CAN TECHNOLOGY HELP US GET FUTURE-READY?

COMMUNITY LEADERS SAY ONLINE COLLEGE CAN PREPARE STUDENTS AND WORKERS FOR THE FUTURE

CAFWD: A Catalyst for a Better California

CALIFORNIA ECONOMIC SUMMIT

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Future of Work MeetUps

"Jobs are being partially or completely replaced by technology and the use of artificial intelligence. However, many jobs will still require some level of human interaction to be successful. The challenge we face lies in changing the way we train people for this new high-tech workplace."

Kristie Griffin, Dignity Health

Future of Work MeetUps

EXECUTIVE SUMMARY

"We felt it was important to bring this conversation to our region as it aligns with one of our main initiatives: workforce development. Addressing the issue of 'stranded' adult workers is crucial to the economic vitality of our region. The solutions and ideas uncovered will lead to improving the ability of our residents to earn a living wage and engage in a fulfilling career."

Kate Roberts, MBEP

In early 2018, hundreds of community and business leaders from 14 diverse regions came together to talk about the complexities of the future of work – the dynamic, fascinating and, at times, unsettling future of work. These sessions included discussions and real-time polling to gather input from stakeholder groups. Additionally, a Tennessee statewide survey tool was adapted for California's use to gather feedback from business leaders and workers about skill demands in the workplace, specifically to understand and improve how employees are supported in achieving their desired level of education. The survey, California Future of Work Survey, added approximately 124 responses from employers and just under 100 workers added to the data pool for additional insights into the complexity of the future of work.

In each meetup conversation, Van Ton-Quinlivan, California Community Colleges executive vice chancellor for Workforce and Digital Futures, led the group through several key issues, looking for guidance from the leaders on ways to better serve the 2.5 million Californians who are not adequately trained to prosper in a booming economy.

The **Governor's Online Community College proposal** was put on the table as a way to increase access to skills training for these "stranded workers" who have not been able to take advantage of the state's low-cost and extensive network of traditional brick-and-mortar colleges. With a competency-based structure uncoupled from the semester calendar, employers can more easily partner with the state's college assets to upskill current employees or provide guidance on industry-valued credentials for current and anticipated openings.

The feedback was consistent across all 21 "Future of Work MeetUps," focusing strongly on the design elements that will make this online college successful and aligned with the results from the online survey.

"Advancing technology and industry changes have shifted the paradigm of an entry-level worker – it's no longer effective to hire someone right out of high school and train them on the job. For instance, advanced 'smart' energy meters now necessitate a different set of workforce skills. The energy efficiency programs I directly support involve training of contractors and an external workforce, to enhance their competencies and reduce skills gaps. Specialized skills are needed to install energy equipment that complies with increasingly stringent requirements and more demanding building design specifications."

Rodney Davis, SoCalGas

Future of Work MeetUps
TOP RECOMMENDATIONS[1]

"As our businesses change because of technology, we need to be able to respond accordingly. The governor's proposal is an encouraging effort to provide much-needed support and training opportunities for those currently working in or interested in small business."
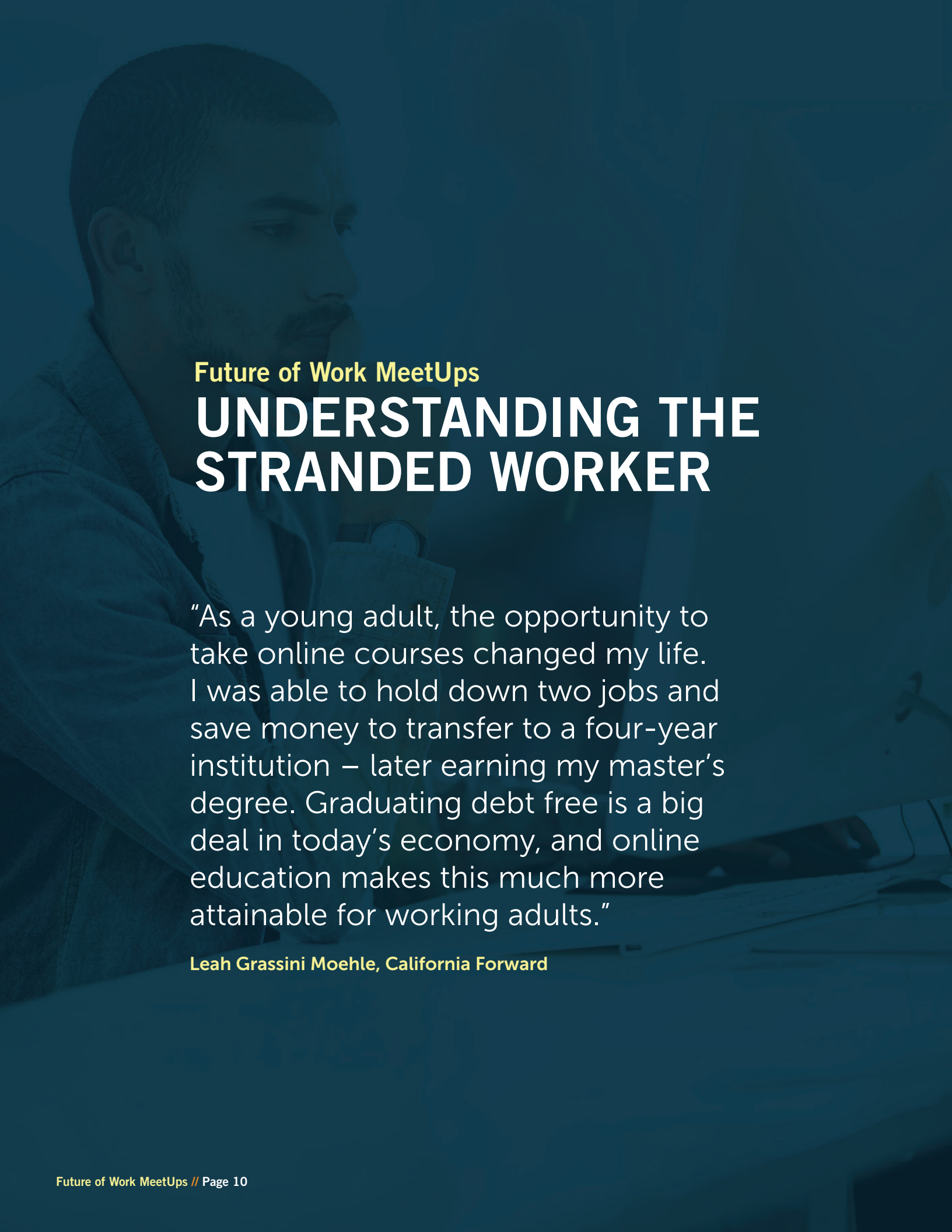
Julian Canete, California Hispanic Chambers of Commerce

1 **High-support student experience**. A comprehensive support infrastructure is key to make sure the online college is culturally appropriate, incorporates faculty interaction, creates social networks and provides significant onboarding support for those non-digital natives – a substantial portion of the target population.

2 **Access to technology and equipment, including broadband**. Students and workers must have access to technology and reliable internet for this to be effective. Many leaders recommended the colleges partner with community organizations (e.g., libraries, high schools, co-working spaces, mobile labs) to make sure the services are readily available and included as part of the tuition (no additional cost).

3 **Cultural adeptness**. Out of the 2.5 million stranded working adults[2], 49 percent are from Spanish-speaking households and struggle to access traditional higher education. Support services, access to technology, multilingual infrastructure and community awareness of the online college will be essential.

4 **Relevancy and efficiency**. Many stranded workers are between the age of 35 and 65 and have a high school diploma, but no college degree. Older working adults will require enhanced support to learn in an online infrastructure, flexible scheduling and employer-verified skill-based programs that can be completed quickly and offer more immediate post-credential employment.

"The all-online community college is great for someone like me. I am currently working toward a graduate degree through an all-online program and teaching an adult education class that is computer-based."

Oscar Guajardo, Santa Rosa Junior College

1. For the full list of recommendations, see Appendix A. 2. For background on the stranded worker, see Appendix B.

UNDERSTANDING THE STRANDED WORKER

"As a young adult, the opportunity to take online courses changed my life. I was able to hold down two jobs and save money to transfer to a four-year institution – later earning my master's degree. Graduating debt free is a big deal in today's economy, and online education makes this much more attainable for working adults."

Leah Grassini Moehle, California Forward

The term "stranded worker" defines individuals who, because of an inability to access job skills, feel displaced in today's workforce; they may have difficulty envisioning personal prosperity in the technology-driven workforce to come. We're talking, specifically, about working adults who may have attended college but don't hold an industry-valued certificate, as well as those adults who need short bursts of additional training to move ahead in today's economy. We want to make it possible for these individuals to return to college to finish a certificate program or earn a degree.

Stranded Californians feel displaced in the current economy and are likely to have even fewer opportunities in the future. As a result, every community and region have people who are eager to work, but don't fit well into this new world of work.

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"We need to remember that all of us will be stranded if we do not keep upskilling. Employers need ongoing, continuous processes where programs can continue to grow and evolve as the needs change."

Cynthia Murray, North Bay Leadership Council

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As California transitions to a low-carbon, high-tech economy, as more jobs are automated or are oriented to automated workplaces, regions must help employers and workers to adapt and innovate for families, regions and the state to thrive. California employers cannot grow and remain competitive without adequately trained skilled workers.

Here are some of the populations of stranded working adults in California:

- People with some college, but no degree
- Unemployed/underemployed
- People with an outdated degree or skill set
- Veterans
- Individuals with a history in the criminal justice system
- Immigrants/adults with limited English
- Single parents
- People who cannot pass a drug test due to changes in state law

After polling audience members at 13 of the meetups over 14 diverse communities and receiving 2,073 responses (more than one characteristic could be selected), the data revealed the stranded populations common to all regions are:

- Immigrants/adults with limited English
- People with an outdated degree or skill set
- Underemployed
- Individuals with a history in the criminal justice system

These Californians need additional skills to advance from an entry-level position to earn a living wage. According to the California Future of Work Employee Survey, unaffordable tuition and fees, inconvenient class times, inconvenient school locations and classes conflicting with family responsibilities were the most significant barriers, having been selected most commonly as "a major barrier" or "somewhat of a barrier."

Employees indicated that employers could help them pursue their educational goals by providing a flexible work schedule, tuition reimbursement and knowledge about the skills that would advance their career. Eighty percent of employees surveyed said their employers could provide a flexible work schedule to help them pursue their educational goals, with tuition reimbursement coming in behind at 70 percent, followed by knowing which degree/credential would help advance their career at 50 percent.

The employer survey found that companies were nearly evenly split when it comes to tuition reimbursement – 51 percent of those surveyed do not offer it and 49 percent do. Of those that do not offer tuition reimbursement, 63 percent said cost was a barrier; 19 percent said the time to execute such a program was a factor; 21 percent indicated the return on investment was too low and 23 percent cited "other," which included answers such as: "in process of creation now;" "lacking information on how to offer;" "lack of resources to implement" and "not applicable."

Thirty-nine percent of employers said they would be willing to offer flexible work schedules to employees interested in earning a certificate or degree, or upskilling, and 32 percent said they only would if it were job related. Eighteen percent already offered flexible work schedules, and 12 percent said they would not be willing to offer them.

Figure 1. Would you be willing to offer flexible work schedules to employees interested in earning a certificate/degree or upskilling?
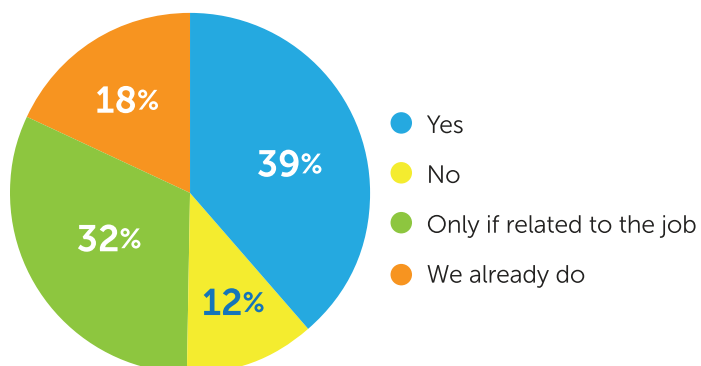

- Yes
- No
- Only if related to the job
- We already do

Table 1: Worker Perceptions of Barriers to Further Education
Extent to which select barriers impact the pursuit of further education

Barriers	Not a barrier at all	Somewhat of a barrier	A major barrier	Number of responses
Tuition/fees not affordable	12%	44%	43%	97
Class times not convenient	17%	45%	38%	97
School location not convenient	33%	41%	26%	97
Transportation a problem	63%	28%	9%	97
Classes conflicted with family responsibilities	40%	33%	27%	96
Child care difficult to secure	70%	20%	10%	96
Defaulted on past student loans	81%	10%	8%	96
Could not maintain acceptable grades	83%	16%	1%	95
Did not see benefit of additional education for current or future role at the company	64%	30%	6%	95

Source: California Future of Work Employee Survey
*Not all rows total to 100% due to rounding

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"The online college, the system's 115th college, can be an access point to opportunity for so many Californians."

Gurminder Sangha, California Community Colleges

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Table 2: Worker Requests to Employers for Support
What employers/organizations could provide to help employees pursue their educational goals

How employer can help	Percentage who said this would help
Tuition reimbursement	70%
Flexible work schedule	80%
Knowing which degree/credential would help advance career	50%
Financial aid for books, lab fees, commuting costs, etc.	47%
Computer skills training	26%
Mentoring program with employees who have completed their degrees/certificates	34%
Networking opportunities with other employees who are enrolled in school	30%
More opportunities to learn online	47%
Opportunities in the work week to practice new skills	36%
Onsite classes that earn college credit	34%
Graduation recognition	21%
Online classes	37%
Other write-in: - On-site child care center (1) - Tutoring in focused tech area (1) - Shadowing (1)	4%

Source: California Future of Work Employee Survey

"So many students are not prepared to be successful in an online environment or understand how to gather information in an online world. This is an incredible opportunity if we are thoughtful about the onboarding experience."

Susan Wheeler, Sacramento Municipal Utility District

PREPARING CALIFORNIA FOR THE FUTURE

"A big vineyard generally requires a crew of 30-40 people, even more during high times. Technology has shifted this to allow for only a few workers to handle the machines that now do the work of the original crew. Automation has had a significant impact on my industry."

Tony Crabb, Puma Springs Vineyards

"I am very excited for the online college as it will be a huge opportunity for current military personnel. This college has the potential to support the needs of thousands of service members, particularly the Infantry. Their unpredictable schedules can make it difficult to wait for the next semester start date or sit in a class for an entire quarter or semester to complete their course or training. The online college would provide the flexible course offerings (Tucker, 2007) and affordable option these workers need to further their education while on active duty."

Margaret L. Rueda, San Bernardino Community College District

Artificial intelligence, the rise of gig economy platforms and a new wave of automation will further change the future of work and the skill sets required to thrive in the workforce. Employers, workers and job seekers will all be impacted and must learn new skills to avoid being stranded.

Based on results of the meetups, 48 percent of participants think that in the next five to 10 years automation will be a "noticeable disruption" in their workplace, and 8 percent believe it will have maximum disruption in their workplace.

Anticipating these shifts – they are happening now – and preparing appropriate mechanisms to help workers keep pace with change is pivotal to California's social and economic prosperity.

Feedback gathered through the survey tool and during the meetups revealed significant interest in investing in a cohesive digital learning infrastructure to support the needs of California's diverse workforce (current students, stranded workers, incumbent workers) and provide more opportunities for workers to get "booster shots" of skills.

Online learning has enormous potential to reach people who, for several documented reasons, are unlikely to succeed through on-campus, semester-based instruction. Western Governors University (WGU) – a Utah-based online college dedicated to granting career-focused degrees at an accelerated pace and at an affordable price – recently partnered with the California Community Colleges system to allow more Californians to transfer and earn a bachelor's degree. Western Governors University enrolls 9,350 Californians – approximately 10 percent of total enrollment, and the third-largest percentage of students from other states, behind Washington and Texas, according to its website.

Arizona State University (ASU) Online has seen a 60-percent increase in freshmen enrollment since fall 2016 and serves approximately 12,500 Californians. This is only expected to grow with the new ASU California Center focused on recruiting more residents from the Golden State, according to ASU Online. Both WGU and ASU offer multiple start dates each year and provide significant student support and mentoring at the program and class levels.

Of the 2.5 million working-age Californians in need of "upskilling," 49 percent are Latino, 31 percent white, 9 percent Asian and 7 percent African American, according to the U.S. Census Bureau. Many of them are the primary wage earner for their household, often working full-time jobs and caring for children and aging parents. A recent study of ASU Online, titled "ASU Online Performance Gap Analysis," reveals that at-risk students fare no worse – and in some cases substantially better – in online than in on-campus environments.

Competency-based learning, flexible start times for programs and personalized multilingual support will make online learning more effective and reduce the barriers for those populations struggling to get ahead.

California has an opportunity to be creative about how education and learning is delivered. In this digital age, education and learning can meet people where they are – without requiring them to fight rush-hour traffic for an extended period of time to earn a credential or degree.

"Last year, the Huffington Post ran an article stating that 85 percent of the jobs that will exist in 2030 haven't even been invented yet. The World Economic Forum says that 65 percent of children entering primary school today will end up working in jobs that don't exist yet. These are staggering figures, and the key to this kind of market volatility is the opportunity for lifelong learning and career-long skills attainment. The online community college concept would provide an affordable, accessible option for just this kind of learning, no matter what the participants' background or their availability for traditional post-secondary education."

**Nick Loret de Mola,
California Workforce Association**

MOBILIZING PUBLIC-PRIVATE PARTNERSHIPS

"There is a difference between educators who think their students are career-ready and what the students and employers think. A continuous feedback loop must be built into the process to make sure the coursework is viable and relevant. Co-designing pathways and curriculum with employers and industry is a great way to make sure the right skills are being taught out of the gate."

Cynthia Murray, North Bay Leadership Council

Investments and reforms in workforce development are closing the gap between educational institutions and employers, making sure more students and workers are gaining the skills and experiences needed to enter the workforce and advance over time.
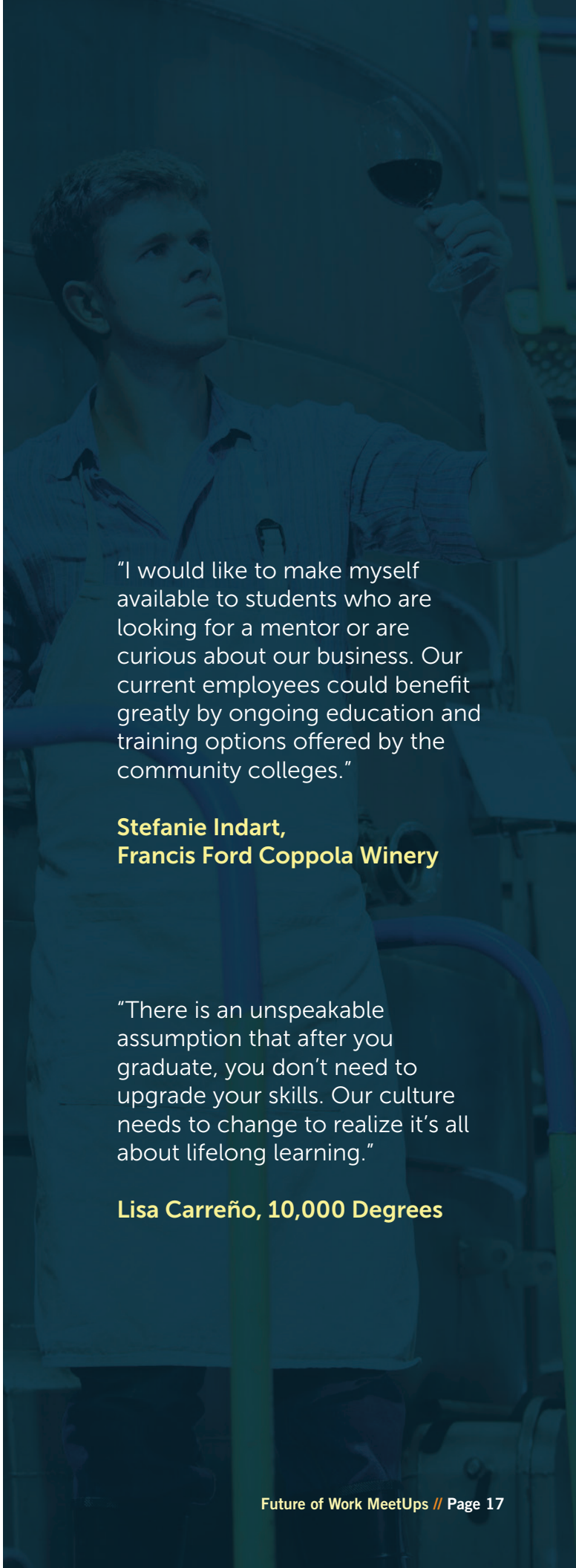
Future of Work attendees consistently recommended that strong regional public-private partnerships be used to help execute a plan for developing digital learning infrastructures and that employers must be at the center of curriculum design and training development. Creating the infrastructure will limit barriers to upskilling and working closely with employers will limit a mismatch between skills taught and skills required to do the job.

In Southeast Los Angeles, Jessica Kim with the South Bay Workforce Investment Board and Marjean Clements with the Southeast Los Angeles County Workforce Development Board shared examples of how they had been working with employers to build curriculum related to smart meters and robot programming and maintenance. These examples were shared as a response to SoCalGas, which was experiencing a shift in the skills workers have and what they need to have – moving from workers who can read meters to workers who can understand and repair smart meters.

In Antelope Valley, Orville Dothage with Northrop Grumman is proud of the company's partnership with Antelope Valley College and Goodwill Southern California to create a talent pool large enough to fill thousands of vacancies created by a new, at that time, Department of Defense contract. Simon Lopez from Goodwill explained that the partnership was a "win-win-win," resulting in a homegrown skilled and stable workforce, allowing local employers to pay reasonable wages to local talent, stabilizing the economy and creating a profitable environment for local business.

Strong public-private partnerships are the "secret sauce" for a resilient workforce and need to play a key role in future workforce investments.

In 2017, the California Economic Summit launched the Partnerships for Industry and Education (PIE) Contest to crowd-source and promote promising practices. The contest successfully surfaced numerous unheralded projects and spotlighted the value to employers, educators and students. The nomination period for this year's contest opens June 11.

"I would like to make myself available to students who are looking for a mentor or are curious about our business. Our current employees could benefit greatly by ongoing education and training options offered by the community colleges."

**Stefanie Indart,
Francis Ford Coppola Winery**

"There is an unspeakable assumption that after you graduate, you don't need to upgrade your skills. Our culture needs to change to realize it's all about lifelong learning."

Lisa Carreño, 10,000 Degrees

IMPLEMENTING TECHNOLOGY INFRASTRUCTURE AND EXPANDING ON STRONG WORKFORCE

"Governor Brown's online community college proposal can be a catalyst to change aspects of the traditional structure of the other 114 colleges to be more responsive to the changing needs of the economy, employers and workers."

Before the creation of the PIE Contest, the California Community Colleges' $200 million Strong Workforce Program (SWP) was enacted to increase social mobility through "more and better" career technical education driven by labor-market data, focused on outcomes and funded based on regional needs and performance. The California Economic Summit was involved in the development, enactment and implementation of the program to advance a shared goal for 1 million more middle-skilled workers by 2026.

Of the $200 million annual Strong Workforce investment, 40 percent of the funds are designed to be deployed by the region, requiring community college leaders and key external business and community leaders to decide together how to best invest the funds. Each year, the colleges publicly release the region's investment plan, increasing transparency and commitment to public-private collaboration toward a strong economy.

Implementing new and creative technology infrastructures and expanding the structural policy elements of the Strong Workforce Program are essential to developing effective pipelines that enable Californians to be economically resilient. In every Future of Work MeetUp, participants shared stories about the positive impacts of the Strong Workforce Program in their region. This feedback also solidifies the value of public-private partnerships to students, workers and employers to meet today's needs, as well as to anticipate and adapt to the future workplace.

This process also validated the challenge that lies ahead – working collectively to reach the 2.5 million stranded workers. Governor Brown's online community college proposal can be a catalyst to change aspects of the traditional structure of the other 114 colleges to be more responsive to the changing needs of the economy, employers and workers, with faster curriculum development, more flexible start and run times, processes that make it easier for employers and industry to co-design training and more opportunities to work alongside community and workforce leaders to align dollars and avoid duplicative efforts.

NEXT STEPS

Over the next six months, the California Economic Summit will focus on further developing this constituency to inform, shape and support the significant changes needed to better serve stranded workers; encourage the full potential of the Strong Workforce Program to align K-12 education and workforce training efforts; and elevate the imperative of innovative public-private partnerships to develop adaptive skill pipelines and resilient workers.

Appendix A: Design Recommendations for the Online Community College

The following recommendations were collected during the Future of Work MeetUp series from Feb. 26, 2018 to April 23, 2018.

High-Support Student Experience

- Onboarding support designed for the non-digital native, including an orientation course to help students master the basics and know what to expect (e.g., using platform, uploading documents, Zoom)
- Family and personal support (e.g., child care, transportation, mental health services and drug testing)
- Personalized digital learning platform for each learner
- In-person social interaction — create community hubs for digital and learning support
- Mentors for students — faculty needs to be high-touch
- Targeted intervention for stranded workers to connect to the opportunity
- Opportunity to teach students to build an online reputation that is often key to getting in the door for an interview
- Design curriculum that can be completed in a timeframe that matches a worker's average commute and can be done with a smart phone
- Match up students (e.g., someone who is more digitally fluent with someone who is not, someone who is younger with someone with more experience) to support each other through the training and create a sense of connectedness

Access to Technology and Equipment, Including Broadband

- Greater investment in improving broadband infrastructure
- Access to technology and equipment — embrace the sharing economy (e.g., partner with communities to provide access to co-working spaces like "we work," computer labs, internet, mobile internet services)
- Safeguards built in to avoid plagiarism
- Upgrade public transportation, ride-share services, planes and other transportation to provide quality Wi-Fi to support learning

Cultural Adeptness

- Onboarding support in multiple languages, especially Spanish
- Promote the college with the non-digital, English as a second language learner in mind
- Advertise in places where stranded workers might frequent (e.g., buses, DMV, churches, local parks, food bank)
- Research the use of "smart ads" that get pushed directly to cell phones based on zip codes, internet searches and more
- Community involvement to ensure cultural inclusion
- Work with community-based organizations, workforce development boards, adult education and others to ensure equitable access, especially for the immigrant community
- Opportunity to partner with churches, community centers and others who work regularly with the low-income and immigrant populations

Relevancy and Efficiency

- Flexible scheduling, with lots of start dates throughout the year
- Industry-valued credentials
- Competency-based, including the soft skills employers demand
- Curriculum and training co-developed and/or co-invested with employers, unions and industry
- Affordable, avoid worsening student debt in California
- Avoid unnecessary general education courses, focus on training for in-demand jobs
- Offer platform to employers to use or develop programs for internal professional development
- Online social interaction — recreate the social environment online (e.g., gaming, faculty interaction, virtual reality)
- Opportunity to inspire teaching and teachers — preparing the best teachers for the role
- Develop creative avenues for peers in an online learning environment to network and create an online presence
- Fund this effort in a way that serves the target population — traditional tactics will not be effective

- Employers need to encourage workers to upskill and provide incentives – employees and job seekers who need to improve their skills are not always open to training opportunities
- Don't leave out soft skills – critically important
- Bring this opportunity to large companies so employees can complete the training during a lunch hour (e.g., work with employers to grant longer lunch hours to employees who are interested)

Strengthen Current Community College System

- Collaborate with the existing 114 colleges – encourage innovation and information sharing to collectively serve a hard-to-serve population of Californians
- Hire teachers or upskill teachers to be connected to employer and workforce demands
- Share revenue with local colleges – especially those who refer students
- Work up to offering associate and baccalaureate degrees fully online (e.g., potential agreements with the CSU system to create pathways into their online programs)
- Incorporate feedback from the first cohorts to improve service delivery
- Incorporate student, faculty and employer feedback – continuous feedback loop
- Build from accreditation and training already being done by employers and associations
- Make the process to design new programs, pathways and curriculum fast and flexible
- Opportunity to bring training to companies and workers and pair with internships/work-based learning
- Build up to stackable credentials

Appendix B: Background for Stranded Worker Topic

Students representing diverse situations and aspirations look to California Community Colleges for education and training that will put them on the path to a career, job advancement or a four-year degree — and, ultimately, on a path to social mobility. Our colleges educate and train more than 2 million Californians. We serve those entering college for the first time, as well as returning students, many of them with jobs and families, and some of them single parents. Now, more and more, we are hearing about another group with educational needs — stranded workers.

The term stranded worker defines individuals who, because of an inability to access job skills, feel displaced in today's workforce, and they have difficulty envisioning personal prosperity in the technology-driven workforce to come. We're talking, specifically, about working adults who may have attended college but don't hold an industry-valued certificate, as well as those adults who need short bursts of additional training to move ahead in today's economy. We want to make it possible for these individuals to return to college to finish a certificate program or earn a degree.

Given the increasing role of technology in work processes, we expect to see a growing number of stranded workers. Within the next two decades, robots and automated technology could replace approximately 47 percent of U.S. jobs, according to a 2013 study by Oxford University.[1] The retail industry is a focal point because automation is being implemented quickly in this industry, and it employs about 10 percent of the total U.S. labor force.[2] These companies are implementing technologies such as mobile devices, self-checkout, digital kiosks and proximity beacons.[2]

Beyond retail, we can continue to expect workers in many industries to be stranded. Engaging them, and in doing so delving deeper as a system to examine more closely the gradations of student need, is critical to California's regional economies and the state as a whole. By 2025, California is likely to face a shortage of workers with some postsecondary education but less than a bachelor's degree.[3] These are referred to as "some college" workers, also known as middle-skill workers. That's only seven years away, and the future gap among workers with "some college" could be as high as 1.5 million,[3] so it is critical that we drill down and understand how we can best reach stranded workers.

The stranded worker may fall into some of the student categories mentioned earlier, but with this new, emerging term we're peeling back another layer to gain greater clarity about this group of prospective students. Some of them are students who, because of their past engagement with the system have some college credit

and are closer to a credential or degree than a first-time student. We want to develop strategies that will encourage them to engage or re-engage with the system with supports to ensure that they reach completion.

Barriers to Education

While our community colleges have open-access admission policies, the education and training they provide often is not easily accessible to non-traditional students, who for a variety of reasons are unable to access job skills needed to ensure a place in the workforce of the future.

Research tells us that most community college students are age 24 or older and face enrollment barriers that are situational, institutional and/or dispositional.[4] Situational barriers relate to life circumstances, such as being a single parent or a full-time worker and main breadwinner for the family.

Institutional barriers are related to the policies and practices of a college that hinder an individual's ability to access education or job training, such as a lack of courses offered in the evening or a difficult-to-navigate enrollment process. Dispositional barriers relate to an individual's self-perception or attitude about his or her ability to succeed.[4]

Research turned up a long list of barriers to postsecondary education. They include:

- Financial concerns: cost of education and lost wages from time devoted to school
- Inability to take time off from work
- Support needs: family responsibilities, transportation, food, secure housing
- Prior educational debt
- Length of time to complete education
- Lack of awareness of available education options
- Inability to navigate the higher education system
- Lack of academic preparedness
- Lack of credit for prior learning
- Emotional barriers
- And more, as no two situations are identical

Economic Impact

While there are no data specific to stranded workers yet, we know that not having enough skilled workers to meet employer demand has significant economic impacts. To produce goods and services to generate profits,

businesses need to hire the right people. Challenges in recruiting the right people can have a detrimental effect on the productivity of businesses because incumbent workers may not be adequately qualified, have to cover for skills shortages by working longer hours, or may not have the capacity to take on new work.[5]

The annual potential value of unfilled job opportunities in the U.S. is nearly $160 billion, according to a 2014 study by the Centre for Economics and Business Research.[5] That accounts only for the potential GDP that could be produced by people employed within unfilled positions.[5]
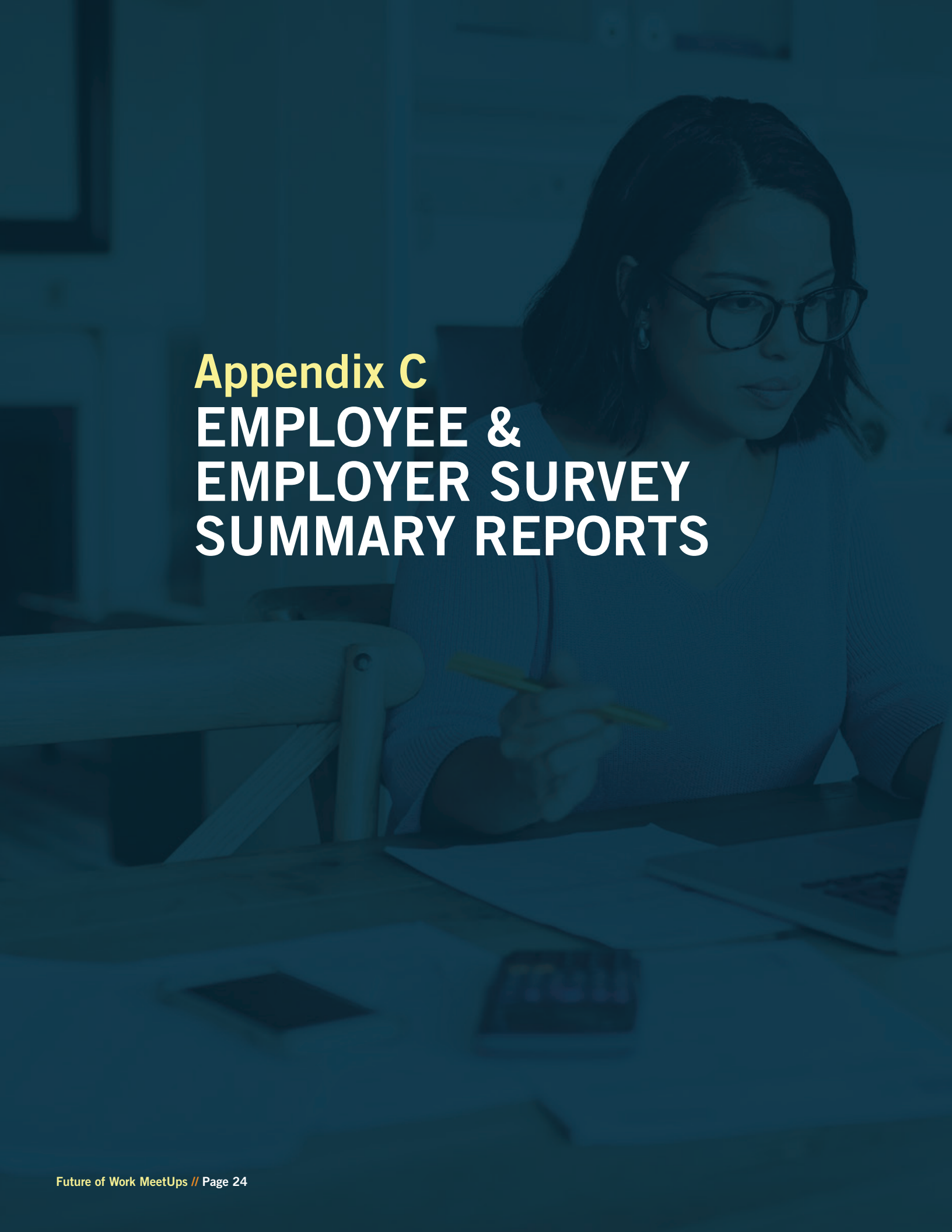
The impacts are greater when you take into account the healthy levels of employment and household incomes that depend upon the ability to efficiently match potential employees to businesses. When businesses cannot find the employees they need, it slows both production and profits, and when individuals cannot earn a family-sustaining income, it reduces their contribution to economic growth.[5]

Economic growth also is hindered by individuals in low-wage jobs when you consider that 70 percent of our nation's economy is powered by consumer spending,[6] so people who make lower wages have less money to contribute to local economies and to the state in the form of the personal income tax, which accounted for 69 percent of total revenue in California's 2017-18 budget.[7]

In addition, low-wage workers have a greater reliance on public assistance. Nearly three-quarters (73 percent) of those enrolled in the nation's major public support programs are members of working families.[8] Working families account for 56 percent of combined state and federal spending on public assistance.[8]

Low wages cost U.S. taxpayers $152.8 billion annually in public support for working families, according to a 2015 report by the UC Berkeley Labor Center.[8] In California, 58 percent of the $23.6 million (or $13.7 million) the federal government spent on Medicaid/Children's Health Insurance Program (CHIP), the cash aid portion of the Temporary Aid to Needy Families (TANF), the Earned Income Tax Credit and food stamps went to working families.[9] Of the $7.3 million the state spent on Medicaid/CHIP and the cash assistance portion of TANF, 50 percent (or $3.7 million) went to working families.[9]

Appendix C
EMPLOYEE & EMPLOYER SURVEY SUMMARY REPORTS

EMPLOYEE SURVEY SUMMARY REPORT

What is the highest level of education/training you have received?

Some high school
2.1%

Professional degree or
Ph.D.
2.1%

High school
diploma/GED/HiSET
3.1%

Some college, but no
degree
17.5%

Master's degree
40.2%

Career credential or
certificate
4.1%

Two-year degree
(Associate)
9.3%

Four-year degree
(Bachelor's)
21.6%
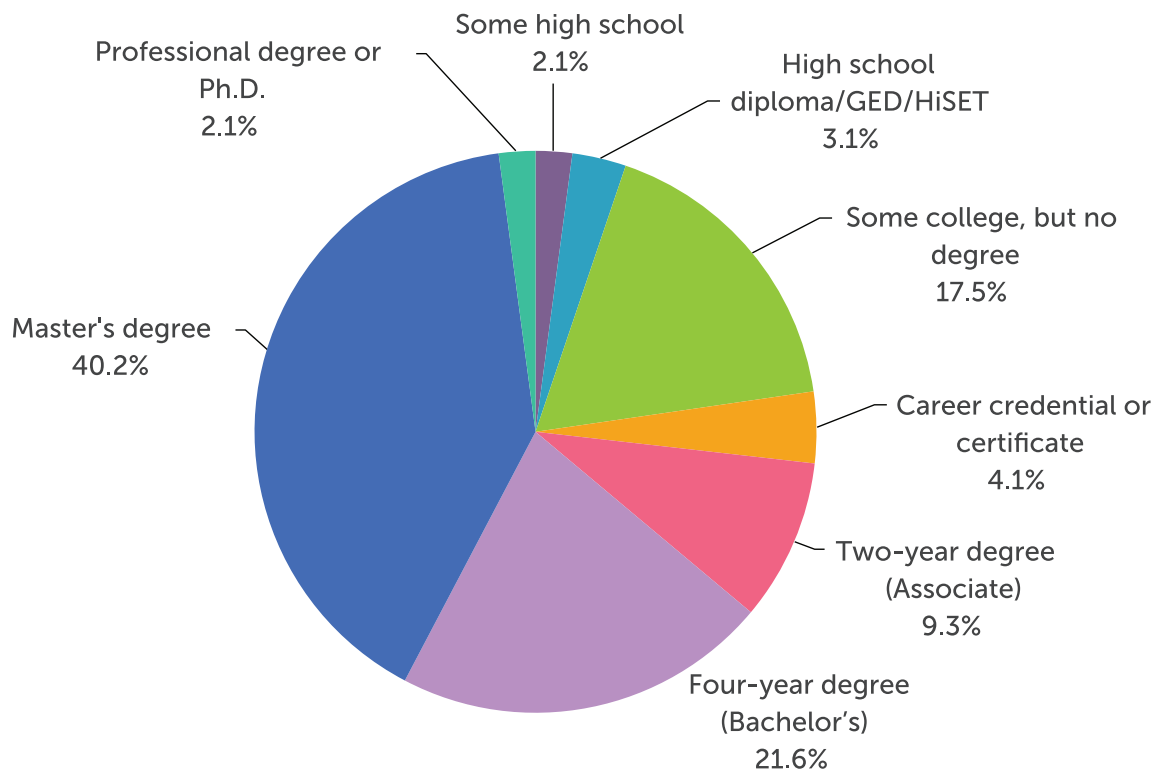
Are you currently enrolled in a career credential, undergraduate, or graduate program?

Yes
13.4%

No
86.6%
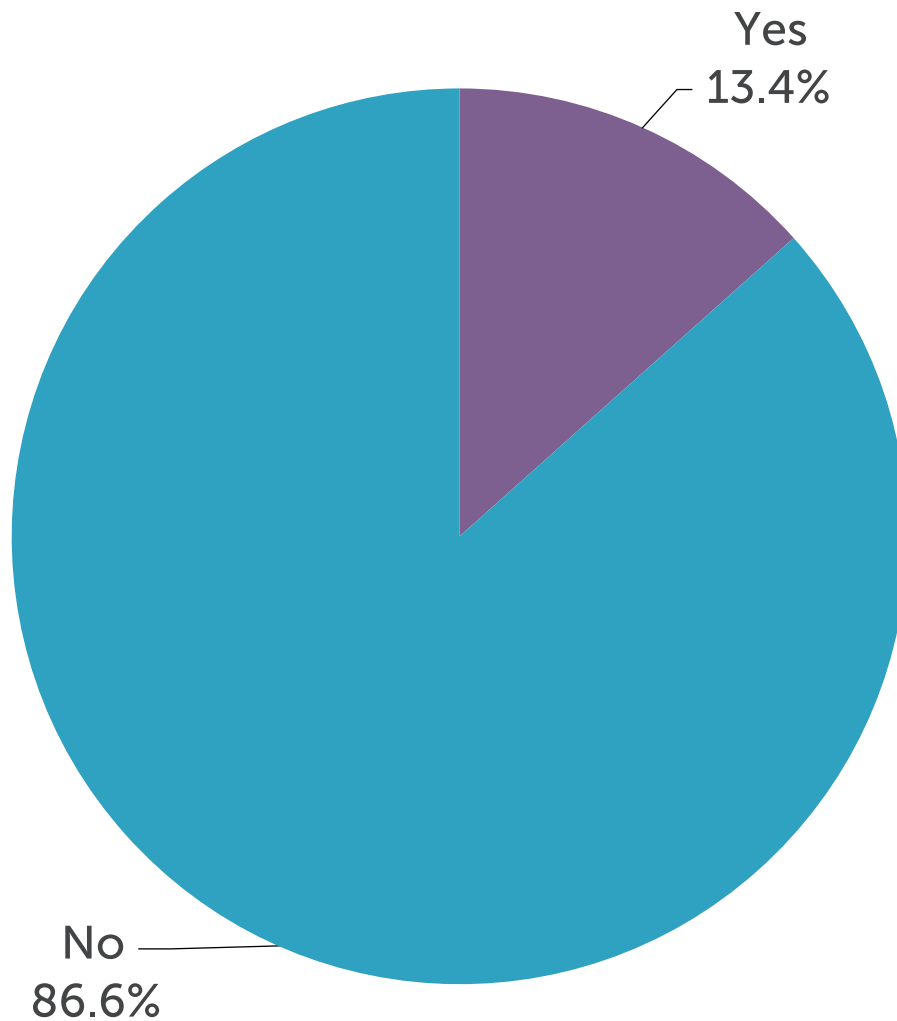
In the last 12 months, have you considered enrolling in a career credential program, college classes or a college degree program? (Asked only of those who indicated they were not already enrolled in a program.)

No
42.9%

Yes
57.1%
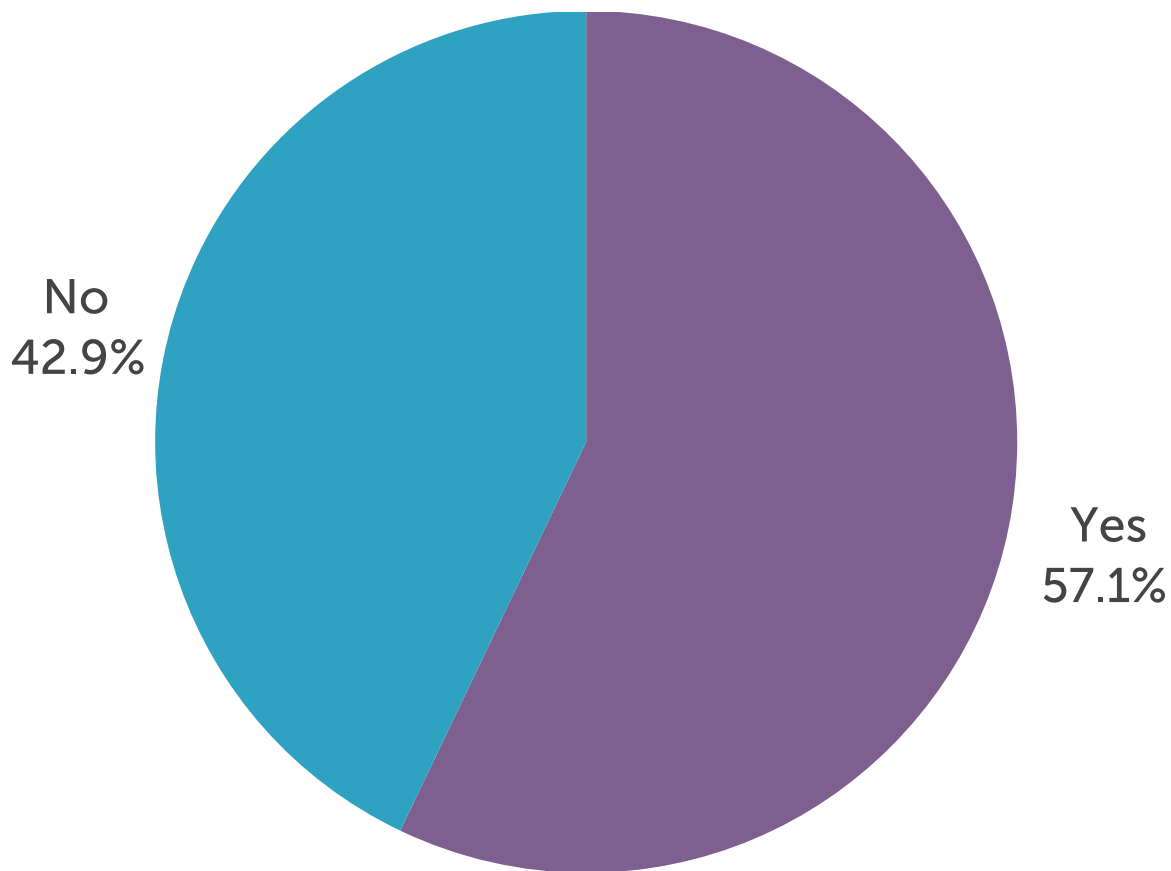
Do you agree with this statement?

"If I wanted to further my education, I understand what I would need to do."

1 – Strongly disagree
4.1%

2 – Disagree somewhat
8.2%

3 – Neutral
11.3%

4 – Agree somewhat
42.3%

5 – Strongly agree
34.0%
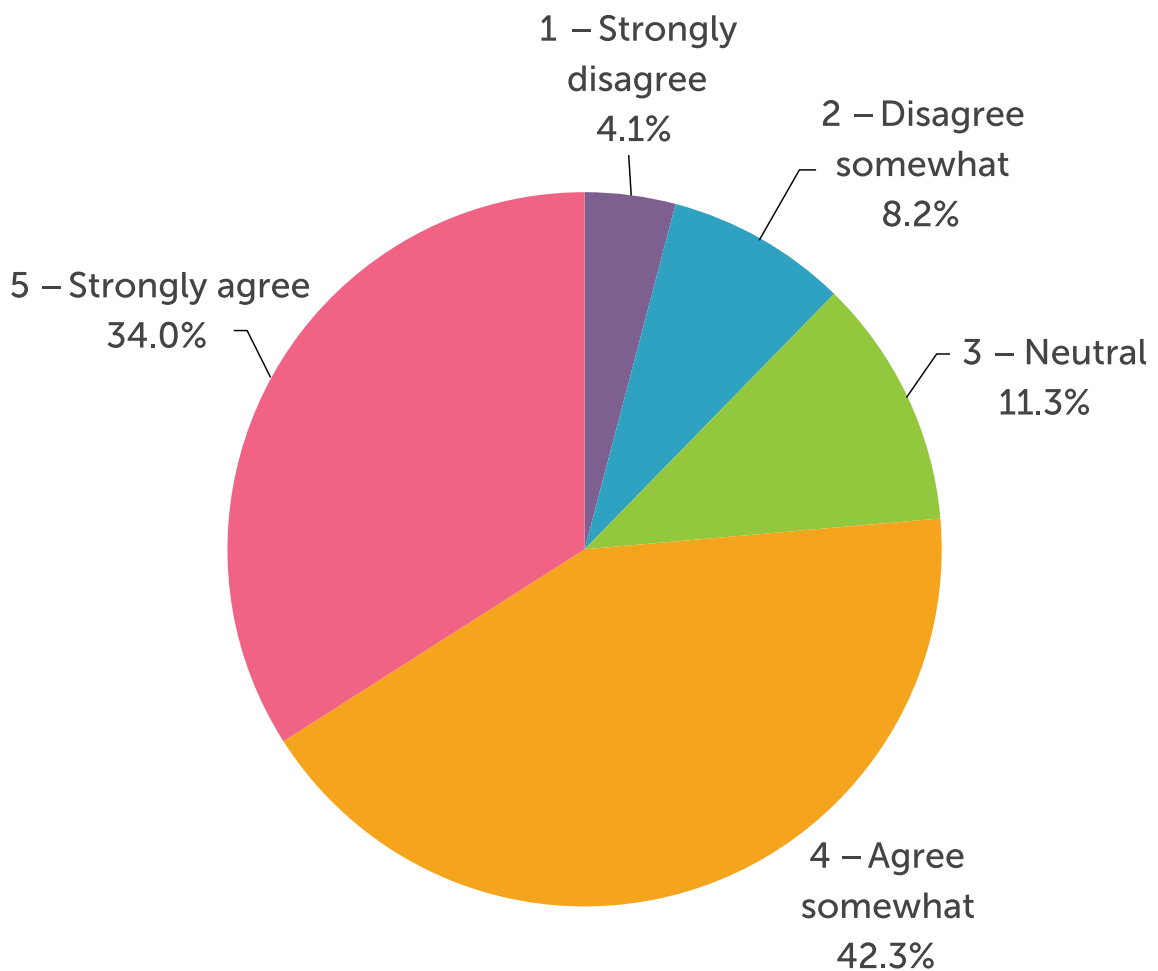
Have you earned a degree or career credential since being employed by your current employer?

Yes, I earned or completed a degree or credential during my employment with my current employer.
13.4%

Yes, I am in the process of earning a degree or career credential.
7.2%

No, I earned my degree(s) before getting my current job.
55.7%

No, I have not yet earned a career credential or college degree.
23.7%
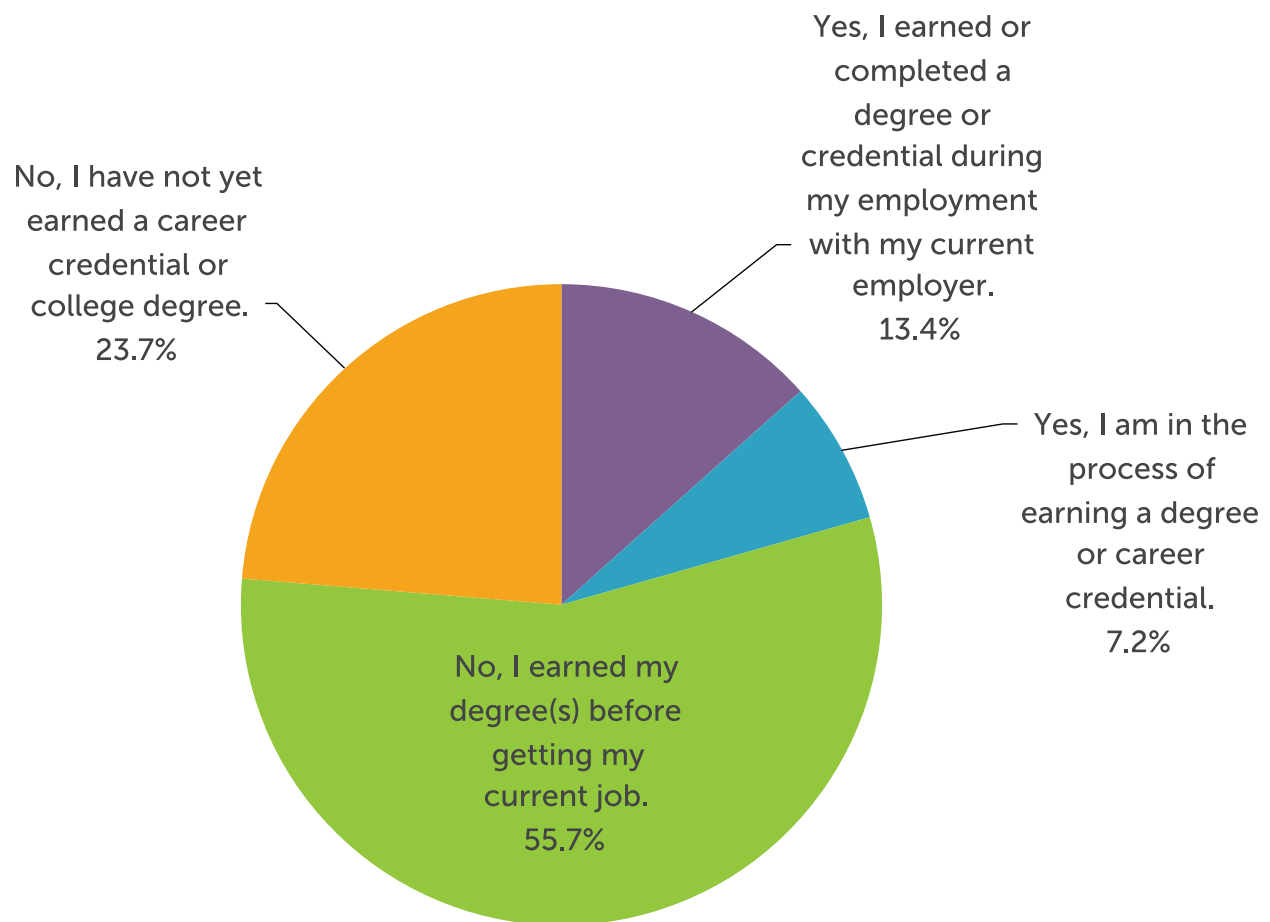
How interested are you in completing one of the following credentials, certificates or degrees to increase or grow your skills?

5 - Extremely interested   **4** - Moderately interested   **3** - Somewhat interested   **2** - Slightly interested   **1** - Not at all interested

	(5) Count	(5) Row %	(4) Count	(4) Row %	(3) Count	(3) Row %	(2) Count	(2) Row %	(1) Count	(1) Row %	(N/A) Count	(N/A) Row %
High school diploma/ GED/HiSET	2	2.1%	0	0.0%	1	1.0%	1	1.0%	19	19.6%	74	76.3%
High-level career credential	10	10.3%	14	14.4%	12	12.4%	6	6.2%	6	6.2%	49	50.5%
Two-year degree	7	7.2%	8	8.2%	7	7.2%	5	5.2%	15	15.5%	55	56.7%
Four-year degree	8	8.2%	4	4.1%	12	12.4%	8	8.2%	17	17.5%	48	49.5%
Master's degree	14	14.4%	10	10.3%	11	11.3%	14	14.4%	17	17.5%	31	32.0%
Professional degree or Ph.D.	11	11.3%	12	12.4%	13	13.4%	12	12.4%	31	32.0%	18	18.6%

What reasons would be important for you to earn a college degree, certificate or obtain new skills? Check all that apply.

Bar chart:
- Job promotion: 53.6%
- Earn more money: 61.9%
- Set an example for children: 27.8%
- Personal satisfaction: 69.1%
- It is expected in the workplace: 16.5%
- Enter a new career field: 25.8%
- Learn new skills using technology: 39.2%
- Other: 7.2%
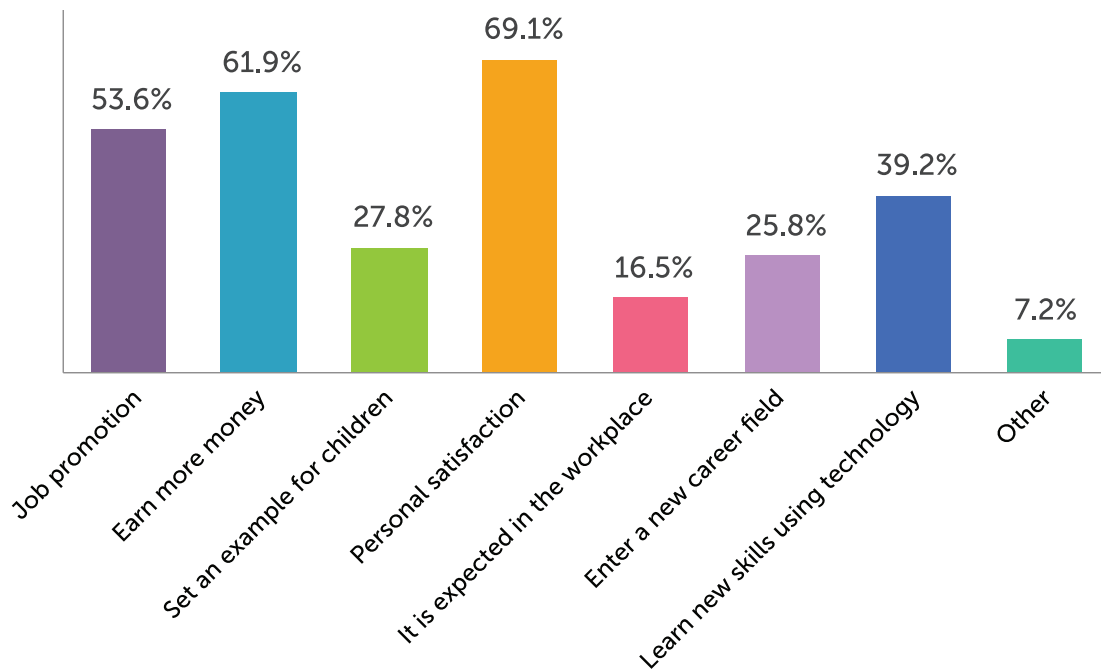
"Other" Responses	Count
Attend Law School	1
Potentially all of the above, AND, open new possibilities!	1
Stay up to date	1
To grow personally and professionally. To gain skills, knowledge and experiences that could be valuable in the workplace and beyond.	1
Credentials required for that field of work	1
Obtain a specific job	1
To have a more labor-market-relevant degree	1

Below is a list of common barriers for adults who want to further their education. Please indicate to what extent each of these is or was a barrier for you.

1 - Not a barrier at all   **2** - Somewhat of a barrier   **3** - A major barrier

	(1) Count	(1) Row %	(2) Count	(2) Row %	(3) Count	(3) Row %	Response Count
Tuition/fees were not affordable	12	12.4%	43	44.3%	42	43.3%	97
Class times were not convenient	16	16.5%	44	45.4%	37	38.1%	97
School location was not convenient	32	33.0%	40	41.2%	25	25.8%	97
Transportation was a problem	61	62.9%	27	27.8%	9	9.3%	97
Classes conflicted with my family responsibilities	38	39.6%	32	33.3%	26	27.1%	96
Child care was difficult to secure	67	69.8%	19	19.8%	10	10.4%	96
Defaulted on past student loans	78	81.3%	10	10.4%	8	8.3%	96
Could not maintain acceptable grades	79	83.2%	15	15.8%	1	1.1%	95
Did not see the benefit of additional education for my current or future role at the company	61	64.2%	28	29.5%	6	6.3%	95

What could your employer and/or regional organization provide to help you pursue your educational goals (in the form of a degree, certificate or new skills)? Choose all that apply.

Flexible work schedule	80.4%
Tuition reimbursement	70.1%
Knowing which degree/credential would help advance my career	49.5%
More opportunities to learn online	47.4%
Financial aid for books, lab fees, commuting costs, etc.	47.4%
Online classes	37.1%
Opportunities in the work week to practice new skills	36.1%
Onsite classes that earn college credit	34.0%
Mentoring program with employees who have completed degrees	34.0%
Networking opportunities with other employees who are enrolled in school	29.9%
Computer skills training	25.8%
Graduation recognition	20.6%
Other – write in	4.1%

"Other" Responses	Count
A child care center on site	1
Employer is a cost-cutter, does not pay for training	1
Specific tutoring in focused tech area	1
Shadowing	1

What is something you are required to do in your job that you struggle with?

Response	Count
Nothing/not applicable	9
Mediation	2
Project management	2
Time management	3
Avoid being distracted by social media and random stuff like this survey	1
Budgets, financial analysis	1
Computer programs (Excel, Powerpoint)	3
Cope with colleagues mired in groupthink	1
Event planning	1
Excel	1
HR management, project management	1
Keeping up to date with all state regulations and guidelines	1
Not sure	1
Social Services	1
Taking a 15 minute break	1
Teacher observations	1
Technology	1
Terminating employees	1
Wordpress	1
Work with people who are not competent in their job/role	1
Write grants	1

Response	Count
Access to the right enrichment classes	1
Communication	1
Computational skills	1
Computer because of a disability	1
Computer skills	1
Database technology	1
Getting clients to attend appointments	1
Getting the job	1
High-level computer skills	1
High-level work that I am not compensated for because I have no degree	1
Knowledge of vast array of rules and regulations	1
Maintaining focus	1
Other duties as assigned	1
Percentages	1
Programming skills	1
Public speaking/facilitation	1
Search engine optimization	1
Speaking Spanish	1
Statistical analysis	1
Technology applications	1
Websites	1

Which interpersonal/employability/ soft skills do you consider to be key to effectively and efficiently perform your job duties?

Bar chart showing percentages for each soft skill:

- Adaptability: 89.7%
- Analysis/solution mindset: 76.3%
- Collaboration: 77.3%
- Communication: 90.7%
- Social/diversity awareness: 66.0%
- Digital fluency: 64.9%
- Entrepreneurial mindset: 32.0%
- Empathy: 68.0%
- Self-awareness: 63.9%
- Resilience: 64.9%
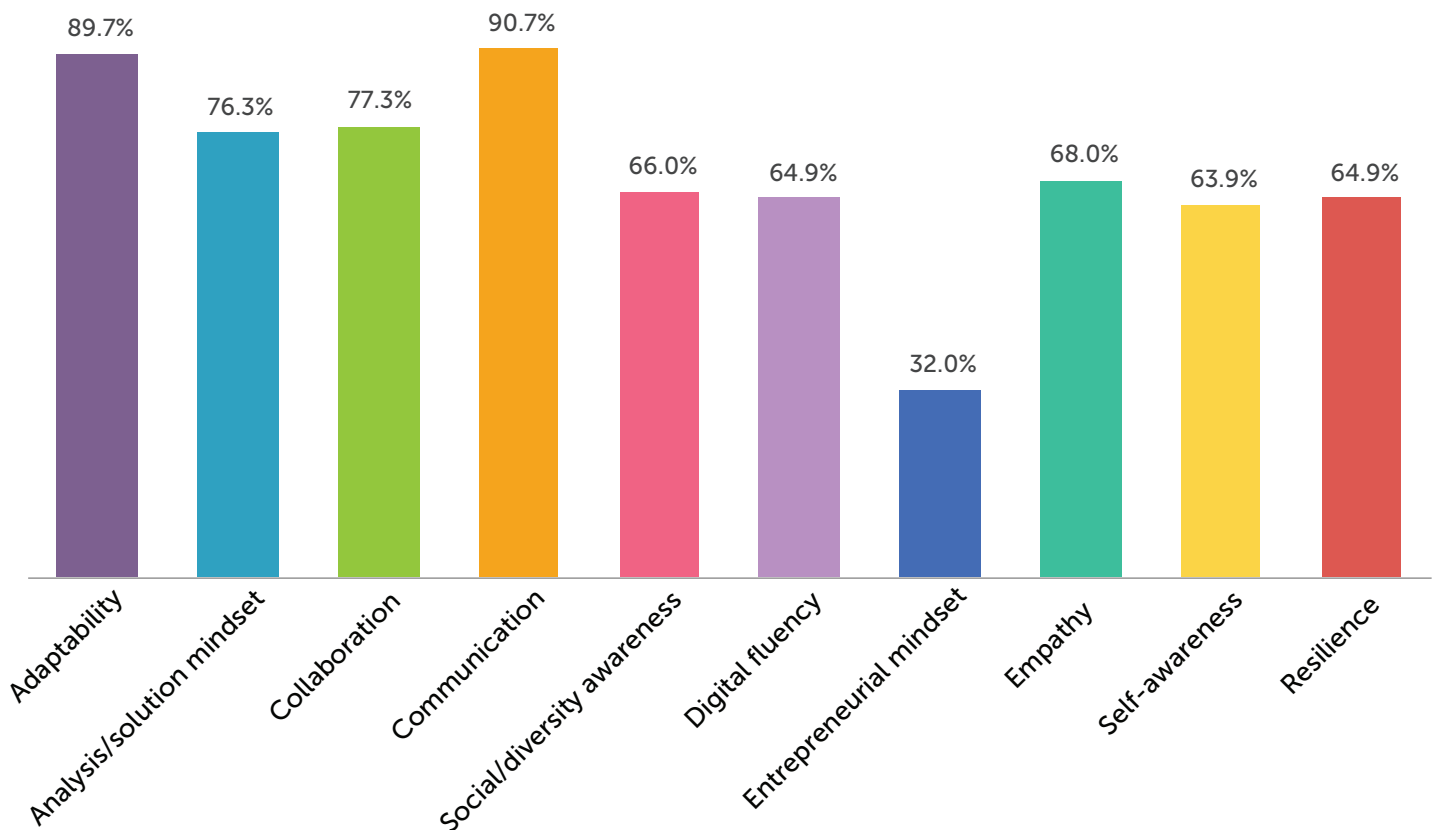
The California Community Colleges is thinking about creating a fully online college to provide short courses or educational training programs for people who are working and can't manage to attend a college in person but want to earn a degree, certificate or get ahead in their jobs. Do you think this is a good idea?

Not sure
16.7%

No
4.2%

Yes
79.1%
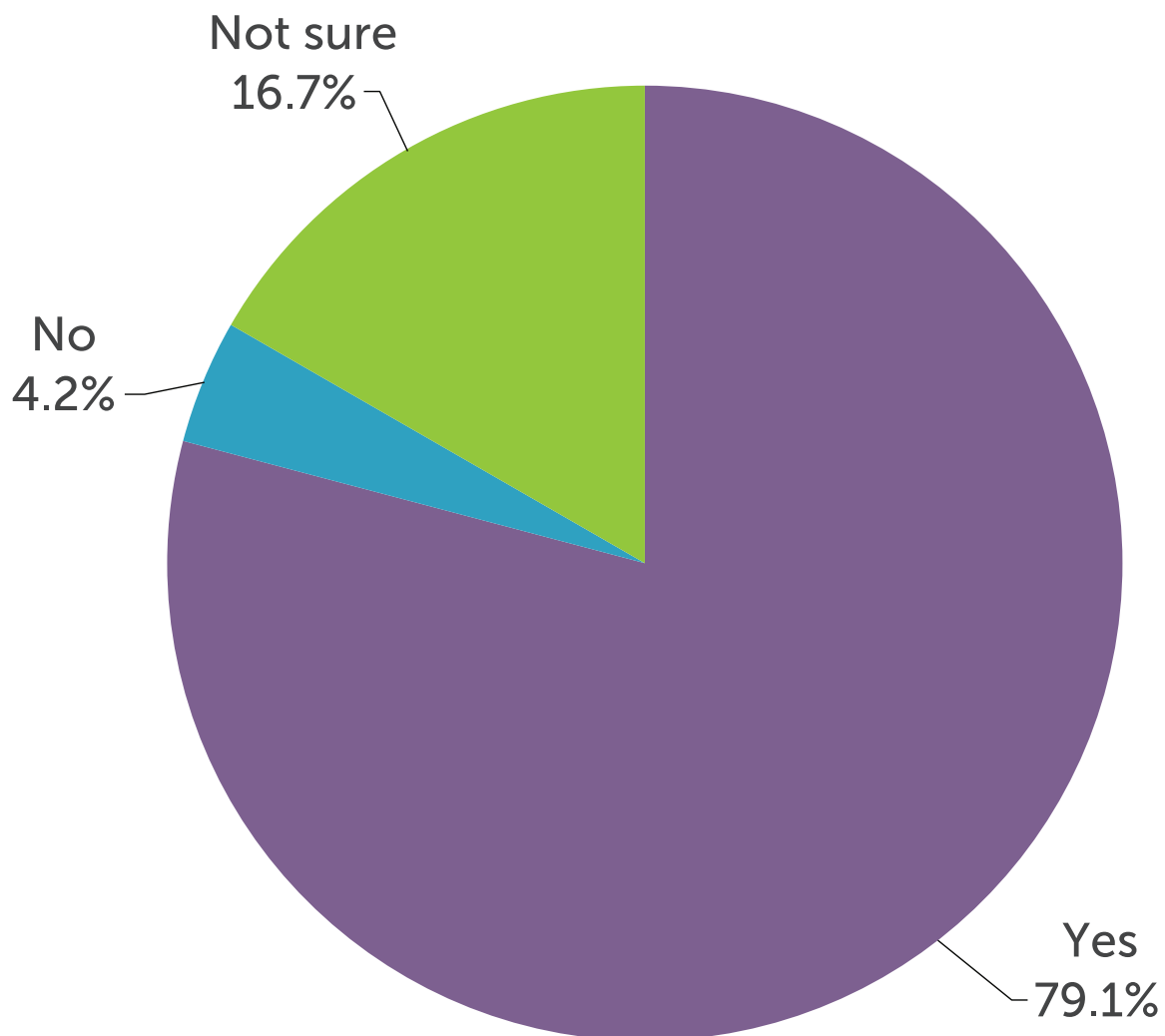
Would you or someone you know like a friend, sibling or parent consider using an online college if it were available?

Not sure
19.8%

No
5.2%

Yes
75.0%
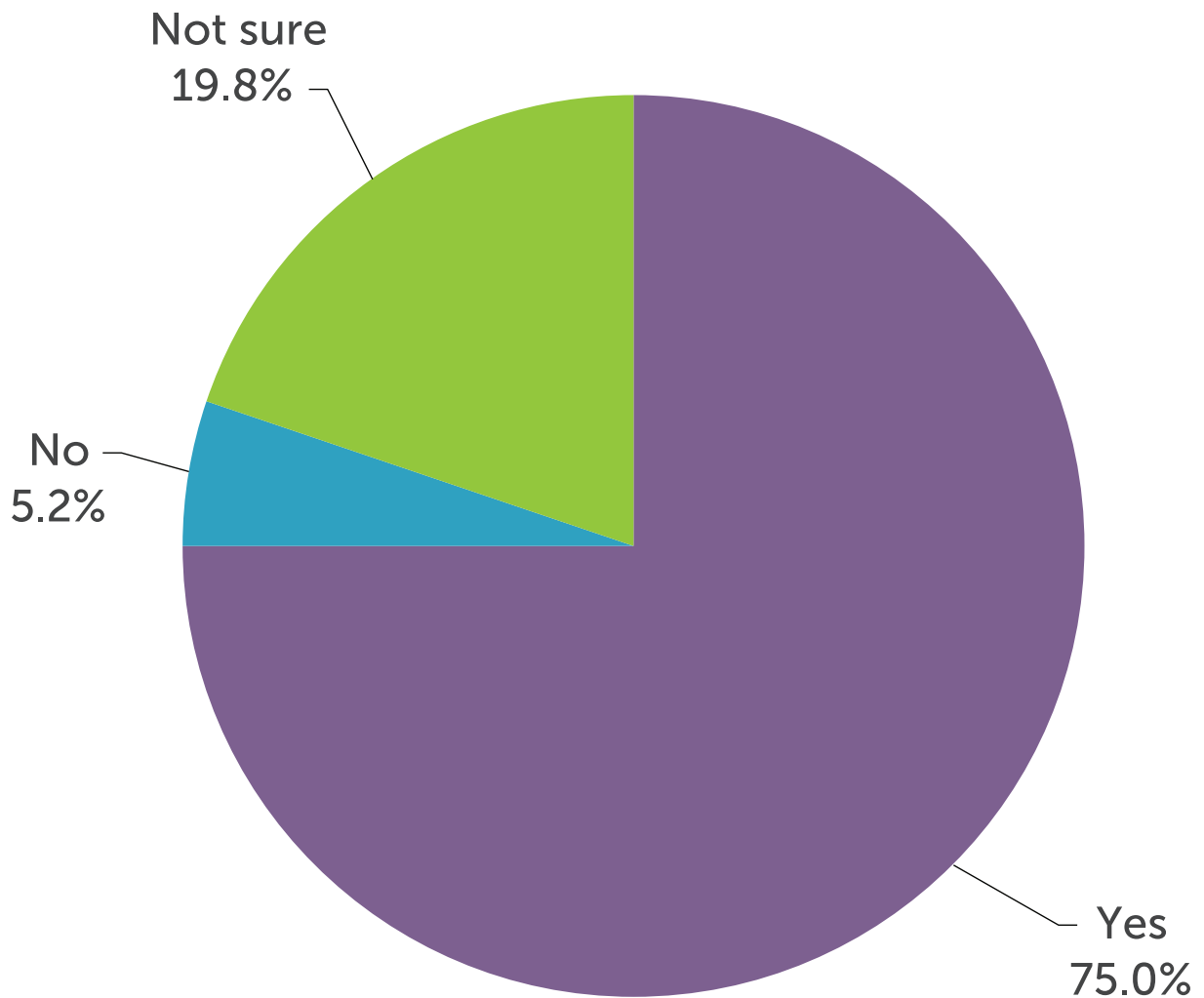
Besides English, which languages would be helpful if online college was offered? Check all that apply.

"Other" Responses	Count
Hmong	5
Arabic	4
Farsi/Persian	4
Russian	2
American Sign Language	1
For others, all the above are important	1
Hindi	1
Laotian	2
This is dependent upon geography and racial makeup of area	1
Not sure	2

Spanish: 77.1%
Chinese (Simplified): 12.5%
French: 3.1%
German: 2.1%
Italian: 2.1%
Japanese: 7.3%
Korean: 7.3%
Portugese: 3.1%
Tagalog: 10.4%
Vietnamese: 15.6%
No additional languages: 15.6%
Other - Write In: 20.8%

What do you identify as your gender?

I prefer not to say.
5.5%

Male
25.3%

Female
69.2%

What is your age?

- 18-24 — 1.1%
- 25-34 — 17.6%
- 35-44 — 25.3%
- 45-54 — 20.9%
- 55-64 — 25.3%
- 65+ — 3.3%
- I prefer not to say. — 6.6%
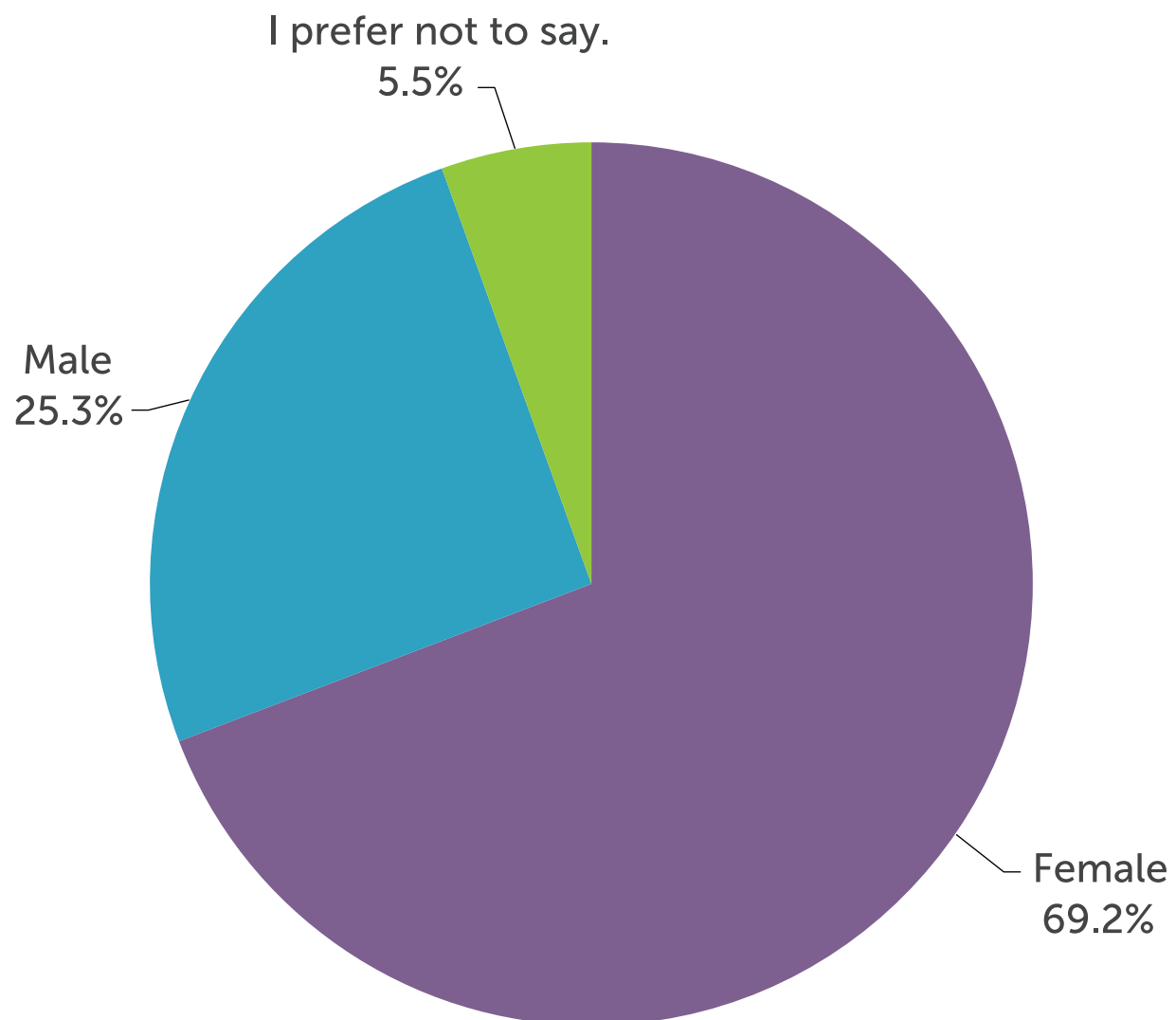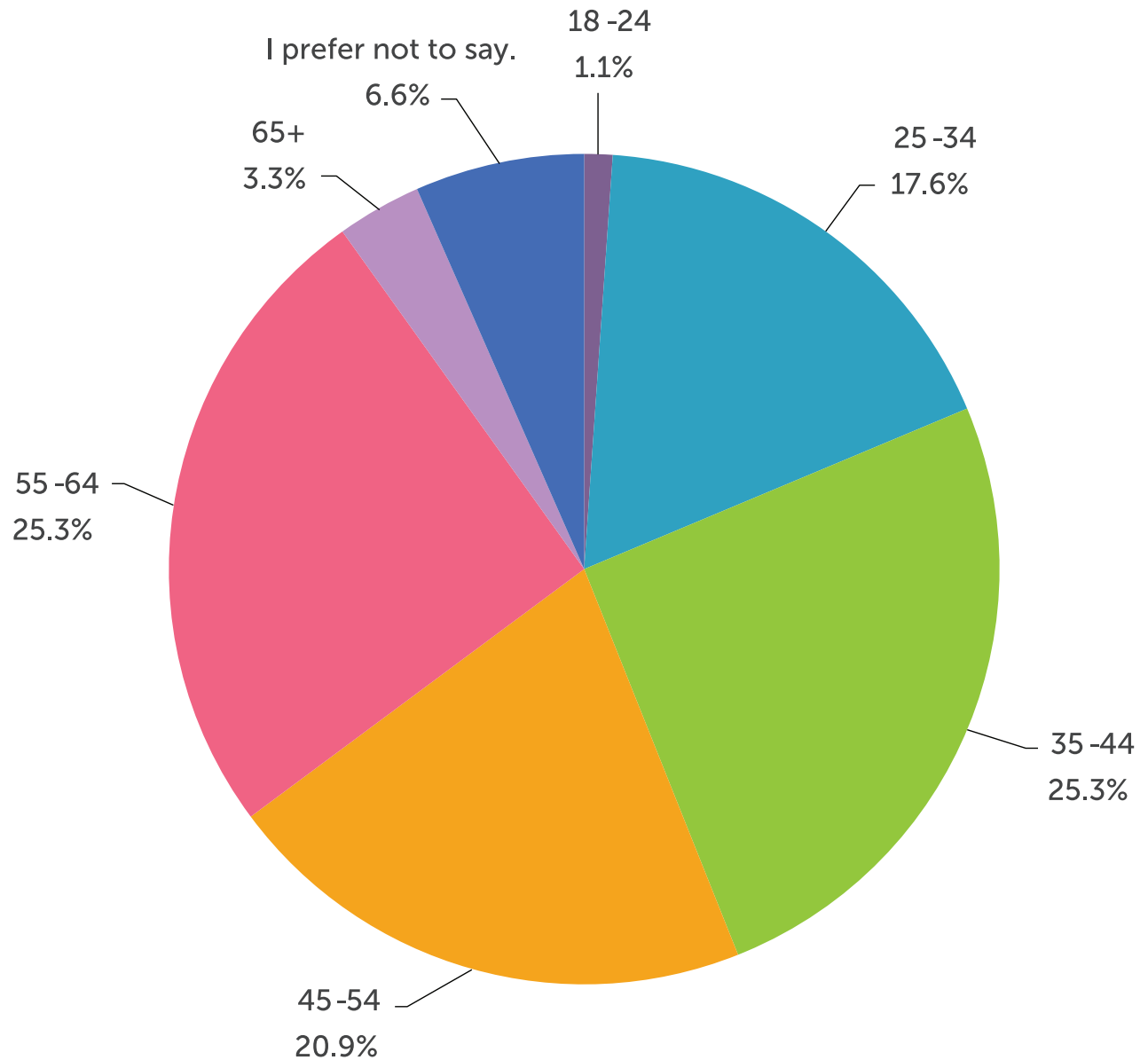
Specify the race/ethnicity with which you most closely identify.

American Indian / Alaska Native
3.3%

Asian
3.3%

I prefer not to say.
9.9%

Black / African American
2.2%

Other - Write In
1.1%

Hispanic / Latino
27.5%

White
50.5%

Native Hawaiian / Other Pacific Islander
2.2%
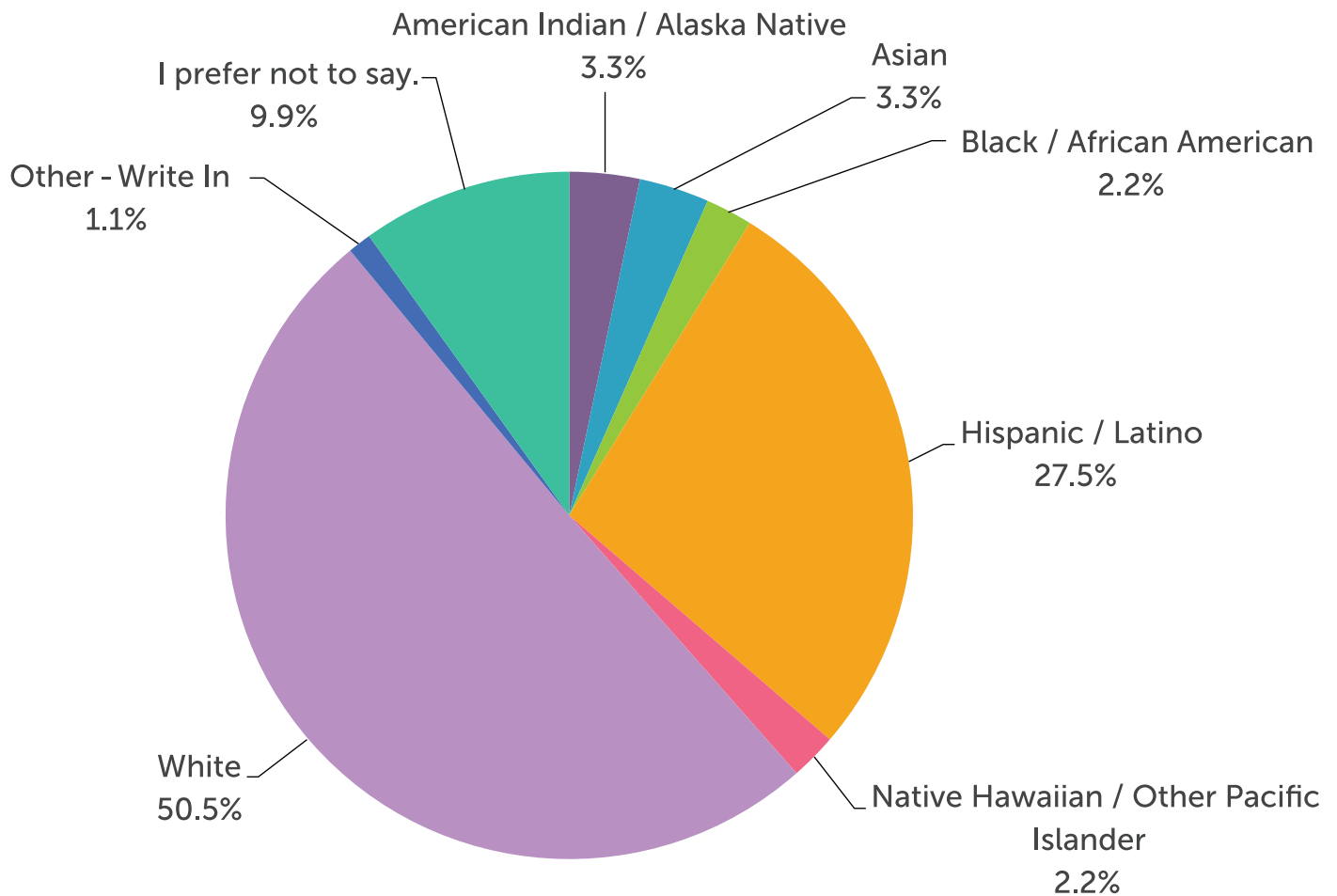
How long have you been with your current employer?

I prefer not to say.
3.3%

Less than 6 months
7.7%

Less than 1 year
7.7%

more than 10 years
33.0%

1 to 3 years
28.6%

7 to 10 years
9.9%

4 to 6 years
9.9%
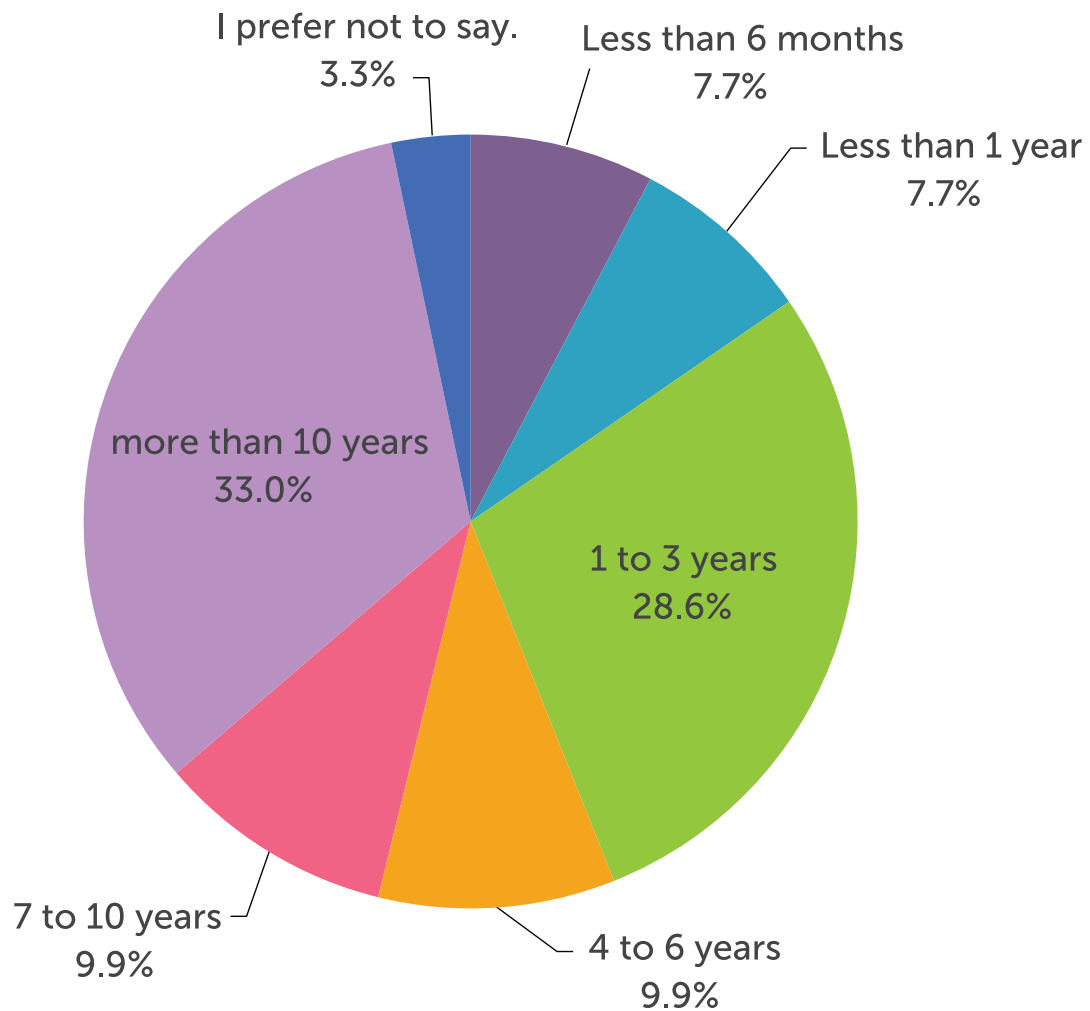
What is your current annual income?

- $10,000 – under $25,000 — 2.2%
- $25,000 – under $50,000 — 41.1%
- $50,000 – under $75,000 — 24.4%
- $75,000 – under $100,000 — 14.4%
- $100,000 or more — 8.9%
- I prefer not to say. — 8.9%

California County of Residence

- Butte 3.6%
- Glenn 23.0%
- Kern 3.6%
- Los Angeles 14.4%
- Orange 6.0%
- Sacramento 3.6%
- San Bernardino 3.6%
- San Diego 8.4%
- Santa Cruz 15.7%
- Tehama 4.8%
- All Others 13.3%
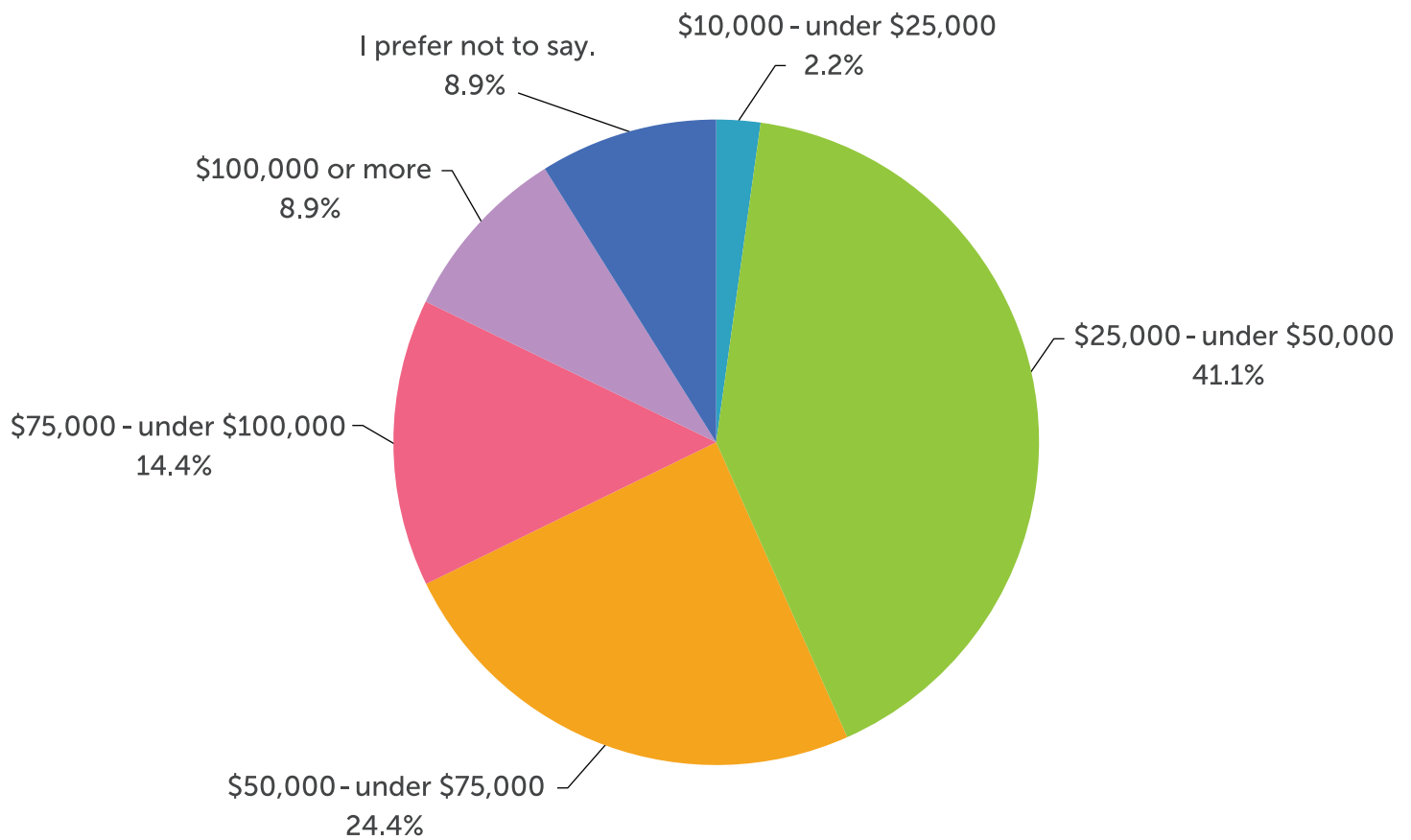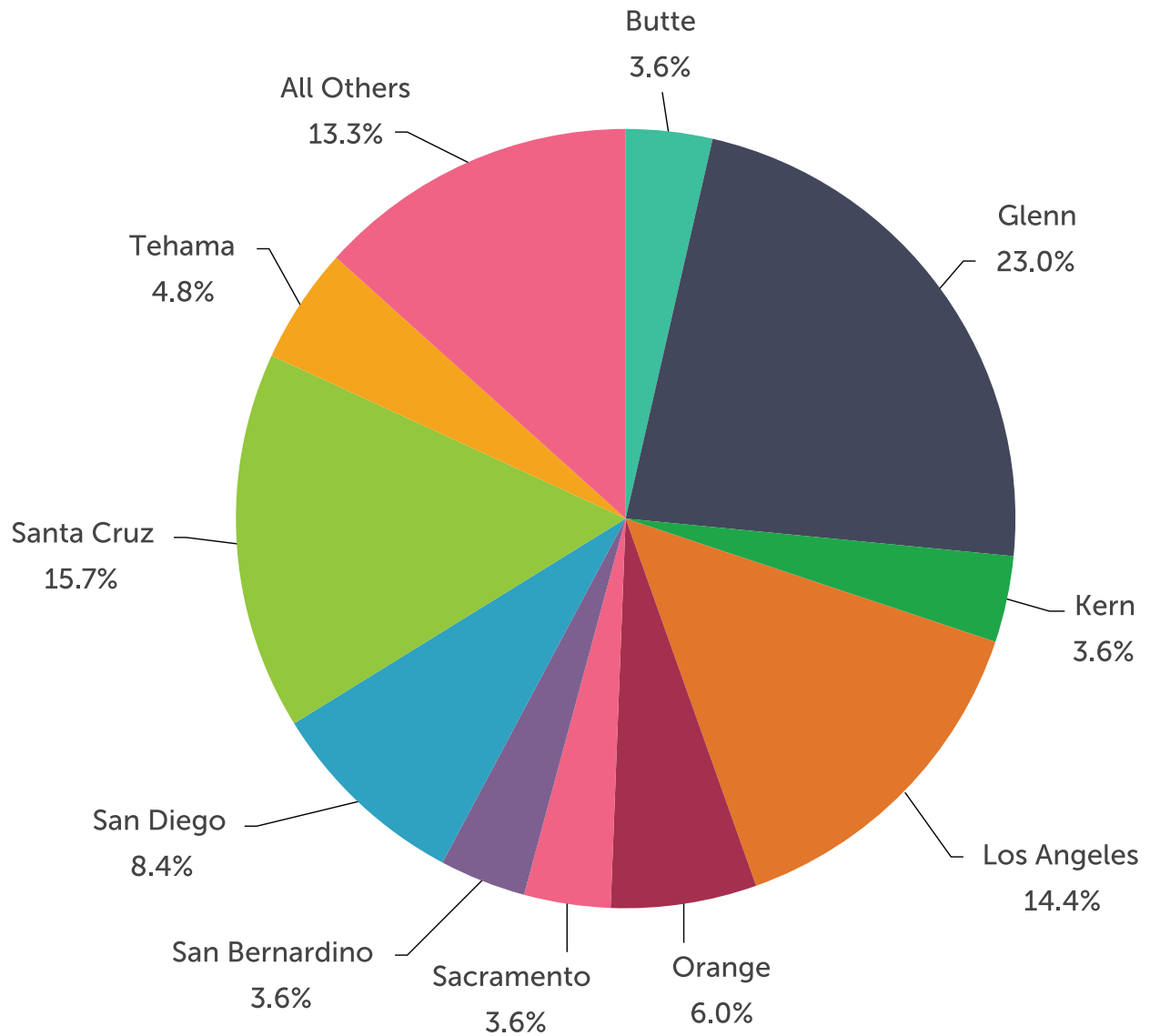
California County of Residence - Table

Response	Row %	Count
Alameda	1.2%	1
Butte	3.5%	3
Fresno	1.2%	1
Glenn	22.4%	19
Kern	3.5%	3
Los Angeles	14.1%	12
Madera	1.2%	1
Marin	2.4%	2
Monterey	2.4%	2
Orange	5.9%	5
Riverside	1.2%	1

Response	Row %	Count
Sacramento	3.5%	3
San Bernardino	3.5%	3
San Diego	8.2%	7
San Joaquin	1.2%	1
San Mateo	1.2%	1
Santa Clara	1.2%	1
Santa Cruz	15.3%	13
Shasta	1.2%	1
Tehama	4.7%	4
Yolo	1.2%	1

EMPLOYER SURVEY SUMMARY REPORT

What is your position?

CEO
18%

Other
23%

President
8%

CEO & President
5%

HR Manager/Supervisor
7%

Manager/Supervisor
39%
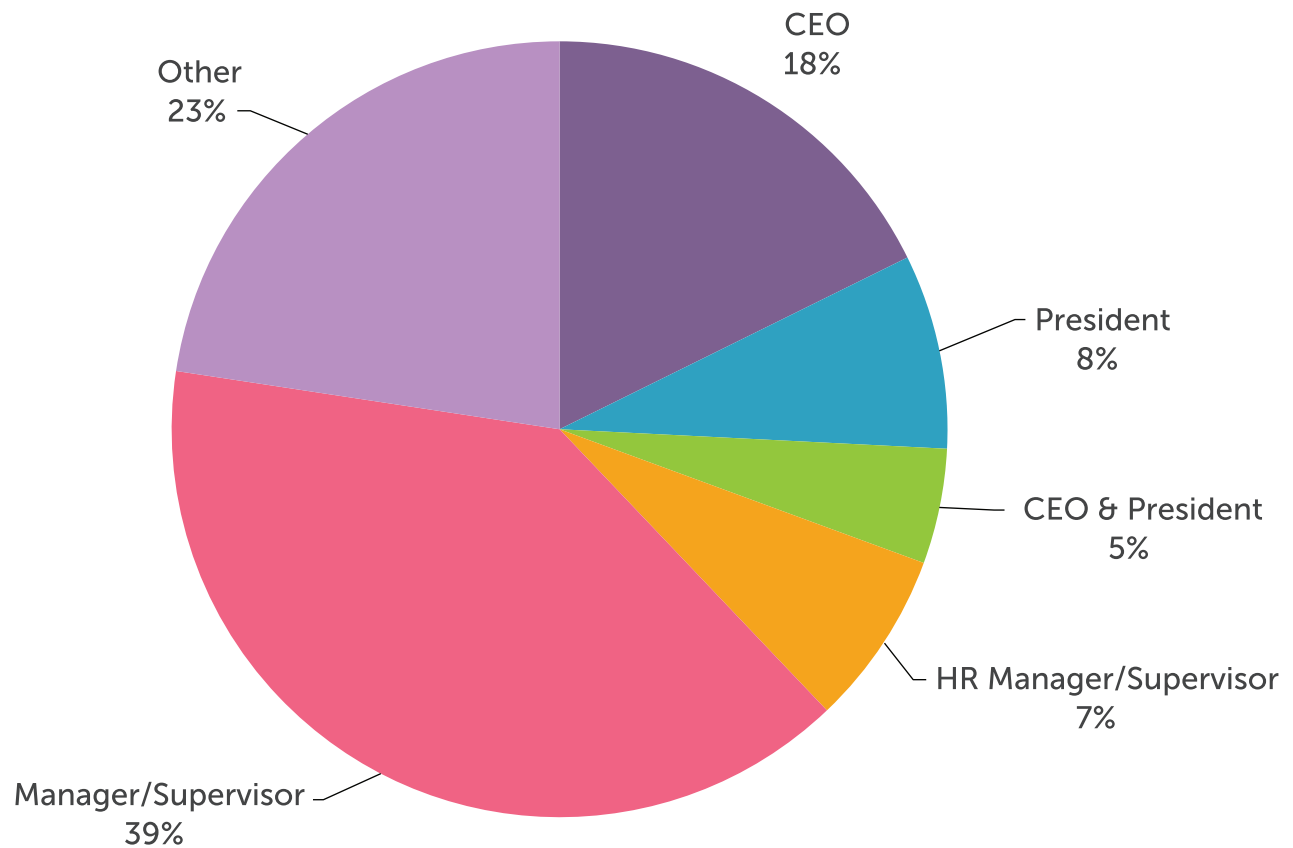
What is your position?

"Other" Responses	Count
Director, Employee Development & Training	2
Board Member	1
CFO	1
COO	1
COO/Program Director	1
Director	1
Econ Dev Specialist	1
Educator	1
Executive Director	2

"Other" Responses	Count
Owner	4
Program Coordinator	1
Recruiter	2
Small Business Owner	1
Technician	1
Vice President	1
Career development	1
Researcher	1

What is the total number of full-time employees in your company?

- 1 to 9 — 25.8%
- 10 to 49 — 23.4%
- 50 to 249 — 18.5%
- 250+ — 32.3%
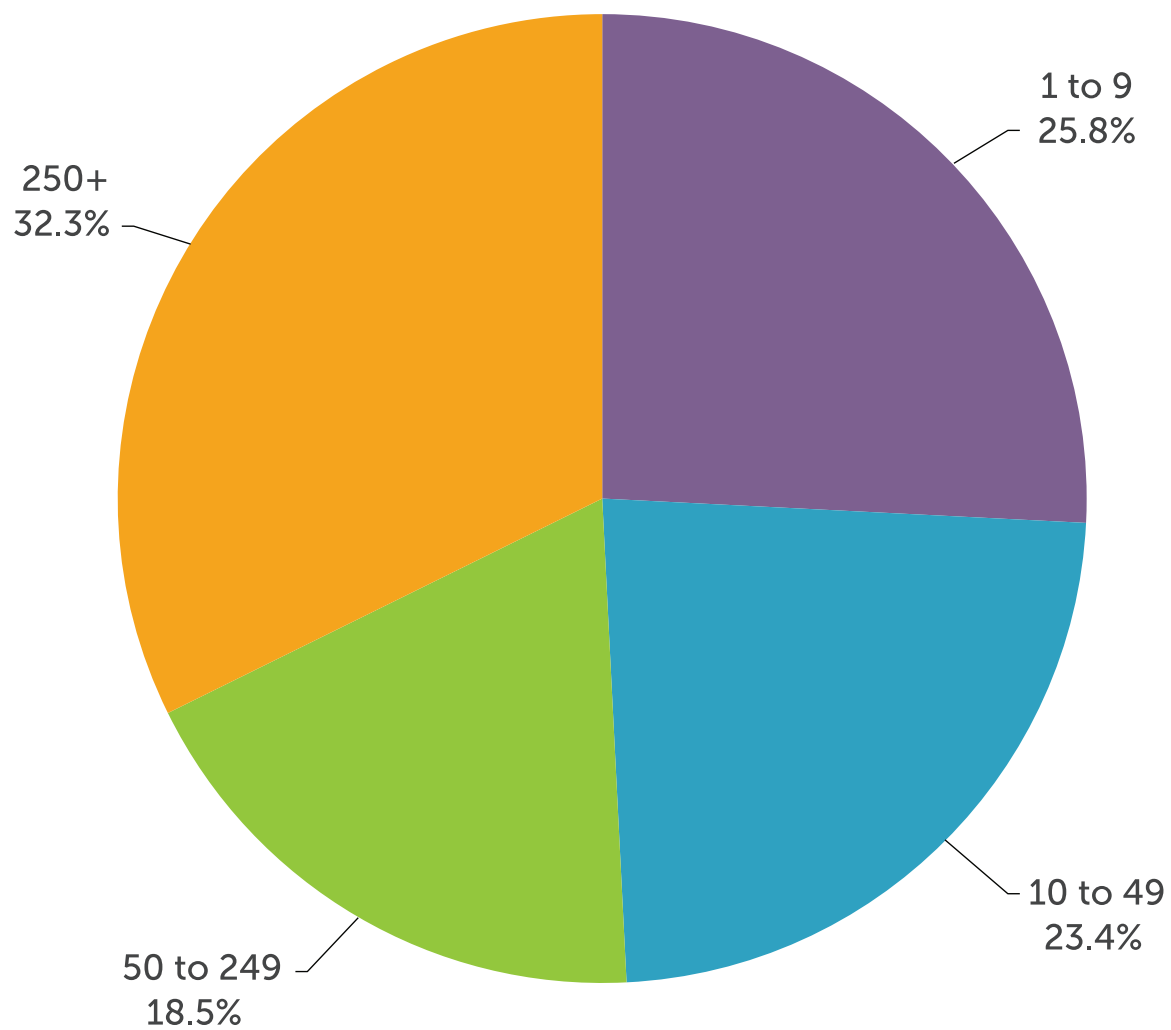
Does your company offer tuition reimbursement programs?

No
50.8%

Yes
49.2%
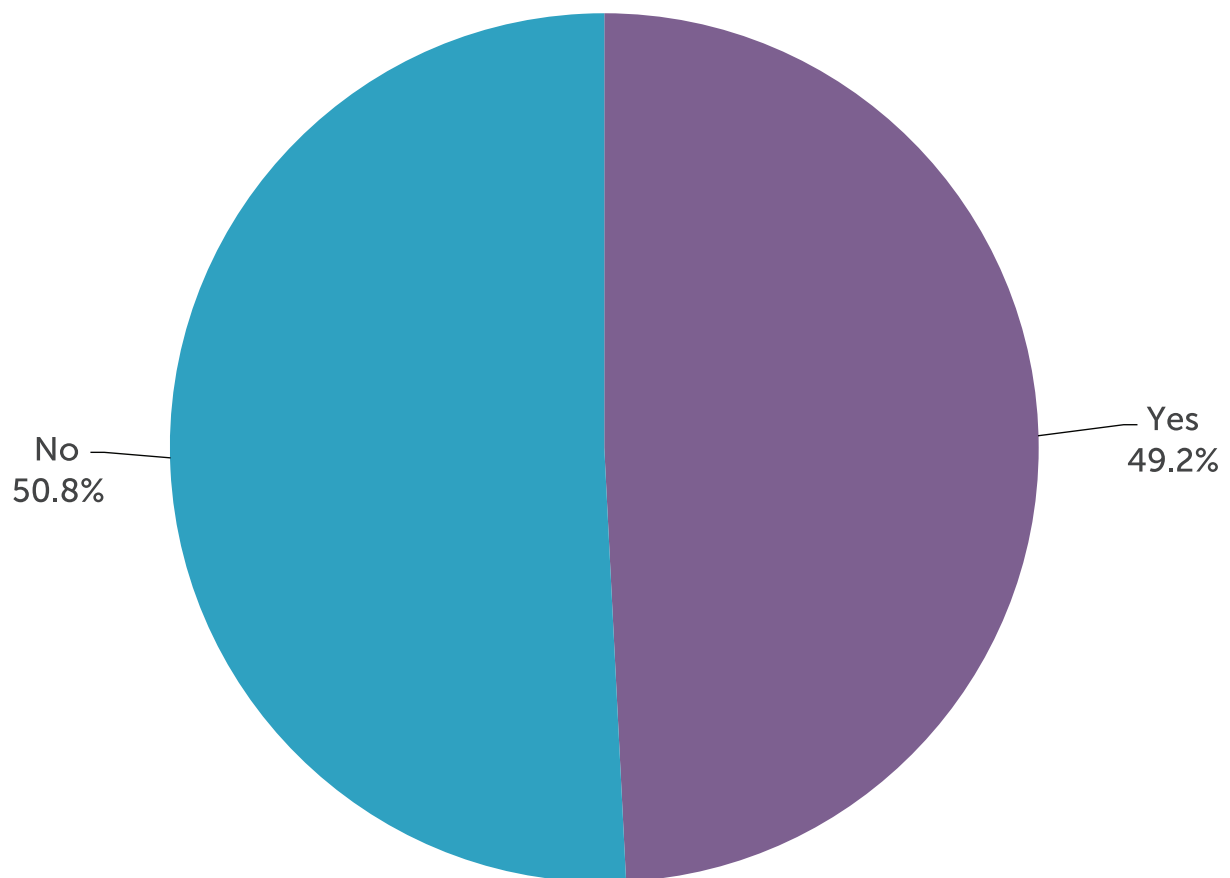
What are the barriers for not offering a tuition reimbursement program?

"Other" Responses	Count
In process of creation now	2
Lacking information on how to offer	1
Most of our employees don't plan to go to college, even though we encourage them.	1
Startup mode	1
We're a small non-profit with little budget for staff development or education	1
All of the above	1
Lack of resources to implement (human & financial)	1
Not allowed by government	1
Not Applicable	3

62.9%
19.4%
21%
22.6%

Cost
Time to execute
Return on investment too low
Other

The California Community Colleges are thinking about creating a fully online college to provide short courses or educational training programs for people who are working and can't manage to attend a college in person but want to earn a degree, certificate or get ahead in their jobs. Would this format be helpful in training your current workforce?
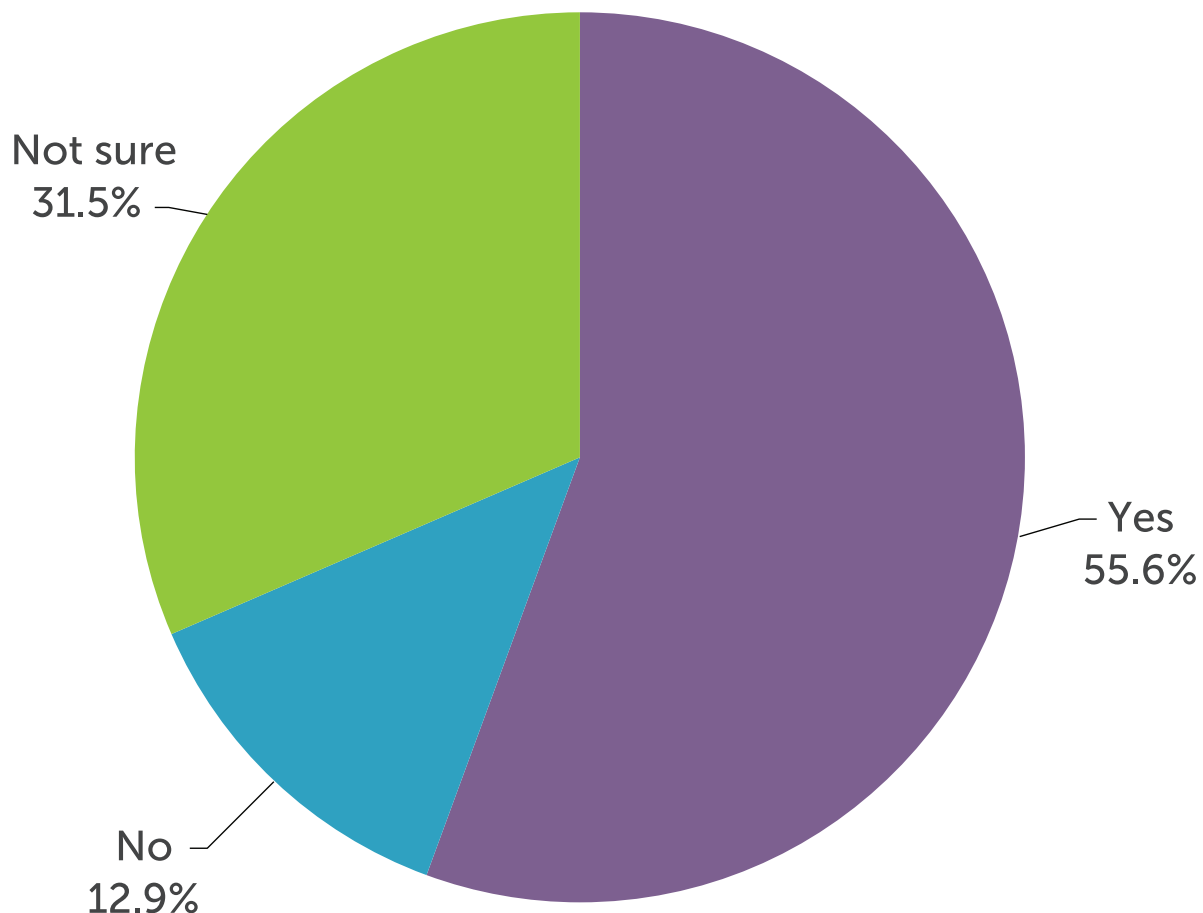
Not sure
31.5%

Yes
55.6%

No
12.9%

Would you be willing to offer flexible work schedules to employees interested in earning a certificate/ degree or upskilling?

Yes
39%

No
12%

Only if related
to the job
32%

We already do
18%
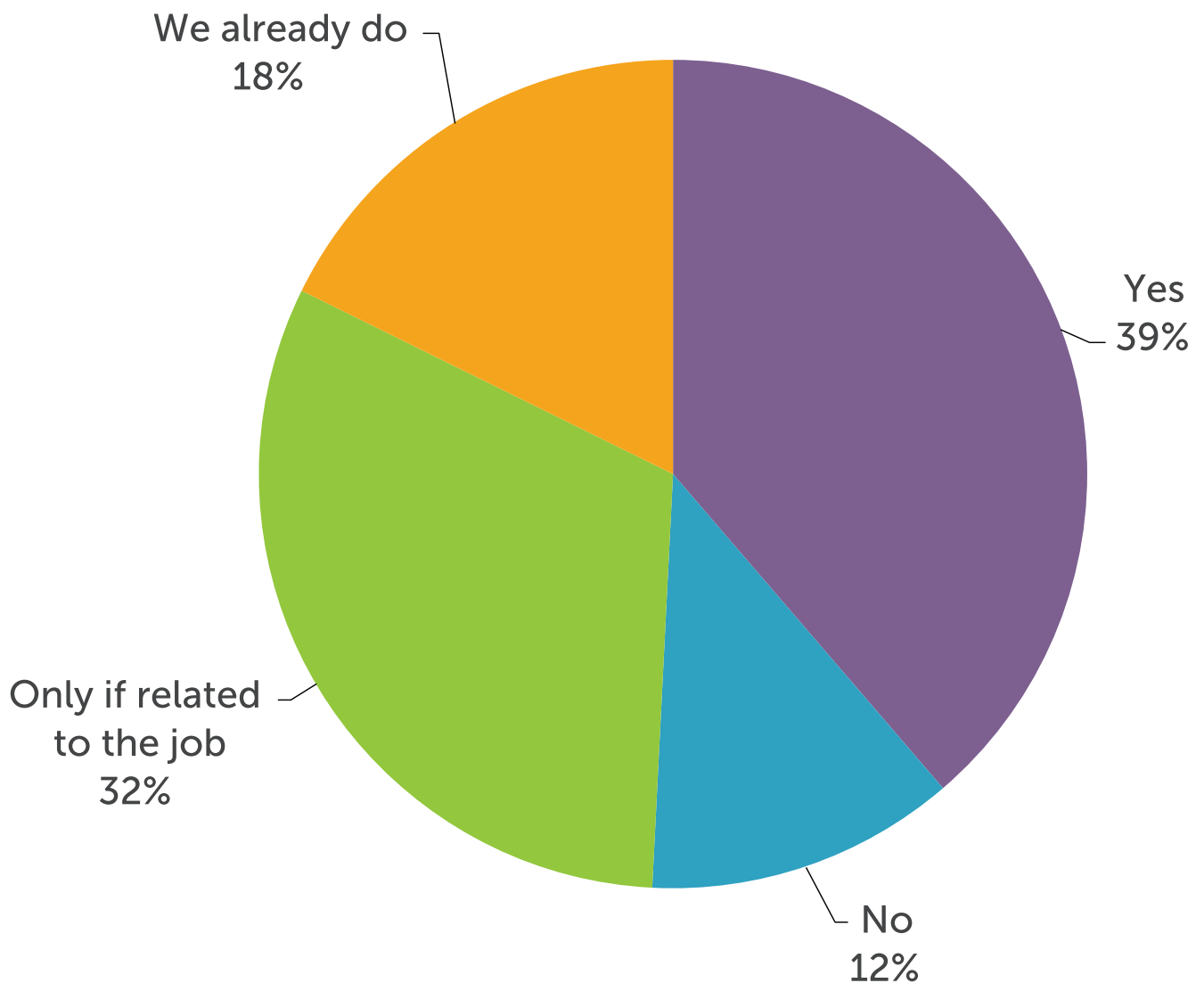
If an employee decides to pursue online learning, would you allow them to complete coursework during work hours (the amount to be decided by you and the employee)?

Yes
33.9%

Not sure
39.5%

No
26.6%
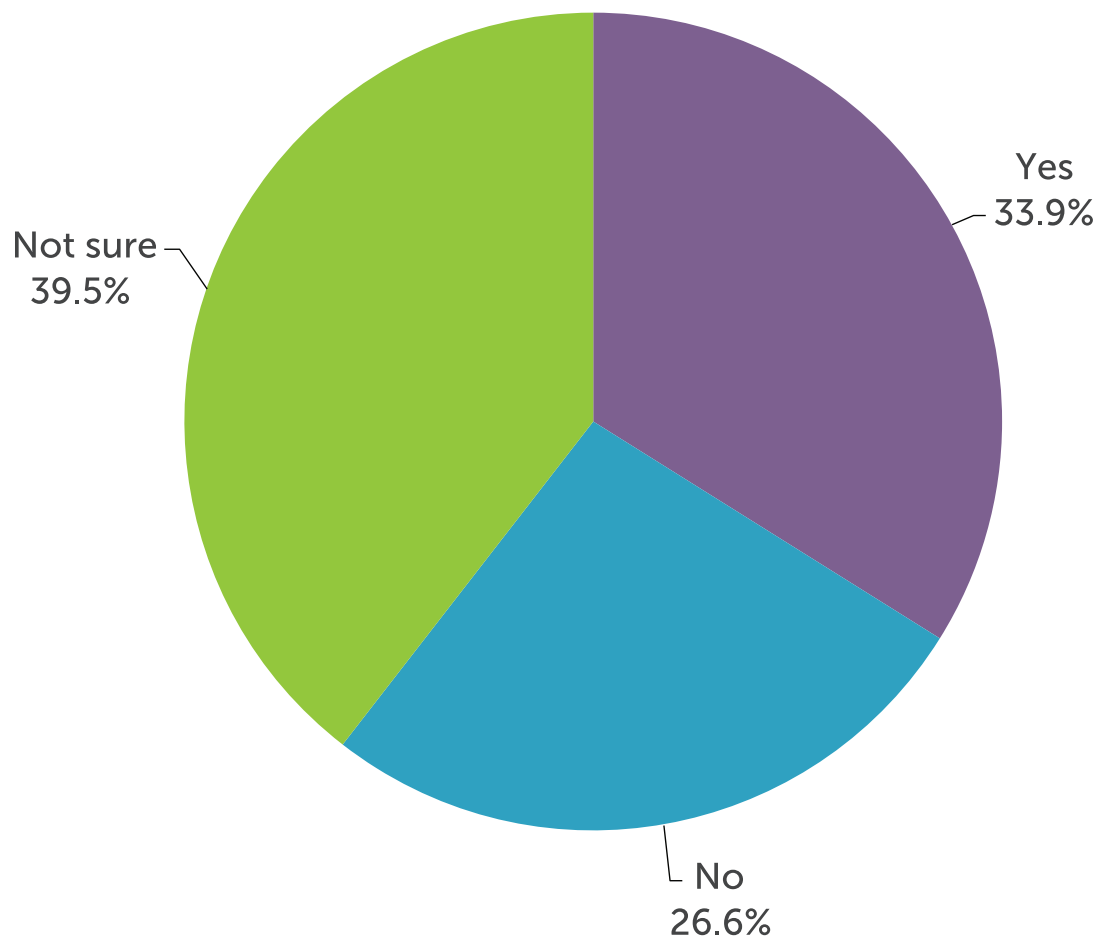
Which of the following would be of value to building your workforce? Check all that apply.

Category	Percentage
The opportunity to provide work-based learning experiences in my company to give youth exposure and "try out" new talent	50.8%
Exposure to the new up-and-coming workforce pipeline and the opportunities in my industry	54.0%
Promotional support for my business to demonstrate that I support workforce and education initiatives	34.7%
An education partner that can help me create individulaized plans for my employees to reach their education attainment goals	47.6%
An industry expert who can consult with me on the available grant-funded services and initiatives to address specific issues within my business	34.7%
An education partner that will listen to my expertise and build training curriculum to support my workforce needs	66.9%

How important are the following skill sets in your workplace?

1 - Not important at all **2** - Not important **3** - Neutral **4** - Important **5** - Extremely important

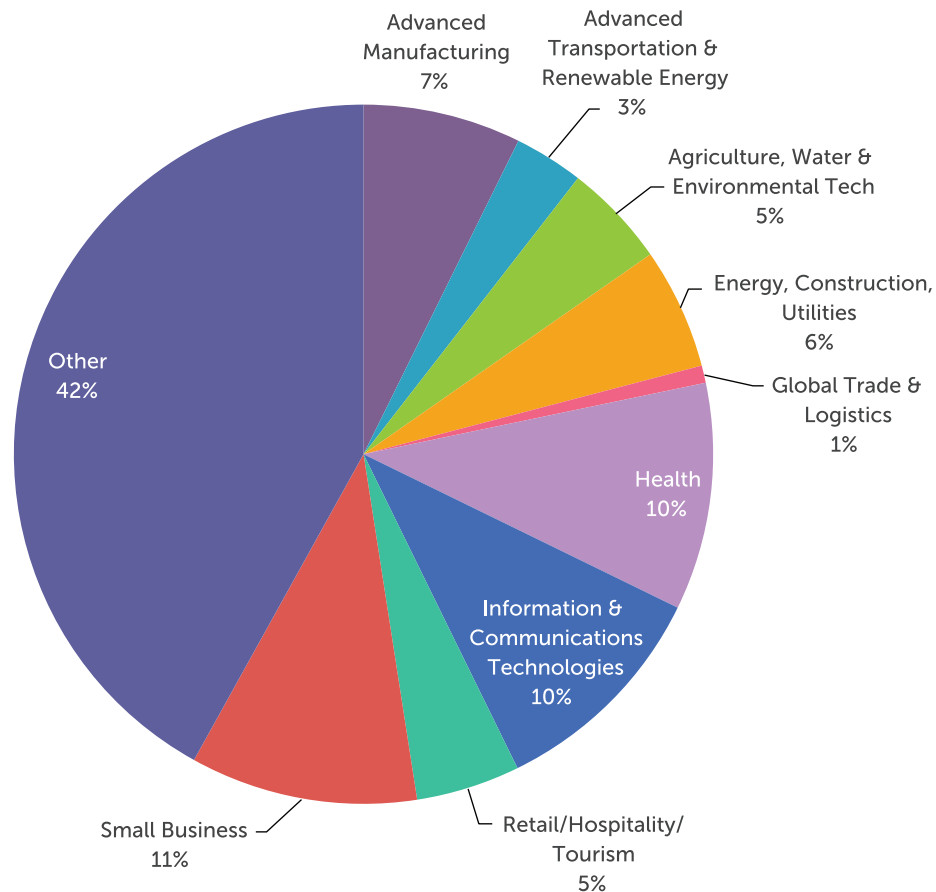|	(1) Count	(1) Row %	(2) Count	(2) Row %	(3) Count	(3) Row %	(4) Count	(4) Row %	(5) Count	(5) Row %	Response Count
Adaptability	5	4.1%	2	1.6%	7	5.7%	36	29.3%	73	59.3%	123
Analysis/Solution Mindset	4	3.2%	3	2.4%	10	8.1%	47	37.9%	60	48.4%	124
Collaboration	4	3.2%	1	0.8%	15	12.1%	41	33.1%	63	50.8%	124
Communication	4	3.3%	1	0.8%	5	4.1%	28	23.1%	83	68.6%	121
Digital Fluency	4	3.2%	4	3.2%	29	23.4%	54	43.5%	33	26.6%	124
Entrepreneurial Mindset	7	5.7%	16	13.0%	45	36.6%	34	27.6%	21	17.1%	123
Empathy	4	3.2%	2	1.6%	21	16.9%	44	35.5%	53	42.7%	124
Resilience	3	2.4%	3	2.4%	14	11.4%	50	40.7%	53	43.1%	123
Self-Awareness	4	3.3%	1	0.8%	18	14.6%	48	39.0%	52	42.3%	123
Social/Diversity	3	2.5%	6	4.9%	21	17.2%	47	38.5%	45	36.9%	122
Awareness	2	1.6%	2	1.6%	21	17.2%	48	39.3%	49	40.2%	122
Specific Industry Skills	4	3.4%	2	1.7%	12	10.2%	43	36.4%	57	48.3%	118

What does the term 'career technical education' mean to you? Check all that apply.

Bar chart showing:
- Courses that help students and workers achieve a specific skill set: 73.5%
- Certifications or credentials for a skill set or occupation: 76.9%
- Classes to help those that don't have a degree: 22.2%
- Support for those that need basic skills development: 19.7%
- Not sure: 1.7%
- Other: 7.7%

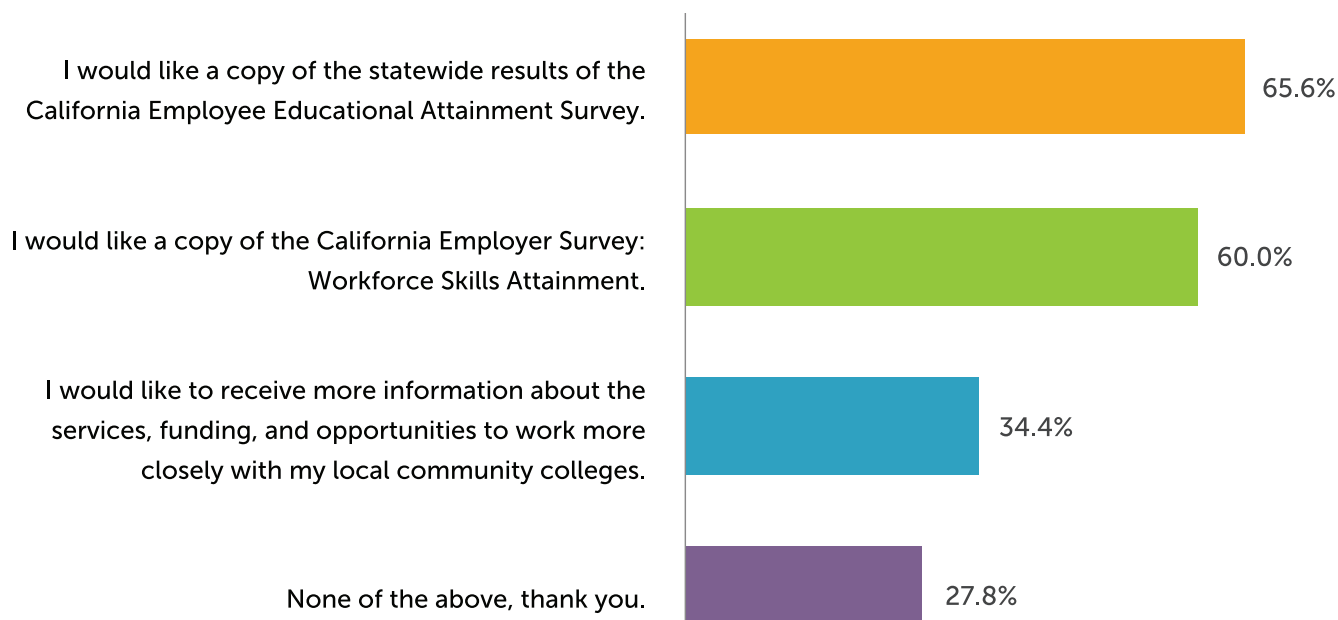| "Other" Responses	Count
Basic logical thinking skills	1
Everything must be career oriented but holistic, given that a student spends almost 13 years in school and then go to CCs or 4yrs colleges and for them to not have mastered any skill is hard to imagine. Raise the standard of STEM education in this country. We are falling behind fast in this global economy. Implement National Academy of Sciences recommendations... Storm has reached Category 5.	1
Identifying career options and highlighting transferrable skills	1
Provides industry specific skills	1
Courses that train students for specific skill sets AND educate them about job opportunities and preparation	1
Entrepreneurial skills education—we're all going to be entrepreneurs	1
Sounds like IT	1
Totals	**7**

What sector best reflects your business?

Pie chart:
- Other: 42%
- Advanced Manufacturing: 7%
- Advanced Transportation & Renewable Energy: 3%
- Agriculture, Water & Environmental Tech: 5%
- Energy, Construction, Utilities: 6%
- Global Trade & Logistics: 1%
- Health: 10%
- Information & Communications Technologies: 10%
- Retail/Hospitality/Tourism: 5%
- Small Business: 11%

"Other" Responses	Count
Education	10
Government	7
Non-Profit	7
Social Services	5
Behavioral Health	1
CPG - Food Manufacturer	1
Cleaning Services	1
Communications	1
Entertainment	1
Finance/Financial Services	3
OEM Auto Dealership	1
Organizational Development	1
Service	1
Warehouse	1
Design, construction, renewable energy, community development	1
Workforce development	1

Follow-Up Requests

Thank you for participating in the survey. Check the appropriate boxes below and enter your contact information if you would like to receive any of the following items.

I would like a copy of the statewide results of the California Employee Educational Attainment Survey. — **65.6%**

I would like a copy of the California Employer Survey: Workforce Skills Attainment. — **60.0%**

I would like to receive more information about the services, funding, and opportunities to work more closely with my local community colleges. — **34.4%**

None of the above, thank you. — **27.8%**

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2. Shavel, Michael, Sebastian Vanderzeil, and Emma Currier. "Retail Automation: Stranded Workers? Opportunities and risk for Labor and Automation." Investor Responsibility Research Center Institute, May 2017, https://irrcinstitute.org/wp-content/uploads/2017/05/FINAL-Retail-Automation_Stranded-Workers-Final-May-2017.pdf

3. Bohn, Sarah. "California's Need for Skilled Workers." Public Policy Institute of California, September 2014, http://www.ppic.org/publication/californias-need-for-skilled-workers/

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6. Tasini, Jonathan. "America needs higher wages, not lower taxes." CNN, 18 Oct. 2017, http://www.cnn.com/2017/10/18/opinions/tax-cuts-wage-increase-opinion-tasini/index.html

7. Kitroeff, Natalie and Paresh Dave. "What's hurting California's budget: The rich aren't getting richer as fast as they used to." Los Angeles Times, 12 Jan. 2017, http://www.latimes.com/business/la-fi-deficit-california-ipo-20170112-story.html

8. Jacobs, Ken, Ian Perry, and Jenifer MacGillvary. "The High Public Cost of Low Wages." UC Berkeley Labor Center, April 2015, http://laborcenter.berkeley.edu/the-high-public-cost-of-low-wages/

9. Jacobs, Ken, Ian Perry, and Jenifer MacGillvary. "Interactive Map by State: The High Public Cost of Low-Wage Work." UC Berkeley Labor Center, April 2015, http://laborcenter.berkeley.edu/health-care-resources/usmap/

Thank You to our MeetUp Champions