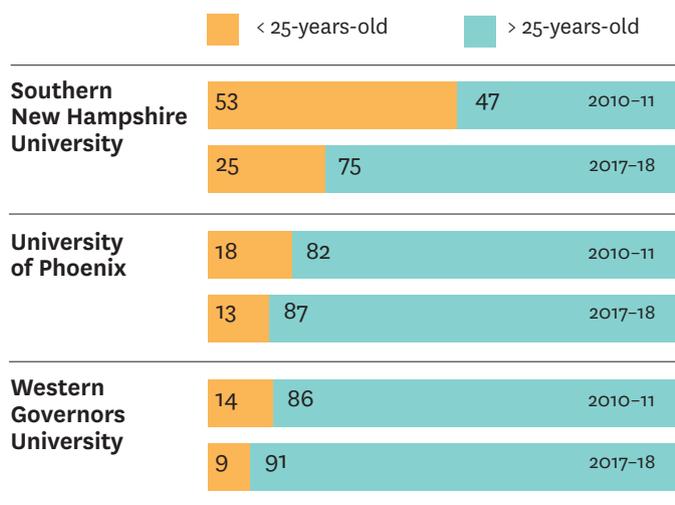
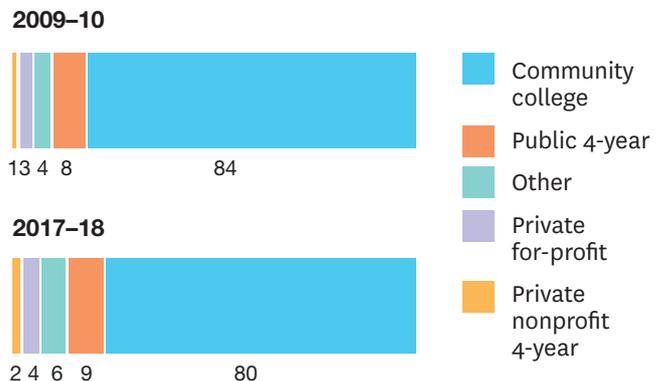


FIGURE 9
Online undergraduate enrollment by age
% total undergraduates



SOURCE: IPEDS

FIGURE 10
Market share by institution segment for undergraduate learners >25-years-old in LA
Number of undergraduates, thousands



SOURCE: IPEDS, DataMart

Out-of-state public institutions are capitalizing on capacity challenges in the UC and CSU systems, taking market share and growing enrollment by offering tuition guarantees to California residents. To date, the local impact of these programs is small, but a growing segment of state and local undergraduates are taking advantage of these special tuition discounts at out-of-state institutions. For example, the Western Undergraduate Exchange is a group of 160+ 2- and 4-year institutions across 16 Western states/territories that have committed to providing non-resident tuition discounts across state lines, with students paying no more than 150 percent of in-state tuition.

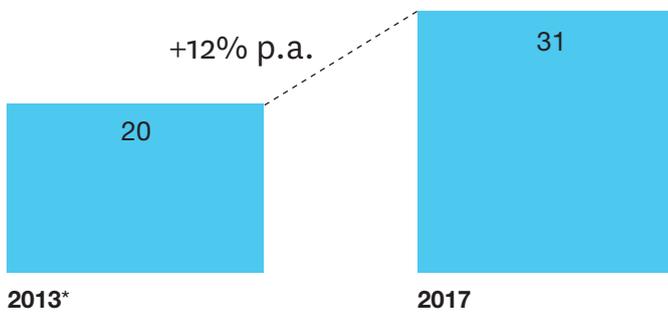
For-profit institutions are becoming less of a threat over time but warrant continued attention. Although the segment overall is declining, a handful of players in key, fast-growth industry sectors, such as health care and technology, have the potential to take market share if their industry relationships, industry-relevant and -recognized courses and programs, and job placement figures continue to improve. (Appendix Fig K.)

In conclusion, if “demographics are destiny,” then the trend of a shrinking pool of potential undergraduate students in the future, coupled with the fact that the LA Area community colleges are losing market share to other competitors, indicates that any reversal in the current downward trend in student enrollments at LA Area community colleges will need to come through direct and targeted market-place intervention.

In-state, 4-year colleges, such as UCs and CSUs, are attracting more qualified younger students, as A–G eligibility rates rise for high school graduates. However, as stated above, due to capacity constraints at UC/CSU campuses, they are unlikely to be a major competitive threat in the short-run (Fig 11).

FIGURE 11
UC/CSU will be unable to absorb growing demand

Number of eligible students turned away at CSU campuses, thousands



* Estimated

SOURCE: California Department of Education; PPIC

Alternative education providers are gaining traction and will become a “competitive threat” if they start to supplant traditional degrees. MOOCs, “boot camps,” and other low-cost, online alternatives may be especially attractive to learners, especially adult learners looking to upskill conveniently and rapidly on discrete tasks. Examples of alternate education providers include General Assembly, Udacity, Revature, Salesforce and Deloitte (Fig 12). (Appendix Fig L.)

In a “full employment” economy with tight labor markets, **going direct to industry** is currently an enticing option for many students who choose to forego higher education and enter the workforce straight out of high school, perhaps receiving on-the-job training from an employer in lieu of more institutionalized and traditional sources of education and training. This is an important target population segment for the LA Area community colleges; for example, the 7,000 students who did not attend college from the LA Unified School District (LAUSD) alone in 2016 represent an \$8.5 million [lost] tuition opportunity for LA Area community colleges.

FIGURE 12
Examples of alternate education providers

| Provider | Description | Traction |
|---|--|---|
|  UDACITY | <ul style="list-style-type: none"> ■ Nanodegrees in AI, Natural Language Processing, Data Science ■ ~\$2,000/course | <ul style="list-style-type: none"> ■ Used by IBM New Collar Initiative ■ 200+ employer partners globally ■ Some employers offer fast-track hiring to graduates, e.g., DiDi |
|  REVATURE | <ul style="list-style-type: none"> ■ Intensive coding immersion program develops software engineers ■ Free for participants (employers pay for graduates) | <ul style="list-style-type: none"> ■ \$20M series A (2016) ■ Graduates placed with ~100 employers |
|  salesforce | <ul style="list-style-type: none"> ■ Pathfinder program provides training and accreditation necessary to be positioned for high paying jobs as Salesforce Administrators and Salesforce Developers ■ Participants receive 4 months of technical training and support both online and in-person | <ul style="list-style-type: none"> ■ Launch in Indianapolis and partnership with Ivy Tech Community Colleges ■ Plans to expand to other cities |
|  Deloitte. | <ul style="list-style-type: none"> ■ Free for participants ■ Deloitte provides supplementary business training | |

SOURCE: Forbes; Company websites

Shifts in training provider landscape for fast-growth industries create opportunities

LA Area community colleges have a majority share in training markets for occupations in fast-growth industries, but there is still opportunity for improvement in some fast-growing, low-automation

potential industry sectors, such as the health care and IT sectors (Fig 13). In highly fragmented training markets, LA Area community colleges have an opportunity to take market share in these two sectors from for-profit campuses either with declining enrollments or that are closing.

FIGURE 13

Share of market for granting AS/Certificates*

Percent, 2016-17

| Industry | Share of market for granting AS/Certificates* | | | Number of new jobs in County | |
|--------------------------|---|------------------|---------------|------------------------------|----------------------|
| | Community college share | For-profit share | Other share** | (thousands 2017-23) | Automation potential |
| Manufacturing | 93% | 6% | 1% | -53 | 60% |
| Professional Services | 88% | 9% | 3% | 9 | 35% |
| IT | 72% | 17% | 11% | 19 | 36% |
| Health care | 68% | 20% | 13% | 152 | 36% |
| Administrative & Support | 67% | 29% | 3% | 7 | 39% |
| Retail | 65% | 28% | 7% | 9 | 53% |
| Accommodation and Food | 24% | 76% | 0% | 59 | 73% |

■ >60% market share ■ <40% market share

* Includes private nonprofit institutions and <2-year public institutions

** Numbers may not sum to 100% due to rounding

SOURCE: IPEDS; US Bureau of Labor Statistics; EMSI



4. Transformation of learning through technology

Technologies, such as: online learning; advanced analytics; adaptive learning; AI; and blockchain, have disruptive and/or transformative potential both inside and outside the classroom. For this reason, higher education institutions have been quickly adopting and deploying new technologies to deliver lessons and to streamline institution operations and outreach, such as alumni engagement. And, venture capitalists have taken notice with investment in “education tech” rising 45 percent per annum from 2012 to 2017 worldwide.

As patterns of personal consumption increasingly change, there is the potential for LA Area community colleges to expand their use of technology even more as learners will begin to expect and demand more interactive and flexible education experiences to match their experiences outside the classroom.

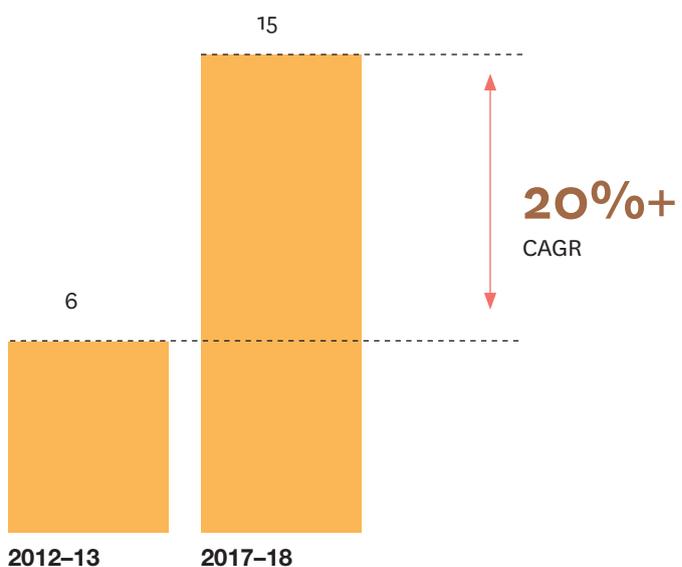
Of the many technologies with disruptive potential for higher education, these are five (5) with the greatest possibilities, along with how post-secondary institutions are beginning to lever these technologies:

1. Online learning in LA Area community colleges, though at a low baseline with only 15,000 students during 2017–18, has grown at approximately 20 percent annually over the past five years, substantially outpacing growth in distance learning nationally (*Fig 14*). (*Appendix Fig M.*)

FIGURE 14

Annual students enrolled in distance education in LA Area Community Colleges*

Number of students, thousands and CAGR



* Includes both credit and non-credit students in LA Community College District schools. Numbers are FTEs

SOURCE: DataMart

2. Personalized learning and adaptive courseware are transforming the traditional and digital classroom to meet each student’s unique needs (Fig 15). Benefits include personalized settings that allow students to tailor content to fit their learning styles, assessment feedback to ensure a

student understands concepts, and adaptive loops that explain concepts differently if a student doesn’t demonstrate understanding. Although many products show promising results, most still lack rigorous proof of impact (Fig 16).

FIGURE 15
Modernizing Courseware

Adaptive features of digital courseware

| | |
|----------------------------|--|
| Adaptive loops | <ul style="list-style-type: none"> Mapping concepts within a chapter then testing concepts intermittently to confirm a student’s understanding Displaying new content to explain a concept if a student does not demonstrate understanding |
| Assessment feedback | <ul style="list-style-type: none"> Determining which concepts a student does and doesn’t understand via assessments |
| Question generation | <ul style="list-style-type: none"> Creating permutations of questions automatically based on specific concepts in a chapter |

Other features of digital courseware

| | |
|------------------------------|--|
| Personalized settings | <ul style="list-style-type: none"> Providing levers to students that can be adjusted to fit their learning style altering content shown (e.g., more videos, fewer graphs, etc.) Customizing difficulty of questions shown in a study guide based on students desired grade |
| Interactive content | <ul style="list-style-type: none"> Showing objects that can be manipulated, giving a student the opportunity to participate in the learning experience |
| LMS integration | <ul style="list-style-type: none"> Providing single server login integration with LMS systems to track assignment completion Offering professors more detailed data on student performance (time spent on a chapter, areas of difficulty, etc.) (only in limited cases) |

FIGURE 16
Examples of Adaptive Courseware: Proof of Impact

Impact Assessment

PEARSON EDUCATION
Revel

- Limited rollout has prevented the amount of substantial analysis that can be conducted, though five non-independent case studies show significant impact (e.g., 15% test score improvement)

Pearson My Lab

- Marginally better performance (3% average) on tests for those using MyLabs compared to control group
- 70+ case studies where MyLabs lead to substantially higher outcomes, though many examples are not third party research*

MCGRAW HILL EDUCATION
Aleks

- Significant improvement over all other forms of learning (except tutoring) with largest gains by minority students
- Sustained outcomes achieved in experiment with HS students

LearnSmart Connect

- Evidence showed statistically significant half letter grade improvement in grades of those using LearnSmart in compared to control group in two of six universities taking part in study

CENGAGE LEARNING
MindTap

- Evidence shows up to 20% higher outcomes than control groups in a variety of studies, though methods are questionable
- Student and professor satisfaction was high in most studies identified with over 90% willing to recommend MindTap to others

* Positive results include 50% higher pass rate on tests, 20% more students remained in the class for the full semester (95% total retention)

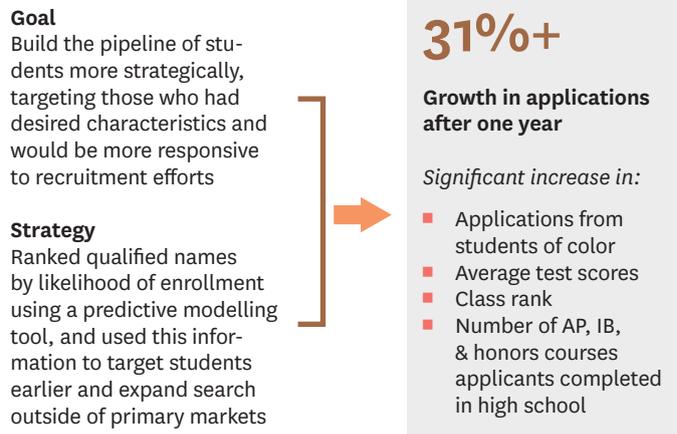
SOURCE: Independent research papers on adaptive/digital courseware, expert analysis

3. Advanced Analytics enable institutions to better deliver at all phases of the student journey, from strategically targeting potential applicants, to identifying at-risk students early for interventions, to improving post-award engagement. Specifically, analytical models and tools are being used to target, market to and attract students before and during the application process (Fig 17), as well as to reduce “churn” in a cost effective, less labor-intensive and extremely agile way. Analytics allow educators to quickly identify student touchpoints and interventions (Fig 18).

There are a number of examples where colleges have successfully deployed predictive analytics to increase retention rates, reduce the time to degree completion, identify the markers of struggling students and alleviate “pain points,” as well as to accelerate progress on other important initiatives. Many of these institutions are running a customer-relationship management (CRM) system, such as Salesforce, as the backbone for data collection and processing, since predictive analytics depend on all departments within a college and all colleges within a system having access to the same data; only then can large sets of data can be analyzed to make predictions about student success. In addition,

many campuses are combining data with qualitative analyses, including student interviews and focus group research, to gain a deeper understanding about student “pain points” that may not show up in the quantitative data.

FIGURE 17
Targeting students during application process
Vanderbilt University



SOURCE: IPEDS; US Bureau of Labor Statistics; McKinsey Global Institute analysis; EMSI

FIGURE 18
Analytical Models Improve Learning and Student Experience

| | <i>State of the art</i> | <i>What it takes to crack the code</i> |
|---|--|--|
| 1. Use advanced analytics to target at-risk students | <ul style="list-style-type: none"> Real-time predictive analytics based on all available administrative student data (e.g., college preparedness, financial) | <ul style="list-style-type: none"> Administrative information is only half the story Incorporating data on students’ mindsets is required to get the full picture of completion risk |
| 2. Deploy high-impact, ROI-based interventions | <ul style="list-style-type: none"> 300+ interventions described in the literature Less than 20% have evidence of effectiveness Less than 5% have evidence of cost-effectiveness | <ul style="list-style-type: none"> ROI-driven allocation of student support resources Widespread use of mindsets interventions that have been proven to be highly cost-effective |
| 3. Deliver students support more effectively | <ul style="list-style-type: none"> Uncoordinated student supports throughout student lifecycle Many pilots and test cases that are sub-scale | <ul style="list-style-type: none"> Seamless integration of interventions into daily student activities Reliable process for scale-up and refinement of interventions |

SOURCE: IPEDS; US Bureau of Labor Statistics; McKinsey Global Institute analysis; EMSI

One great example of effectively deploying predictive analytics is Georgia State University (Georgia State), which, prior to 2012, was conducting about 1,000 meetings each academic year between advisers and students, many of whom were really struggling, with little to show for all of their work since the advisory guidance was coming too late to truly change a student’s trajectory for the better. Point being, by waiting for and relying on students to self-identify and -diagnose the problem, Georgia State was greatly diminishing the effectiveness (i.e., success rate) of its well-intentioned interventions.

That all changed in late-2012, when the university, working with EAB—an education technology company that helps institutions improve graduation rates through risk identification, coordinated student support and other analytics—launched a data system to track all of Georgia State’s 30,000 students on 700 initial risk factors. Now, the university knows, for example, that if you get a C in your first math course, then it will likely have an impact in your upper-level accounting course. The results so far at Georgia State have been demonstrably positive, with elevated grade points and retention rates, as well as marked improvements in the number of minority students graduating with STEM (Science, Technology, Engineering and Mathematics) degrees,

with STEM-related degrees conferred to Hispanic- and African-American students up 226 percent and 111 percent, respectively, at the University since 2012.

And, it’s not just 4-year colleges that have taken notice, but a number of community colleges, such as the Dallas County Community College District, have begun to effectively use data analytics to improve student outcomes and enrollment, which, in the case of the Dallas County Community College District, increased by 40 percent once it began using its data platform.

4. Artificial Intelligence (AI) solutions are being used to automate administrative and other repetitive tasks both in and outside of the classroom, providing student and institutional support and freeing faculty and staff to focus on more complex and personal tasks (Fig 19).

5. Blockchain is in nascent stages of its disruptive potential, but applications are far-reaching, from transforming information management to creating new education marketplaces. Some of the most ambitious projects include redefining education marketplaces with “blockchain universities.” (Appendix Fig N.)

FIGURE 19
Examples of AI Solutions in Education

| | <i>AI Solution</i> | <i>Example</i> |
|------------------------------|------------------------------|---|
| Student Solutions | Academic Support | ■ Georgia Institute of Technology uses AI teaching assistants in an undergraduate computing course to answer simple questions – e.g., deadlines—leaving professors to focus on answering questions about deep content |
| | Completion Support | ■ Elon is piloting a tool to help students track courses and their path to graduation. The technology generates reports on which students are ready for graduation and which are not |
| Institution Solutions | Campus Management | ■ UT Austin uses an AI solution to water the landscaping on campus. The system is networked and largely automated, and controllable through a smart phone. The system saves \$1M and ~140M gallons of water annually |
| | Enrollment Management | ■ Arizona State University uses an AI-powered chatbot to recruit and enroll students via text ■ Georgia State University uses chat bots to manage the 2,000+ calls they receive daily in the office of financial aid. Helped decrease ‘summer melt’ by 20% |

SOURCE: Inside Higher Ed; Chronicle of Higher Education; Artificial Intelligence Market in the US Education Sector Report

Implications of trends and paths forward

Plan of Action: Threats

As a result of these four trends, this report identifies the following 12 very specific imminent threats to LA Area community colleges that, if addressed, represent real opportunities:

| Threats | Trends | What we heard from you |
|---|---|---|
| <p>1 Undergraduate enrollment is declining</p> <p>2 Current structures do not support the needs of diverse learners inside or outside the classroom</p> <p>3 UC/CSU eligibility rates are growing for high school graduates, especially for Hispanic learners</p> <p>4 Learners, families, and college counselors see Community Colleges (CC) as a ‘second choice’/ stepping stone to 4-year institutions</p> <p>5 Target learners are migrating out of CA</p> | <p>Shifting demographics and beliefs are threatening enrollment and increasing learner needs</p> | <p>“We have such a vast scope of service, we can’t focus on just one segment like other schools”</p> <p>“The diversity of industry in LA is an opportunity to help our students find employment”</p> <p>“When thinking about our future, community colleges cannot forget about the adult learners—whether it’s a veteran, someone who’s never been to school, or even a parent of a student”</p> |
| <p>6 Disconnect between CCs offerings and the labor market, e.g., curricula not aligned to skills employers need, faculty sometimes unaware of changes in industry</p> <p>7 Colleges are not meeting job placement targets</p> | <p>Students are not prepared for a changing labor market</p> | <p>“We may be <i>number 2</i>, but we try harder than the competition”</p> |
| <p>8 Other institutions differentiating themselves on student support services, job placement, student experience, innovative delivery models, cost</p> <p>9 Other institutions capturing target learner segments, e.g., adults</p> <p>10 CCs are unable to innovate at the same pace as competitors</p> | <p>CCs face increased competition from both traditional players and new entrants</p> | <p>“We as community colleges need to improve our value proposition. We may be cheaper than 4-years but savvy families realize the return on a 4-year [education] is higher”</p> |
| <p>11 Students demand a different learning experience than the traditional classroom</p> <p>12 Competitors are ahead of CCs on using technology in the classroom and in operations</p> | <p>Competitors are using technology to leapfrog CCs</p> | |

Plan of Action: Proposed Interventions

Across the United States, higher education institutions and many organizations in industry are facing their own versions of these 12 threats, e.g., declining customer bases, disconnection with core constituencies, new competitors brought on or enabled by technology. When looking at how higher education institutions respond to these types of challenges, four (4) priority intervention areas emerge:



1

Improving the end-to-end student experience by better responding to student needs (and desires) throughout the student journey (from pre-enrollment to completion and job placement)



2

Improving perceptions of community colleges through targeted outreach and marketing, especially targeting key learner segments, such as adults



3

Improving labor market readiness through employer-education linkages and ensuring learners are graduating with the skills they need to be successful in the future of work



4

Fostering a culture of innovation through strategic partnerships and internal reforms to create the enabling conditions for collaborative change at the regional, cross-institution level

In short, all 12 threats can be addressed through the following initiatives across each of these four interventions:

| Goals | Examples | Relevant threats |
|--|--|--|
| <ul style="list-style-type: none"> ■ Optimizing recruiting, admissions, and enrollment to attract key learner segments, e.g., adult learners ■ Improving student classroom experience ■ Improving student support services (including financial aid, academic, career) to support growing learner segments, e.g., first-gen, adults ■ Improving career support and alumni engagement | <ul style="list-style-type: none"> ■ Increase the quality/volume of academic and career advising to improve student outcomes ■ Implement innovative classroom technologies | <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">1</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">2</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">5</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">8</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">9</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">11</div> </div> |
| <ul style="list-style-type: none"> ■ Communicating competitive differentiation and value proposition to stakeholders, including learners and employers, to capture target learner segments (e.g., adults) and compete with online, for-profit, and nontraditional players | <ul style="list-style-type: none"> ■ Launch targeted marketing campaign to attract key learner segments ■ Reach out to local high schools to improve relationships and perceptions of CCs | <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">3</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">4</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">8</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">9</div> </div> |
| <ul style="list-style-type: none"> ■ Responding to local demographics and labor market needs, e.g., growing demand in health care and IT in LA ■ Linking CC program offerings to employer needs, e.g., soft skills ■ Prioritizing programs developed with the reality of the economy in mind, rather than prioritizing programs through the lens of transfer | <ul style="list-style-type: none"> ■ Implement apprenticeship programs in fast-growth sectors ■ Co-create curricula with employers | <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">6</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">7</div> </div> |
| <ul style="list-style-type: none"> ■ Fostering a shared vision for success across organization ■ Promoting faculty engagement/buy-in ■ Creating a culture of execution and impact ■ Forming strategic partnerships, e.g., with UC/CSU, K-12 | <ul style="list-style-type: none"> ■ Convene multi stakeholder working group to share data and best practices ■ Increase the direct participatory role of faculty and students in innovation | <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">10</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">11</div> <div style="background-color: #0070C0; color: white; padding: 2px 5px; text-align: center;">12</div> </div> |

Plan of Action: Interventions Support Aspirational Goals

During four workshops held with LA Area community college leaders, workshop participants including faculty, school administration leaders, deans, vice presidents and presidents expressed a vision for a new paradigm that articulates the following aspirational states across these four intervention areas, characterized by increased innovation and cross-institution collaboration:

| <i>Intervention</i> | <i>Current state</i> | <i>Aspirational vision</i> |
|--|---|--|
| Improving the end-to-end student journey | <ul style="list-style-type: none"> ■ Learners with diverse needs do not always have the support systems or spaces they need to thrive | <ul style="list-style-type: none"> ■ CCs are the first choice for diverse learners due to their ability to create safe, inclusive, and supportive learning environments for all types of learners |
| Improving perceptions of community colleges | <ul style="list-style-type: none"> ■ CCs are seen as a ‘third choice’ after UC and CSU | <ul style="list-style-type: none"> ■ CCs are the first choice for parents for the first 2 years of postsecondary education and work synergistically with UC/CSU campuses |
| | <ul style="list-style-type: none"> ■ Recruitment efforts are focused on high school students | <ul style="list-style-type: none"> ■ CCs target diverse learner segments, including adults and incumbent workers, e.g. through competency-based education |
| Improving labor market readiness | <ul style="list-style-type: none"> ■ A disconnect between employers and community colleges makes it difficult to match programs to labor market needs at scale | <ul style="list-style-type: none"> ■ CCs and industry have mutual touchpoints and systems to enable regional collaboration; CCs are clear on labor market needs and employers understand the value of CC offerings; translators facilitate communication between educators and employers to support transparency and to accelerate partnerships |
| Fostering a culture of innovation | <ul style="list-style-type: none"> ■ CCs innovate only at the campus level (e.g. employer partnerships, serving special populations) | <ul style="list-style-type: none"> ■ CCs have codified governance and systems for at-scale regional collaboration so they can solve shared challenges together (e.g. shared procurement of technology solutions, a regional convening power) |
| | <ul style="list-style-type: none"> ■ Postsecondary education is seen as a ‘one time’ shot; education institutions operate differently than industry | <ul style="list-style-type: none"> ■ Postsecondary education is a lifelong pursuit to support meaningful employment; CCs directly serve businesses and emulate business in their operations |

But, in order to achieve this vision, the LA Area community colleges will need to implement additional initiatives both individually and collectively, and over the short- and long-term, while considering the varying starting points for each community college.

Plan of Action: Assessing Potential Enabling Actions

As a starting point, this report details a high-level implementation path forward for potential “enabling actions,” which are defined as high-impact, high-feasibility initiatives that can be implemented in the short-run to act as “enablers,” helping to build momentum for longer-term transformational systems change.

To this end, and in collaboration with LA Area community college leaders (during the four working group sessions held in late 2017 and early 2018), we explored over 30 best practices (Fig 20) relevant to the four major intervention categories within higher education and industry, and discussed ways to apply some of these best practices to address the specific threats facing LA Area community colleges. Each initiative was then evaluated based on its potential impact (across at least one of the four major intervention categories) and feasibility (by considering time to implement, the starting point of different LA Area community colleges, funding required, and level of stakeholder alignment). It should be noted that some of these ideas are already in progress both at individual campuses and collectively across the LA Area community college campuses.

FIGURE 20

A Sampling of Best Practices Explored (detailed case studies provided in the Appendix)

1 Improving the end-to-end student journey

| Initiative | Institution/organization | Summary | Impact |
|--|--------------------------|--|---|
| Align student advising systems (enrollment, program choice, credential maps, and financial aid) to post-graduation goals | Odessa College | Community college transformation through a dropout rate improvement program and transitioning courses from 16 week semesters to two 8 week terms | <ul style="list-style-type: none"> ■ Largest enrollment in history ■ 4% increase in course completion after 1 year ■ 3% increase in student success (C or greater) after 1 year |
| Increase quality/volume of academic and career advising to improve student outcomes | ASU eAdvisor | Electronic academic advising program to support student pathways to completion and transfer success | <ul style="list-style-type: none"> ■ Shortened time to degree completion and improved transfer rates ■ 8% improvement in ASU retention and 73% increase in students on correct path toward completing their major |
| Increase quality/volume of academic and career advising to improve student outcomes | Inside Track | Scalable digital coaching program that includes extensive learner supports | <ul style="list-style-type: none"> ■ 46% increase in enrollment conversion at Penn State ■ 33% increase in low-income, first-gen persistence at Ivy Tech ■ \$9.6M additional revenue at Florida State |
| Provide wraparound support services | CUNY ASAP | Intensive academic support to help low-income learners complete AS degrees in 3 years | <ul style="list-style-type: none"> ■ 53% graduation rate (compared to 16% national average) ■ 90% student satisfaction rate with program |
| Partner with nontraditional education providers to incorporate micro-credentials to teach specific skills that are relevant to employers but missing from CC curricula | Apple Swift coding | Microcredential provided by Apple and used by community colleges | <ul style="list-style-type: none"> ■ Reached 500,000 community college students |

Improving the end-to-end student journey (cont.)

| <i>Initiative</i> | <i>Institution/organization</i> | <i>Summary</i> | <i>Impact</i> |
|--|--|--|--|
| Provide online tutoring resources to special populations, e.g., veterans | University of Maryland University College | Special program for veterans providing extensive support services and financial assistance | <ul style="list-style-type: none"> Enrolls 50,000+ active duty service members, reservists, vets, and family members Voted #1 Best for Vets online or nontraditional college |
| Implement innovative learner technologies/classroom delivery models, e.g., AI tutors | Central New Mexico Community College | Student-owned blockchain digital credentials | <ul style="list-style-type: none"> Blockchain credentials are issued to all students that complete CNM's coding bootcamps Expanding to other higher ed institutions and K-12 |
| Implement competency-based programs instead of credit-based programs | Salt Lake Community College | Competency-based community college programs | <ul style="list-style-type: none"> Doubled completion rates for some competency-based programs Increased student engagement |

2

Improving perceptions of community colleges

| <i>Initiative</i> | <i>Institution/organization</i> | <i>Summary</i> | <i>Impact</i> |
|--|---------------------------------|--|--|
| Launch targeted marketing campaign to attract key learner segments and/or reposition brand | Northeastern | Visual and interactive tours designed for international students who cannot visit in person | <ul style="list-style-type: none"> Ranks #2 out of 1,300 colleges and universities for popularity with international students with 50 countries represented on campus |
| Launch targeted marketing campaign to attract key learner segments and/or reposition brand | LEGO | Strategic initiatives and a digitalization strategy to turnaround declining profitability | <ul style="list-style-type: none"> Achieved 3-4x greater profitability than its competitors Successfully expanded into adjacent markets including film, video games, video content |
| Launch targeted marketing campaign to attract key learner segments and/or reposition brand | Old Spice | Brand transformation to significantly grow revenues through a targeted marketing campaign | <ul style="list-style-type: none"> Grew revenues 55% in 3 months |
| Adjust strategy to respond to competitive threats | Microsoft | Competitive positioning strategy to stop competing with Apple and turnaround stagnant growth | <ul style="list-style-type: none"> 21% annual topline growth Emerged as one of world's cloud computer services providers |

3

Improving labor market readiness

| <i>Initiative</i> | <i>Institution/organization</i> | <i>Summary</i> | <i>Impact</i> |
|---|--------------------------------------|--|---|
| Develop training programs specifically for local industry/employers, in partnership with employers, to create a pipeline of skilled job prospects | Delta College FastStart | Collaboration between Delta College and employers provide just-in-time training programs that equip learners with industry-specific technical skills and soft skills | <ul style="list-style-type: none"> ■ <95% of students who complete the program receive fulltime job offers with starting wages of \$34,000-\$55,000 |
| Codevelop curricula with employers to ensure programs match labor market needs and to create credibility | Lake Area Technical Institute | Technical institute achieving exceptional student outcomes through tight labor market linkages | <ul style="list-style-type: none"> ■ 98% of graduates are employed or are continuing their education ■ Graduates earned over 40% more than other new hires in the regional job market |
| Implement apprenticeship programs in fast-growth sectors to provide on-the-job training for students and links to employment opportunities | MultiCare | Apprenticeship program for RNs cosponsored by health care provider and local community college | <ul style="list-style-type: none"> ■ Blockchain credentials are issued to all students that complete CNM's coding bootcamps ■ Expanding to other higher ed institutions and K-12 |
| Use predictive analytics to better match learners to training programs and jobs based on skills | Degree Map | Predictive analytics platform for academic and career planning | <ul style="list-style-type: none"> ■ 90% program retention rate ■ Reduced employer recruiting costs by 20% |
| Train/encourage employers to implement skills-based hiring practices to focus employers on hiring for relevant skills, not just credentials | Skillful | Collaboration between government, employers, nonprofits, and higher education to encourage skills-based hiring | <ul style="list-style-type: none"> ■ 2.4% increase in persistence/completion for students using Degree Map vs. not |
| Offer/grow dual enrollment/K14 programs | PTECH | Grade 914 school system that provides learners with a free Associate's degree | <ul style="list-style-type: none"> ■ 70+ college partners, 550 employer partners, and 110 schools in operation ■ 94% attendance rate at flagship school |

4

Fostering a culture of innovation

| <i>Initiative</i> | <i>Institution/organization</i> | <i>Summary</i> | <i>Impact</i> |
|---|---|---|---|
| Convene multistakeholder working group to collaborate on curricula, career pathways, and to share data and best practices | Central Valley Higher Education Consortium | Nonprofit consortium of 25 education leaders in the Central Valley focused on student completion and gateway courses | <ul style="list-style-type: none"> ■ Created a scalable, best-practice model for regional collaboration, including a model for engaging leadership at all levels from presidents and deans to faculty to counseling |
| Convene multistakeholder working group to collaborate on curricula, career pathways, and to share data and best practices | Unity College | Online education program established through an online education division for enthusiastic faculty | <ul style="list-style-type: none"> ■ Grew enrollment ~250% in 3 years ■ Achieved faculty buy-in and enthusiasm for online learning |
| Launch a cultural transformation to enhance culture of innovation | Tech culture transformation | Cultural transformation at a Tech company to improve innovation and diversity & inclusion | <ul style="list-style-type: none"> ■ Mobilized 20% of the company through culture workshops, resulting in new values with broad buy-in ■ Aligned company on D&I roadmap ■ Created roadmap to embed new cultural values |
| Launch a cultural transformation to enhance culture of innovation | Insurance culture transformation | Cultural transformation at an insurance company to improve strategy and to shift underlying mindsets to improve performance | <ul style="list-style-type: none"> ■ Statistically significant improvements in organizational health priorities ■ A record number of client assets under management in 2017 – up 25% in one year |



⁷ Important statewide reforms include: Assembly Bill (AB) 705, which was enacted and chaptered in 2017, to ensure that students are not placed into remedial courses that may delay or deter their educational progress unless evidence suggests they are highly unlikely to succeed in the college-level course; and, the Student Centered Funding Formula (see Assembly Bill 1809 for more details), which supports access through enrollment-based funding, student equity by targeting funds to districts serving low income students, and student success by providing districts with additional resources for student's successful outcomes.

Plan of Action: Bringing It All Together—Choosing Enabling Actions

Through the prioritization process and workshop discussions, distinct enabling actions emerged with high potential to enable and inform longer-term initiatives across the four intervention categories. These actions were prioritized because they have:

- the potential to enable and better inform longer-term initiatives;
- positive momentum and leadership support; and
- the potential to provide measurable impact in a reasonable time-period.

| <i>Intervention</i> | <i>Potential enabling actions (short term)</i> | <i>Potential longer-term transformational changes (illustrative, medium-term)</i> | <i>Aspirational future state (long-term)</i> |
|--|--|---|--|
| Improving the end-to-end student journey | Expanding the use of advanced analytics to identify early pain points in the student journey to address problems such as dropout, persistence, and completion | <ul style="list-style-type: none"> ■ Improve the quality/quantity of counseling/advising ■ Provide wraparound services to high-needs learners ■ Provide online tutoring to special populations ■ Create competency-based programs ■ Implement tech-enabled solutions to streamline operations and improve the learner experience ■ Fully inculcate recent statewide reforms and new investment formulas that put students first and incentivize student success⁷ | <ul style="list-style-type: none"> ■ Improving the quality/quantity of counseling/advising ■ Providing wraparound services to high-needs learners ■ Providing online tutoring to special populations ■ Implementing competency-based programs ■ Implementing tech-enabled solutions to streamline operations and improve the learner experience |
| Improving perceptions of community colleges | Conducting market research to understand learner beliefs and preferences for key target segments | <ul style="list-style-type: none"> ■ Launch targeted marketing campaigns for key learner segments (e.g. adults) | <ul style="list-style-type: none"> ■ CCs are the first choice for parents for the first 2 years of postsecondary education ■ CCs target diverse learner segments, including adults and incumbent workers, e.g. through competency-based education |
| Improving labor market readiness | Forming a regional labor market partnership effort focused on curriculum development and employer partnerships with 1-3 fast-growth occupations traditionally “neglected” by CCs | <ul style="list-style-type: none"> ■ Create regional programs and pathways for fast-growth industries and occupations with strong employer linkages (can include apprenticeship programs) ■ Train employers to implement skills-based hiring | <ul style="list-style-type: none"> ■ CCs and industry have mutual touchpoints and systems to enable regional collaboration; CCs are clear on labor market needs and employers understand the value of CC offerings; translators facilitate communication between educators and employers to support transparency and to accelerate partnerships |
| Fostering a culture of innovation | Standing up a regional convening entity to act as a convener and decision-maker for regional collaborations across priority initiatives | <ul style="list-style-type: none"> ■ Launch a cultural transformation to enhance culture of innovation | <ul style="list-style-type: none"> ■ CCs have codified governance & systems, for at-scale regional collaboration so they can solve shared challenges together (e.g. shared procurement of technology solutions, a regional convening power) ■ Postsecondary education is a lifelong pursuit to support meaningful employment; CCs directly serve businesses and emulate business agility |

Implementation: Intervention Action Plans

Implementation of Interventions

On the following pages, this report identifies and details key implementation considerations for each of the four interventions (though they are not exhaustive or reflective of every consideration that will be required). Broadly, these key considerations are segmented as follows:

- *Opportunity statement:*
What is the challenge this initiative can solve?
- *Summary of the initiative:*
What is the description of the initiative?
- *Key design questions:*
What are the most important questions to ask while designing the initiative (e.g., baseline, scope, design, governance, funding)?
- *Potential milestones:*
What are critical milestones to reach early in the process?
- *Potential impact:*
What kind of impact can the initiative have if implemented successfully?



Improving the end-to-end student journey

The vision for improving the end-to-end student journey is to make LA Area community colleges the first choice for diverse learners by creating a safe, inclusive and supportive environment.

As a starting point toward this vision, one potential enabling action is for colleges to **expand the use of advanced analytics to identify early “pain points” in the student journey to address problems such as dropout, persistence and completion.** This enabling initiative can provide insights to select impactful longer-term initiatives based on relevant and specific “pain points” along the student journey. Potential longer-term initiatives could include improving the quality and/or quality of counseling and advising functions, providing so-called “wraparound services” to high-need learners, providing online tutoring to special populations, and improving the ease of identifying and enrolling in programs.

To start implementation, LA Area community colleges can focus on the following key elements:

OPPORTUNITY STATEMENT

The average completion rate at the nine LACCD community colleges was only 43 percent in 2011-12 and only 49 percent during the same program year at the other LA Area community college districts. Even so, and despite having the available data, there is a *lack of understanding as to why learners drop out.*

SUMMARY OF THE INITIATIVE

Analyzing data (often housed within institutional research) to identify the most common learner “pain points” and reasons for dropping out to inform targeted initiatives and supports for improving challenges such as dropout, persistence, and completion

KEY DESIGN QUESTIONS

- **Baseline:** Which LA Area community colleges are already doing this type of analysis effectively?
- **Design:** Which metrics will be tracked? What additional data needs to be collected?
- **Governance:** How will insights be codified and disseminated to decision-makers within colleges and across the region? What needs to be in place to guarantee proper data deidentification and security?
- **Funding:** What type of additional capabilities are required for institutional research to conduct this analysis (e.g., new personnel)?

POTENTIAL PHASE ONE MILESTONES

- Identifying the right metrics and selecting the right group of learners to track
- Securing the commitment of multiple community colleges to track the same metrics and disseminate findings

POTENTIAL IMPACT

- Clear understanding of learner “pain points” and roadmap for the set of initiatives to solve these “pain points”
- Data to drive decision-making on future initiatives to address pain points and improve the learner experience
- Improved enrollment, persistence, and completion metrics (long-term)

Community College is
“like an old Honda,
it will get the job done,
but it’s not something
I feel emotionally
connected to, and I’m
embarrassed to admit
I go to a community
college.”

— Current Community College Student*

* Focus Group: Current Community College Students, Atkins Research Group (February 13, 2019).

Improving perceptions of community colleges

The aspirational future state for improving perceptions of community colleges is to make LA Area community colleges the first choice for parents for the first two years of postsecondary education and for community colleges to target diverse learner segments, including adults and incumbent workers, many of whom may not think about community colleges as a viable choice for upskilling or have negative perceptions of community colleges.

As a starting point toward this vision, one potential enabling action is to **conduct additional market research to understand learner beliefs and preferences for key target segments**. For example, how important is the lower cost (lower price point) to various consumer segments? What are some of the perceived barriers to enrollment, e.g., time, prerequisites, stigma for adult learners? This initiative will inform the strategy for longer-term targeted marketing campaigns for prioritized target learner segments to improve perceptions and attract new enrollment.

To start implementation for conducting market research, LA Area community colleges can focus on the following key implementation considerations:

OPPORTUNITY STATEMENT

In the LA Area, community colleges are often viewed as a “third” choice after UCs and CSUs. At the same time, competitors in the training provider landscape are targeting key learner segments like adults, threatening future community college enrollment.

SUMMARY OF THE INITIATIVE

Conducting market research via surveys, focus groups, and interviews, to better understand learner beliefs and preferences and to inform future marketing campaigns

KEY DESIGN QUESTIONS

- **Baseline:** What LA Area community colleges are engaged in market research already and which learner segments are they exploring?
- **Scope:** What are the top priority target learner segments (e.g., adult learners) from which to generate insights?
- **Governance:** Who will own the dissemination and adoption and regular use of key insights across the LA Area community colleges?
- **Funding:** How many potential target segments are being explored? What research methods will be used and at what scale (e.g., surveys, focus groups)? How often will research be updated and refreshed?

POTENTIAL PHASE ONE MILESTONES

- Determining priority target learner segments
- Launching governance process that ensures target learner market research insights are being used across the region

POTENTIAL IMPACT

- Successful identification of target learner segments and their key beliefs
- Integration of learner-centric insights across future decision making
- Improved enrollment from target learner segments (longer-term)

“There is a stigma
associated with going
back to school.”

— Adult High School Diploma Holder*

* Focus Group: Adult High School Diploma Holders, Atkins Research Group (February 13, 2019).

Improving labor market readiness

The aspirational future state for improving labor market readiness is for LA Area community colleges and industry to have mutual touchpoints and systems to enable regional cross-institutional collaboration; this is seen as a community college strength.

As a starting point toward this vision, one potential enabling action is to **form a regional labor market partnership effort focused on curriculum development and employer partnerships in one to three fast-growth occupations that have traditionally been “neglected” by community colleges.** This regional partnership effort can clarify the right target industries and occupations for future collaborations, solidify employer partnerships and create a model for regional collaboration at scale with an accelerated implementation timeline. In the longer-term, this initiative can enable additional regional cross-institution programs and pathways for fast-growth industries and occupations with strong employer linkages and for training employers to implement skills-based hiring. This will also serve as incentive for employers to direct current employees back to the community colleges for continuing training, positively affecting enrollment.

To start implementation for forming a regional labor market partnership, LA Area community colleges can focus on the following key implementation considerations:

OPPORTUNITY STATEMENT

Currently there is an opportunity for more coordination across LA Area community colleges on training programs in fast-growth industries and occupations, but it is challenging to build new employer partnerships at scale due to communication barriers between employers and educators.

SUMMARY OF THE INITIATIVE

A regional labor market collaboration focused on one to three fast-growth occupations that brings together regional employers and a collaborative of LA Area community colleges to design programs and employment pathways can be a pilot, providing “proof of concept,” for larger and more expansive regional collaborations down the line.

KEY DESIGN QUESTIONS

- **Baseline:** What employer-community college partnerships already exist in the LA Area?
- **Scope:** How many occupations will be included in the collaboration? How many employer and community college partners will be included?
- **Design:** What are the occupation(s) that will be the focus of the partnership? Who are the target employer partners? What will be the meeting cadence?
- **Governance:** What will be the employer roles and responsibilities (e.g., providing apprenticeship placements, co-creating curricula)? How will the collaboration ensure regional coordination to create scale and to avoid overlapping priority areas? What other partner organizations should be involved to help drive coordination between community colleges and employers?
- **Funding:** Will pilot programs include work-based learning? Which stakeholders will fund curriculum development?

POTENTIAL PHASE ONE MILESTONES

- Selecting 1-3 high-priority occupations
- Identifying employer partners for each occupation
- Identifying participating LA Area community colleges

POTENTIAL IMPACT

- Improved curriculum alignment with labor market needs
- Catalyst for future employer-community college collaboration
- Improved job placement rates

“[Industry-recognized] certificates provide real-world experience versus being told what the experience is.”

— Adult High School Diploma Holder*

* Focus Group: Adult High School Diploma Holders, Atkins Research Group (February 13, 2019).

Fostering a culture of innovation

The aspirational future state for fostering a culture of innovation is to create the governance systems for at-scale regional collaboration and to change perceptions such that postsecondary education is viewed as a lifelong pursuit to support meaningful employment in a fast-transitioning and fast-changing labor market. As a starting point toward this vision, one potential enabling action is to **identify or stand up a regional entity as the relational infrastructure to act as a convener and decision-maker for regional collaborations across priority intervention areas**. This collaborative infrastructure can enable a longer-term cultural transformation across the LA Area community college system and is critical for enabling all four intervention categories.

To start implementation for standing up a regional convening entity, LA Area community colleges can focus on the following key implementation considerations:

OPPORTUNITY STATEMENT

There is an opportunity for additional cross-institution, regional collaboration in the LA Area to support the need for LA Area community colleges to come together to solve shared challenges and to utilize collective best practice knowledge and resources.

SUMMARY OF THE INITIATIVE

A regional entity is needed to coordinate innovation and successful implementation of potential priority regional initiatives across LA Area community colleges and other key stakeholders like employers, policymakers, sector navigators, service providers, etc.

KEY DESIGN QUESTIONS

- **Baseline:** What collaborative efforts already exist in the LA Area? What appetite and resources do these collaboratives have to expand their capabilities and role in the region?
- **Scope:** What are the goals of the collaborative? How many types of stakeholders will be invited to the collaborative (e.g., employers, community-based organizations, workforce boards, policymakers)? What level of commitment will be expected from members?
- **Design:** What will be the meeting cadence? What types of accountability mechanisms will be in place?
- **Governance:** How will decisions be made, and does the process enable fast enough decisions and implementation?
- **Funding:** What initiatives can the collaborative pilot in the short-run? What resources can community colleges provide versus what resources will need to come from an external source?

POTENTIAL MILESTONES

- Identifying champions and sponsors for all 19 LA Area community colleges
- Securing commitment from and/or funding for a regional collaborative entity
- Securing commitment to meaningfully participate from diverse external stakeholders (e.g., employers, community-based organizations, policymakers)

POTENTIAL IMPACT

- Improved regional collaboration
- Improved regional progress on shared challenges
- Improved learner outcomes

“As technology keeps changing with automation and artificial intelligence, workers need to be re-skilled and retooled, and for adults who are bound by family and life obligations, having access with a mobile lab to learn is critical.”

— Darlene Miller, Executive Director
National Council for Workforce Education (an affiliate council
of the American Association of Community Colleges)

Afterword

Guiding principles and other considerations

This report has outlined a set of potential next steps for LA Area community colleges by defining market forces and what is at stake, by exploring a potential set of initiatives, and by detailing enabling actions as next steps that can build on existing momentum. Success will require building stakeholder alignment and engagement, and creating the systems and structures needed for ongoing innovation and collaboration.

Even with the right systems and structures, implementation challenges will arise. Common implementation challenges include the following:

- **Inadequate funding for new initiatives:** LA Area community colleges may not secure ongoing funding to implement an initiative over time
- **Need for cross-department faculty buy-in and ability to rise above internal divisions amongst different internal constituencies:** Initiatives will often require faculty buy-in and embracing a team ethos (as opposed to an “us” versus “them” stance) to implement and scale intervention to all classrooms
- **Complex stakeholder management:** Initiative may require alignment across diverse stakeholders including government, nonprofits, employers, etc.
- **Dynamic leadership landscape:** Shifts in leadership can occur at federal, state, regional, and campus levels, affecting support and thus execution
- **Need for agility and innovation:** Institution culture and decision-making speed may create barriers or delays to implementation

To help mitigate these implementation challenges, LA Area community colleges should follow a set of cross-cutting guiding principles, which include:

| <i>Guiding principle</i> | <i>Objective</i> | <i>Potential next steps</i> |
|---|---|---|
| Break down siloes | <ul style="list-style-type: none"> Break down siloes within colleges (e.g. CTE vs. non-CTE), across the region (e.g. between colleges, between colleges and employers), and across higher education systems (e.g. between UC, CSU, and CCCs) | <ul style="list-style-type: none"> Form collaborative working groups within and across institutions to bring diverse perspectives to the table, incorporate multiple voices, and build alignment |
| Align with state & system priorities | <ul style="list-style-type: none"> Wherever possible, align initiatives to state and system priorities and reforms that incentivize student success (e.g. master plan, Guided Pathways, apprenticeship programs, AB 705, student centered funding formula) Identify existing best practices across the region that show evidence of early success in priority areas | <ul style="list-style-type: none"> Build on momentum from the state and regional level for what's working well Seek mentorship and guidance from key stakeholders at other institutions that have successfully implemented the intervention |
| Coordinate regionally | <ul style="list-style-type: none"> Coordinate regionally to create scale, share existing infrastructure, and lever collective purchasing power Use LA's scale to be role model for the state and nation | <ul style="list-style-type: none"> Create forums for regional conversation and collaboration to identify when other institutions are pursuing similar priorities and to identify the right opportunities for scale |
| Be data-driven | <ul style="list-style-type: none"> Be data-driven wherever possible by using data to inform intervention selection, tracking outcomes, and measuring success regularly Adopt an agile mindset and stop initiatives that do not meet expectations (e.g. use data to know when initiatives are ineffective, do not start something until you stop something else) | <ul style="list-style-type: none"> Ensure institutional research is collecting and analyzing the right data to provide insights on the key questions underlying new initiatives |
| Be student-centric | <ul style="list-style-type: none"> Put students at the center of change and elevate student voices in decision-making (across all student profiles) | <ul style="list-style-type: none"> Launch student surveys and focus groups to gain insight on the student voice Give students a seat at the table during intervention design and implementation |
| Communicate intent | <ul style="list-style-type: none"> Communicate the intent for transformation and a desire to move at a pace to reach full potential both internally and externally | <ul style="list-style-type: none"> Disseminate consistent communication across all levels of the organization and ensure leaders role model new attitudes publicly |

Appendix: Case Studies

Odessa Community College

Dropout Improvement Program and Shorted Terms

CHALLENGE

- 6 years ago Odessa college was the **worst community college in West Texas**
- They faced **graduation rates in the single digits** and low enrollment in the face of a booming oil & gas economy

OVERVIEW

To address their declining enrollments and high drop-out rates they launched two core programs:

1. Dropout Rate Improvement Program:

Internal research uncovered four key practices among instructors who had students with higher retention rates. Odessa trained faculty on them.

- Use students' names from day 1 onward
- Intervene early if a student is displaying obvious problems (e.g. failing first exam)
- Meet 1:1 with students early, at least 1x/term
- Lay out clear expectations and penalties

2. Transitioned 80% of its courses from 16-week semesters to two 8-week terms

- This was to double the number of opportunities students have to enroll in classes and increase course completion rates
- Instead of taking 4 classes in a 16-week term students take full-time students take 2 with more class hours per week

GOALS AND IMPACT

Goals:

- To decrease student dropout rates and improve retention by offering better instructional supports and more relevant courses based on student needs

Impact:

- Largest enrollment in Odessa's 71-year history in the first 8-week term and enrollment has grown annually
- 4% increase in course completion after 1 year
- 3% increase in student success (C- or greater) after 1 year

STAKEHOLDERS

- **Administrators:** Requires administrator commitment to understanding their data and developing tailored solutions
- **Faculty:** Need faculty buy-in and commitment to improving and adapting to the new approach to course delivery

POTENTIAL IMPLEMENTATION BARRIERS

- **Faculty mindsets or commitment:** Resistance to change and/or low commitment to implementing such a program could result in ineffective implementation
- **Institutional policies:** College handbook, internal approval processes or other factors could limit the viability of transitioning to an 8-week semester
- **Logistical lift required to rework course schedules:** Restructuring course lengths requires major administrative rework of course schedules, etc.



Arizona State University (ASU) eAdvisor

CHALLENGE

- **Community colleges often lack the resources to provide adequate academic advising,** especially given the unique needs of community college learners
- **Students do not have clear pathways to degree completion**

OVERVIEW

Arizona State University (ASU) **shared its online advising system, eAdvisor, with local community colleges** to support clear pathways to degree completion and transfer. eAdvisor:

- **Ensures students are taking the right courses** at the right time, allows students to search potential majors and identify critical courses, and supports students finding new paths if they struggle with courses in their selected major
- **Maps courses needed to achieve transfer** to ASU through a Transfer Pathway Builder and Transfer Credit Guide
- **Enables administrators to plan** for the right number of seats in each course
- Now available as a product to other higher education institutions

GOALS AND IMPACT

Goals:

- To improve student success by shortening time to degree completion, encouraging students to take more credits to graduate on time, and supporting successful transfer
- To support administrators in planning capacity for courses based on student demand

Impact:

- Shortened time to degree completion and improved transfer rates for CC students
- 8% improvement in student retention at ASU
- 73% increase in number of students on correct path toward completing their majors

STAKEHOLDERS

- **Higher education:** ASU, Maricopa Community College District, Central Arizona College

POTENTIAL IMPLEMENTATION BARRIERS

- **Significant upfront investment:** Entering academic records and extending advising functions between institutions requires significant upfront investment (e.g., ASU eAdvisor partners received \$1MN Kresge Foundation grant)
- **Student behavior shift:** Students may need incentives to shift behavior toward using a new advising system
- **Availability of local institutional partners:** CCs may not find a local institution with the adequate programs, capabilities, and/or appetite for partnership



Inside Track

Academic and Career Coaching

CHALLENGE

- The percentage of students earning some college has grown dramatically, with few improvements in completion rates
- Some students do not succeed in HE because they lack information on how to be successful or fail to act on the information they have

OVERVIEW

- Inside Track partners with institutions to create the best scalable program for students, including:
 - Automated nudges (e.g. reminders about deadlines, opportunities, resources)
 - Digital guidance content (self-directed resources that enable skill development)
 - 1:1 coaching that is episodic (e.g. addresses events that might interfere with goal achievement) and/or intensive (e.g. meeting over regular intervals tracking progress against goal completion)
 - Alerts and diagnostic protocols designed to catch students in need and offer supports
- Coaching targets prospective students, retention, re-enrollment, career coaching, etc.
- More cost effective method of achieving retention and completion compared to other interventions such as increased financial aid

GOALS AND IMPACT

Goals:

- To provide relevant and effective student coaching and resources to improve retention, persistence, and future career opportunities

Impact:

- 46% increase in enrollment conversion at Penn State
- 33% increase in low-income, first-gen persistence at Ivy Tech
- \$9.6M in add'l revenue at Florida State from coaching
- Randomized study showed students who received inside track coaching more likely to persist one year later

STAKEHOLDERS

- **Higher education:** Need senior leader buy-in from institution partnering with Inside Track
- **Students:** Who receive inside track services (e.g. targeted to high-needs students or delivered to all students?)

POTENTIAL IMPLEMENTATION BARRIERS

- **Up-front investment required:** While within a year the program has demonstrated financial returns from increased retention & completion, it requires significant up-front funding and resources to coach and train student services staff
- **Context-specific student challenges:** There may be context-specific challenges leading to low persistence of community college students and/or LA county that this program will need to address

CUNY

Accelerated Study in Associate Programs (ASAP)

CHALLENGE

- **Community colleges can struggle with retention, persistence, and degree completion**, which shifts policymakers' focus from access to graduation
- **In addition, students face financial, social, and informational barriers** to completion

OVERVIEW

- CUNY ASAP assists students in the 6 CUNY community colleges to complete their Associate's degree in 3 years through a range of support:
 - **Financial support** (e.g., waivers for tuition and mandatory fees, textbooks, metrocards, and Summer/Winter tuition coverage)
 - **Academic guidance** (1:1 advisers, access to tutoring, and ASAP specific classes on college readiness and development)
 - **Personnel encouragement** (e.g., career counseling, advice on applying to bachelor's programs, and ASAP classes to create a sense of community)

GOALS AND IMPACT

Goals:

- To double the 3 year graduation rate of CUNY community colleges

Impact:

- 53% graduation rate, compared to 25% in CUNY CCs and 16% national average
- 90% student satisfaction rate with program
- Replication underway in community colleges in Ohio, CA, and NY
- Cost-Benefit study determined ASAP is a productive public investment with high potential monetary returns

STAKEHOLDERS

- **Funders:** NY state and city governments, Center for Economic Opportunity, Robin Hood
- **Higher education:** CUNY colleges

POTENTIAL IMPLEMENTATION BARRIERS

- **Funding availability:** ASAP students receive on average \$3,900
- **Identifying eligible learners:** Low compliance rates with financial aid forms (e.g., FAFSA) can create barriers to identifying sufficient eligible (low-income) learners
- **Organizational capacity:** Program requires staff time for individualized advising, tutoring, and cohort specific classes



SOURCE: Inside ASAP report, ASAP Six Year Evaluation, MDRC ASAP Assessment, Center for Benefit-Cost Studies in Education, Columbia University, Levin and Garcia (2012, 2013)

Apple Swift Coding Courses

CHALLENGE

- There is a **growing need for computer programmers in the job market**, but there are few high-quality and affordable CS education options
- **Mobile app development is expected to grow 32%** from 2010-20

OVERVIEW

- **Since 2017, Apple has partnered with 30 community colleges** to provide a curriculum for its Swift coding language used to build iOS and Mac apps
- Apple provides a curriculum playbook to teachers and online learning tools to students to learn coding through a user-friendly interface
- **Students gain hands-on experience creating Apple apps.** Program includes an introduction to SWIFT, a framework for mobile app development, and programming exercises
- **Curricula are adaptable** and have been included as standalone micro-certificate programs and as part of larger Associate's degree programs
- App development with Swift is an extension of Apple's Everyone Can Code curricula which includes an iBook, exercises, mini projects and quizzes, and teachers guide to K-12 schools

GOALS AND IMPACT

Goals:

- To make learning, writing, and teaching code accessible, and build programming and IT skills

Impact:

- **500,000** students have access across 30 community colleges to Swift curriculums
- **100** students at Mesa Community College have enrolled in an iOS app development micro-certificate program last year

STAKEHOLDERS

- **Higher education institutions:** 30 community colleges
- **Employers:** Apple

POTENTIAL IMPLEMENTATION BARRIERS

- **Free access to coding online can limit interest in paid courses:** Swift e-books and materials published by Apple are available for free online. Colleges need to communicate how their courses are different from/add value to existing online material
- **Upfront time required to develop:** Swift programs offered as credit-bearing classes have greater enrollment numbers than certificate programs, but take longer to develop



University of Maryland

University College Veteran Services

CHALLENGE

- **Special populations often need additional support services** to persist and complete, e.g., veterans
- **Online programs often do not provide the support and benefits** of an in-person education community

OVERVIEW

- University of Maryland University College (UMUC) is a 4-year college founded to serve military and veteran students, providing tailored services including:
 - **Free, online tutoring to students using VA benefits** through a partnership with Tutor.com
 - **Fully online and hybrid degrees** which allow for long distance learning
 - **An online student community dedicated to supporting veterans** which connect veterans and service members with counselors, job opportunities, and academic resources
 - **Financial support for veterans through the Veterans Assistance fund** which provides up to \$3,000 of supplemental income to students who work in low-pay positions

GOALS AND IMPACT

Goals:

- To educate and successfully transition military service members and veterans to civilian life
- To support service members and veterans through degree completion by providing tailored, online services

Impact:

- Enrolls more than 50,000 active duty-military service members, reservists, veterans, and their family members
- Ranked #1 Best for Vets online or nontraditional college and university by *Military Times*

STAKEHOLDERS

- **Higher education:** University System of Maryland
- **Government:** U.S. Department of Veterans Affairs
- **Employers:** Diverse range including business, tech, education, health care, and public safety

POTENTIAL IMPLEMENTATION BARRIERS

- VA benefits support the education funding of the military and veteran community. Additional funds may not be readily available for other high needs communities.



Central NM Community College *Block-Chain Credentials*

CHALLENGE

- Acquiring physical transcripts and related documentation when applying to schools and jobs is often **costly, time intensive, and convoluted for students**

OVERVIEW

- In 2017, Central New Mexico Community College began issuing “student-owned digital credentials” through blockchain that students can share with potential employers and schools
- The blockchain allows students to securely store and share their permanent records, free of charge without an intermediary
- In addition to grades and traditional diplomas or certificates, the digital records also include “micro-credentials,” which verify specific and measurable skills students gain along their educational path, including soft skills like communication, decision making, and time management

GOALS AND IMPACT

Goals:

- Create secure platform to store and share all competency indicators
- Give students more ownership over educational achievements and job search process

Impact:

- 53% graduation rate, compared to 25% in CUNY CCs and 16% national average
- 90% student satisfaction rate with program
- Replication underway in community colleges in Ohio, CA, and NY
- Cost-Benefit study determined ASAP is a productive public investment with high potential monetary returns

STAKEHOLDERS

- **Funders:** NY state and city governments, Center for Economic Opportunity, Robin Hood
- **Higher education:** CUNY colleges

POTENTIAL IMPLEMENTATION BARRIERS

- **Funding availability:** ASAP students receive on average \$3,900
- **Identifying eligible learners:** Low compliance rates with financial aid forms (e.g., FAFSA) can create barriers to identifying sufficient eligible (low-income) learners
- **Organizational capacity:** Program requires staff time for individualized advising, tutoring, and cohort specific classes



Salt Lake Community College *Competency Based Training*

CHALLENGE

- Traditional curricula **award degrees based on credit hours**, increasing time to degree completion
- Experienced professionals may have to **enroll in credit-hour courses to gain certification for skills they have already mastered**

OVERVIEW

- SLCC is a community college devoted to competency-based, one-year or shorter training programs for high-demand, high-paying jobs
- SLCC's competency-based credit system allows students to:
 - **Skip redundant coursework** by testing out of credit requirements using their pre-existing relevant experience
 - **Hold more flexible schedules for learning** by requiring limited in-person activities like lab time but eliminating the vast majority of scheduled classes
 - **Expedite the certification process** through demonstrating competency at any moment in time

GOALS AND IMPACT

Goals:

- To empower students to move at their own pace and advance by demonstrating mastery of specific knowledge and competencies on exams
- To allow experienced professionals to convert their past experience into college credit

Impact:

- Completion rates have **more than doubled** for some programs
- Faculty report **increased student engagement**

STAKEHOLDERS

- **Higher education:** Salt Lake Community College
- **Government:** U.S. Dept. of Education Federal Student Aid
- **Employers:** Diverse range of skills-based professions, including welding, engineering, programming, and technical support

POTENTIAL IMPLEMENTATION BARRIERS

- **Financial aid eligibility:** Federal financial aid eligibility is based on the credit-hour system, forcing schools with competency-based education to apply for special permissions and running the risk of denial



Northeastern University

YouVisit Site for International Students

CHALLENGE

- Overall market **share of international students in the US has dropped from 28% to 20%** from 2001 to 2012
- Many institutions skip the “getting to know you” phase for international students

OVERVIEW

- Recognizing that international students may not be able to visit in-person, but that “getting to know” their school is an important part of the school selection process, Northeastern University worked with YouVisit to develop a platform that:
 - **Provides visual and interactive virtual tours:**
This interactive website involves a friendly virtual tour guide who walks the student through the purpose and functions of each building, allowing students through “walk” through various campus spaces
 - **Tours available in multiple languages:**
Ensures students/parents, regardless of English proficiency, can experience the campus
 - **Highlights multicultural and diverse centers:**
To ensure students understand the inviting environment of the university and campus supports available

GOALS AND IMPACT

Goals:

- To increase the number of international students attending Northeastern and make it a more welcoming and supportive decision experience for students

Impact:

- **Ranks #2 out of 1,300** colleges and universities for popularity with international students with **students from 50 countries represented on campus**
- In 2017, **6,506 international students attended Northeastern**, of the 1,064,586 total international students who came to study in the U.S. that year

STAKEHOLDERS

- **Higher education:** Northeastern University leadership and marketing team
- **Third party:** YouVisit to develop site content

POTENTIAL IMPLEMENTATION BARRIERS

- **Upfront investment required:** YouVisit partnership requires up-front investment to create and program creative site content and quality photos/videos for the virtual tour experience

Northeastern
University

LEGO

Brand Transformation

CHALLENGE

- In the early 2000s, Lego was close to going out of business due to high production costs, diversifying into new business areas too quickly, and siloed internal operations

OVERVIEW

- To address declining profits, the CEO implemented a series of key initiatives:
 - **Closed or licensed out all non-core business** to allow focus on core product ('bricks')
 - **Implemented tight forecasting and inventory processes** to optimize capacity and grow based on size of markets and consumer demographics rather than retailer demands
 - **Centralized logistics** in the EU to a third party
 - **Redesigned the core product** to focus on character-based (small figures) instead of building (tubs of bricks) to reduce piece count and improve margins
 - **Launched digitalization transformation** focused on products (combining physical and digital play), omni-channel marketing, and IT (strengthen enterprise platform, build digital workforce)

GOALS AND IMPACT

Goals:

- To improve Lego's competitive positioning and profitability through a digitalization strategy
- To expand Lego's global presence while sustaining the core business (physical play) and creating an 'organization of the future'

Impact:

- **3-4x greater operating profit** than Hasbro or Mattel in 2015
- **13%** annual revenue growth from 2003-15
- Generated strong brand awareness: **30%** of website traffic from direct and **30-40%** from organic search
- Successfully expanded into adjacent markets including film, video games, video content
- Expanded LegoLand Parks and Discovery Centers from **4 to 17** between 2003-15

KEY ENABLERS

- **Secured top management commitment** to implementing business strategy through digitalization
- **Embedded digitization** across organization
- **Relied on partnerships** for complementary capabilities
- **Co-created value** with customers and communities
- **Created unique, personalized experiences**
- **Updated job specifications** to attract the 'right' talent



Old Spice

Brand Repositioning

CHALLENGE

- Old Spice was a traditional brand of sprays, lotions, and deodorants with a 70-year history
- Old Spice had developed an “old-fashioned” image as a “deodorant brand for grandpas”

OVERVIEW

- To address its branding challenges, Old Spice launched a brand repositioning campaign in 2008:
 - **Used its “old fashioned” image to its advantage** by launching the slogan: “The original. If your grandfather hadn’t worn it, you wouldn’t exist”
 - **Changed product design** to include sporty red and black packaging instead of grey
 - **Launched targeted, viral marketing campaign** on YouTube, Facebook, Twitter featuring a popular former American football star
 - **Produced 200+ videos featuring football star** in which he directly addressed questions from bloggers and personalities, including popular Q&A sessions, generating 46+ million hits

GOALS AND IMPACT

Goals:

- To modernize Old Spice’s brand and capture a younger customer segment
- To grow revenue

Impact:

- Revenue grew **55%** within 3 months
- Campaign went viral with **105+ million** YouTube hits and an **800%** spike in Facebook interaction
- Created new slogans (“Smell like a man, man” and “The man your man could smell like”) that became the new and enduring brand message
- Strengthened market position in the long-run

KEY ENABLERS

- **Owned its image** and spun it in a new way that was more attractive to target customers
- **Met the target customer segment where they were** by focusing on social media platforms
- **Encouraged repeat engagement** from target customers through Q&A YouTube videos
- **Brought on the right spokesperson** to be the face of the new brand



Microsoft Strategic Shift

CHALLENGE

- In the late 2000s and early 2010s, Microsoft's growth stagnated as it struggled to compete with Apple in the consumer electronics market and saw market share in traditional software eroded by cloud-based new entrants

OVERVIEW

- In order to reinvigorate growth, new CEO Satya Nadella reinvented Microsoft as an enterprise services company that did not depend on direct competition with Apple
 - **Stopped competing with Apple** in certain key markets
 - Discontinued portable music player in the face of the iPod's market dominance
 - Discontinued investment in Windows Phone after ecosystem that could compete with iOS failed to materialize
 - **Invested in complementary products** and services in consumer sector
 - **Focused on gaming** with Xbox hardware and Xbox Live subscription service
 - **Doubled down on enterprise cloud**
 - **Shifted R&D opex** from Windows to cloud services (Azure)
 - **Refocused GTM** to target cloud customers

GOALS AND IMPACT

Goals:

- To increase growth
- To refocus on segments where Microsoft had competitive advantages

Impact:

- Drove **21%** annual topline growth from 2014-present, compared with 2% growth 2008-2013
 - Cloud revenue grew **81% p.a.** from 2014-2017
 - Gaming revenue of **\$10B** in 2018, growing **14% YoY**
- Now neck-and-neck with Amazon as **world's top cloud services provider** by revenue
 - **Doubled market share** from 2014-2017
 - **Beat Amazon as #1** in 2018 with \$26.7B revenue

KEY ENABLERS

- **Strong leadership from visionary CEO** who was able to communicate and execute on ambitious transformation strategy
- **Resource reallocation away from legacy products** toward initiatives that support new strategy
- **Capex investments** to build infrastructure needed for new cloud service offerings
- **Capital markets buy-in** from investors appreciating more predictable recurring revenues from cloud and gaming platforms



Delta College

Fast Start Collaborative with Employers

CHALLENGE

- **There is a disconnect between the education and training** provided by community colleges and employer needs
- **Traditional courses take too long** and are not responsive to immediate industry needs

OVERVIEW

- Fast Start is a collaboration between Delta College and employers to **retrain workers for available jobs in emerging industry**
- Equips learners with **industry-specific technical skills** and critical thinking, team work, and communication skills
- **Employers participate in curriculum development**, provide job demand projections, and give preferential job placements to participants
- Short courses (3.5-15 weeks) delivers **just-in-time training to employees on skills companies need now**
- Training programs for Chemical Process Operator, Computer Numeric Control, Diesel Technician, Manufacturing Assembly
- **50% of learning is hands-on**; employers donate equipment
- Tuition \$2,200-\$5,700 based on program/fin aid

GOALS AND IMPACT

Goals:

- To prepare learners for meaningful employment with the right set of technical and soft skills
- To create a pipeline of high-quality talent for local employers on a tight timeline

Impact:

- **95%+ of program completers receive full-time job offers** with starting wages of \$34,000-\$55,000

STAKEHOLDERS

- **Higher education:** Delta College
- **Nonprofit:** Michigan Works!
- **Employers:** Local advanced, chemical, solar, and battery manufacturers

POTENTIAL IMPLEMENTATION BARRIERS

- **Significant funding required:** Meeting all employer needs requires significant funding for training and job sourcing
- **Small employers make it difficult to prioritize target skills:** Difficult to synthesize employer needs when participants are many small employers
- **Not as useful in contexts with slow labor demand:** Model is based on existence of a local fast-growing industries; may not scale well in areas with weaker growth/job demand



Lake Area Technical Institute *Collaboration with Employers*

CHALLENGE

- Lake Area Technical Institute (LATI) **educates higher-risk learners** (mostly low-income students) who often require additional supports to graduate and find employment

OVERVIEW

- LATI excels in student outcomes through an intensive course structure and tight labor market linkages:
- **(1) Intensive course structure:**
 - Rigid structure requires that nearly all students attend full-time in cohorts that progress together. Attendance is mandatory
 - Students with remedial needs are not held back; instead they are given online materials prior to enrollment
 - Program faculty serve as advisors and are part of a culture of caring about students
- **(2) Tight labor market linkages:**
 - Industry advisory boards participate in curriculum development with faculty, who are expected to codevelop and rapidly iterate on curricula in response to industry needs
 - New programs can be designed in 1 year
 - Emphasis on practical learning with state-of-the-art equipment donated by local employers

GOALS AND IMPACT

Goals:

- To achieve exceptional student outcomes
- To link programs to the regional labor market to ensure employability after graduation

Impact:

- 98% of graduates are employed or are continuing their education
- Graduates earned over 40% more than other new hires in the regional job market

STAKEHOLDERS

- **Higher education:** Lake Area Technical Institute
- **Employers:** Local aviation, automotive, energy, agriculture, and health care employers

POTENTIAL IMPLEMENTATION BARRIERS

- **University culture change to support rapid innovation:** Close linkages with employers require a culture shift within an institution to support rapid iteration on curricula and responsiveness to changing trends
- **Student capacity/readiness for full-time course load:** Rigid, full-time course structure requires students to learn full-time, which may not be a fit for learners who are employed and/or are caregivers



MultiCare Apprenticeship Programs

CHALLENGE

- MultiCare—a nonprofit health care organization—was facing **shortages of RNs and impending retirements of a large share of their nurses**
- **Local training programs were not providing sufficient high-quality talent** to meet MultiCare’s needs

OVERVIEW

- MultiCare sponsors **3 competitive apprenticeship programs for registered nurses** in partnership with Tacoma Community College in Pierce County, WA
- Program benefits include:
 - Tuition coverage and a \$1,000 stipend in exchange for committing to work at MultiCare for 3 years post-program completion
 - **Classroom training** at Tacoma Community College’s LPN-RN program and clinical hours at MultiCare
 - An **on-site career development specialist** who provides advice on advancement opportunities and related training programs, provided by Tacoma-Pierce County Workforce Development Council

GOALS AND IMPACT

Goals:

- To create a pipeline of high-quality talent to fill MultiCare’s nursing needs
- To help learners secure meaningful employment at no cost

Impact:

- 90% program retention rate
- Reduced MultiCare’s recruiting costs by 20%

STAKEHOLDERS

- **Employer:** MultiCare
- **Higher education:** Tacoma Community College
- **Nonprofit:** Tacoma-Pierce County Workforce Development Council

POTENTIAL IMPLEMENTATION BARRIERS

- **Evidence of ROI as a prerequisite for employers to participate:** Employer partners may require demonstrated ROI before being willing to participate in/fund a training program
- **Securing funding:** Apprenticeship programs can be costly and often require pursuing multiple local, state, federal, and private/nonprofit funding sources
- **Syndication and approval layers:** Employers may be required to register apprenticeship programs with multiple state and local agencies and registration processes, requirements, and approval times may differ across state agencies



Degree Map

Personalized Academic Advising

CHALLENGE

- **Lack of transparency** in academic planning leads to lower retention and completion rates among students

OVERVIEW

- Degree Map uses predictive analytics to provide clear paths for students to complete a credential or transfer pathway
- It streamlines and improves academic advising by providing a clear snapshot of a student's degree progress and remaining journey ahead
- Degree Map enables students and advisors to have more tangible and valuable conversations
- Through Degree Map, schools can provide personalized academic advising to students when they need it and at scale
- The tool was piloted at Austin Community College in 2013

GOALS AND IMPACT

Goals:

- Use technology to help students make better informed academic decisions and improve students' likelihood of completion

Impact:

- **2.42% increase in persistence/completion** in one year at Austin Community College among students that used Degree Map compared to those that didn't

STAKEHOLDERS

- **Tech company:** Civitas Learning (Degree Map)
- **Higher education:** Austin Community College (pilot school)

POTENTIAL IMPLEMENTATION BARRIERS

- **Significant funding required:** Requires significant investment, both in upfront technology and data analytics as well as ongoing monitoring to deliver well
- **Stakeholder commitment and collaboration:** Requires support and collaboration from stakeholders across institutions (executives, counselors, IT employees, and students)



Skillful

Markle Initiative to support competency-based hiring

CHALLENGE

- Employers hire based on **credentials rather than relevant skills**
- Employers exclude qualified candidates by **asking for qualifications they don't need for a job**, hurting qualified the 70% of American adults who don't have a 4-year degree

OVERVIEW

- Skillful is a collaboration between employers, educators, nonprofits, and government that uses data and technology tools to:
 - **Provide transparency** around the value of educational and training programs, giving educators a clearer picture of which skills are in demand locally and business a sense of what skills are available in their applicant pool
 - **Support employers on skills-based hiring practices** that can open the talent pool
 - **Use technology and digital tools to create transparency** in the education and labor market ecosystem and to help learners find the right training and support
 - **Align employers and educators** so training programs teach in-demand skills
 - **Create a framework of practical, evidence-based coaching** to support job seekers in achieving strong jobs in high growth industries

GOALS AND IMPACT

Goals:

- To train employers to implement skills-based hiring practices
- To increase transparency in state-led vocational training programs to accurately represent their value for job seekers

Impact:

- Partnered with over **90** companies and served more than **1,400** job seekers through Skillful career coaching
- Expanded from Colorado to Indiana in 2018

STAKEHOLDERS

- **Higher education:** Purdue University, Purdue Extensions
- **Nonprofit:** Markle Foundation
- **Government:** Colorado, Indiana
- **Employers:** Advanced manufacturing and agriculture, health care, and tech; Walmart, LinkedIn, Microsoft

POTENTIAL IMPLEMENTATION BARRIERS

- **Stakeholder coordination:** Needs alignment across many diverse stakeholders, which requires significant convening power
- **Funding:** Received \$25M in funding from Microsoft to expand to Indiana



Pathways in Technology Early College High School

CHALLENGE

- Students graduate from high school **unprepared for middle- to high-skill jobs**
- Traditional routes to high-skill jobs through 4-year institutions college **can take years to complete**

OVERVIEW

- P-TECH is a grade 9-14 school system that provides students with a high school diploma, an industry-recognized Associate's degree, and relevant work experience in a growing field
- P-TECH offers skills-based training which allows high school students to:
 - **Enroll in both traditional courses and business-centric courses** which impart industry-relevant skills
 - **Work towards an Associate's Degree** in computer systems or electromechanical engineering while learning English, science, math, and the arts
 - **Gain hands-on experience in high-skilled industries** through assigned mentors and on-site trips
- To date partnered with 70+ colleges, 550 employers, and operates 110 schools

GOALS AND IMPACT

Goals:

- To provide an accelerated pathway to jobs and careers for high school students
- To give high school students relevant work experience in growing fields

Impact:

- First class **graduation rate 4x the national on-time average** for all community college students
- **80%** of students in first cohort completed paid internships

STAKEHOLDERS

- **Higher education:** New York City College of Technology, City University of New York
- **Government:** New York Department of Education
- **Employers:** Partners across a range of sectors including health IT, advanced manufacturing, and energy tech; IBM

POTENTIAL IMPLEMENTATION BARRIERS

- **Employer commitment to designing curricula:** Needs regional employers with job growth who are willing to engage in curriculum design
- **Corporate sponsorship to provide significant funding:** IBM provides primary source of funding; additional corporate sponsors or other significant funding sources would be needed for replication

Central Valley Higher Education Consortium

Cross-Institute Collaboration within a Region

CHALLENGE

- In 2000, the Central Valley region of California did not provide adequate access to higher education, especially for Latino men
- The region also faces challenges with higher education completion rates and intra-system collaboration

OVERVIEW

- Central Valley Education Consortium (CVHEC) is a nonprofit including 25 higher education leaders in the Central Valley
- CVHEC members collectively coordinate and run 6 initiatives focused on student completion:
 - **15 to Finish** campaign supporting on-time completion by encouraging students to take 15 credits/semester
 - **Co-requisite remediation** to improve remediation at community colleges
 - **Mathematics pathways** to improve college readiness
 - **Guided pathways** to support community college students toward transfer
 - **Financial assistance** to improve access for low-income learners
 - **Nontraditional assessments** to help more students enter college-level courses instead of remediation
- Stakeholders are also building a regional integrated data system

GOALS AND IMPACT

Goals:

- To create scalable initiatives to improve student access, completion, and success in gateway courses
- To create a regional integrated data system

Impact:

- Created a scalable, best-practice model for regional collaboration, including a model for engaging leadership at all levels from presidents and deans to faculty to counseling

STAKEHOLDERS

- **Higher education:** 25 public and private colleges, universities, and community colleges in the Central Valley

POTENTIAL IMPLEMENTATION BARRIERS

- **Significant convening power is required** to coordinate across 25+ higher education stakeholders
- **Creating tangible impact** with 25+ stakeholders requires systems of accountability and measurement that may be difficult to implement and enforce



Unity College

Faculty-Led Online Program

CHALLENGE

- A rapidly-changing labor market increases the need for **lifelong learning**
- **Resistance to digitization and/or lack of support from faculty** can hinder institutions that establish online learning programs from gaining traction

OVERVIEW

- In 2015, Unity College created an online program with heavy faculty input and involvement:
 - **Established a strategic unit** to investigate the potential value of online learning in response to alumni demand for lifelong learning opportunities
 - **Established a separate online education division**, requiring faculty who opted in to be 100% dedicated to online learning and siloing it from the rest of the institution
 - **Identified and hired faculty at other institutions** with “distinct expertise” who might not want to relocate to Unity’s campus
 - **Hired instructional designers** to help faculty tailor syllabi to online learning environment
 - **Consulted industry experts** to understand skills demanded in current job market
 - Backfilled all instructors who entered online program with full-time replacements

GOALS AND IMPACT

Goals:

- Build a new distance education program that reflects labor market needs with 100% faculty buy-in

Impact:

- Grew online enrollment >3x in 3 years
- Grew online programs from 1 master’s program to 5 master’s programs and 4 undergraduate programs
- Achieved faculty buy-in and enthusiasm for online learning

STAKEHOLDERS

- **Higher education:** Unity College (administrators and faculty)
- **Third party:** Online course instructional designers; MindMax (marketing company)

POTENTIAL IMPLEMENTATION BARRIERS

- **Starting a distance education program requires significant investment.** Unity invested \$500K/year for 5 years, in addition to \$1.5M in technology hardware and \$1.5M in software
- **Mindset shifts may be required** to help faculty embrace digital learning
- **Learners in online programs may require additional supports** for persistence and completion



Tech Company Cultural Transformation

CHALLENGE

- Tech Company faced cultural challenges with diversity and inclusion, lack of innovation, and fragmented collaboration across the organization

OVERVIEW

- Tech Company launched a broad culture and diversity & inclusion transformation:
 - **Announced culture transformation as #1 priority** for CEO publicly to hold himself accountable
 - **Completed employee engagement survey** to understand culture baseline
 - **Hosted 20+ design workshops and hackathons** across the company with the goal of rebuilding the company's culture bottom up; workshops included exec team
 - **Launched dedicated D&I ambassadors program** to select leaders for the program and activate the community
 - **Articulated company-specific behaviors** needed to reach future culture aspirations
 - **Selected 30 culture ambassadors** across the organization to lead and role model the transformation/behaviors from within

GOALS AND IMPACT

Goals:

- Design and execute a comprehensive assessment and targeted transformation to rebuild company culture
- Improve diversity & inclusion
- Improve external reputation

Impact:

- Mobilized 20% of the company through culture workshops, resulting in new values with broad buy-in
- Created roadmap to embed new cultural values
- Positive press following the transformation creating excitement about working there—employee base doubled in the last two years

POTENTIAL IMPLEMENTATION BARRIERS

- **Leadership commitment:** CEO expressed strong support for culture transformation
- **Stakeholder buy-in:** Culture ambassadors signaled buy-in at all levels of the organization and across multiple functions; survey collected input to ensure voices across the org were heard
- **Third party:** Engaged with third party expert on cultural transformation to support effort

Insurance Company Cultural Transformation

CHALLENGE

- Insurance Company acquired a tech start-up to shift to a more innovative and competitive culture
- In the face of the transformation, employees lacked strategic clarity, role clarity, and culture of personal ownership

OVERVIEW

- Insurance Company launched a broad cultural transformation aimed at shifting **5 underlying performance limiting mindsets**:
 - **Conducted in-depth organizational health and performance review** including surveying ~5,000 employees, conducting predictive analytics and benchmarking, interviewing ~40 leaders, and conducting 30+ hours of focus groups with employees across levels
 - **Built a health action plan and Project Management Office** to implement the change strategy over the course of 2 years
 - **Evaluated 20+ existing organization initiatives** against new strategic priorities and re-prioritized based on health action plan
 - **Integrated action-planning ‘3 criteria’ test** to ensure biggest impact in fewest actions
 - **Identified Org Health Change Agents** and launched Leadership role modeling initiative

GOALS AND IMPACT

Goals:

- Shift to an innovative culture that provides an on-demand product to customers
- Design and execute a comprehensive cultural transformation to shift performance limiting mindsets at all levels of the company

Impact:

- Statistically significant improvements in organizational health priorities demonstrated through org health resurvey
- Increased overall employee engagement and commitment to the company’s new strategic vision
- A record number of client assets under management in 2017—up 25% in one year

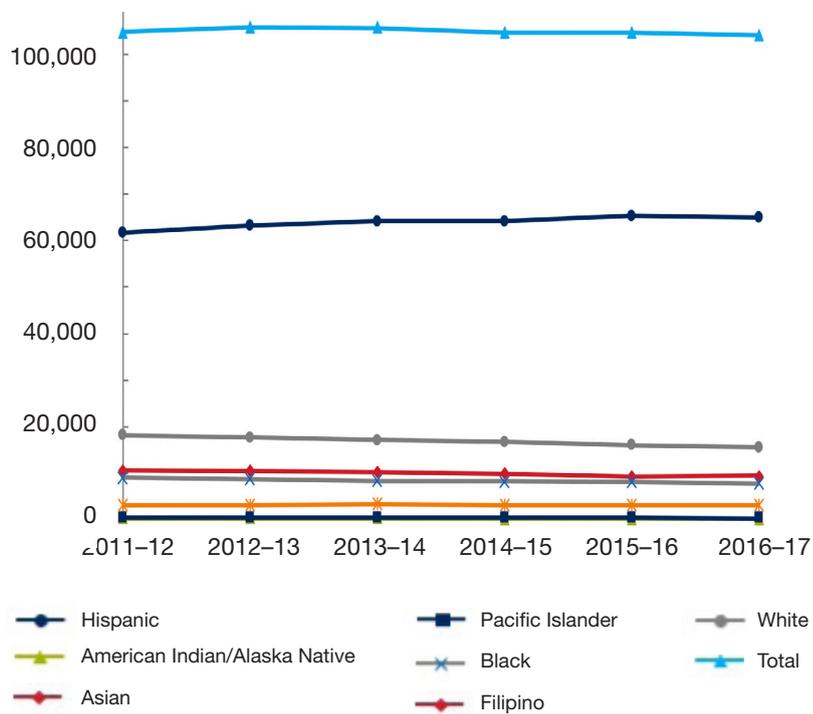
KEY ENABLERS

- **Senior leaders invested ~10% of time** to drive culture transformation, demonstrating true ownership and role modelling
- **Sufficient dedicated resources (~20 FTEs) delivered initiatives** and acted as overall integrators across all health and change management
- **Built monitoring and evaluation into the transformation program** to build momentum and quickly course correct as needed

Appendix: Additional Figures

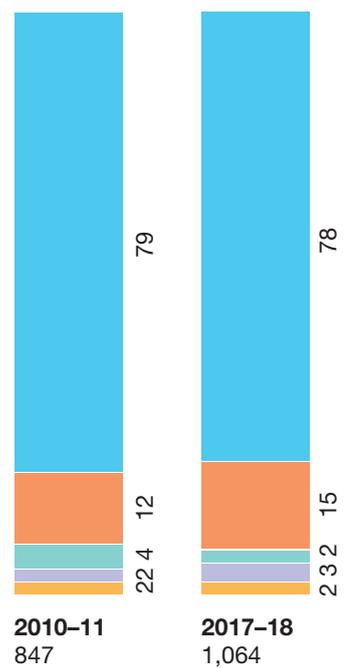
Shifting Demographics

FIGURE A
High school graduates in LA County by race/ethnicity
Number of graduates



SOURCE: California Department of Education; California Department of Finance

FIGURE B
Total Hispanic undergraduate enrollment in institutions in LA
% of undergraduates by age, # students (thousands)

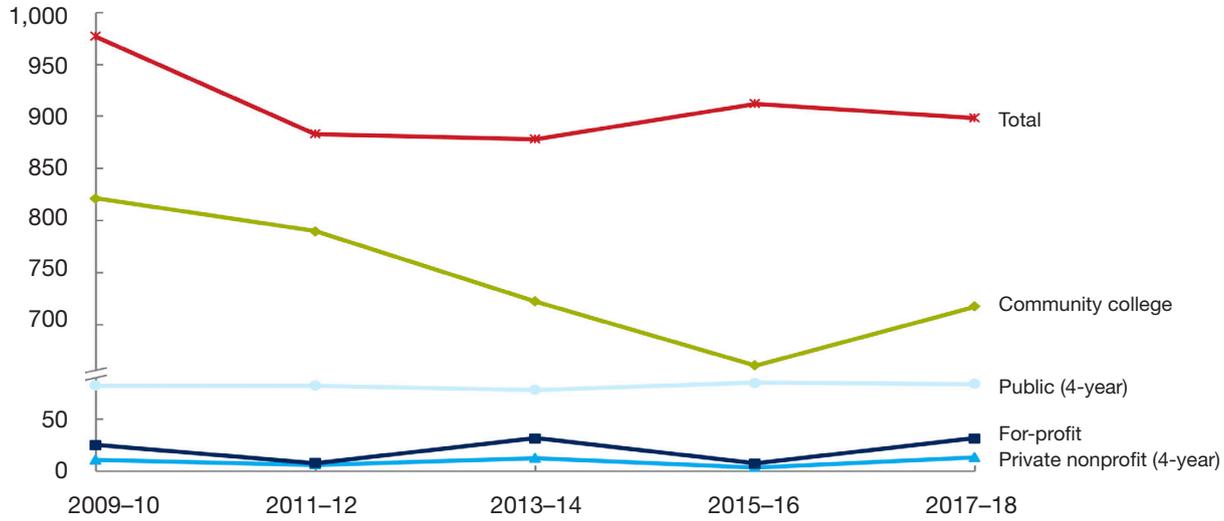


SOURCE: IPEDS, DataMart

FIGURE C

>25-years-old undergraduate* enrollment at institutions in LA

Number of undergraduates, thousands



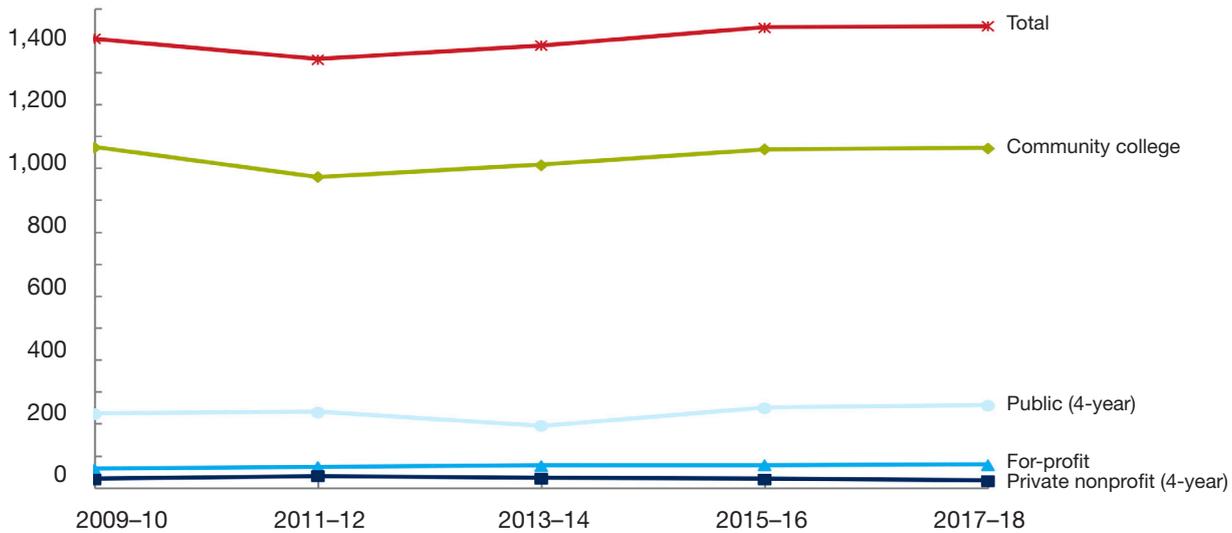
* Data are for total fall undergraduate enrollment for all institution segments except community colleges. For community colleges, undergraduate data are for annual enrollment (Summer, Fall, Winter, and Spring term)

SOURCE: IPEDS, DataMart, CA Department of Finance

FIGURE D

<25-years-old undergraduate* enrollment by segment in LA institutions

of undergraduates, thousands



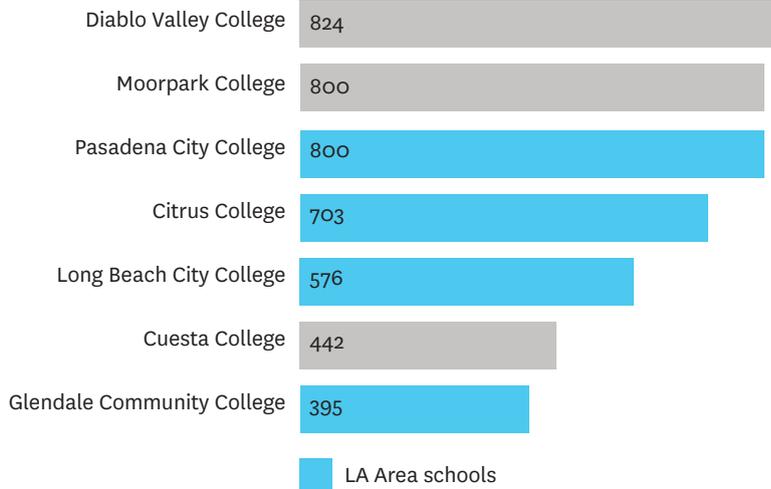
* Data are for total fall undergraduate enrollment for all institution segments except community colleges, including in-state, out-of-state, and international learners. For community colleges, undergraduate data are for annual enrollment (Summer, Fall, Winter, and Spring term)

SOURCE: IPEDS, DataMart

FIGURE E

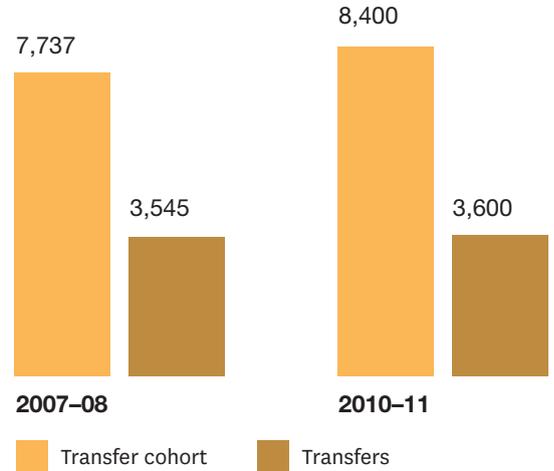
Although 4 of the top 7 colleges in CA for Associate's Degrees for Transfer are in LA County...

of associate's degrees for transfer granted, 2015-16



...less than half of the students who show intent to transfer at LA Area CCs make it to a 4-year institution

Transfer cohort* vs # transfers within 8 years of enrolling



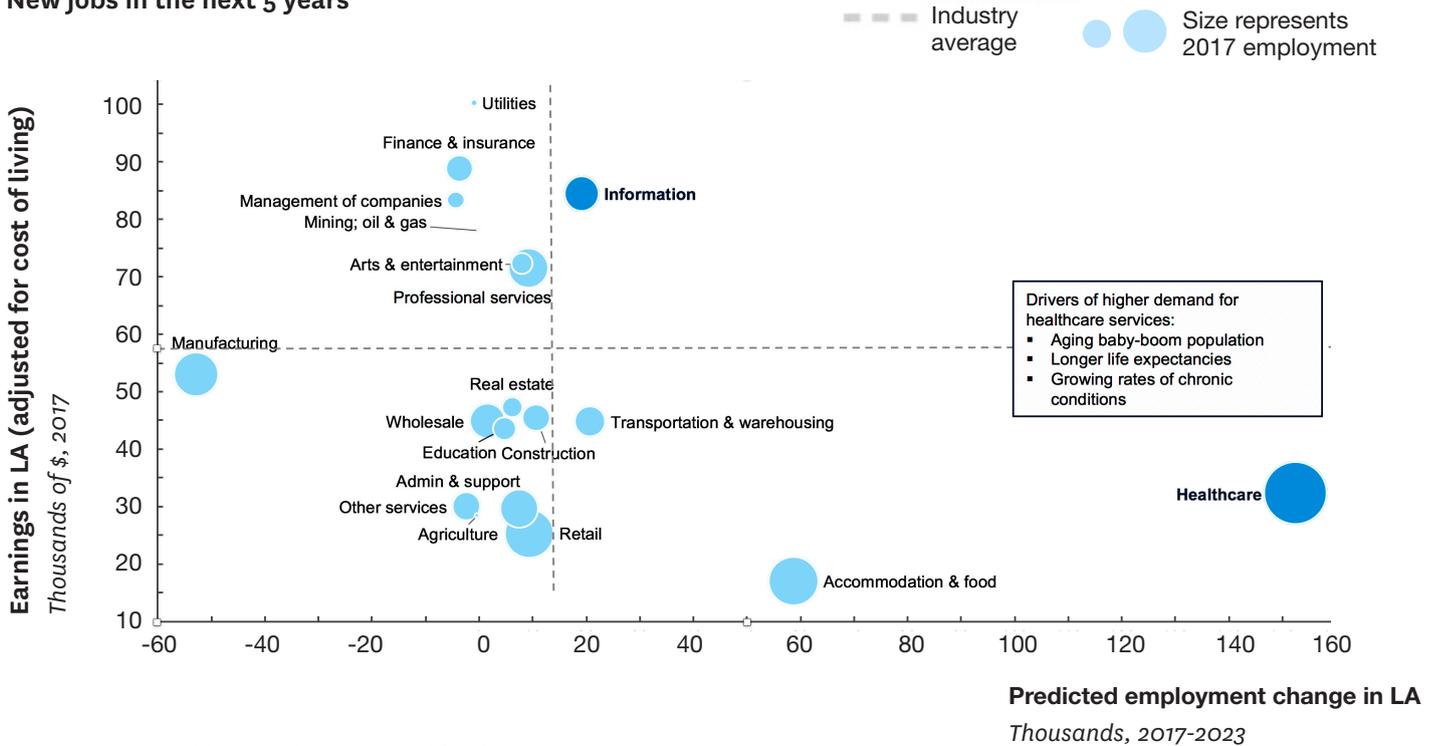
* The "Transfer Cohort" is defined as students who have completed 12 credit units and attempted transfer-level math or English by 6 years after initial enrollment. This is considered demonstrated "behavioral intent to transfer"

SOURCE: Campaign for College Opportunity

Changing labor market conditions and automation

FIGURE F

New jobs in the next 5 years

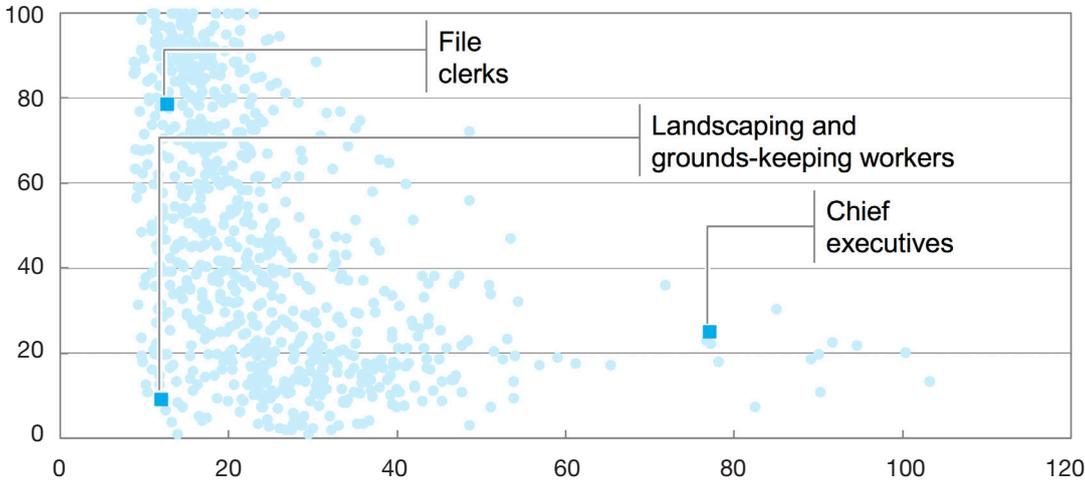


SOURCE: Economic Modeling Specialists International (EMSI)

FIGURE G

Risk for Automation

Percent of time activities that could be automated using existing technologies

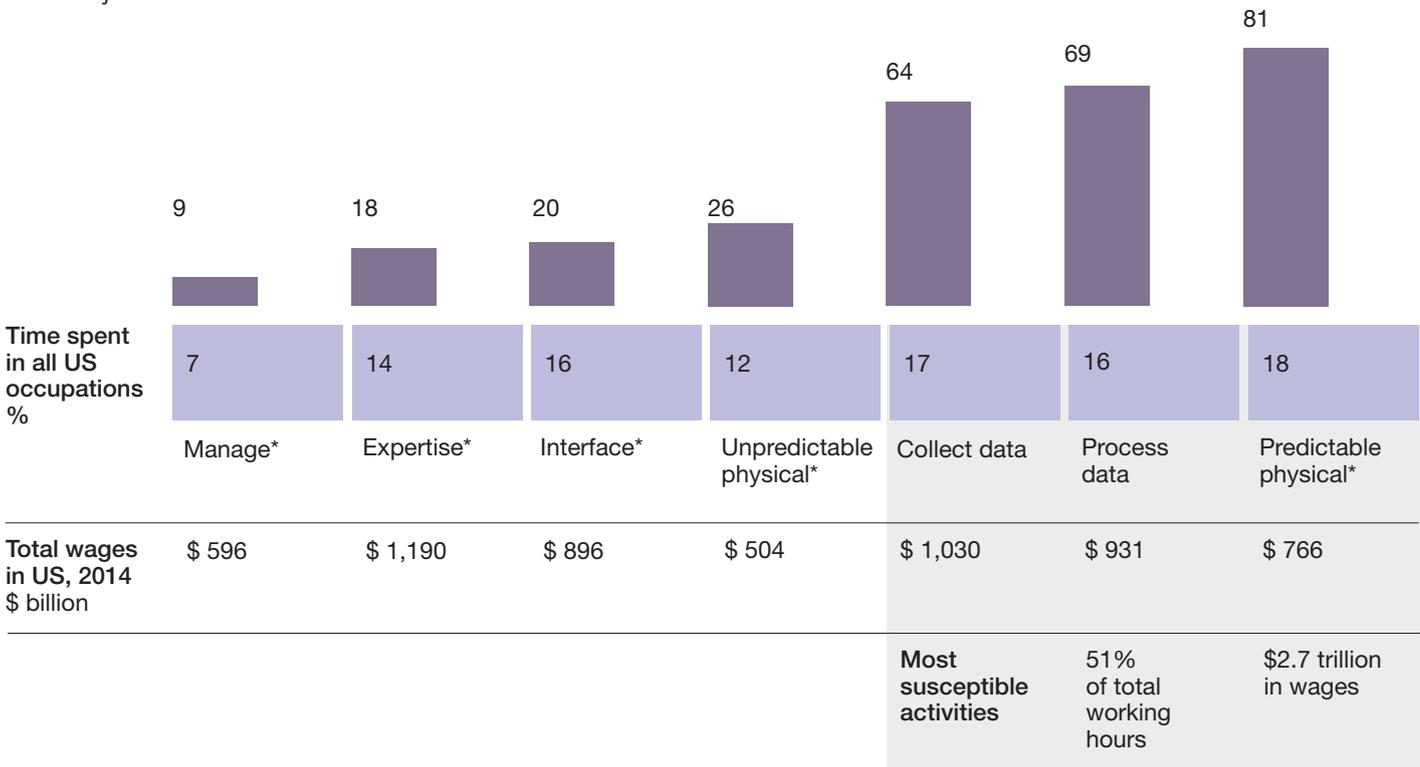


SOURCE: McKinsey Global Institute analysis

FIGURE H

Time spent on activities that can be automated by adapting currently demonstrated technology

Percent of time

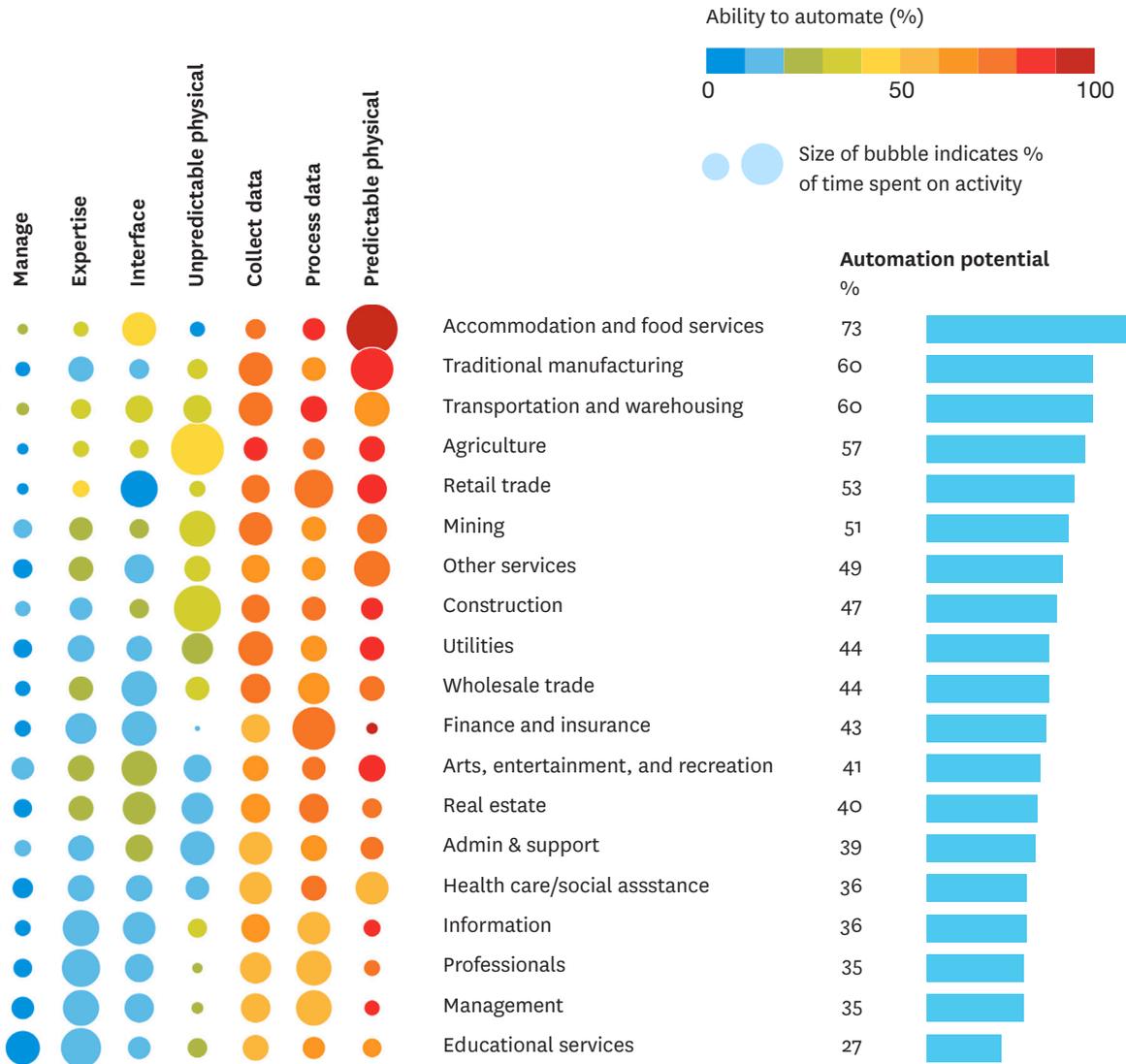


* **Managing** and developing people; Applying **expertise** to decision making, planning, and creative tasks; **Interfacing** with stakeholder; Performing **physical activities** and operating machinery in **unpredictable** environments; Performing **physical activities** and operating machinery in **predictable** environments
 NOTE: Numbers may not sum to 100% due to rounding

SOURCE: US Bureau of Labor Statistics; McKinsey Global Institute analysis

FIGURE J

Sectors Most Prone to Automation



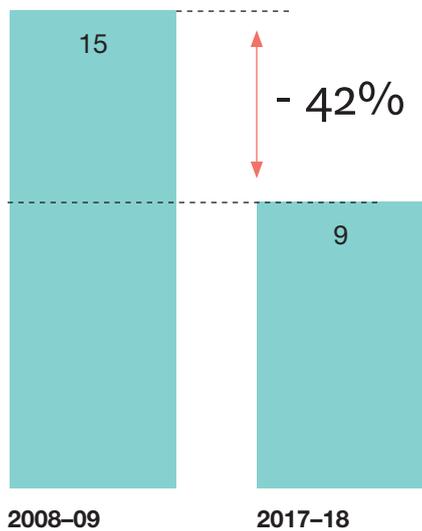
SOURCE: US Bureau of Labor Statistics; McKinsey Global Institute analysis

Shifting economics and competitive landscape

FIGURE K

First-time fall undergraduate enrollment in LA for-profit institutions is declining...

Number of undergraduates, thousands



...But some of the largest campuses are growing rapidly

Number of first-time fall undergraduates in LA for-profit institutions, 2016-17

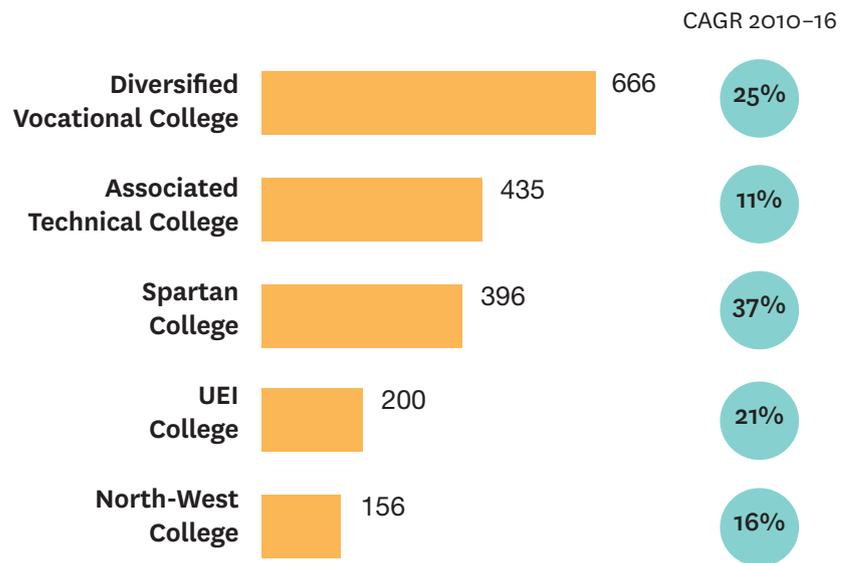


FIGURE L

Nontraditional Education Providers

| Scenario | What you need to believe | Impact on CCs | Likelihood |
|--|--|--|------------|
| 1. Alternative degrees remain supplementary | <ul style="list-style-type: none"> Mainly used by higher-skilled workers interested in improving discrete skills Are only valuable in conjunction with a traditional degree | Neutral to positive: If complementary to AS/Certificates, could positively impact CC enrollment | Medium |
| 2. Some alternative degrees replace AS/Certificates | <ul style="list-style-type: none"> Employers in certain industries value alternative credentials equally or more highly than traditional degrees Become valuable to low-mid skilled workers | Negative: CCs may lose enrollment to alternate credential providers who compete on cost, time to completion, and innovative delivery models | High |
| 3. Alternate credentials replace a majority of AS/Certificates | <ul style="list-style-type: none"> Employers in most industries value alternative credentials equally or more than traditional degrees There are alternative credentials spanning low-high skilled occupations | Negative: CCs would lose significant market share to nontraditional providers unless able to offer a comparable product | Low |

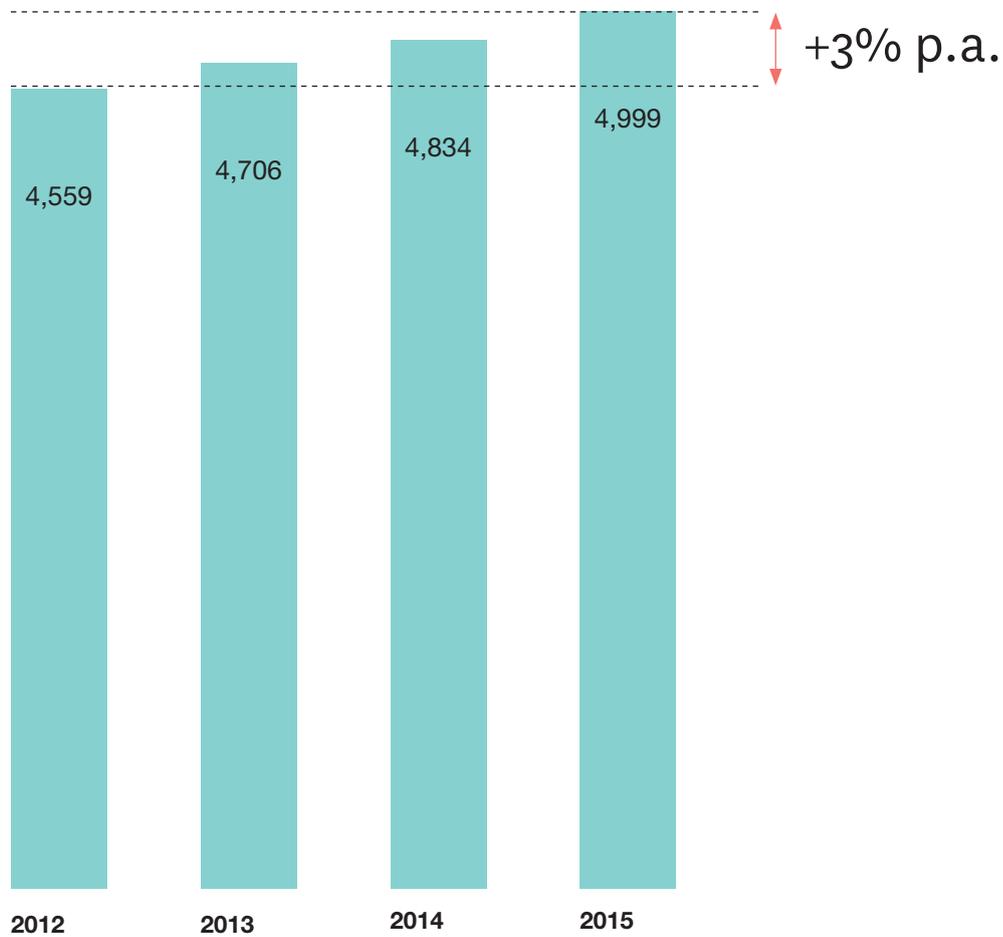
SOURCE: Forbes; Company websites

Transformation of learning through technology

FIGURE M

Growth in undergraduate distance learning*

Number of students participating in a form of distance learning, thousands



* Distance learning is defined as taking at least one course outside of a traditional classroom environment, such as through an online course

SOURCE: Digital Learning Compass: Distance Education Enrollment Report 2017

FIGURE N

Examples of Blockchain in Education

| | <i>Product</i> | | <i>Description</i> |
|--|---------------------------------------|--|--|
| Information management | Educational Blockchain Website |   | <ul style="list-style-type: none"> ▪ Educational platform that allows educators to store transcripts on blockchain and access them online |
| | Indorse |  | <ul style="list-style-type: none"> ▪ Uses blockchain for skill validation to verify digital badge portfolios to verify learners' informal learning, e.g., online bootcamps |
| | San Jose State Library |  | <ul style="list-style-type: none"> ▪ San Jose State University received a grant to explore the use of blockchain for university libraries ▪ Potential applications include building enhanced metadata archive, developing a protocol for community-based collections, and facilitating more effective management of digital rights |
| Refining the higher education marketplace | Woolf Development |  | <ul style="list-style-type: none"> ▪ Platform startup that aims to be a fully-accredited, borderless, blockchain-powered university ▪ Will use blockchain to enforce regulatory compliance, reduce bureaucracy, and manage custodianship of sensitive financial and personal information |
| | Disciplina |  | <ul style="list-style-type: none"> ▪ Developing the first blockchain to create verified personal profiles based on academic and professional achievements |

SOURCE: Inside Higher Ed; Chronicle of Higher Education; Artificial Intelligence Market in the US Education Sector Report



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California Community Colleges

Funded by the California Community College Chancellor's Office under Strong Workforce Program (SWP) Los Angeles Regional Project under a grant agreement awarded to Santa Monica College as the lead college for SWP Round 2.



CENTER FOR A COMPETITIVE WORKFORCE

Spine:
Please size width to
fit actual spine size.
Vertical positioning is
correct.

