

# Education

## Section Highlights

Availability of Childcare for Potential Demand	15%
Third Graders Meeting Literacy Standards	4 out of 10
Fifth Graders Meeting Math Standards	1 out of 3
Graduation Rate	83%
10-Year Growth in STEM Degrees	27%

## Success Story

*The San Bernardino County Superintendent of Schools is a leader in a statewide, education-based partnership that includes the California Association for Bilingual Education, Los Angeles-based Families in Schools, and the California Collaborative for Educational Excellence. The goal of the partnership is to develop stronger family and community engagement in schools as a research-based strategy to accelerate student success. The partners were awarded a \$13.2 million System of Support grant to build engagement capacity in school districts across the state. In the first year of the five-year grant, six pilot districts across the state are participating, including Ontario-Montclair School District in San Bernardino County. Participating districts will form Professional Learning Networks to disseminate the work statewide in subsequent years.*

## Increase in Number of Quality-Rated Sites

Research on school readiness and children’s brain development confirms the importance of high-quality early education and care programs for children’s future success in school and life. In addition, affordable childcare is essential for working families to maintain economic self-sufficiency. Early care and education has been shown to be an efficient and effective investment for economic and workforce development, with an estimated return of \$7 for every \$1 invested.<sup>1</sup> This indicator measures childcare quality and availability by tracking participation in Quality Start San Bernardino (QSSB) and the supply and demand of childcare spaces.

### How is San Bernardino County Doing?

The number of Quality Start sites continues to grow:

- In 2019, there were 234 sites in San Bernardino County participating in QSSB, with about half (119) of those sites receiving a quality rating and another 115 receiving quality improvement services.
- The number of sites with a rating is up from 103 sites in 2017/18 and 76 sites in 2016/17.
- Of the 119 sites with ratings, 77 sites received a rating of 4 (Quality Plus) and 12 sites received a rating of 5 (Highest Quality).

Between 2014 and 2016, demand for childcare increased while the number of spaces available decreased:<sup>2</sup>

- There was a 15% decrease in the number of spaces at licensed childcare centers (center-based) and a 24% decrease in the number of spaces at licensed family childcare homes (home-based) in San Bernardino County.
- The long-term trend is also downward. Between 2008 and 2016, there was an 11% decrease in the number of licensed center-based spaces and a 51% decrease in the number of licensed home-based spaces.
- The need far outpaces supply. In 2016, there were enough licensed childcare spaces for only 15% of children ages 12 and younger with parents in the labor force. This rate was 19% in 2014 and 21% in 2012.
- This is the lowest rate among neighboring counties and the California average of 23%.

### Maximizing Use of Subsidized Childcare Slots

At the direction of the 5th District/Head Start Shared Governance Board, several local organizations – San Bernardino’s Preschool Services Department, First 5 San Bernardino, Child Care Resource Center (CCRC), and San Bernardino County Superintendent of Schools – are working on a project to maximize the utilization of the limited number of subsidized childcare slots in San Bernardino County.

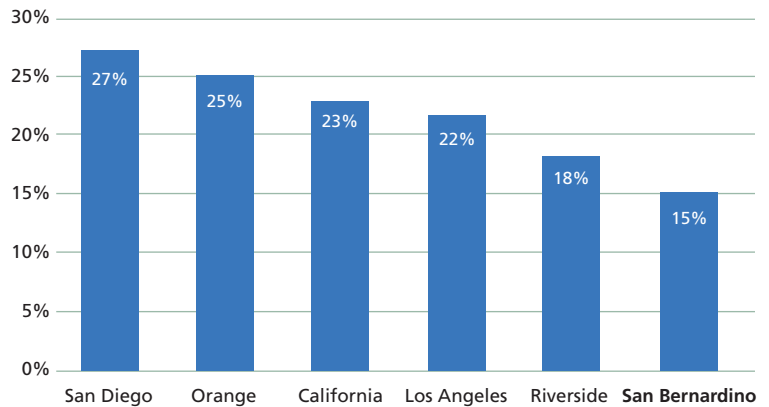
While there is insufficient capacity to meet childcare demand in the county, some childcare slots still go unfilled. This is often because of where some eligible children enroll. For example, if a child eligible for Head Start (the lowest income threshold) is enrolled in a California State Preschool Program (CSPP) slot, that child is potentially blocking a child from a higher income family who does not qualify for Head Start from attending the CSPP. Alternatively, if a CSPP-eligible child is enrolled in Transitional Kindergarten (TK), they are potentially blocking a child with higher income who does not qualify for CSPP from attending TK.

While preserving parental choice, the partners are working on a plan to enhance the childcare referral process, which is primarily administered by CCRC, in order to fully maximize the utilization of available subsidized childcare slots.

### What is Quality Start San Bernardino (QSSB)?

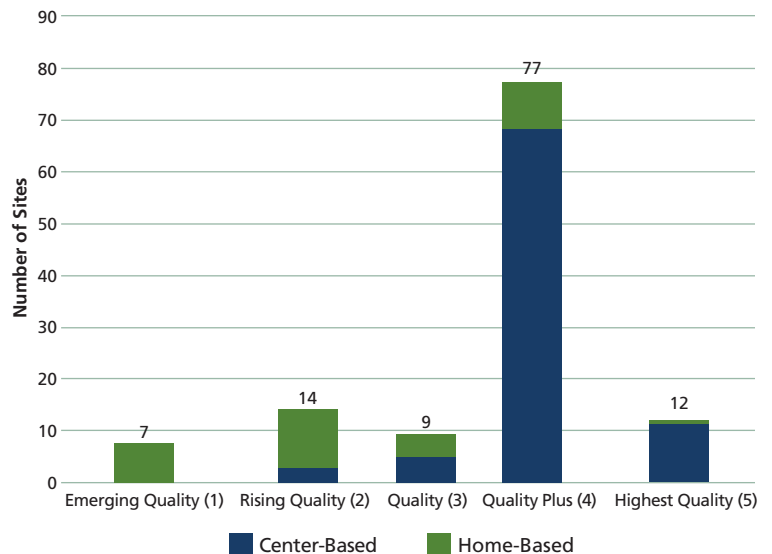
Quality Start San Bernardino County (QSSB) works to increase the quality of local early learning programs for San Bernardino County’s youngest children through the development of a Quality Rating Improvement System (QRIS). Participating sites are rated every two years and receive support and incentives to gain and maintain the highest ratings through the system.

### Availability of Childcare for Potential Demand County Comparison, 2016



Source: The California Child Care Portfolio, California Child Care Resource and Referral Network ([www.ccrnetwork.org](http://www.ccrnetwork.org))

### Childcare Sites Rated in Quality Start San Bernardino San Bernardino County, 2018/19



Source: First 5 San Bernardino

<sup>1</sup> National Institute for Early Childhood Education Research (<http://nieer.org>)  
<sup>2</sup> 2018 childcare data were not available at time of this report’s publication.

## 4 out of 10 Third Graders Meet English Language Standards

Research shows that children who are not proficient readers by the end of third grade are four times more likely to leave school without a diploma than proficient readers, and more likely to engage in criminal activity, impacting public safety.<sup>1</sup> This indicator measures third grade proficiency for English language arts/literacy (ELA/literacy) using the California Assessment of Student Performance and Progress assessment (CAASPP) results. The CAASPP assessment is a computer-adaptive, end-of-year academic performance test that is aligned with California’s Common Core State Standards.

### How is San Bernardino County Doing?

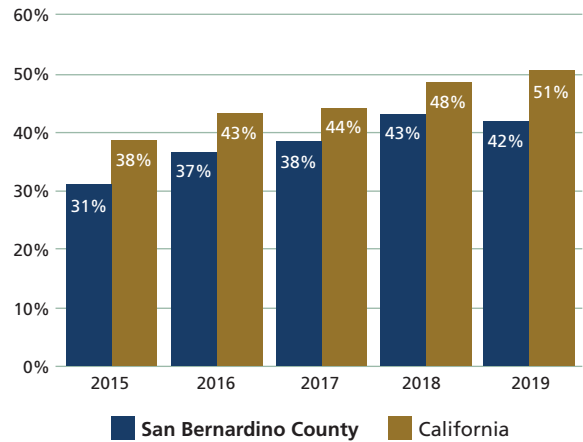
In 2019, about four out of every 10 third graders in San Bernardino County met or exceeded ELA/literacy standards:

- Overall, 42.4% of third graders in the county met or exceeded standards for ELA/literacy in 2019, about the same as in 2018 (42.8%).
- San Bernardino County’s third grade performance is lower than the statewide average (51% of students met or exceeded ELA/literacy standards) and all counties compared including Orange (56%), San Diego (55%), Los Angeles (49%), and Riverside (48%).

Third grade academic performance varies across a range of characteristics:

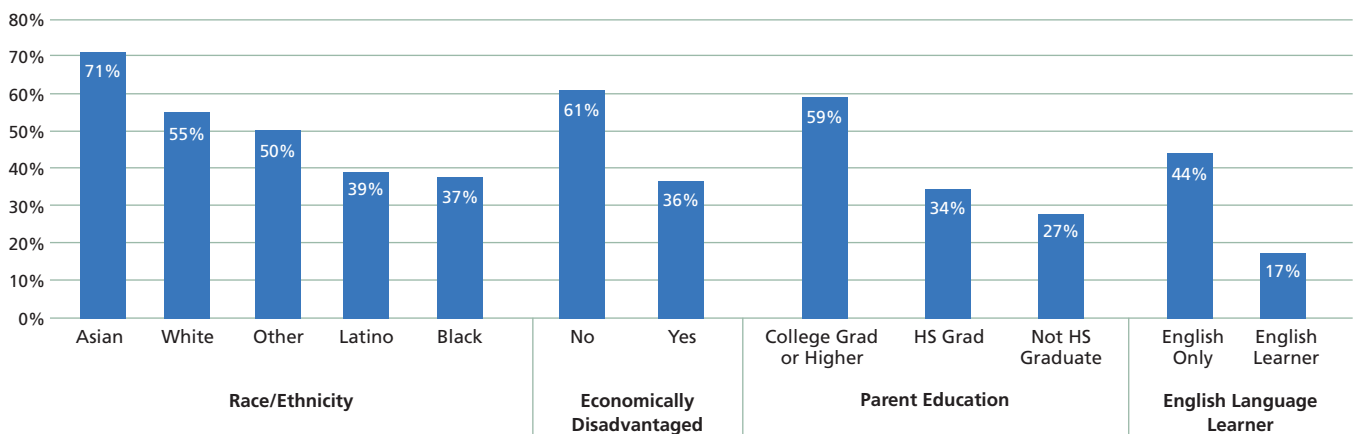
- For example, 71% of Asian students met or exceeded standards, compared to 55% of White students, 39% of Latino students, and 37% of Black students.
- More than one-third (36%) of economically disadvantaged students met or exceeded ELA/literacy standards, compared to 61% of students who were not economically disadvantaged.<sup>2</sup>
- For children whose parents were not high school graduates, 27% met or exceeded standards.
- Only 17% of children classified as English Learners met or exceeded ELA/literacy standards.

Percentage of Third Graders Meeting or Exceeding English/ELA Standards  
San Bernardino County and California, 2015-2019



Source: California Department of Education, DataQuest

Percentage of Third Graders Meeting or Exceeding English/ELA Standards  
San Bernardino County, 2019



Note: Asian includes Asian, Native Hawaiian, Pacific Islander and Filipino. Other includes two or more races and Native American.

Source: California Department of Education, DataQuest

### School Readiness and Future Success

Preparing young children for school is crucial to ensuring they have a head start to life-long learning. Exercising the brains of babies in the first years of life significantly impacts children’s development. Being “school ready” means a child is ready to enter a social environment that is primarily focused on education that challenges cognitive, social, emotional and motor development. The quality of children’s early life experiences can be affected by inequalities in a child’s background. For example, research has shown that by age three, children from lower-income families hear roughly 30 million fewer words than their more affluent peers and that a high correlation exists between vocabulary size at age three and language test scores at age nine and 10 in areas of vocabulary, listening, syntax, and reading comprehension.<sup>3</sup> A system that supports quality early learning experiences for children from birth through age five is key to shifting the future generation.

<sup>3</sup> Hart, B. Risley, T. Meaningful Difference in the Everyday Experiences of Young American Children (1995). Paul H. Brookes Publishing Co.

<sup>1</sup> Hernandez DJ. “Double Jeopardy: How Third-Grade reading skills and Poverty Influence High School Graduation.” The Annie E. Casey Foundation (2012).

<sup>2</sup> Economically disadvantaged students include students eligible for the free and reduced priced meal program, foster youth, homeless students, migrant students, and students for whom neither parent is a high school graduate.

# Performance Improves for Fourth Consecutive Year

Research shows that basic math skills are necessary in order to navigate through life, and competence in math is associated with readiness for the workplace and higher future earnings.<sup>1</sup> This indicator measures fifth grade scores for mathematics using the California Assessment of Student Performance and Progress assessment (CAASPP) results. The CAASPP assessment is a computer-adaptive, end-of-year academic performance test that is aligned with the California’s Common Core State Standards.

## How is San Bernardino County Doing?

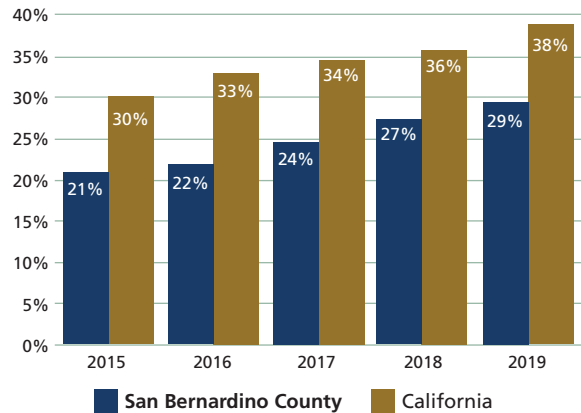
Less than three out of 10 fifth graders met or exceeded mathematics standards:

- Overall, 29% of fifth graders in the county met or exceeded standards for mathematics in 2019, higher than in 2018, when 27% met or exceeded standards.
- This is lower than the California average (38% of students met or exceeded math standards) and all counties compared, including Orange (49%), San Diego (45%), Los Angeles (38%), and Riverside (33%).

Fifth grade math performance varies by sub-group:

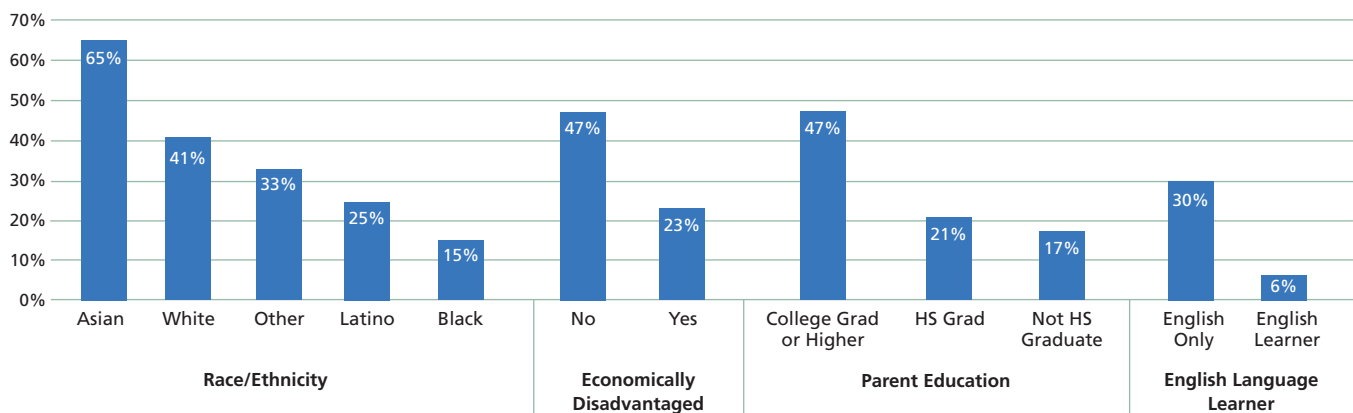
- 65% of Asian students met or exceeded math standards, compared to 41% of White students, 25% of Latino students, and 15% of Black students.
- 23% of students who are economically disadvantaged met or exceeded math standards.
- For children whose parents were not high school graduates, 17% met or exceeded standards.
- Only 6% of students who are classified as English Learners met or exceeded math standards.

Percentage of Fifth Graders Meeting or Exceeding Math Standards  
San Bernardino County and California, 2015-2019



Source: California Department of Education, DataQuest

Percentage of Fifth Graders Meeting or Exceeding Math Standards  
San Bernardino County, 2019



Note: Asian includes Asian, Native Hawaiian, Pacific Islander and Filipino. Other includes two or more races and Native American.

Source: California Department of Education, DataQuest

## The Importance of Mathematics for Child Outcomes

A growing body of research suggests that early math skills are a better predictor of later academic success than early literacy skills. In a widely cited study of large longitudinal data sets, University of California, Irvine professor Greg Duncan and colleagues found that in a comparison of math, literacy, and social-emotional skills at kindergarten entry, “early math concepts, such as knowledge of numbers and ordinality, were the most powerful predictors of later learning.”

In a separate, large-scale longitudinal study conducted by Duncan and his colleagues for children in elementary school, the type of math knowledge most essential for children to know was fractions and whole-number division. The researchers found that mastering these two concepts were important predictors of students’ long-term learning and success in high school.

Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., et al. (2007). School readiness and later achievement. *Developmental Psychology*, 43(6), 1428-1446;  
Siegler, R. S., Duncan, G. J., Davis-Kean, P. E., Duckworth, K., Claessens, A., Engel, M., Susperreguy, M. I., & Chen, M. (2012). Early predictors of high school mathematics achievement. *Psychological Science* 23(7), 691-697.

<sup>1</sup> Child Trends. (2012). *Mathematics proficiency* (<http://www.childtrends.org/?indicators=mathematics-proficiency>)

<sup>2</sup> Economically disadvantaged students include students eligible for the free and reduced priced meal program, foster youth, homeless students, migrant students, and students for whom neither parent is a high school graduate.

# 12.6% of County Students were Chronically Absent in 2017/18

The costs and impacts of chronic absenteeism are significant, with both short- and long-term implications for the student as well as for the family, school, and community.<sup>1</sup> Research suggests that chronic school absenteeism at the elementary school level reduces math and reading achievement, educational engagement, four-year graduation rates or any high school completion, and social engagement for the absent child as well as for other children in the classroom.<sup>2</sup> Research aimed at discovering the causes of chronic absenteeism point to poor physical, mental and oral health, ACEs (adverse childhood experiences), and poor school climate.<sup>3</sup>

## How is San Bernardino County Doing?

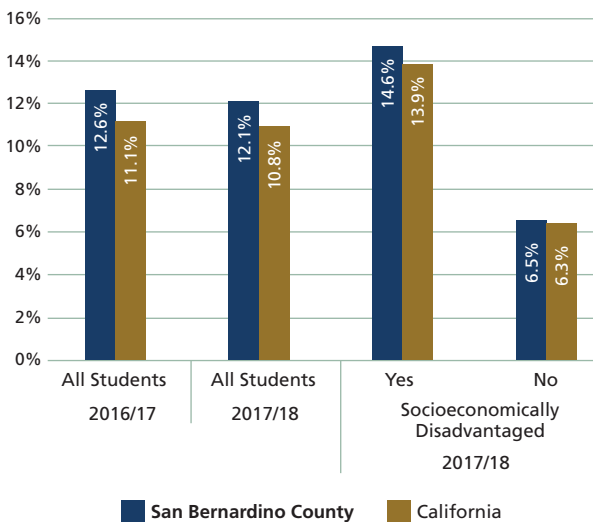
With only two years of data, an absenteeism trend has not yet emerged:

- In 2017/18, 12.6% of all students were chronically absent, which is higher than the statewide rate of 11.1%.
- In 2016/17, the first year of data collection, the San Bernardino County chronic absenteeism rate of 12.1%, compared to the state rate of 10.8%.
- The rate of chronic absenteeism among students who are socioeconomically disadvantaged is more than twice that of students who are not socioeconomically disadvantaged (14.6% vs. 6.5%).
- The chronic absenteeism rate ranges widely by district, from a low of 0% to a high of 35%.

### Chronic Absenteeism Defined

In California, chronic absenteeism is defined as being absent for 10% or more of the number of days a student is enrolled in school. For students enrolled for a full school year, this equates to 18 out of California's state-mandated 180 days in a full school year.

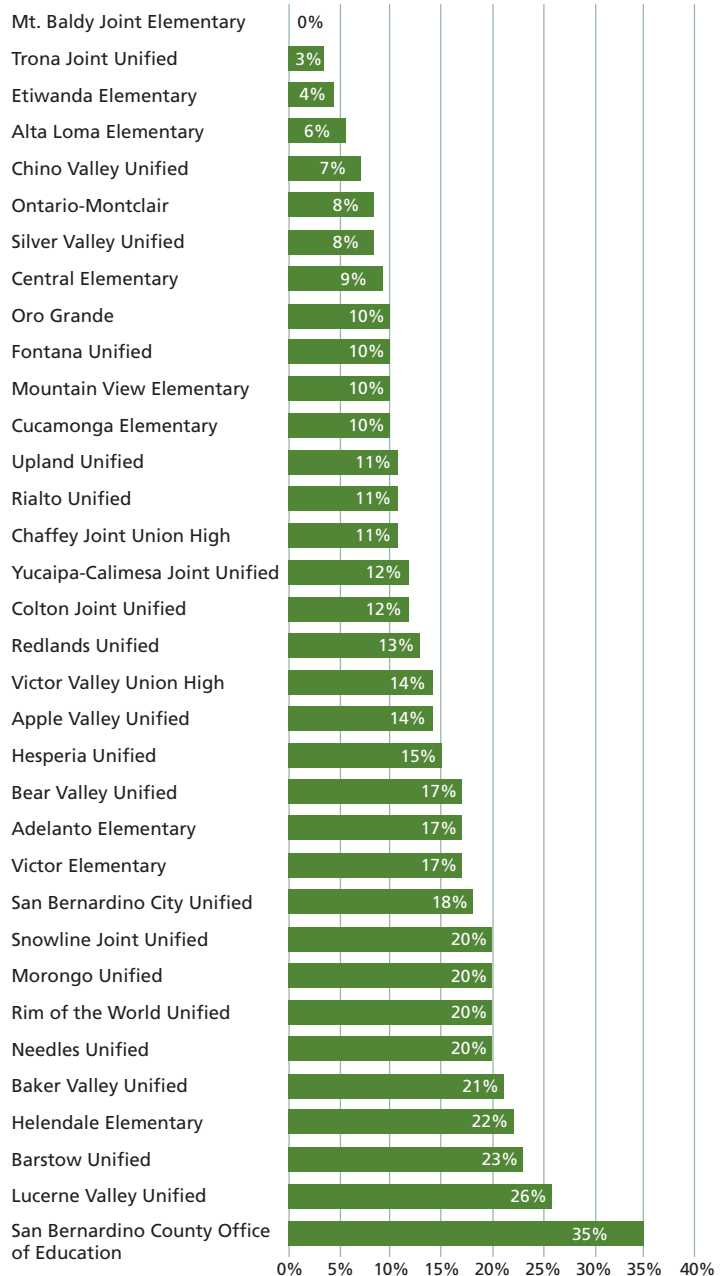
## Chronic Absenteeism by Socioeconomic Status San Bernardino and California, 2016/17 and 2017/18



Note: Socioeconomically disadvantaged includes students eligible for free or reduced-price school meals, foster youth, homeless students, migrant students, and students for whom neither parent is a high school graduate.

Source: California Department of Education, DataQuest

## Percentage of Chronically Absent Students by School District San Bernardino County, 2017/18



Source: California Department of Education, DataQuest

<sup>1</sup> Maynard, B. R., McCrea, K. T., Pigott, T. D., & Kelly, M. S. (2012). Indicated Truancy Interventions: Effects on School Attendance Among Chronic Truant Students. *Campbell Systematic Reviews*, 10.  
<sup>2</sup> Gottfried, M. A. (2019). Chronic Absenteeism in the Classroom Context: Effects on Achievement. *Urban Education*, 54(1), 3-34. Smerillo, N. E., Reynolds, A. J., Temple, J. A., & Ou, S. R. (2018). Chronic Absence, Eighth-grade Achievement, and High School Attainment in the Chicago Longitudinal Study. *Journal of School Psychology*, 67, 163-178. Gottfried, M. A. (2014). Chronic Absenteeism and its Effects on Students' Academic and Socioemotional Outcomes. *Journal of Education for Students Placed at Risk (JESPAR)*, 19(2), 53-75. Cook, P. J., Dodge, K. A., Gifford, E. J., & Shulting, A. B. (2017). A New Program to Prevent Primary School Absenteeism: Results of a Pilot Study in Five Schools. *Children and Youth Services Review*, 82, 262-270.  
<sup>3</sup> Stempel, H., Cox-Martin, M., Bronsert, M., Dickinson, L. M., & Allison, M. A. (2017). Chronic School Absenteeism and the Role of Adverse Childhood Experiences. *Academic Pediatrics*, 17(8), 837-843. Van Eck, K., Johnson, S. R., Bettencourt, A., & Johnson, S. L. (2017). How School Climate Relates to Chronic Absence: A Multi-Level Latent Profile Analysis. *Journal of School Psychology*, 61, 89-102. Pourat N., & Nicholson G. (2009). Affordability of Needed Dental Care is Linked to Frequent School Absences (pre-publication manuscript), *UCLA Center for Health Policy Research*

# Graduation Rate Improves, Surpassing the Statewide Average

A high school diploma or college degree opens many career opportunities that are typically closed to those without these achievements. Beyond the personal benefits of increased educational attainment, the education level of residents is evidence of the quality and diversity of the labor pool – an important factor for businesses looking to locate or expand in the region. Educational attainment is measured by tracking the high school graduation rate and the proportion of residents over age 25 with a high school diploma or bachelor’s degree.

## How is San Bernardino County Doing?

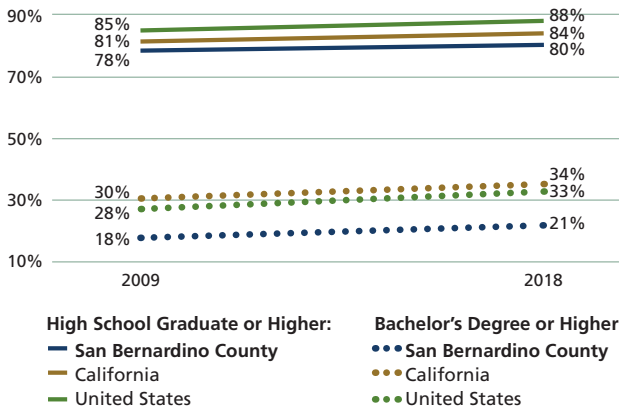
The proportion of high school and college graduates among San Bernardino County’s overall population has increased over the past 10 years:

- Between 2009 and 2018, the proportion of residents over age 25 who are high school graduates rose from 78% to 80%.
- At 80%, San Bernardino County falls below state and national averages (84% and 88%, respectively) for residents over age 25 with a high school diploma.
- Between 2009 and 2018, the proportion of residents over the age of 25 with a bachelor’s degree or higher rose from 19% to 21%.
- At 21%, San Bernardino County is below the state (34%) and nation (33%) for college graduates.

San Bernardino County outperforms or is on par with the state on most high school graduation rate metrics:<sup>1</sup>

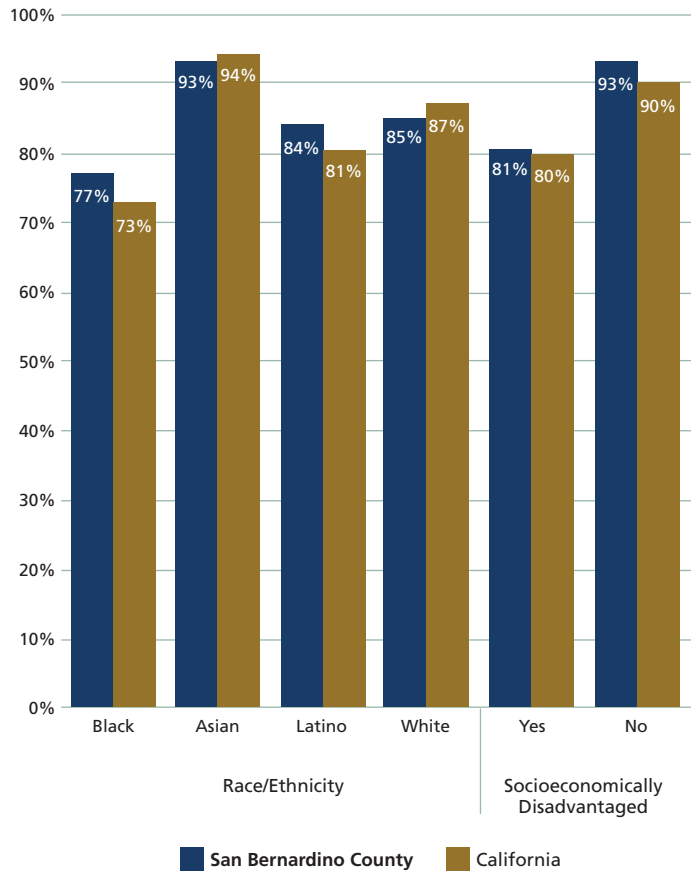
- In 2017/18, the San Bernardino County high school graduation rate was 83.4%, marking an improvement over the prior year rate (82.6%) and exceeding the statewide rate (83.0%).
- There also has been progress in closing gaps among subgroups of county students. For example, the difference between White and Black student graduation rates closed to seven points, well ahead of the statewide graduation rate gap of 14 points.
- The county’s Latino student graduation rate is effectively on par with White students, which compares favorably to the statewide graduation rate gap of six points between these two student groups.
- The San Bernardino County graduation rate for socioeconomically disadvantaged students was 81%, approximately 12 points below the rate for non-socioeconomically disadvantaged students (93%) but outperforming the statewide socioeconomically disadvantaged rate of 80%.
- County averages for English learners, foster youth, homeless students, and students with disabilities all exceeded state averages, as well.

**Percentage Over Age 25 Earning a High School Diploma (or Higher) and Bachelor’s Degree (or Higher)**  
San Bernardino County, 2009 and 2018



Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates, 2009 and 2018 (Table DP02)

**Graduation Rate by Subgroup**  
San Bernardino County and California, 2017/2018



Source: California Department of Education, DataQuest (<https://data1.cde.ca.gov/dataquest/>)

<sup>1</sup>The four-year adjusted cohort graduation rate is the number of students who graduate from high school in four years with a regular high school diploma (e.g. does not include a general equivalency diploma or similar or lesser credentials).

## Strong Performance on Career-Tech Metrics

Career technical education (CTE) integrates academic and technical skills, supporting educational goals, workforce development, and economic development. It offers students research-based, relevant curricula developed expressly for success in college and careers. For those just entering the workforce, changing careers, or needing on-the-job skill upgrades, CTE provides applicable skillsets and increased career opportunities. For those entering college, CTE provides a foundation of real-world skills that will enhance academic learning. In addition to CTE coursework, preparation for success in college includes taking coursework that is academically rigorous and required for college admission. Successful completion of college can lead to increased earning power, better health, a stronger workforce, and societal benefits, such as increased voter participation and increased tax receipts.<sup>1</sup> This indicator shows enrollment in high school CTE and AP/IB courses, participation in work-based learning offered through the three Regional Occupational Programs serving the county, and CTE Pathways completions. This indicator also shows the number of high school graduates who have fulfilled minimum course requirements to be eligible for admission to University of California (UC) or California State University (CSU) campuses, as well as the college-going rates among graduates.<sup>2</sup>

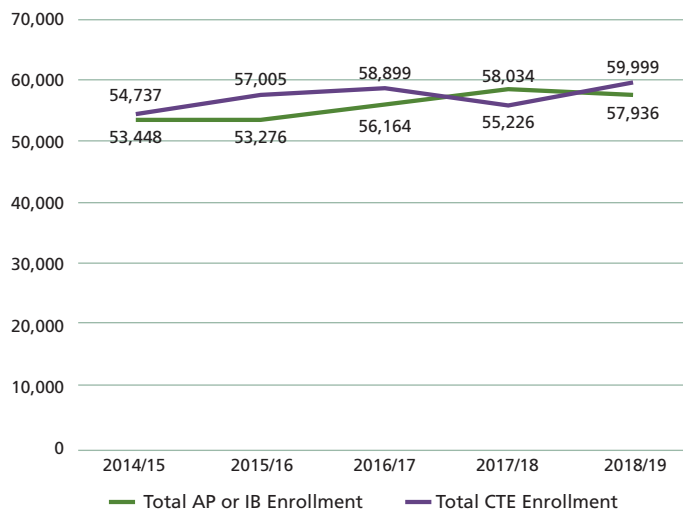
### How is San Bernardino County Doing?

#### CTE and AP/IB Course Enrollment

Enrollment in high school CTE and AP/IB courses has grown over the past five years:

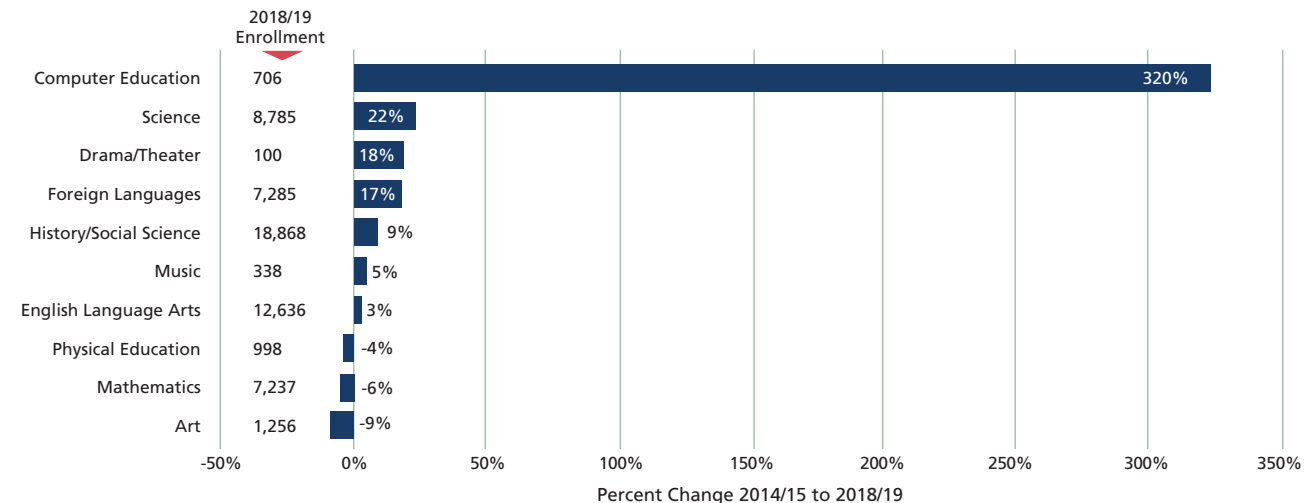
- CTE course enrollment rose 10% in the five-year period between 2014/15 and 2018/19.
- Meanwhile, AP/IB course enrollment grew 8%.
- These growth rates are significant in the face of an overall high school enrollment decline of 2% since 2014/15.
- The most popular CTE industry sector is Arts, Media, and Entertainment with 10,517 enrollments, followed by Health Science and Medical Technology (7,975) and Business and Finance (4,965).
- The CTE industry sectors posting the fastest five-year rate of growth in enrollments were Energy and Utilities (+877%), Public Services (+104%), and Arts, Media and Entertainment (+33%).
- The most popular AP/IB courses are in History/Social Science with 18,868 enrollments, followed by English Language Arts (12,363) and Science (8,785).
- The fastest rates of increase for AP/IB class enrollments were in Computer Education (+320%), Science (+22%), and Drama/Theatre (+18%).

**Enrollment in Career-Technical Education (CTE) and IB or AP Courses in San Bernardino County Public High Schools, 2014/15-2018/19**



Source: California Department of Education, DataQuest, Subject Area Courses (<http://data1.cde.ca.gov/>)

#### Enrollment (2018/19) and Change in Enrollment (between 2014/15 and 2018/19) in AP or IB Courses in San Bernardino County Public High Schools by Subject

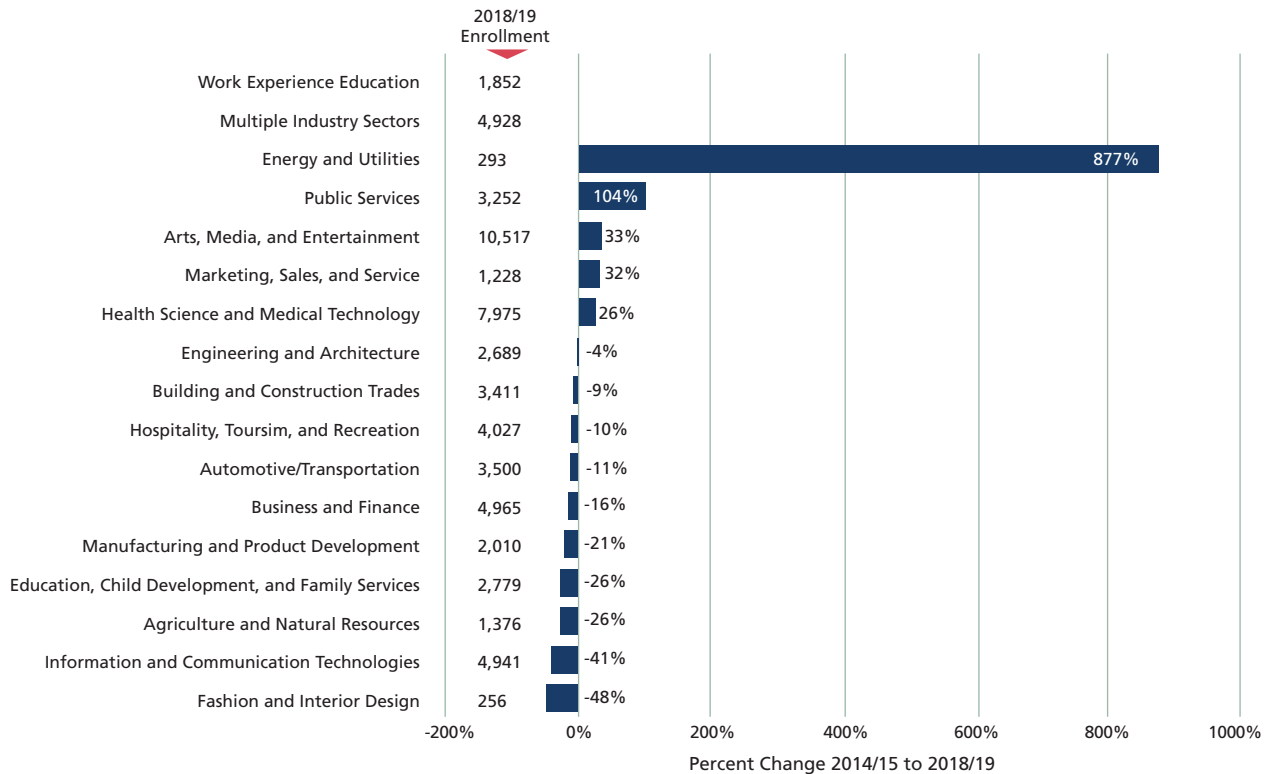


Source: California Department of Education, DataQuest, Subject Area Courses (<http://data1.cde.ca.gov/>)

<sup>1</sup> College Board, *Education Pays*, 2013 (<http://trends.collegeboard.org/education-pays>)

<sup>2</sup> UC/CSU eligibility data are sourced from the four-year adjusted cohort outcome reports and should not be compared to data presented in previous Community Indicators Reports.

**Enrollment (2018/19) and Change in Enrollment (between 2014/15 and 2018/19) in Career-Technical Education (CTE) in San Bernardino County Public High Schools by Industry Sector**



Note: Work Experience Education is a new CTE course category as of 2018/19 and Multiple Industry Sectors is a new category as of 2017/18, therefore a five-year trend is not possible to calculate.  
 Source: California Department of Education, DataQuest, Subject Area Courses (<http://data1.ede.ca.gov/>)

**Work-Based Learning**

Work-based learning opportunities for ROP students remain strong:

- Between 2014/15 and 2018/19, the number of signed agreements with business partners to provide work-based learning opportunities increased 180%, from 137 to 384.
- A total of 1,865 students participated in ROP “community classroom” work-based learning in 2018/19.



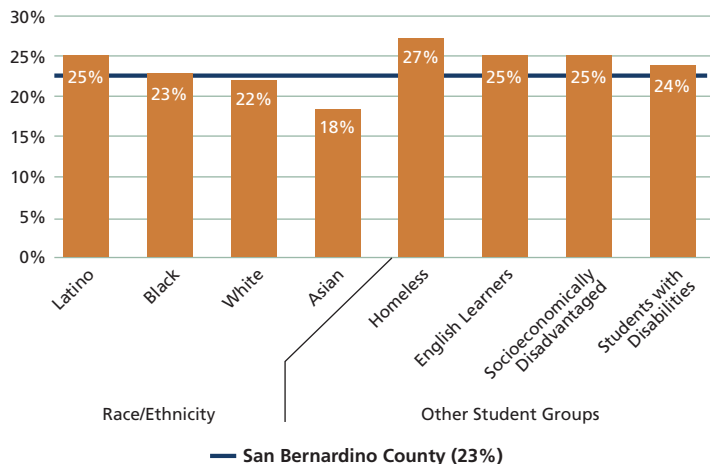
Sources: San Bernardino County Superintendent of Schools, Baldy View, and Colton-Redlands-Yucaipa Regional Occupational Programs

**CTE Pathways Completions**

CTE pathway completion among 2018 high school graduates varies by student group:

- Overall, nearly a quarter (23%) of San Bernardino County high school graduates in 2018 completed a CTE pathway, indicating they completed a series of courses in an industry sector with a grade of a C minus or better in the last class of the series.
- Among the four largest race and ethnic student groups in San Bernardino County, Latino graduates had the highest CTE pathway completion rate at 25%.
- Fully 27% of 2018 graduates identified as homeless or housing insecure (see Homelessness and Housing Insecurity indicator) completed a CTE pathway.

**CTE Pathways Completion Rate San Bernardino County, 2018**





**UC/CSU Eligibility**

The UC/CSU eligibility rate improved between 2016/17 and 2017/18:

- 43% of the San Bernardino County cohort graduating in 2017/18 completed the necessary coursework to be eligible for a UC or CSU campus.
- This rate of UC/CSU eligibility is two points higher than the previous year.
- San Bernardino County’s rate of eligibility is lower than the statewide average of 50%.
- Asian/Pacific Islander graduates had the highest rate of UC/CSU eligibility at 70%.

**Measuring and Improving College Readiness**

California’s math and English language arts/literacy assessments taken by 11th grade students are designed to give high school students an early indication of college readiness and to avoid incoming college students’ need for remediation.

**2019 Snapshot**

- 96% of San Bernardino County juniors took the literacy assessment and 95% took the math assessment.
- In literacy, 21% of San Bernardino County students were deemed college ready and 30% were conditionally ready (i.e. the student can take identified coursework in their senior year of high school that, following completion, will deem them college ready). Statewide, 22% of students were college ready in English and 29% were conditionally ready.
- In math, 9% of San Bernardino County students were deemed college ready and 17% were conditionally ready. Statewide, 20% of students were college ready in math and 20% were conditionally ready.

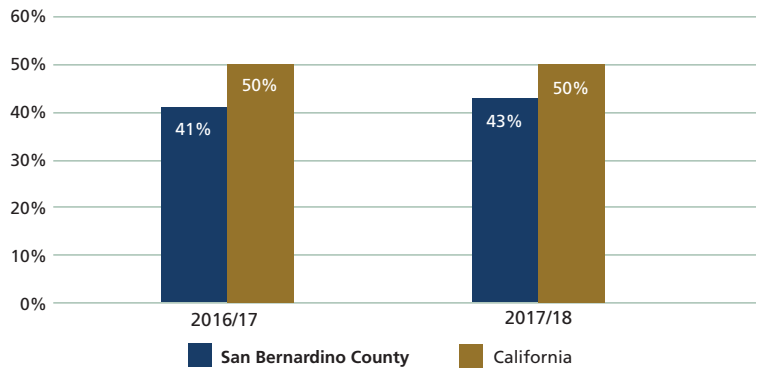
Sources: California Department of Education, California Assessment of Student Performance and Progress (<https://data1.cde.ca.gov/dataquest/>) and Early Assessment Program ([www.cde.ca.gov/ci/fg/bs/ea/index.asp](http://www.cde.ca.gov/ci/fg/bs/ea/index.asp))

**College-Going Rates**

College-going rates are high:

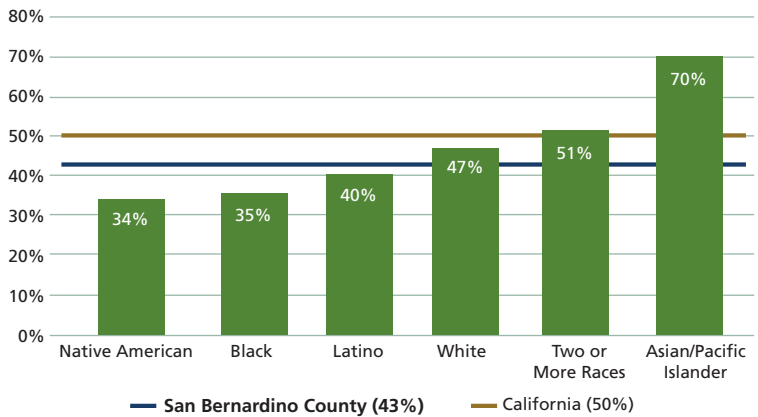
- Over half (58%) of San Bernardino County public high school graduates in 2017/18 enrolled in college within 12 months of completing high school, below the statewide rate of 64%.
- Of the 58% enrolling in college, 57% enrolled in a California community college, followed by 19% enrolling at a CSU campus and 10% enrolling at a UC campus.
- San Bernardino County’s overall college-going rates have not changed substantially since tracking began in 2014/15.

**UC/CSU Eligible High School Graduates**  
San Bernardino County and California, 2016/17 and 2017/18



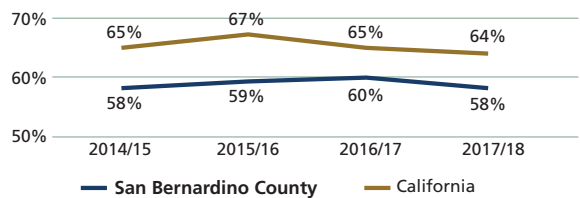
Source: California Department of Education, DataQuest (<http://data1.cde.ca.gov/dataquest/>)

**UC/CSU Eligible High School Graduates by Race/Ethnicity**  
San Bernardino County, 2017/18



Source: California Department of Education, DataQuest (<http://data1.cde.ca.gov/dataquest/>)

**College-Going Rate Among High School Graduates**  
San Bernardino County, 2015-2018



**AVID: Empowering Every Student’s Potential**

The Advancement Via Individual Determination (AVID) college readiness system has a mission to close the achievement gap by preparing all students for college readiness and success in a global society.

Since the California budget eliminated AVID funding in 2012/13, San Bernardino County, along with Riverside, Inyo and Mono counties (the RIMS region), has funded the program locally to keep it thriving and growing in the region. In an effort to plant the seed for college aspirations early, the AVID college readiness system is increasing dramatically at the elementary levels across the region.

**2018/19 AVID Snapshot**

In 2018/19, a countywide total of 50,588 students (23,474 in secondary schools and 27,114 in elementary schools) took AVID classes during the academic year. Of the 2,710 AVID seniors in the county graduating in 2019, 100% graduated from high school and 95.4% successfully completed their A-G course requirements (courses that count toward eligibility for CSU/UC schools). In addition, 86.2% of AVID seniors were accepted to a four-year college or university and 92.9% planned on attending a 2- or 4-year college for 2019/20.

Source: San Bernardino County Superintendent of Schools

## 27% Growth in STEM-Related Degrees Granted

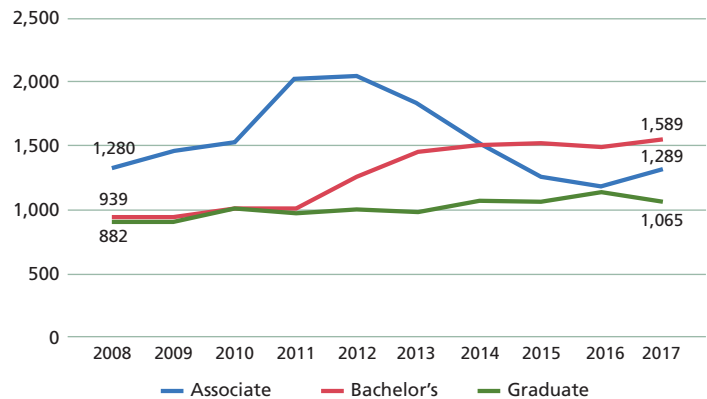
The technical and problem-solving skills learned through the STEM disciplines (Science, Technology, Engineering and Mathematics) are critical in our knowledge- and technology-driven economy. A technically skilled pool of local graduates reduces the need for employers to recruit workers from outside the county and can attract new high-tech jobs. This indicator measures the number of degrees awarded in STEM disciplines at colleges and universities in San Bernardino County, including associate, bachelor's, and graduate degrees.<sup>1</sup>

### How is San Bernardino County Doing?

STEM-related degrees – including health and medical professions – accounted for approximately 24% of the total number of degrees awarded in 2016/17 by public and private four-year universities and public community colleges in San Bernardino County:

- Overall, STEM-related associate, bachelor's and graduate degrees granted have grown 27% since 2007/08.
- A total of 1,289 STEM-related associate degrees were awarded in 2016/17, which is on par with the number of degrees granted 10 years ago.
- The number of STEM-related bachelor's degrees awarded (1,589 in 2016/17) grew 69% over the past 10 years.
- The number of STEM-related graduate degrees granted has grown relatively steadily since 2007/08, rising 21% to 1,065 in 2016/17.
- Since 2007/08, Physical Sciences, Mathematics and Statistics, and Biological and Biomedical Sciences posted the fastest growth rates (154%, 113%, and 94%, respectively), while Health Professions grew 30% and Engineering and Computer Science, IT and Communications Tech both declined (-74% and -4%, respectively).

STEM-Related Degrees Awarded by Type of Award  
San Bernardino County, 2008-2017



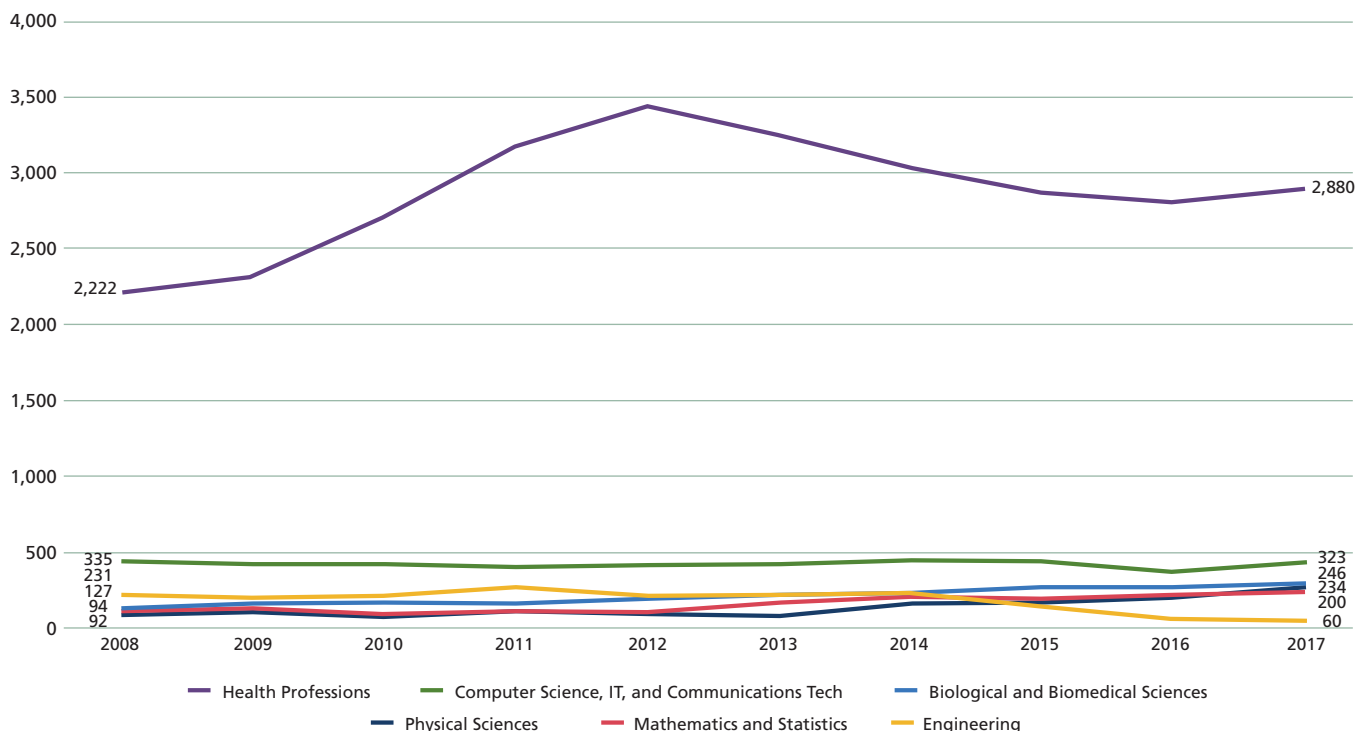
Note: Due to a change in the source, these data should not be compared to previous Indicators Reports.

Source: Emsi Q3 2019 Data Set from California Labor Market Information Department

### STEM-Related Certificates

In addition to the degrees tallied in this indicator, which comprise associate, bachelor's, and graduate degrees, 2,416 STEM-related certificates were awarded in 2016/17.

STEM-Related Degrees Conferred by San Bernardino County Colleges and Universities, 2008-2017



Source: Emsi Q3 2019 Data Set from California Labor Market Information Department

<sup>1</sup>STEM-related degrees include the subjects of biological sciences, health or medical professions, physical sciences, mathematics, statistics, computer and information sciences, communications technology, and engineering, environmental and industrial technologies. Data are inclusive all 2- and 4-year, public and private post-secondary degree-granting institutions in San Bernardino County.