

Education

Section Highlights

Children under 12 for whom there is available, licensed child care **1 out of 6**

3rd Graders Proficient in English Language Arts/Literacy..... **43%**

5th Graders Proficient in Mathematics **27%**

High School Graduation Rate **83%**

Students Ready for College **38%**

Growth in ROP work-based business partnerships **205%**

A Success Story

San Bernardino County Superintendent of Schools' Regional Occupational Program (ROP) is developing a new pipeline of students who possess a combination of industry-recognized credentials and degrees in the fast-growing field of cybersecurity. Called Cyber SB, the program partners with school districts, San Bernardino Valley College and California State University, San Bernardino, to offer students an education pathway to a lucrative and high-demand career. Career opportunities in cybersecurity are growing at a much faster pace than average for all other occupations according to the Bureau of Labor Statistics. Destiny is one of more than 200 students enrolled in cybersecurity classes offered by the ROP. With big plans for her future, Destiny is hoping to parlay her education in cybersecurity into a career with the FBI. "I've been interested in cyber security (issues) since I was in sixth grade," she said. "This class is a great opportunity for me."

Child Care Availability Declines

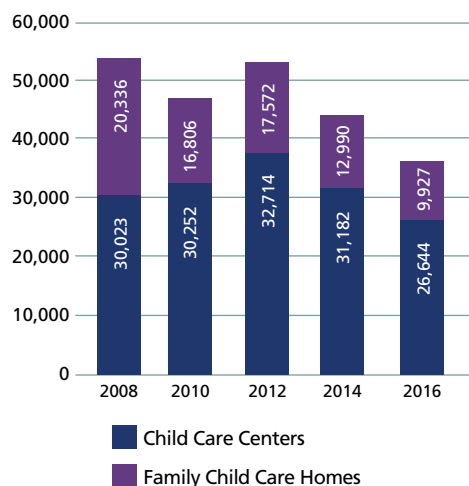
Research on school readiness and children's brain development confirms the importance of high quality early education and care programs for children's future success in school and life. In addition, affordable child care is essential for working families to maintain economic self-sufficiency. Early care 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. This indicator measures child care availability and costs by tracking the supply and demand of licensed child care spaces, and the availability of subsidies for low-income families.

How is San Bernardino County Doing?

Between 2014 and 2016, demand for child care increased while the number of spaces available at licensed child care facilities in San Bernardino County decreased:

- There was a 15% decrease in the number of spaces at licensed child care centers (center-based) and a 24% decrease in the number of spaces at licensed family child care homes (home-based).
- 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 child care 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%.
- In 2018, there were 28,290 children ages 12 and younger who received federal or state subsidized child care in San Bernardino County, with an additional 14,851 children eligible for subsidized care on the California Child Care Alternative Payment Program waiting lists.

Number of Licensed Child Care Spaces
San Bernardino County, 2008-2016



Source: The California Child Care Portfolio, California Child Care Resource and Referral Network (www.rnnetwork.org/)

Availability of Child Care for Potential Demand
County Comparison, 2016

County	Percent
San Diego	27%
Orange	25%
California	23%
Los Angeles	22%
Riverside	18%
San Bernardino	15%

Source: The California Child Care Portfolio, California Child Care Resource and Referral Network (www.rnnetwork.org/)

Quality Start San Bernardino

California has developed the CA-QRIS (California-Quality Rating & Improvement System) Framework that sets standards of quality for licensed child care programs. Across California, counties are using these standards to develop local QRISs to increase the quality of early learning programs for thousands of children.

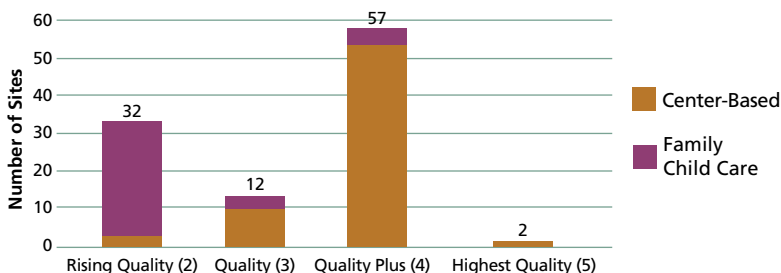
Quality Start San Bernardino County (QSSB) is a partnership of early learning partners, educators, and champions who are working together to increase the quality of local early learning programs for San Bernardino County's youngest children through the development of a QRIS. Quality Start San Bernardino Partners include:

- First 5 San Bernardino
- San Bernardino County Superintendent of Schools
- Child Care Resource Center
- California State University, San Bernardino
- County of San Bernardino Preschool Services

QSSB providers who are rated receive a rating of 1 (Emerging Quality) to 5 (Highest Quality). Sites that are not rated receive quality improvement services until such time that they can be rated. In 2018, there were 184 sites participating in QRIS in San Bernardino County. More than half (103) of those sites received a quality rating and another 81 received quality improvement services. Participating sites are rated every two years and receive support and incentives to gain and maintain the highest ratings through the system.

Sites Rated in Quality Start San Bernardino; Rated 2 (Rising Quality) to 5 (Highest Quality)

San Bernardino County, 2017/18



Source: First 5 San Bernardino

¹ National Institute for Early Childhood Education Research (<http://nieer.org>)

Graduation Rates Meet or Exceed Statewide Averages

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?

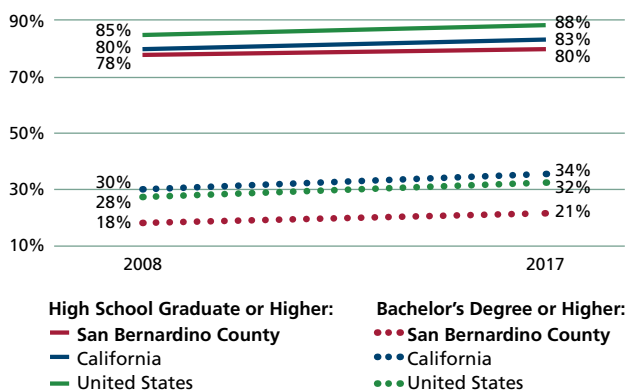
The proportion of high school and college graduates among San Bernardino County's overall population has increased over the past 10 years:

- Between 2008 and 2017, 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 (83% and 88%, respectively) for residents over age 25 with a high school diploma.
- Between 2008 and 2017, the proportion of residents over the age of 25 with a bachelor's degree or higher rose from 18% to 21%.
- At 21%, San Bernardino County is below the state (34%) and nation (32%) for college graduates.

San Bernardino County outperforms or is on par with the state on high school graduation rate metrics:¹

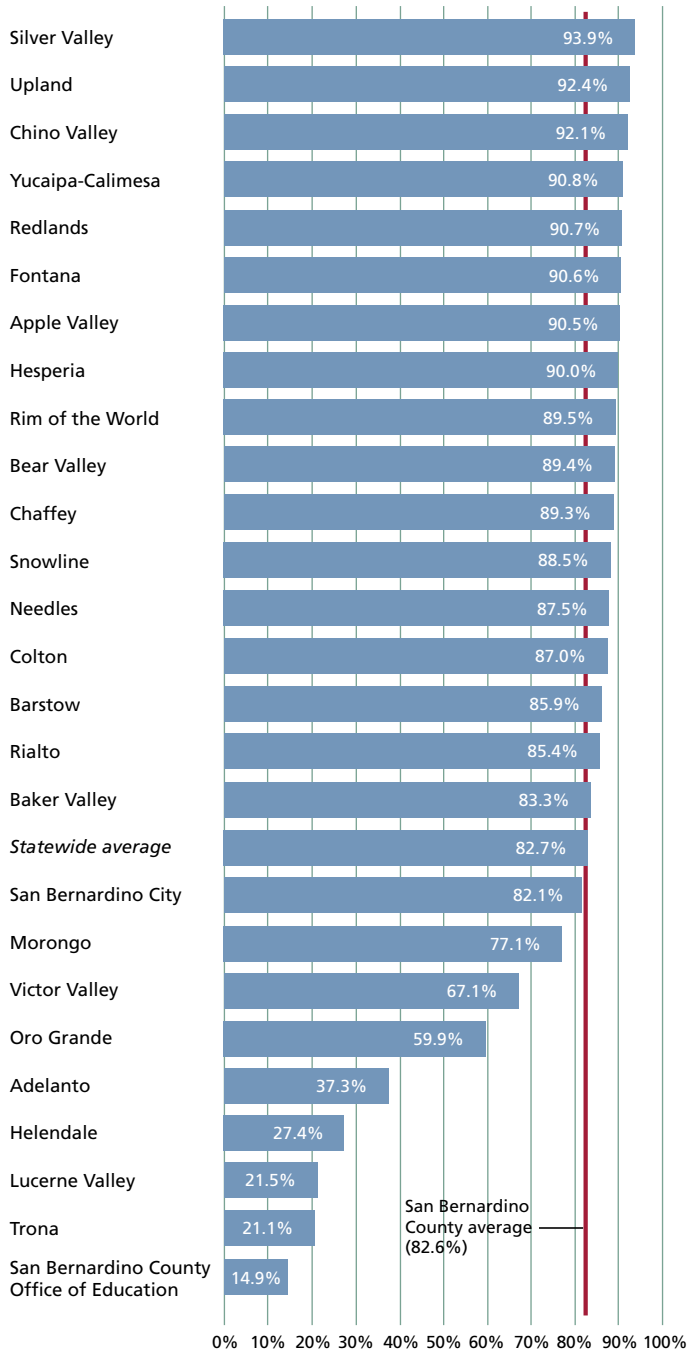
- In 2016/17, the San Bernardino County high school graduation rate was 82.6%, which is about the same as the statewide rate of 82.7%. This rate includes all schools, including charter and alternative schools, and all students, including English learners and students with disabilities.
- The San Bernardino County graduation rate for socioeconomically disadvantaged students was 79.9%, approximately three points below the rate for all students and all schools in San Bernardino County, but higher than the statewide rate of 78.8%.
- The graduation rate varies by district, from a low of 14.9% in the San Bernardino County Office of Education, which offers alternative education programs, to a high of 93.9% in Silver Valley Unified School District.

Percentage Over Age 25 Earning High School Diploma (or Higher) and Bachelor's Degree (or Higher) San Bernardino County, 2008 and 2017



Source: U.S. Census Bureau, American Community Survey, 1-Year Estimates, 2008 and 2017 (DP02) (<http://factfinder.census.gov/>)

Graduation Rate District Comparison, 2016



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

¹ 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). The four-year cohort is based on the number of students who enter grade 9 for the first time adjusted by adding into the cohort any student who transfers in later during grade 9 or during the next three years and subtracting any student from the cohort who transfers out.

English Proficiency Increases for Third Consecutive Year

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.¹ 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?

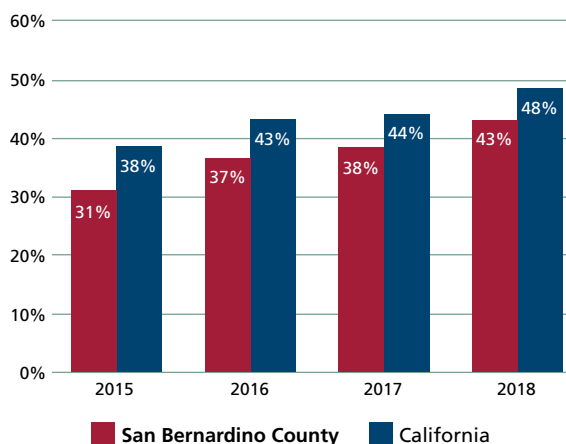
In 2018, about four out of every 10 third graders in San Bernardino County met or exceeded ELA/literacy standards:

- Overall, 43% of third graders in the county met or exceeded standards for ELA/literacy in 2018, an improvement from 38% in 2017.
- San Bernardino County's third grade performance is lower than the statewide average (48% of students met or exceeded ELA/literacy standards) and all counties compared including Orange and San Diego (55% each), Los Angeles (48%) and Riverside (46%).

Third grade academic performance varies across a range of characteristics:

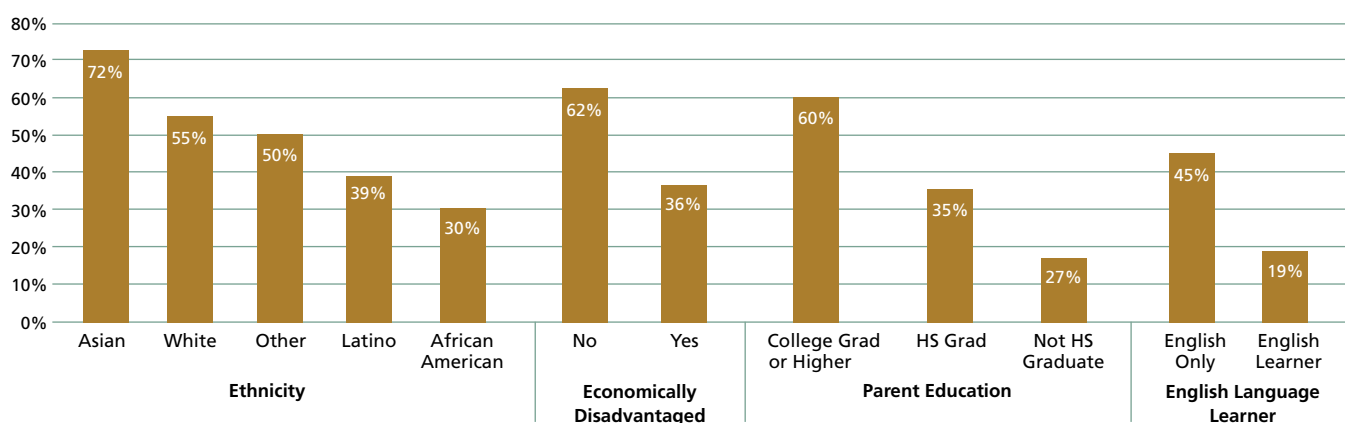
- For example, 72% of Asian students met or exceeded standards, compared to 55% of White students, 39% of Latino students, and 30% of African American students.
- More than one-third (36%) of economically disadvantaged students met or exceeded ELA/literacy standards, compared to 62% of students who were not economically disadvantaged.²
- For children whose parents were not high school graduates, only 27% met or exceeded standards.
- Only 19% 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, 2015-2018



Source: California Department of Education, DataQuest

Percentage of Third Graders Meeting English / ELA Standards
San Bernardino County, 2017/18



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

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.¹ A system that supports a quality early learning experience for children from birth through age five is the key to helping the future generation reach its full potential.

¹ Hart, B. Risley, T. Meaningful Difference in the Everyday Experiences of Young American Children (1995). Paul H. Brookes Publishing Co.

² Hernandez DJ. "Double Jeopardy: How Third-Grade reading skills and Poverty Influence High School Graduation." The Annie E. Casey Foundation (2012).

³ 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.

Only One in Four Fifth Graders Meet Standards

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.¹ This indicator measures fifth grade proficiency 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 California's Common Core State Standards.

How is San Bernardino County Doing?

Slightly more than one-quarter of fifth graders in San Bernardino County met or exceeded mathematics standards:

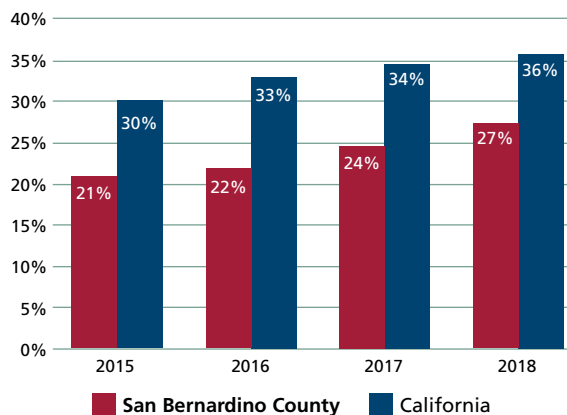
- Overall, 27% of fifth graders in the county met or exceeded standards for mathematics in 2018, higher than in 2017, when 24% met or exceeded standards.
- This is lower than the California average (36% of students met or exceeded math standards) and all counties compared, including Orange (47%) San Diego (43%), Los Angeles (35%), and Riverside (32%).

Fifth grade math performance varies by sub-group:

- 64% of Asian students met or exceeded math standards, compared to 39% of White students, 22% of Latino students and 13% of African American students.
- Only (20%) of students who are economically disadvantaged and 6% of students who are classified as English Learners met or exceeded math standards.²
- For children whose parents were not high school graduates, 15% met or exceeded standards.

Percentage of Fifth Graders Meeting or Exceeding Math Standards

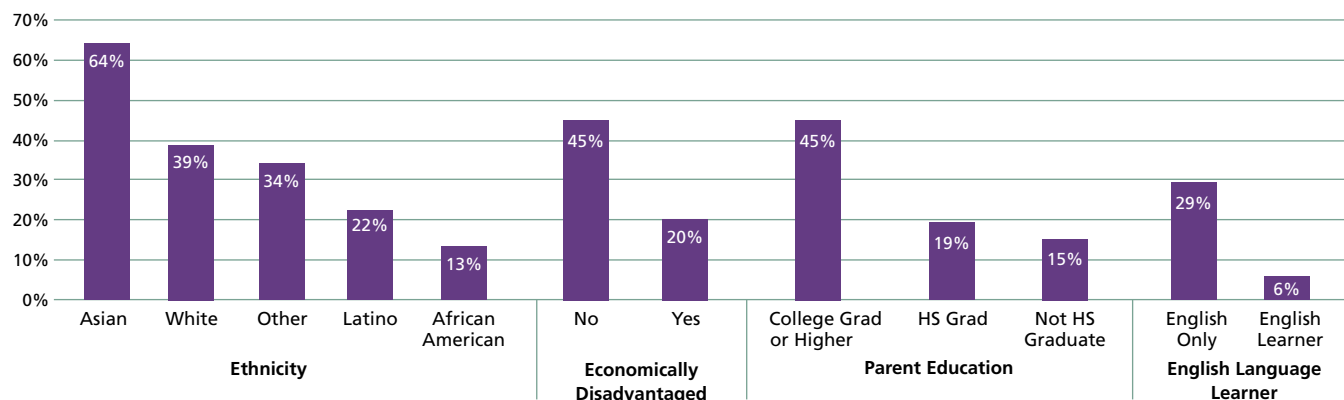
San Bernardino County and California, 2015-2018



Source: California Department of Education, DataQuest

Percentage of Fifth Graders Meeting Math Standards

San Bernardino County, 2017/18



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

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., Superreguy, M. I., & Chen, M. (2012). Early predictors of high school mathematics achievement. *Psychological Science* 23(7), 691-697.

¹ Child Trends. (2012). *Mathematics proficiency* (www.childtrends.org/?indicators=mathematics-proficiency)

² 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.

Student College Readiness Shows Steady Improvement

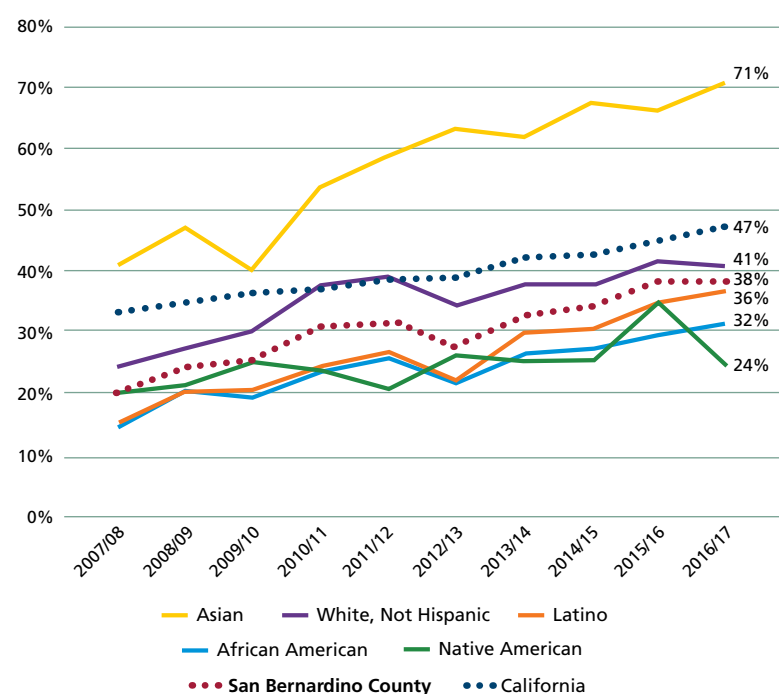
A college education is important for many jobs and can lead to increased earning power, better health, a stronger workforce, and societal benefits. On average, earnings rise in step with education levels, resulting in benefits to the individual through increased personal income and discretionary spending, and to the community through increased tax receipts. Voter participation is associated with higher levels of education, as is participation in exercise, volunteerism and activities that support the community. A college education supplies students with the varied skills needed to boost the local economy, be prepared to compete in the global economy, and have a solid foundation for future academic and career pursuits.¹ Progress towards increased college preparedness is measured by the number of public 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. Also measured are the number of students meeting SAT benchmarks, and 11th grade performance on English language arts and math assessments.²

How is San Bernardino County Doing?

The UC/CSU eligibility rate continues to improve, reaching the highest level in over 20 years of tracking:

- 38% of San Bernardino County seniors graduating in 2016/17 did so having completed the necessary coursework to be eligible for a UC or CSU campus.
- This rate of UC/CSU eligibility is 18 percentage points higher than 10 years ago.
- San Bernardino County's rate of eligibility is lower than the statewide average of 47%; however, over the past 10 years, the gap is generally narrowing, despite annual fluctuations.
- All racial and ethnic groups have more eligible students than 10 years ago, despite annual variability.
- The percent of White students eligible for a UC or CSU campus dipped slightly over the past year, from 42% to 41%, while the percent of eligible Native American students experienced a steeper annual drop, from 35% in 2015/16 to 24% in 2016/17.
- The remaining race and ethnic groups witnessed improved eligibility rates over the previous year.

Percentage of High School Graduates Eligible for UC/CSU by Race/Ethnicity
San Bernardino County, 2008-2017



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

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.

2018 Snapshot

- 96% of San Bernardino County juniors took the literacy assessment and 95% took the math assessment.
- In English, 21% of San Bernardino County students were deemed college ready and 31% 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, 26% of students were college ready in English and 30% were conditionally ready.
- In math, 8% of San Bernardino County students were deemed college ready and 17% were conditionally ready. Statewide, 13% of students were college ready in math and 18% 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/gs/bs/capindex.asp)

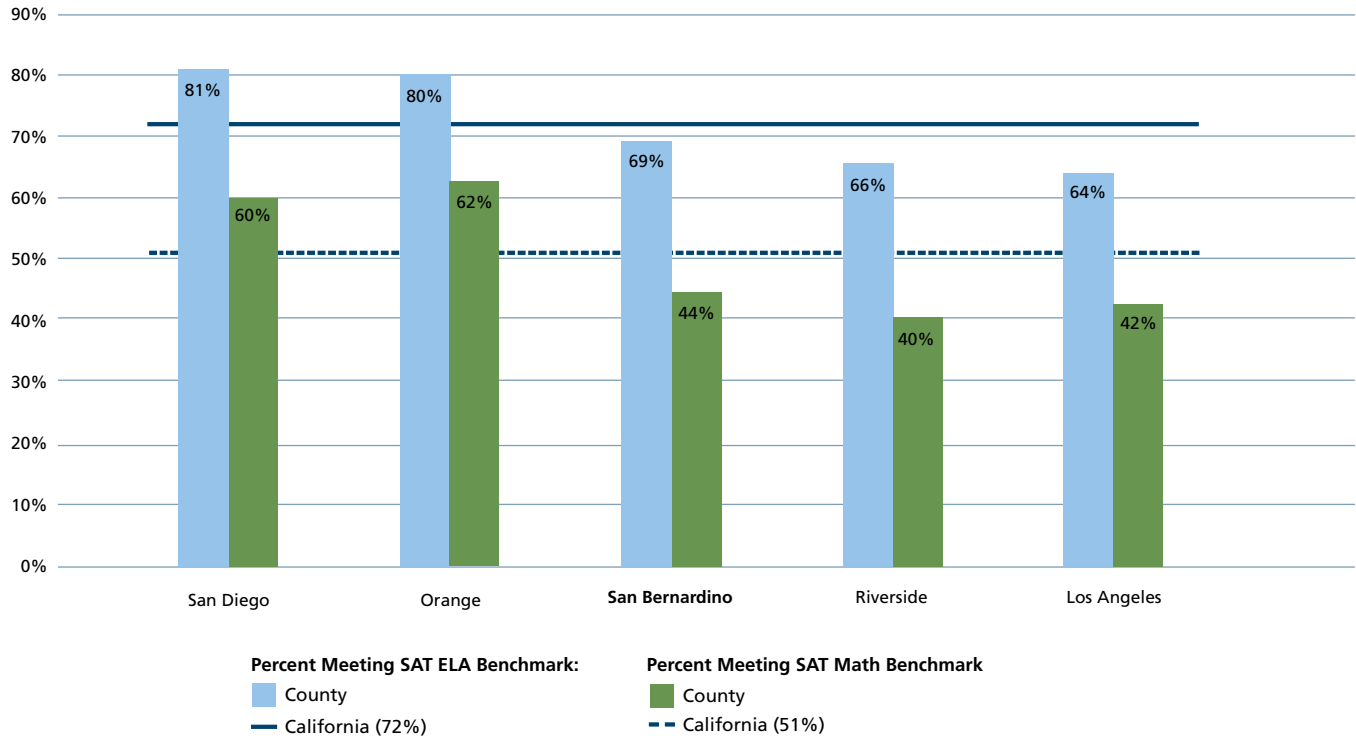
¹ College Board, *Education Pays*, 2013 (<http://trends.collegeboard.org/education-pays>)

² In 2016/17 data, SAT results are presented for the number and percent of students meeting the SAT English Language Arts benchmark and the SAT Math benchmark established by the College Board. The SAT benchmark scores represent a 75% likelihood of a student achieving at least a C grade in a first-semester, credit-bearing college course in a related subject. (<https://collegereadiness.collegeboard.org/pdf/educator-benchmark-brief.pdf>)

In 2016/17, more students met SAT English Language Arts (ELA) benchmarks than SAT math benchmarks:

- 69% of San Bernardino County students met the SAT ELA benchmark and 44% met the SAT math benchmark.
- The proportions of San Bernardino County students meeting the benchmarks exceeded rates in Los Angeles and Riverside counties, but were less than benchmark rates in Orange and San Diego counties.
- San Bernardino County benchmark rates were lower than the statewide average for both ELA (72%) and Math (51%).
- School districts in San Bernardino County showed less variability in terms of average SAT benchmark performance than all other Southern California counties compared, some of which experience vast differentials in scores among districts.

Percentage of Students Meeting SAT Benchmarks
County Comparison, 2016/17



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

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.

2017/18 AVID Snapshot

Of the 2,653 AVID seniors graduating in 2018, 99.8% graduated from high school and 95.7% successfully completed A-G course requirements (courses that count toward eligibility for CSU/UC schools). In addition, 84.1% were accepted to a four-year college or university, and 94.9% planned to attend a two- or four-year college for 2018/19.

Source: San Bernardino County Superintendent of Schools

Career Technical Course Enrollment Grows 7%

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 reentering the workforce, changing careers, or needing on-the-job skill upgrades, CTE provides applicable skill-sets and increased career opportunities. This indicator shows enrollment in high school CTE courses, participation in work-based learning offered through the three Regional Occupational Programs serving the county, and placement rates among CTE graduates of one of the five community college districts in San Bernardino County.

How is San Bernardino County Doing?

Despite a drop in 2017/18, enrollment in high school CTE courses has grown over the past five years:

- San Bernardino County CTE course enrollment rose 7% in the five-year period between 2013/14 and 2017/18.
- There were a total of 53,707 CTE enrollments in 2017/18.
- The fastest growing subject areas were Public Services (+139%), Health Science and Medical Technology (+28%), and Arts, Media and Entertainment (+24%).
- Some of the change in course enrollment in 2017/18 is due to the addition of a new cross-disciplinary category, “Multiple Industry Sectors.”

Enrollment in Career Technical Education Courses by Subject Area
San Bernardino County, 2014-2018



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

Note: The “Services” category includes the subject areas of Business and Finance; Education, Child Development, and Family Services; Hospitality, Tourism, and Recreation; Marketing, Sales, and Service; and Public Services. The “Arts” category includes Arts, Media, and Entertainment; and Fashion and Interior Design. “Manufacturing and Trades” includes Automotive/Transportation; Building and Construction Trades; and Manufacturing and Product Development. “Tech and Engineering” includes Information and Communication Technologies; Energy and Utilities; and Engineering and Architecture. “Health” includes Health Science and Medical Technology. “Multiple Industry Sectors” is a newly added cross-disciplinary category.

Work-based learning opportunities have increased for ROP students:

- Between 2014/15 and 2017/18, signed agreements with business partners to provide work-based learning opportunities have increased 205%.
- A total of 2,138 students participated in ROP “community classroom” work-based learning in 2017/18.

205%

Growth in ROP work-based business partnerships (2014/15 – 2017/18)

2,138

ROP students participating in community classroom learning (2017/18)

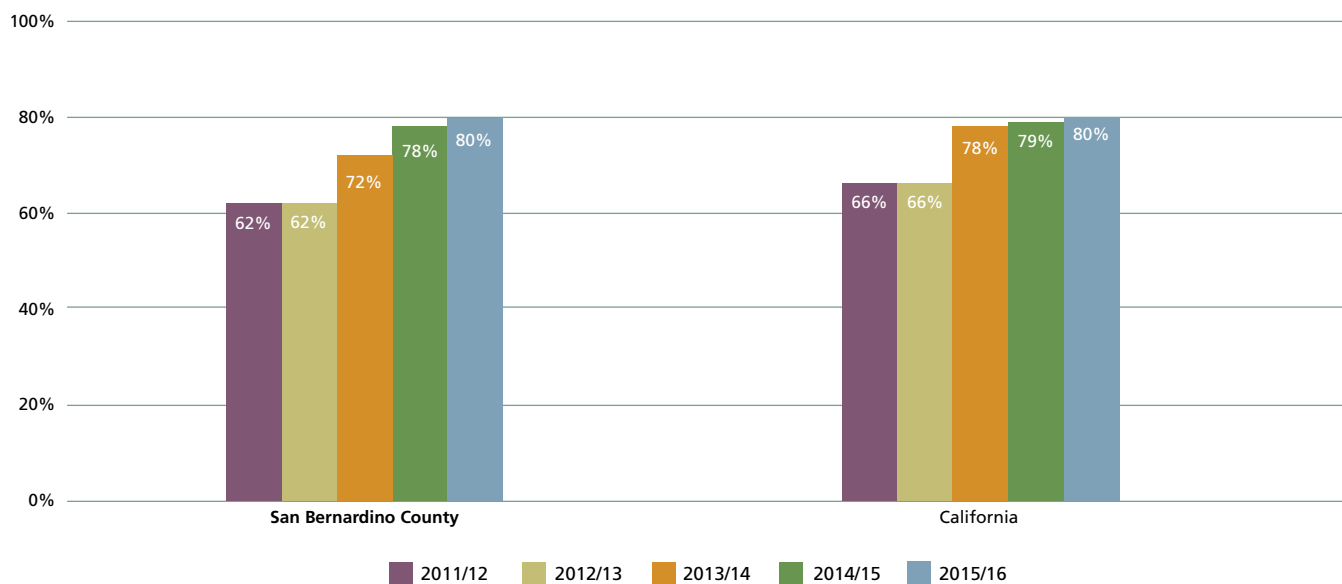
Sources: San Bernardino County Superintendent of Schools, Baldy View and Colton-Redlands-Yucaipa Regional Occupational Programs

For the third consecutive year, community college CTE student placement improved:

- Within a year of completing their course of study in 2015/16, 80% of graduates were placed (pursued further education, found a job, or joined the military). This placement rate is the same as the statewide average.
- San Bernardino County community colleges awarded CTE students 3,672 industry-recognized credentials, certificates or degrees (or the student was “transfer ready”) in 2015/16. This represents a completion rate of 85%, which is the highest rate in over 10 years.

Community College Placement Rates

San Bernardino County and California, 2012-2016



Source: California Community Colleges, Chancellor's Office (<https://misweb.ccco.edu/perkins/main.aspx>)

Post-Secondary Education: Universities, Colleges, and Career Training

San Bernardino County offers residents many opportunities for college and post-secondary career training, serving the educational needs of the county and developing a strong workforce. Within San Bernardino County, major universities and colleges include University of Redlands, California State University/San Bernardino, Loma Linda University, and University of La Verne College of Law. Community Colleges in the county include Barstow, Chaffey, Copper Mountain, Crafton Hills, Palo Verde Community College/Needles Campus, San Bernardino Valley, and Victor Valley. In addition, there are several private career and technical educational institutions that offer career-focused certificates and degrees.

Nearly One-Third of Degrees are STEM-Related

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, and graduate degrees.¹

How is San Bernardino County Doing?

STEM-related degrees – including health and medical professions – accounted for approximately 29% 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:

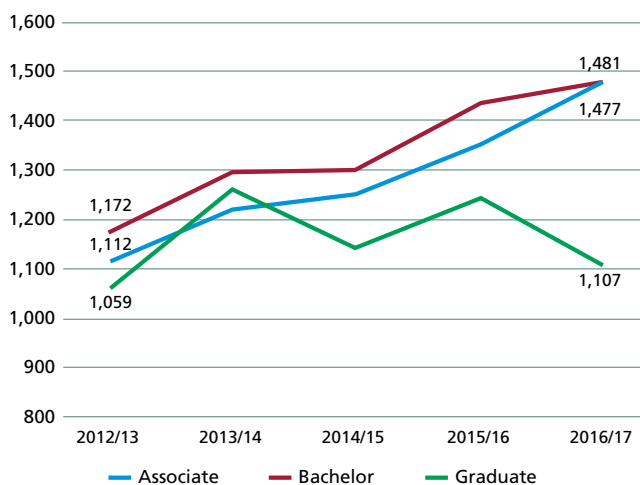
- Overall, STEM-related associate, bachelor's and graduate degrees granted have grown 22% since 2012/13.
- A total of 1,477 STEM-related associate degrees were awarded in 2016/17, an increase of 33% over the past five years.
- The number of STEM-related bachelor's degrees awarded (1,481 in 2016/17) grew 26% over the past five years.
- Despite a recent drop, the number of STEM-related graduate degrees granted (1,107 in 2016/17) also grew over the past five years (+5%).
- Since 2012/13, all STEM-related fields experienced growth in degrees granted.

Private Trade Schools

In addition to the degrees tallied in this indicator, private for-profit post-secondary institutions in San Bernardino County granted 322 tech-related associate degrees, 391 bachelor's degrees, and 31 graduate degrees in 2016/17. Most (88%) of all degrees granted at private, for-profit institutions in San Bernardino County in 2016/17 were tech-related, including health occupations.

Source: National Center for Education Statistics (<http://nces.ed.gov/>)

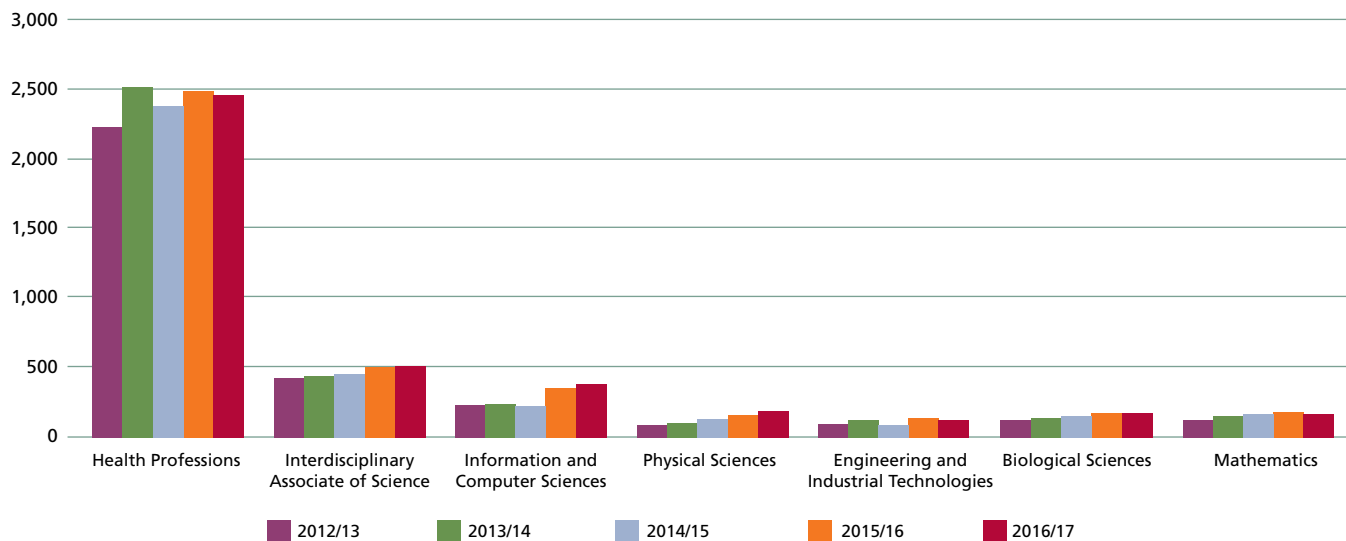
STEM-Related Degrees Awarded by Type of Award
San Bernardino County, 2013-2017



Note: Data have been revised to include all master's degrees in health professions from Loma Linda University and should not be compared with STEM-related degree counts presented in previous Community Indicators Reports.

Sources: California State University, San Bernardino (<http://ir.csusb.edu/>), California Community Colleges Chancellor's Office (https://datamart.ccco.edu/Outcomes/Program_Awards.aspx); Loma Linda University; University of La Verne; and National Center for Education Statistics, College Navigator (for University of Redlands) (<http://nces.ed.gov/>)

STEM-Related Degrees Awarded by Subject
San Bernardino County, 2013-2017



Note: Engineering and Industrial Technology awards are comprised exclusively of associate degrees; the four-year universities in San Bernardino County do not award degrees in engineering.

Sources: California State University, San Bernardino (<http://ir.csusb.edu/>); California Community Colleges Chancellor's Office (https://datamart.ccco.edu/Outcomes/Program_Awards.aspx); Loma Linda University; University of La Verne; and National Center for Education Statistics, College Navigator (for University of Redlands) (<http://nces.ed.gov/>)

¹ STEM-related degrees include the subjects of biological sciences, health or medical professions, physical sciences, mathematics, computer and information sciences, and engineering, environmental and industrial technologies. Universities included in the calculations: California State University, San Bernardino; University of Redlands; Loma Linda University; University of La Verne (Inland Empire campuses only); and the six public community colleges in San Bernardino County.