ENVIRONMENTAL SCAN 2017–2018

ALAMO COLLEGES DISTRICT
Palo Alto College

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1. EDUCATION AND INCOME

1.1 Educational Attainment in San Antonio

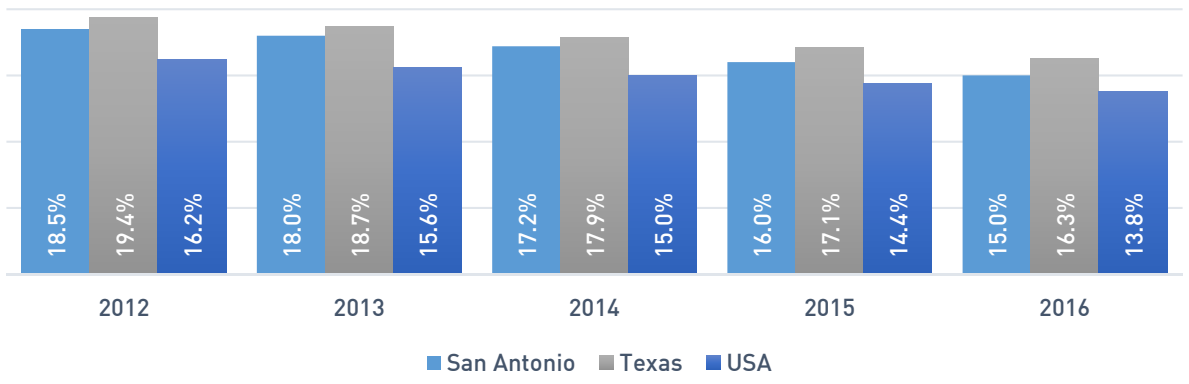
Educational attainment is considered a traditional challenge for San Antonio. The proportion of young adults without a high school credential is higher in San Antonio than the United States average by a difference of more than 5 percentage points. This demographic characteristic is critical for Palo Alto College, as lower educational attainment rates have a demonstrable impact on poverty levels for residents of our community. This section summarizes educational attainment trends for San Antonio and compares it to national, state, and regional averages.

1.1.1 POPULATION WITH LESS THAN A HIGH SCHOOL DEGREE

The most recent American Community Survey (ACS) shows that 81.6% of the San Antonio population had at least a high school degree or equivalency. This figure compares favorably against the four closest counties to San Antonio and the average for Texas. However, young adults (individuals between 18 and 24 years of age) living in San Antonio are less likely to have a high school credential than the United States on average (a difference of 9.2 percentage points).

Figure 1 summarizes changes in the number of young adults with less than a high school credential in San Antonio. ACS figures show a steady improvement in educational attainment with a decrease in the percentage of young adults with less than a high school credential from 18.5% in 2012 to 15% in 2016.

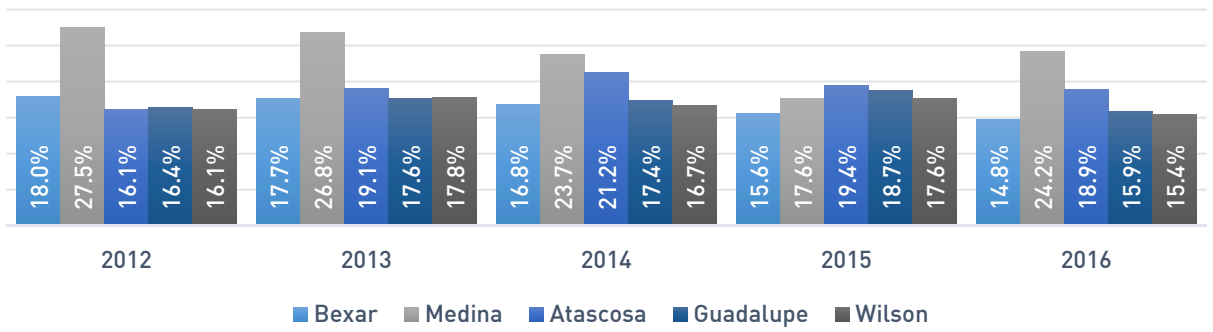
Figure 1: National High School Credential Trends, Adults 18 to 24 Years Old with Less Than a High School Credential



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

Figure 2 demonstrates a comparison for the same group of residents but with a regional focus. Trends show Bexar County as a regional leader in educational attainment, with steady improvements over the past five years. Feeder counties, those proximal to Bexar County and representing an important source of student enrollments for Palo Alto College, show mixed results where educational attainment is concerned. For example, in Medina County the percentage of young adults with less than a high school credential decreased from 27.5% in 2012 to 17.5% in 2015, but then increased to 24.2% in 2016.

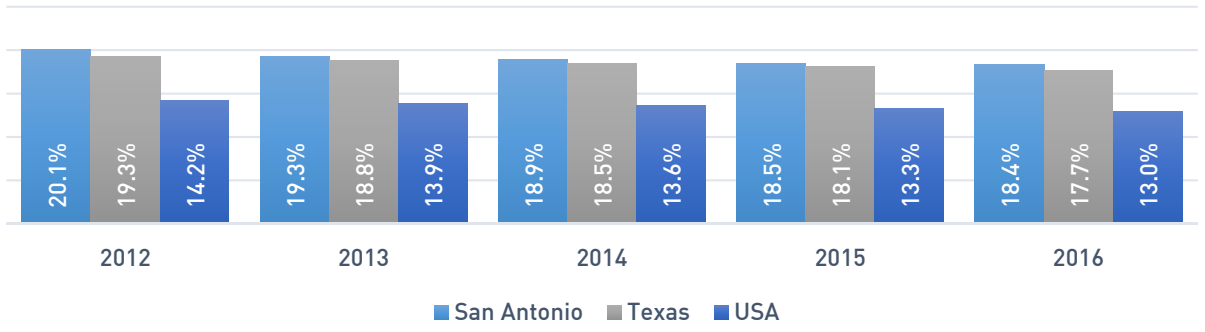
Figure 2: Regional High School Credential Trends, Adults18 to 24 Years Old with Less Than a High School Credential



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

A review of educational attainment trends for older adults (25 years and older) reveals a comparable pattern. San Antonio lags slightly behind Texas, and further behind the United States, in terms of the proportion of the population with a high school credential.In addition, percentages of adults 25 years and older with less than a high school credential has decreased consistently over the past five years at local, state, and national levels (*Figure 3*).

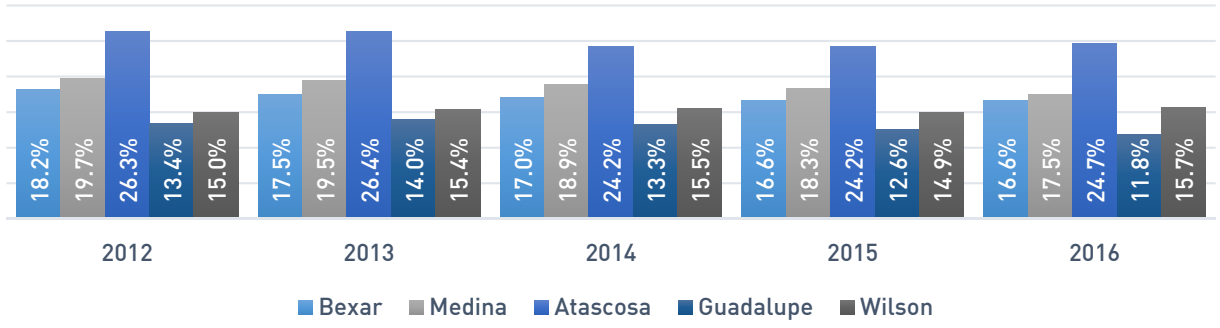
Figure 3: National High School Credential Trends, Adults 25 Years Old and Older with Less Than a High School Credential



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

Analysis of high school credential patterns on a regional scale reveals Bexar County falls in between the feeder counties when focusing on older adults. In *Figure 4*, Bexar County demonstrates steady improvements in this metric over time. Feeder counties included in this summary also trend towards improvements in educational attainment, though in a less consistent manner.

Figure 4: Regional High School Credential Trends, Adults 25 Years Old and Older with Less Than a High School Credential



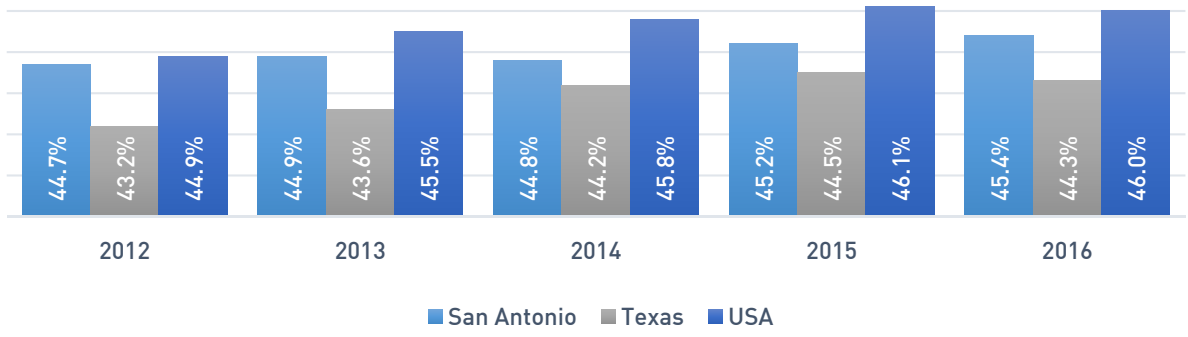
Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

1.1.2 POPULATION WITH SOME COLLEGE EDUCATION OR AN ASSOCIATE DEGREE

Educational Attainment figures from the ACS also speak to the proportion of residents attempting a post-secondary education by obtaining at least some college credit or an associate degree. Data patterns in this comparison, summarized in *Figure 5*, indicate that San Antonio residents are more likely to obtain this level of education than the Texas average, though those same figures are below the national average. Over the past

five years, the attainment level has increased for San Antonio, Texas, and national averages.

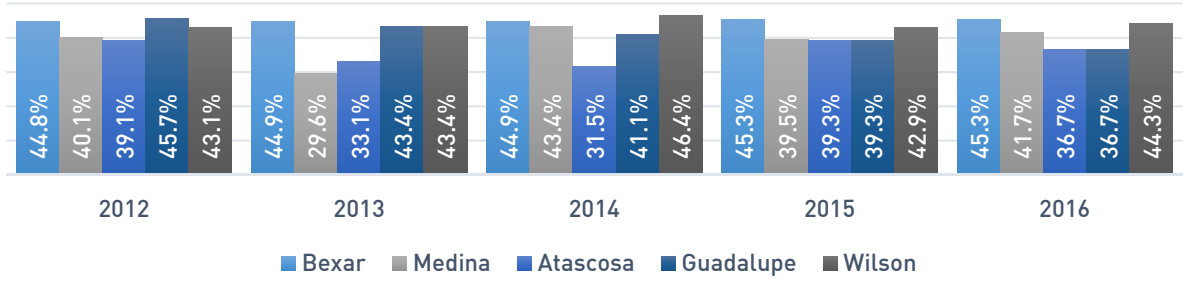
Figure 5: National College Enrollment Trends, Adults 18 to 24 Years Old with Some College



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

Figure 6 highlights the same group of residents on a regional scale, and indicates that a higher percentage of Bexar County residents have attempted some college or completed an associate degree than residents of feeder counties. In some cases, residents of other counties surpass Bexar County on this indicator but without consistency.

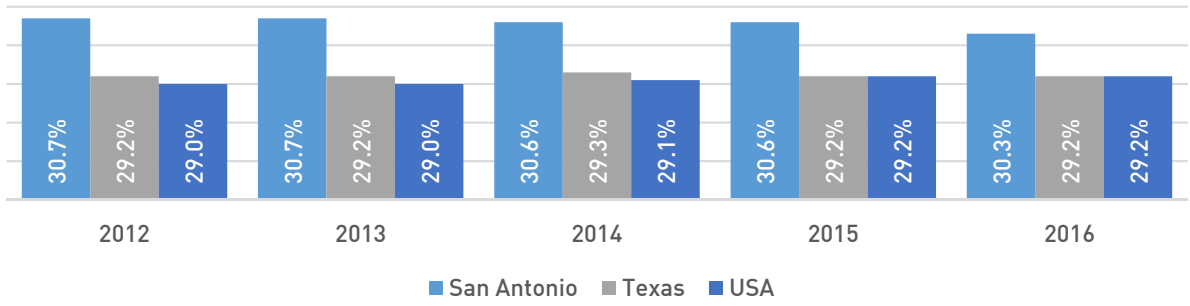
Figure 6: Regional College Enrollment Trends, Adults 18 to 24 Years Old with Some College



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

As shown in *Figure 7*, San Antonio leads both Texas and the United States in the percentage of older adults who attained at least some post-secondary education. Over time, the proportion of the population attempting college has largely held steady for all comparison groups. However, there has been a slight decline in the percentage of older adults with some college education in San Antonio from 30.7% 2012 to 30.3% in 2016.

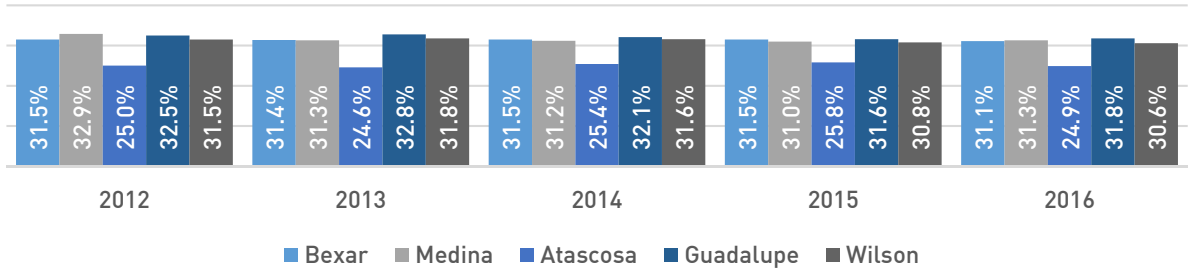
Figure 7: National College Enrollment Trends, Adults 25 Years Old and Older with Some College



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

On a regional scale, stability in educational attainment is a general trend. As demonstrated in *Figure 8*, the percentage of Bexar County residents attempting some college has largely held at just above 31%. Feeder counties see slightly more variability in this measure but changes tend to be small and inconsistent across the five years considered here.

Figure 8: Regional College Enrollment Trends, Adults 25 Years Old and Older with Some College



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

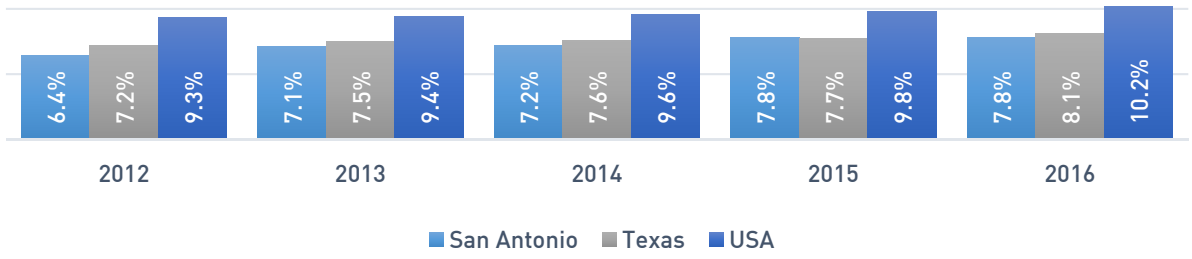
1.1.3 POPULATION WITH BACHELOR'S DEGREE OR HIGHER

An examination of ACS educational attainment figures of individuals completing at least a bachelor's degree reveals additional promising trends. Generally, a growing fraction of the population has completed a bachelor's degree across city, county, state, and national levels.

Young adults are increasingly likely to complete a college program of study over the past five years. This pattern holds true for all comparison analysis levels in *Figure 9*.

While San Antonio still lags behind Texas and the United States, the trend is moving in a positive direction.

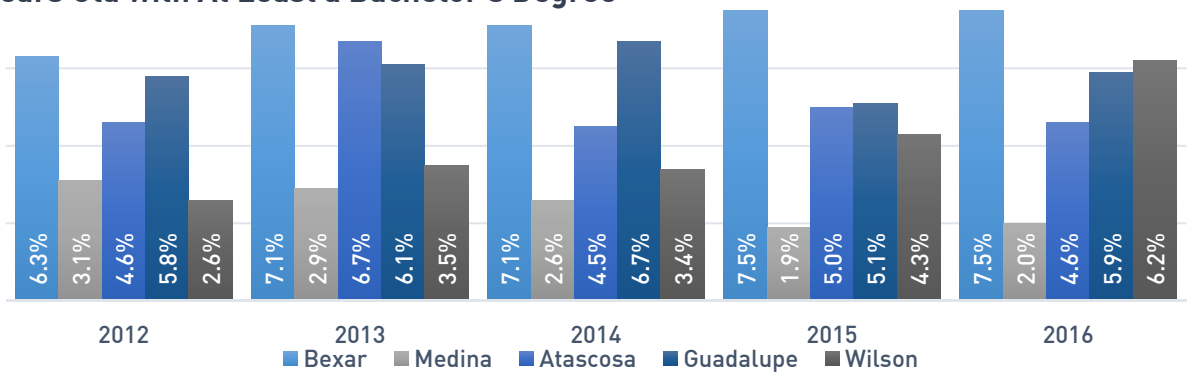
Figure 9: National College Completion Trends, Adults 18 to 24 Years Old with At Least a Bachelor's Degree



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

A comparable pattern of results can be found from county-level data organized in *Figure 10*. As shown before, the proportion of young adults completing a bachelor's degree in Bexar County has increased slowly over the past five years. The percentage of adults 18 to 24 years old with at least a bachelor's degree in Bexar County is consistently higher than the same metric from PAC feeder counties, though general improvement can be seen in those groups as well.

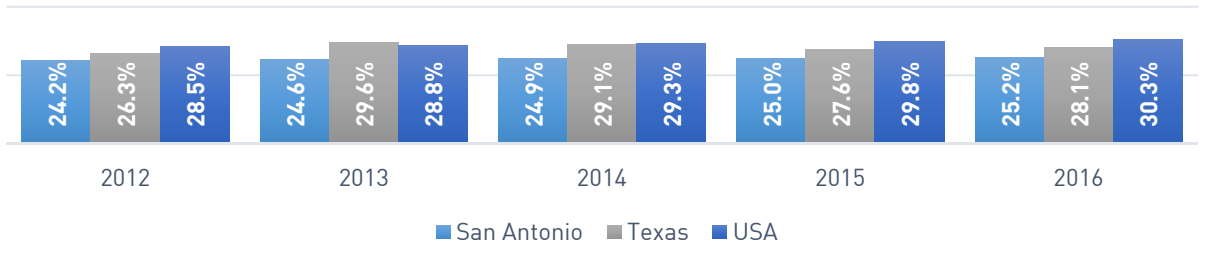
Figure 10: Regional College Completion Trends, Adults 18 to 24 Years Old with At Least a Bachelor's Degree



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

Educational attainment of bachelor's degrees for older adults reveals similar results. *Figure 11* demonstrates small, consistent increases in educational attainment over the past five years for San Antonio, Texas, and the United States. While San Antonio lags behind the state and national figures, these trends show positive growth.

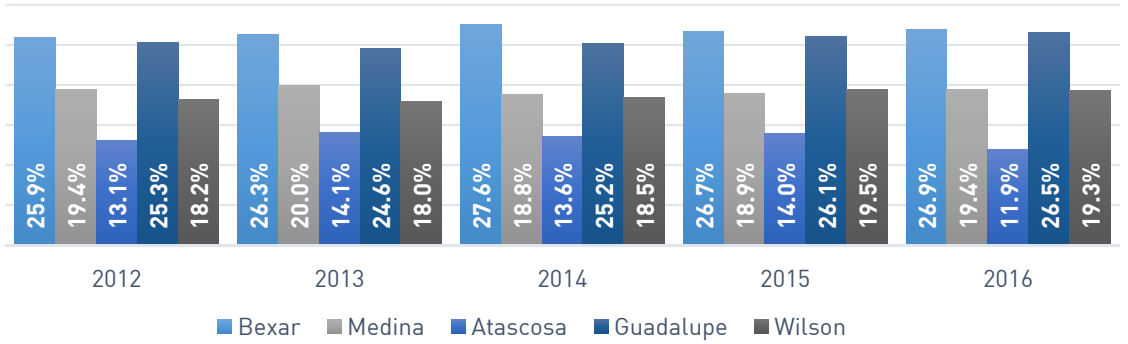
Figure 11: National College Completion Trends, Adults 25 Years Old and Older with At Least a Bachelor's Degree



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

At a regional level, older adults are increasingly likely to obtain a bachelor's degree over time. The trend in this case is less consistent over time and across counties. Educational attainment at this level is generally improving for Bexar, Guadalupe, and Wilson counties. Data for all Palo Alto College feeder counties are displayed in *Figure 12*.

Figure 12: Regional College Completion Trends, Adults 25 Years Old and Older with At Least a Bachelor's Degree



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

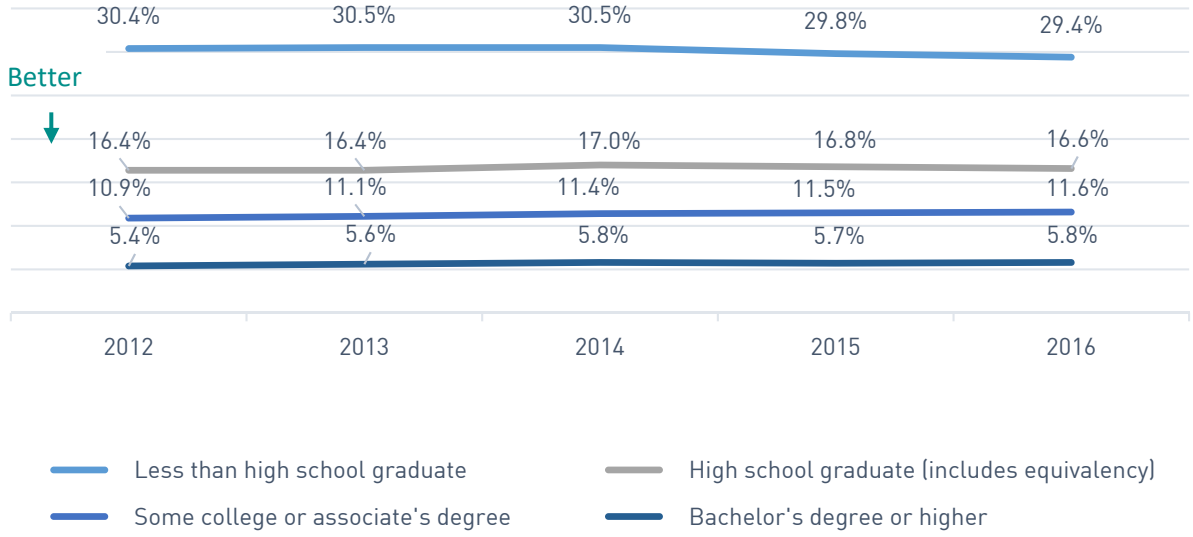
1.2 Income and the Impact of Educational Attainment in San Antonio

1.2.1 POVERTY RATE FOR POPULATION 25 YEARS AND OLDER BY EDUCATIONAL ATTAINMENT LEVEL

The poverty rate of San Antonio residents is correlated to educational attainment, as demonstrated in *Figure 13*. As educational attainment increases, the likelihood of the same individuals being classified as living below the poverty rate decreases. The single most substantial improvement is observed for individuals completing at least a high school credential. Notably, the poverty rate for individuals without a high school

credential has fallen slowly over the past five years. Conversely, the poverty rate for all other levels of educational attainment has either held steady or increased slightly.

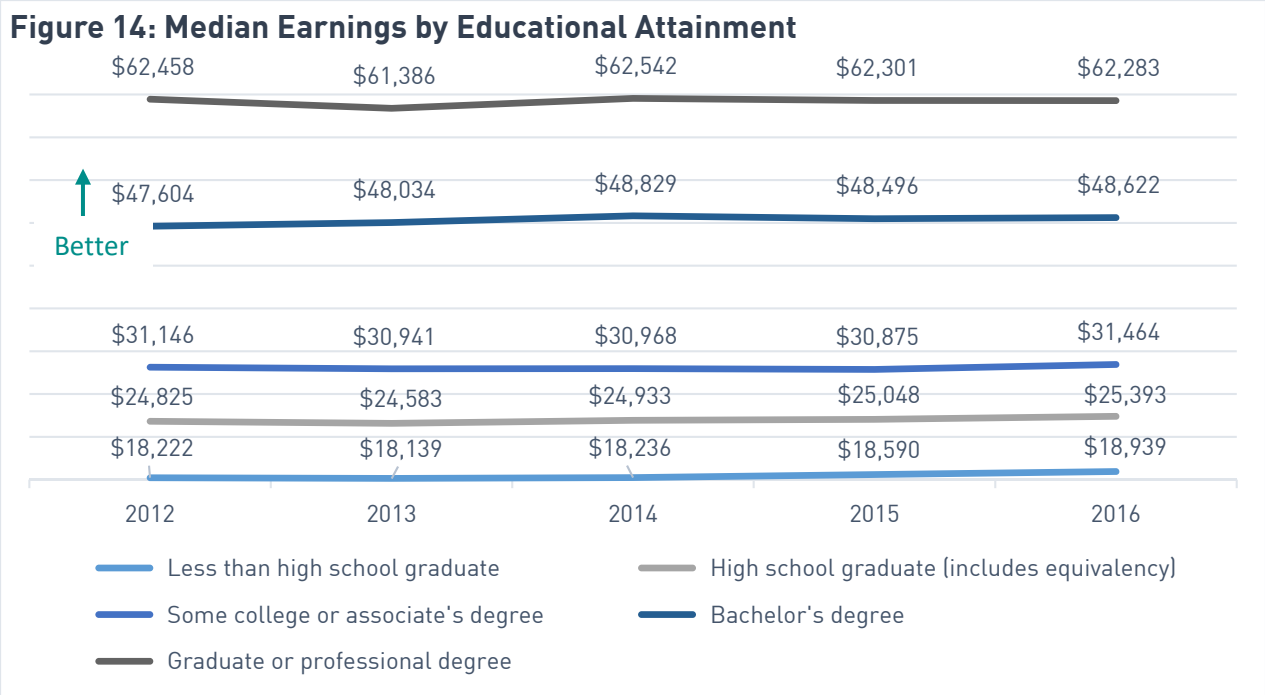
Figure 13: Poverty Rate by Educational Attainment, Adult 25 Years Old and Older



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

1.2.2 MEDIAN EARNINGS IN THE PAST 12 MONTHS FOR POPULATION 25 YEARS AND OVER BY EDUCATIONAL ATTAINMENT

Median earnings for adults in San Antonio are related to educational attainment. As educational attainment increases (from no high school credential to graduate/professional degree), median income increases. Data summarized in *Figure 14* suggests that the largest increases in median income are associated with the completion of a bachelor's degree and with the completion of a graduate/professional degree. Median wages appear to have remained stable over the five-year period from 2012 through 2016.

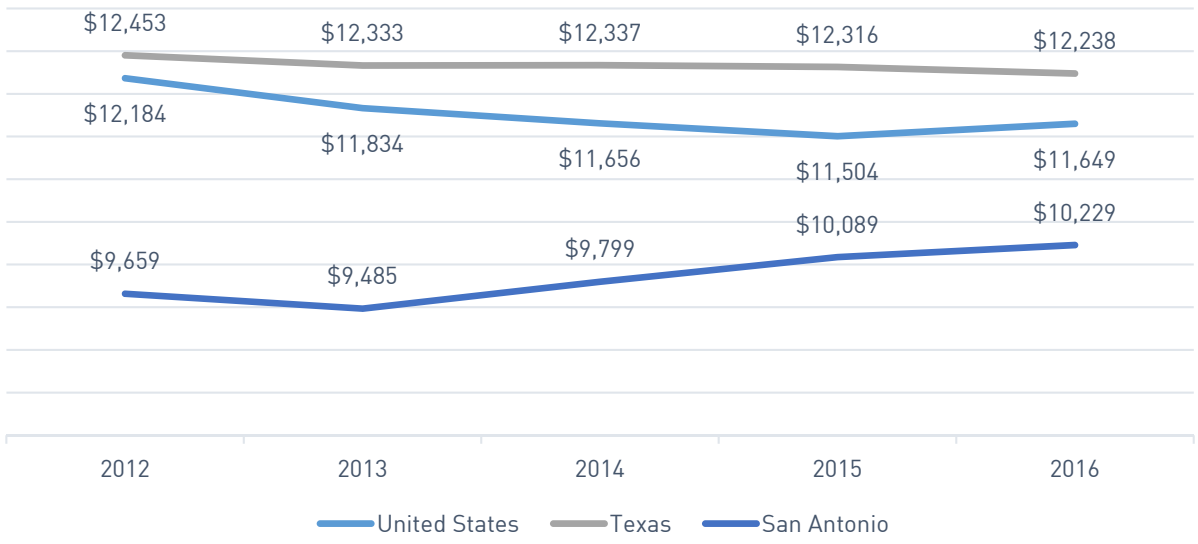


Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

1.2.3 MEDIAN EARNINGS IN THE PAST 12 MONTHS, GENDER GAP

Review of American Communities Survey data with a focus on observing potential differences in economic outcomes between individuals in the Palo Alto College service area highlights a continuing and growing difference in earnings between males and females. *Figure 15* displays figures for differences in median earnings between sexes from 2012 through 2016. These data illustrate a slowly shrinking gender wage gap for the United States. During this timeframe, the pay gap has remained relatlvely stable in Texas, while San Antonio has seen an increase. In *Figure 15*, increased dollar amounts refer to the median earnings difference between males and females, such that a positive number indicates that males earn more than females (a zero value would indicate equivalence in male and female earnings).

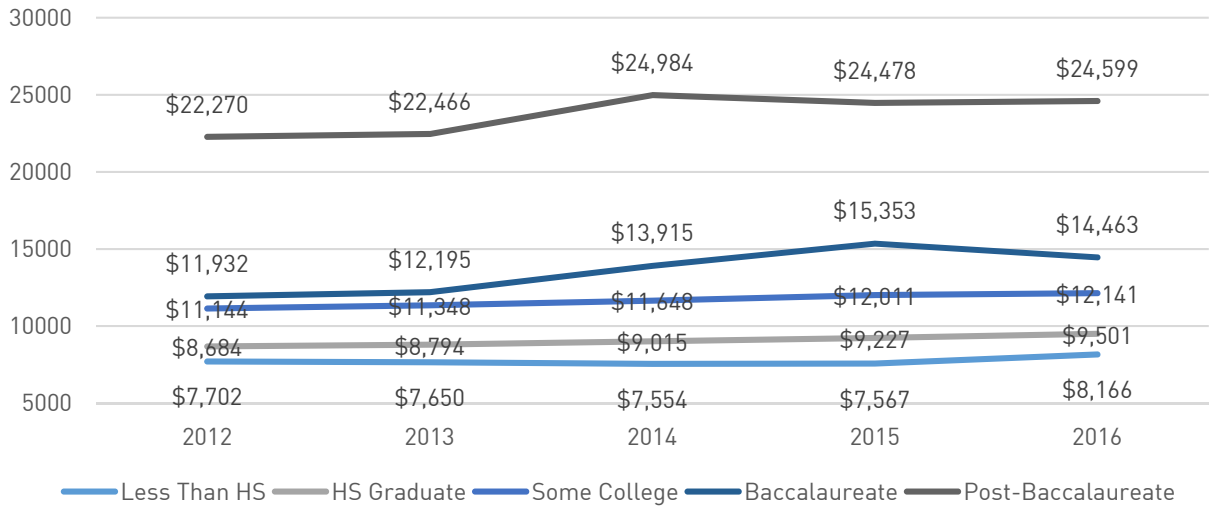
Figure 15: Gender Pay Gap Trend, In Dollars US



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

In order to further understand the gender gap phenomenon in San Antonio, these data were segmented by educational attainment and are summarized in Figure 16. Trends over this timeframe reveal that the gender pay gap increases with educational attainment and has generally been exacerbated over time.

Figure 16: Gender Pay Gap in San Antonio by Educational Attainment, In Dollars US



Source: US Census Bureau, American Fact Finder, S1501 Educational Attainment (2016)

1.3 College Enrollment and College Readiness

1.3.1 COLLEGE ENROLLMENT

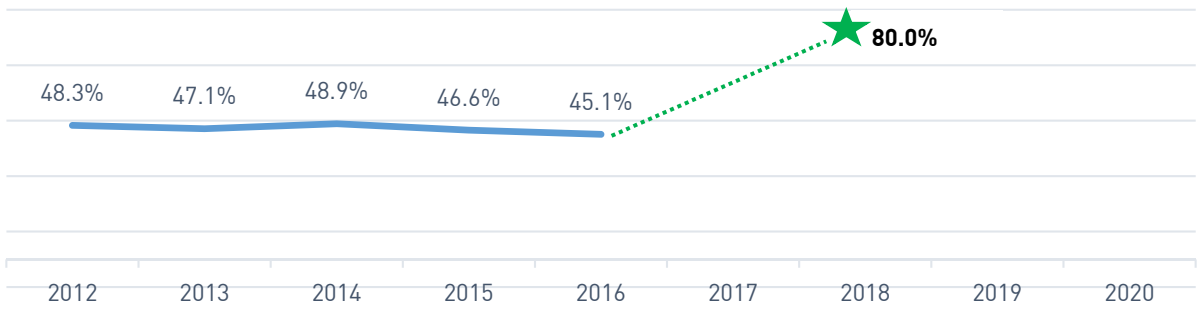
Community colleges play an important role in higher education. The geographic proximity to home, open admission policy, and low tuition make community colleges an important part of post-secondary education, especially for economically disadvantaged and first-generation in college students.

According to the National Center for Education Statistics, 36% of all undergraduate students and 20% of all full-time undergraduate students were enrolled in community colleges in Fall 2016. Additionally, 49% of all students who completed a degree at a four-year institution in 2015-2016 had enrolled in a two-year institution at some point in the previous 10 years (National Student Clearinghouse 2017). Texas had the most former community college students among bachelor's degree earners in 2015-2016, with 75% of four-year graduates attending a community college previously.

National Student Clearinghouse data from Fall 2016 through Fall 2017 indicates that overall postsecondary enrollment decreased by 1% for two-year and four-year Title IV, degree-granting institutions. Between 2010 and 2016, community colleges enrollment of full-time students declined from 29% to 20%, and undergraduate student enrollment reduced from 44% to 36%. These trends taken together indicate that enrollment in higher education can be expected to decrease over time.

The City of San Antonio, through the San Antonio Area Foundation, has adopted a target rate of 80% post-secondary enrollment for all high school graduates by 2020. Accomplishing this goal has been challenging; *Figure 17* demonstrates that this metric has fluctuated in the 40% to 50% ranges since 2012. Reaching the 80% target would require a substantial acceleration in the post-secondary enrollment rate of high school graduates.

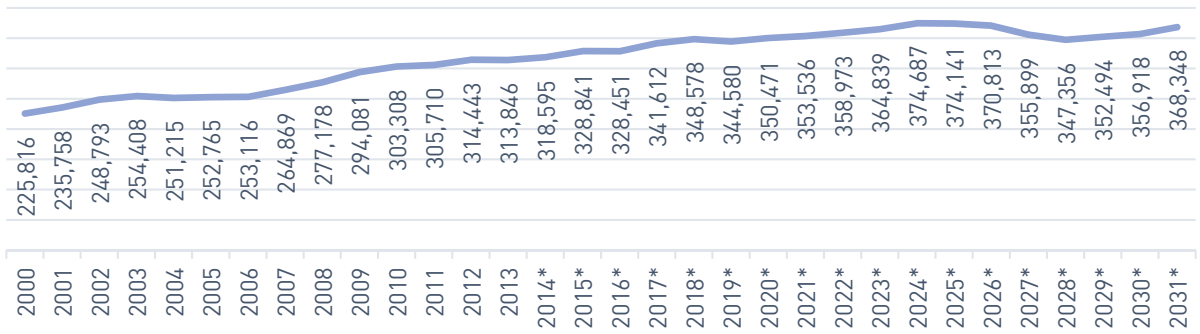
Figure 17: Post-Secondary Matriculation Rate for Texas High School Graduates



Source: San Antonio 2020, San Antonio Area Foundation, THECB. (2016)

A number of factors will likely help Palo Alto College realize a different result. Supply of high school graduates has been increasing in the past 10 years and is expected to increase by 12% from 2015 to 2031. High school graduate supply data are organized in *Figure 18*. Further strengthening this expectation is that share of Hispanic students graduating from high school will remain constant (50%) from 2015 to 2031. As a Hispanic Serving Institution (HSI), Palo Alto College will be well-positioned to serve Hispanic students looking for higher education opportunities.

Figure 18: Texas High School Graduates Projection



Source: Western Interstate Commission for Higher Education (2016)

A recent Texas Higher Education Coordinating Board (THECB) Enrollment Forecast (2015-2025) indicated that public two-year colleges in Texas are expected to have an enrollment increase of 6.5% between 2015 and 2020; the increase is expected to decelerate to 5.3% from 2020 through 2025. THECB projections further indicated that Palo Alto College was expected to have an enrollment of 9,031 students by Fall 2020 and

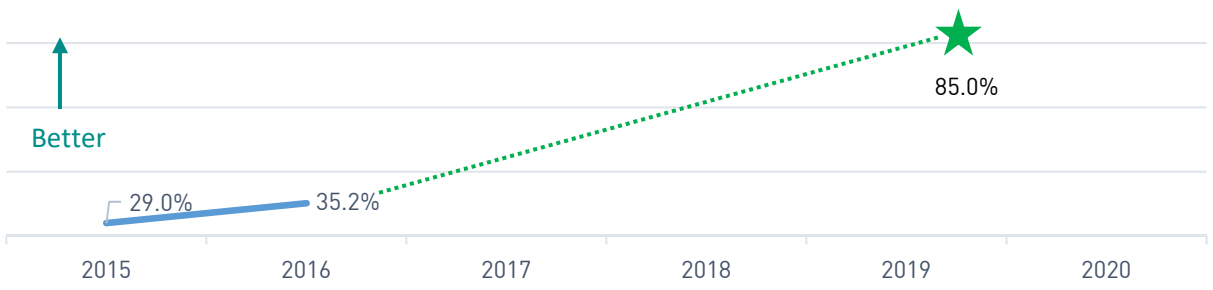
9,311 students by Fall 2025. However, enrollment at Palo Alto College increased to 9,368 students in Fall 2017, which is greater than THECB projections for Fall 2025. It is important to note that these projections exclude changes in concurrent enrollment and speak exclusively to college students. The impact of concurrent enrollment growth of the last few years on future college enrollments is not yet determined.

1.3.2 COLLEGE READINESS

Texas Success Initiative Assessment (TSI) has been designed to help two-year and four-year institutions to determine college readiness by evaluating students in three areas: math, reading, and writing. An incoming college student in Texas is required to take the TSI, unless exempt by ACT, SAT, transfer, or veteran status. The TSI determines the college-level or course the students are placed. Students needing interventions to be placed in college-level courses can improve their readiness through developmental courses.

The City of San Antonio, though the San Antonio Area Foundation, has adopted a target rate of 85% of high school graduates testing as college-ready in english and math by 2020. Texas recently changed college readiness assessments, so trend data is difficult to conceptualize. However, given current rates of college readiness, goal achievement will be challenging, as can be visualized in *Figure 19*.

Figure 19: College-Ready High School Graduates, San Antonio



Source: San Antonio 2020, San Antonio Area Foundation, TEA. (2016)

2. ECONOMIC COMPETITIVENESS AND WORKFORCE

2.1 Employment in Target Industries

According to the San Antonio Economic Development Foundation:

"Ranked the seventh largest city in America, San Antonio continues to grow as young professionals and businesses are taking notice of the abundant opportunity in San Antonio. The San Antonio Metropolitan Statistical Area (MSA) has grown by 11.75% between 2010 and 2016 and is predicted to increase an additional 8.12% by 2021. San Antonio is also projected to welcome 1.1 million new residents by 2040 and demographically represents what the U.S. will look like in the future. San Antonio stands as Bexar County's largest city, accounting for almost 40% of the county's geographic area and about 75% of the county's estimated population. San Antonio encompasses a total geographic area of 467 square miles with a population density of 3,395 persons per square mile. The total land area for Bexar County is 1,247 square miles with a population density of 1,383 persons per square mile."

Tables 1 and *2* show the major San Antonio's major employers/ headquarters with their respective number of employees and industry sector.

Table 1: 20 Major Regional Employers in San Antonio

Employer	Sector	Number of Local Employees
Lackland Air Force Base	Military	37,097
Fort Sam Houston-U.S. Army	Military	32,000
H-E-B	Super Market Chain	20,000
USAA	Financial Services and Insurance	17,000
Northside I.S.D.	School District	12,751
Randolph Air Force Base	Military	11,068
North East I.S.D.	School District	10,052
City of San Antonio	San Antonio	9,145
Methodist Healthcare System	Health Care Services	8,118
San Antonio I.S.D.	School District	7,000
Baptist Health System	Health Care Services	6,498
JP Morgan Chase	Financial Services	5,200
Wells Fargo	Financial Services	5,153
ATT	Phone, Wireless, and Internet services	4,200
Bill Miller Bar-B-Q	Restaurant Chain	3,540
Christus Santa Rosa Health Care	Health Care Services	3,360
CPS Energy	Utilities	3,022
Rackspace	IT Managed Hosting Solutions	3,300
Toyota Motor Manufacturing	Manufacturing	2,900
Clear Channel Communications	TV and Radio Stations, Outdoor Ads	2,800

Source: San Antonio Economic Development Foundation (2016)

Table 2: Corporate Headquarters in San Antonio

Employer	Sector	Number of Local Employees
H-E-B	Super Market Chain	20,000
USAA	Financial Services and Insurance	17,000
Cullen / Frost Bankers	Financial Services	3,982
Bill Miller Bar-B-Q	Fast Food Chain	3,540
Rackspace	IT Managed Hosting Solutions	3,300
CPS Energy	Utilities	3,022
Toyota Motor Manufacturing	Auto Manufacturing	2,900
Clear Channel Communications, Inc.	TV & Radio Stations, Outdoor Ads	2,800
Southwest Research Institute	Applied Research	2,715
Valero Energy	Oil Refiner & Gasoline Mktg.	1,653
Harland Clarke	Check Printing	1,500
KCI	Medical Supplies	1,400
Tesoro	Oil Refiner & Petroleum Products	1,300
HVHC	Optical Manufacturing	1,200
Security Service Federal Credit Union	Financial Institution	1,200
The SWBC	Insurance	1,200
NuStar Energy	Energy	550

Source: San Antonio Economic Development Foundation (2016)

2.1.1 EMPLOYMENT BY SECTOR

According to the U.S. Bureau of Labor Statistics, the industry sectors with the highest growth in San Antonio were Professional and Business Services with a growth of 4.56% from 2015 to 2016, Education and Health Services with a growth of 4.39% from 2015 to 2016, and Financial Activities with a 3.92% growth from 2015 to 2016. Major employment sectors for the local statistical area are displayed in *Table 3*

Table 3: Major Employment Sectors in San Antonio-New Braunfels Statistical Area

Sector	2016 Employment	2015 Employment	Change 2015-2016
Total Nonfarm	1,016,500	987,800	2.91%
Service Providing	910,500	882,300	3.20%
Government	170,100	167,500	1.55%
Education and Health Services	156,900	150,300	4.39%
Professional and Business Services	130,700	125,000	4.56%
Leisure and Hospitality	128,800	124,100	3.79%
Retail Trade	114,100	110,400	3.35%
Goods Producing	106,000	105,500	0.47%
Financial Activities	87,400	84,100	3.92%
Mining, Logging, and Construction	58,300	58,600	-0.51%
Construction	51,400	50,000	2.80%
Manufacturing	47,800	46,900	1.92%
Other Services	37,000	36,400	1.65%
Wholesale Trade	35,000	34,600	1.16%
Information	21,200	21,400	-0.93%

Source: U.S. Bureau of Labor Statistics (2016)

2.1.2 EMPLOYMENT BY INDUSTRY

According to LMCI-TRACER, total employment is projected to grow by 22.6% from 2014 to 2024. *Table 4* presents the industries adding the most jobs.

Table 4: Alamo Workforce Development Area* - Industries Adding the Most Jobs

Industry Title	2014	2024	Number Change	Growth Rate
TOTAL ALL INDUSTRIES	1,067,800	1,309,530	241,730	22.60%
Services Providing	876,370	1,086,780	210,410	24.00%
Education & Health Services	240,900	312,530	71,630	29.70%
Trade, Transportation, & Utilities	173,830	209,670	35,840	20.60%
Health Care & Social Assistance	140,840	184,990	44,150	31.30%
Leisure & Hospitality	124,340	159,160	34,820	28.00%
Professional & Business Services	119,960	150,800	30,840	25.70%
Retail Trade	112,030	135,150	23,120	20.60%
Accommodation & Food Services	110,120	141,570	31,450	28.60%
Goods Producing	109,740	127,910	18,170	16.60%
Educational Services, Public & Private	100,050	127,540	27,490	27.50%
Educational Services	100,050	127,540	27,490	27.50%
Food Services & Drinking Places	93,340	121,420	28,080	30.10%
Restaurants & Other Eating Places	84,270	110,370	26,100	31.00%
Self Employed Workers, All Jobs	81,690	94,840	13,150	16.10%
Total Self Employed Workers, All Jobs	81,690	94,840	13,150	16.10%
Unclassified	81,690	94,840	13,150	16.10%
Financial Activities	80,140	96,680	16,540	20.60%
Elementary & Secondary Schools, Public & Private	69,620	90,970	21,350	30.70%
Administrative & Waste Services	63,990	81,480	17,490	27.30%
Finance & Insurance	63,900	77,850	13,950	21.80%
Ambulatory Health Care Services	63,870	84,520	20,650	32.30%
Administrative & Support Services	62,180	79,160	16,980	27.30%
Construction	47,840	61,180	13,340	27.90%

Table 4 (cont.): Alamo Workforce Development Area* - Industries Adding the Most Jobs

Industry Title	2014	2024	Number Change	Growth Rate
Hospitals, Public & Private	35,280	46,240	10,960	31.10%

Source: Texas Workforce Commission (www.tracer2.com)
Note: Table shows total employment in all industries and the industries adding the most jobs
**Defined as Atascosa, Bandera, Bexar, Comal, Frio, Gillespie, Guadalupe, Karnes, Kendall, Kerr, Medina, and Wilson Counties.*

2.1.3 WAGES AND BENEFITS BY INDUSTRY

In the San Antonio-New Braunfels MSA, the number of people employed in May 2016 was 977,580, and median annual wage was $33,890. The top 10% of the population employed earned an average annual wage of $82,780, while the lowest 10% of the population employed earned an average annual wage of $18,020. Industry and occupational wage data for the San Antonio-New Braunfels statistical area is summarized in *Table 5.*

Table 5. San Antonio-New Braunfels Statistical Area, Industry and Occupation Wage data May 2016

Occupation	Employment	Hourly median wage	Annual median wage	Hourly 10th percentile wage	Hourly 90th percentile wage	Annual 10th percentile wage	Annual 90th percentile wage
All Occupations	9,977,580	$16.30	$33,890	$8.66	$39.80	$18,020	$82,780
Office and Administrative Support Occupations	175,090	$15.63	$32,500	$9.91	$26.87	$20,600	$55,890
Sales and Related Occupations	107,440	$12.94	$26,920	$8.37	$34.31	$17,410	$71,370
Food Preparation and Serving Related Occupations	106,970	$9.36	$19,460	$7.87	$16.08	$16,360	$33,450
Education, Training, and Library Occupations	61,930	$25.37	$52,760	$9.72	$36.97	$20,210	$76,900
Healthcare Practitioners and Technical Occupations	61,250	$28.11	$58,460	$14.46	$66.66	$30,070	$138,660
Transportation and Material Moving Occupations	56,200	$14.03	$29,180	$8.71	$26.09	$18,120	$54,260
Business and Financial Operations Occupations	54,330	$32.78	$68,190	$18.43	$53.69	$38,330	$111,680
Personal Care and Service Occupations	41,710	$9.22	$19,170	$7.85	$14.75	$16,340	$30,680
Production Occupations	41,070	$14.58	$30,320	$8.94	$28.88	$18,590	$60,060
Construction and Extraction Occupations	39,440	$17.31	$36,000	$11.30	$30.46	$23,500	$63,350
Installation, Maintenance, and Repair Occupations	39,050	$18.93	$39,370	$11.28	$31.47	$23,470	$65,460
Management Occupations	35,240	$47.46	$98,710	$23.74	$98.52	$49,380	$204,930

Table 5 (cont.): San Antonio-New Braunfels Statistical Area, Industry and Occupation Wage data May 2016

Occupation	Employment	Hourly median wage	Annual median wage	Hourly 10th percentile wage	Hourly 90th percentile wage	Annual 10th percentile wage	Annual 90th percentile wage
Computer and Mathematical Occupations	28,580	$37.68	$78,380	$20.78	$62.36	$43,210	$129,720
Building and Grounds Cleaning and Maintenance Occupations	28,460	$10.80	$22,460	$8.17	$15.93	$17,000	$33,130
Healthcare Support Occupations	27,030	$12.90	$26,830	$8.88	$21.38	$18,480	$44,460
Protective Service Occupations	24,830	$17.82	$37,070	$8.85	$36.05	$18,420	$74,990
Architecture and Engineering Occupations	12,920	$33.24	$69,130	$17.21	$59.30	$35,800	$123,350
Community and Social Service Occupations	11,660	$20.11	$41,830	$9.43	$32.53	$19,620	$67,670
Arts, Design, Entertainment, Sports, and Media Occupations	11,640	$19.14	$39,810	$9.03	$40.60	$18,790	$84,450
Legal Occupations	7,000	$30.44	$63,320	$15.89	$76.22	$33,050	$158,540
Life, Physical, and Social Science Occupations	4,890	$31.33	$65,170	$16.46	$55.96	$34,240	$116,400
Farming, Fishing, and Forestry Occupations	850	$10.63	$22,110	$8.05	$17.59	$16,730	$36,590
Office and Administrative Support Occupations	175,090	$15.63	$32,500	$9.91	$26.87	$20,600	$55,890

Source: U.S. Bureau of Labor Statistics (2016)

2.2 Workforce

2.2.1 EMPLOYMENT AND UNEMPLOYMENT RATES

The San Antonio Economic Development Foundation (SAEDF) provides data on civilian labor force growth and unemployment rates. In October 2016, San Antonio's total civilian workforce was 1,121,400, with an associated unemployment rate of 3.7%. The According to SAEDF, San Antonio is ranked as the top city in the nation for economic growth potential and as one of the strongest performing economies based on employment and unemployment levels. San Antonio has experienced continued growth in its civilian labor force in recent years, with a decline in unemployment rates since 2012. The city's economic sustainability derives from a robust education system of 15 colleges and universities, which graduate approximately 25,000 students each year, as well as many training programs.

Table 6: San Antonio Workforce-Employment and Unemployment 2003-2016

Year	Total Civilian Labor Force	Percent Growth	Number of People Employed	Number of People Unemployed	Unemployment Rate
2016	1,135,725	3.30%	1,093,136	42,589	3.70%
2015	1,099,597	3.30%	1,057,538	42,059	3.80%
2014	1,064,254	1.45%	1,018,694	45,560	4.30%
2013	1,049,019	2.20%	986,252	62,767	6.00%
2012	1,026,242	1.40%	959,876	66,366	6.50%
2011	1,012,433	2.40%	943,728	75,318	7.40%
2010	988,764	2.40%	928,675	72,505	7.30%
2009	965,670	2.10%	906,524	64,391	6.70%
2008	942,671	2.20%	898,774	44,351	4.70%
2007	921,968	0.80%	883,141	37,919	4.10%
2006	914,670	2.00%	872,518	42,152	4.60%
2005	896,886	1.50%	852,165	44,721	5.00%
2004	883,892	1.20%	834,039	44,300	5.60%
2003	873,494	1.50%	820,022	31,700	6.10%

Source: U.S. Bureau of Labor Statistics (2016)

2.2.2 FASTEST GROWING OCCUPATIONS

According to the Texas Workforce Commission's Labor Market & Career Information (LMCI)-TRACER data, the fastest expected growing occupations in 2024 will be within the health, STEM, and education sectors.

Table 7: Alamo Workforce Development Area* - Fastest Growing Occupations

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024
Total, All Occupations	**1,067,800**	**1,309,530**	**241,730**	**22.6%**
Mathematical Science Occupations	1420	2,080	660	46.5%
Occupational Therapy & Physical Therapist Assistants & Aides	1890	2610	720	38.1%
Supervisors of Food Preparation & Serving Workers	8330	11180	2850	34.2%
Animal Care & Service Workers	1560	2050	490	31.4%
Preschool, Primary, Secondary, & Special Ed School Teachers	35,120	46,040	10,920	31.1%
Food & Beverage Serving Workers	57510	75190	17680	30.7%
Other Personal Care & Service Workers	35480	46360	10880	30.7%
Nursing, Psychiatric, & Home Health Aides	14120	18270	4150	29.4%
Health Diagnosing & Treating Practitioners	35820	46310	10490	29.3%
Other Healthcare Support Occupations	13180	17000	3820	29.0%
Other Education, Training, & Library Occupations	10160	13,040	2880	28.3%
Helpers, Construction Trades	2300	2940	640	27.8%
Grounds Maintenance Workers	7690	9820	2130	27.7%
Counselors/Social Workers/Other Social Service Specialists	10,710	13,610	2,900	27.1%
Building Cleaning & Pest Control Workers	26040	33040	7000	26.9%
Computer Occupations	26890	34080	7190	26.7%

Table 7 (cont.): Alamo Workforce Development Area* - Fastest Growing Occupations

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Growth 2014-2024
Legal Support Workers	3200	4,040	840	26.3%
Health Technologists & Technicians	25540	32230	6690	26.2%
Other Transportation Workers	2260	2850	590	26.1%
Cooks & Food Preparation Workers	26370	33220	6850	26.0%

Source: Texas Workforce Commission (www.tracer2.com)
Note: Table shows total employment in all occupations and the fastest growing occupations. Occupations in this list must have 500 or more employees in 2014.
**Defined as Atascosa, Bandera, Bexar, Comal, Frio, Gillespie, Guadalupe, Karnes, Kendall, Kerr, Medina, and Wilson Counties.*

2.2.3 PALO ALTO COLLEGE NEW PROGRAMS OUTLOOK

Brewing and Distillation: According to the Texas Craft Brewers Guild, the craft and brewing industry produces a revenue of about $5.6 billion a year and is expected to generate 52,000 new jobs by 2020.

Craft brew permits in Texas, including brewpubs and production breweries, grew from 70 to 115 according to Texas Alcoholic Beverage Commission. The Texas Craft Brewers Guild says craft beer bills signed into law during Texas 2013 Legislative Session are expected to spur further brewery development across the state.

According to the Economic Development and Employer Planning System (EDEPS), the occupation of food batchmakers (occupation that includes brewing and distillation) in Texas had an increase in mean annual wage of 17.4% from 2012 to 2016, well above of the national rate of 4.7% for the same time period.

Dental Hygiene: According to the U.S. Bureau of Labor Statistics: "Employment of dental hygienists is projected to grow 20% from 2016 to 2026, much faster than the average for all occupations. The demand for dental services will increase as the population ages. As the large baby-boom population ages and people keep more of their original teeth than did previous generations, the need to maintain and treat teeth will continue to drive demand for dental care. Studies linking oral health and general health, and efforts to expand access to oral hygiene services, will continue to drive the demand for preventive dental services. As a result, the demand for all dental services, including

those performed by hygienists, will increase. In addition, demand for dental hygienists is expected to grow as state laws increasingly allow dental hygienists to work at the top of their training, and they effectively become more productive."

EDEPS reports that the mean annual wage for dental hygienist in the San Antonio-New Braunfels area increased by 14.6% from 2012 to 2016, which is above the Texas (5.4%) and national (3.8%) growth rates during the same time period. Dental hygienists in Texas typically have an associate degree with a median annual wage of $72,910.

In the San Antonio-New Braunfels area, two schools offer degrees with dental hygiene as a concentration: Concorde Career College, which awarded 22 students an associate degree in the 2015-2016 academic year, and University of Texas Health San Antonio, which awarded 42 students with a bachelor's degree in the same academic year.

The supply of students with an associate degree in dental hygiene in Texas for the academic year 2014-2015 was 390 students for a demand of 540 annual new job openings.

Nursing: According to the U.S. Bureau of Labor Statistics: "Employment of registered nurses is projected to grow 15% from 2016 to 2026, much faster than the average for all occupations. Growth will occur for a number of reasons. Demand for healthcare services will increase because of the aging population, given that older people typically have more medical problems than younger people. Nurses also will be needed to educate and care for patients with various chronic conditions, such as arthritis, dementia, diabetes, and obesity. The financial pressure on hospitals to discharge patients as soon as possible may result in more people being admitted to long-term care facilities and outpatient care centers, and greater need for healthcare at home. Job growth is expected in facilities that provide long-term rehabilitation for stroke and head injury patients, and in facilities that treat people with Alzheimer's disease. In addition, because many older people prefer to be treated at home or in residential care facilities, registered nurses will be in demand in those settings."

According to EDEPS, the median annual wage of registered nurses in Texas for 2016 was $68,680. With an average of 10,820 annual openings, the employment of registered nurses is expected to increase by 31.2% from 2014 to 2024. During the academic year 2015-2016, 5,750 students obtained an associate degree in nursing.

Health Care Administrator: According to the U.S. Bureau of Labor Statistics: "Employment of medical and health services managers is projected to grow 20% from

2016 to 2026, much faster than the average for all occupations. As the large baby-boom population ages and people remain active later in life, there should be increased demand for healthcare services."

According to EDEPS, the median annual wage of medical and health services managers in Texas for 2016 is $94,000. In Texas, an average of 1,070 job openings are available annually, and employment is expected to increase 28.8% from 2014 to 2024.

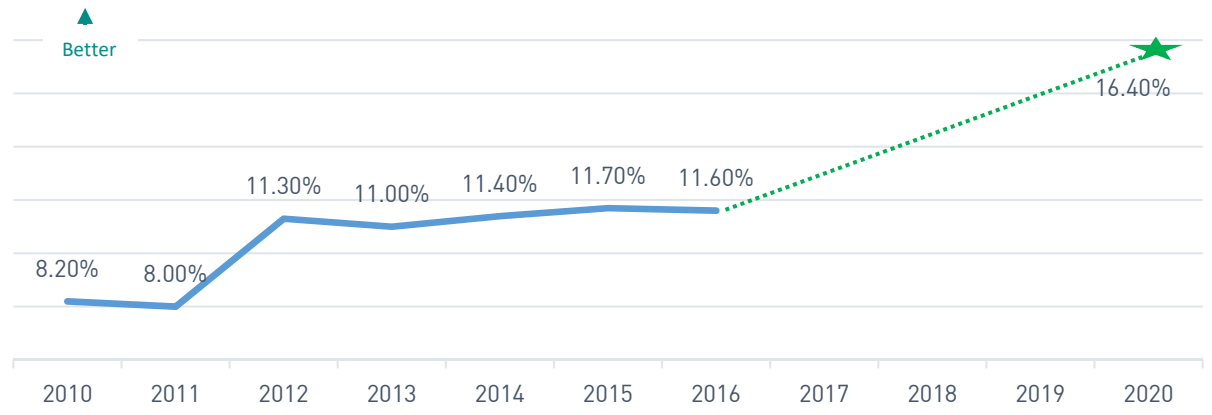
In the San Antonio-New Braunfels area, the mean annual wage of medical and health services managers is $99,870 and had an increase of 11.1% from 2011 to 2015. In the 2015-2016 academic year, only 62 Texas students obtained an associate degree in health care administration. Currently, there are no higher education institutions offering an associate degree program in health care administration in the San Antonio-New Braunfels Area.

2.3 San Antonio STEM Economy

San Antonio has a highly educated and qualified workforce and provides economic opportunities to all residents. The city fosters entrepreneurship as engine of economic prosperity.

San Antonio is home for many technological/manufacturing companies as Toyota, Boeing, Rackspace, and Sirius, as well as many military military/aeronautical bases. *Figure 20* displays the fraction of employment opportunities in San Antonio classified as STEM occupations. This trend can be considered as moderate growth over the past few years, however, substantial growth will be necessary if the San Antonio 2020 goals will be realized.

Figure 20: Proportion STEM Employment, San Antonio



Source: San Antonio 2020, San Antonio Area Foundation, U.S. Bureau of Labor Statistics (2016)

2.3.1 EMPLOYMENT IN STEM OCCUPATIONS

The San Antonio Area Foundation, a community foundation that works to address San Antonio's needs through grants, programs, and scholarships, has set a target for STEM occupations to make up 16.40% of total employment opportunities in the area by 2020. While, the STEM economy for San Antonio has grown recently there seems to be a challenge in creating and filling STEM employment opportunities since total employment rates in STEM occupations has remained constant.

3. EDUCATIONAL TRENDS AND INNOVATION

Community colleges have gone through major changes due to technological innovations and economic trends. Employers expect problem-solving skills and the ability to work as part of a team from their workforce and attribute internships and industry experience as significant deciding factors during the hiring process (National Association of Colleges and Employers 2017). In 2018, community colleges will continue to develop innovative ways to meet business employment needs and the needs of traditional and non-traditional students.

Leading trends in higher education have two common goals in 2018: increase student enrollment and improve completion rates. Below are three examples of new programs and practices colleges are adopting in order to attract new students and help students successfully complete their degree.

Active Learning Classrooms[1]: Active learning classrooms are student-centered and technology-rich learning environments designed with movable furniture to facilitate a collaborative environment, rather than with fixed desks designed for lecturing. This shift from traditional to active learning classrooms reflect the greater importance placed on teamwork and problem-solving skills.

Adaptive Learning[2]: According to Helix Education, "adaptive learning strategies create a student experience that is modified based on a student's performance and engagement with the course materials." This instructional method utilizes technology and student performance data to deliver content to students that meets them at their level of mastery of a particular learning objectives and allows for multiple learning pathways.

By adjusting the curriculum based on the individual's baseline knowledge level, adaptive learning technology guides students to review materials where additional work is needed while also challenging students at an appropriate level. Adaptive learning strategies have potential to improve course completion and retention rates.

Competency-Based Education[3]: Several higher education institutions are starting to reimagine course structures. The Institute for Competency-Based Education at Texas A&M University-Commerce defines competency-based education as a, "curricular design with an academic model in which the time it takes to demonstrate competencies

[1] For more information on active learning classrooms visit: er.educause.edu/blogs/2017/3/active-learning-classrooms-the-top-strategic-technology-for-2017
[2] For more information on adaptive learning visit: www.mheducation.com/ideas/what-is-adaptive-learning.html
[3] To find resources on competency-based education visit: www.cbenetwork.org

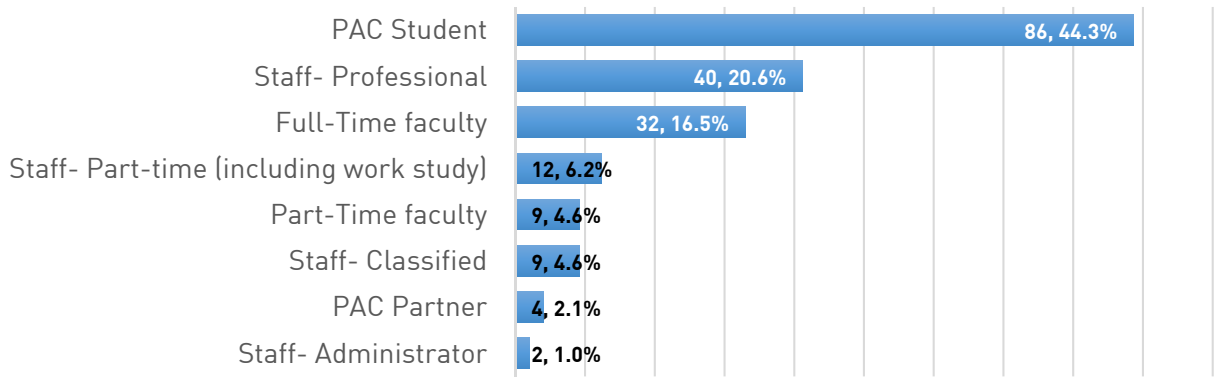
varies and the expectations about learning are held constant." Competency-based education programs award academic credits based on the mastery of clearly defined competencies relevant to both a degree and a career rather than focusing on contact hours. The flexible programs allow students to earn credits at their own pace, potentially shortening the time and cost of earning a degree. Additionally, the flexibility of competency-based education programs can attract new students and increase enrollment.

4. PALO ALTO COLLEGE INTERNAL AND EXTERNAL FEEDBACK

4.1 Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

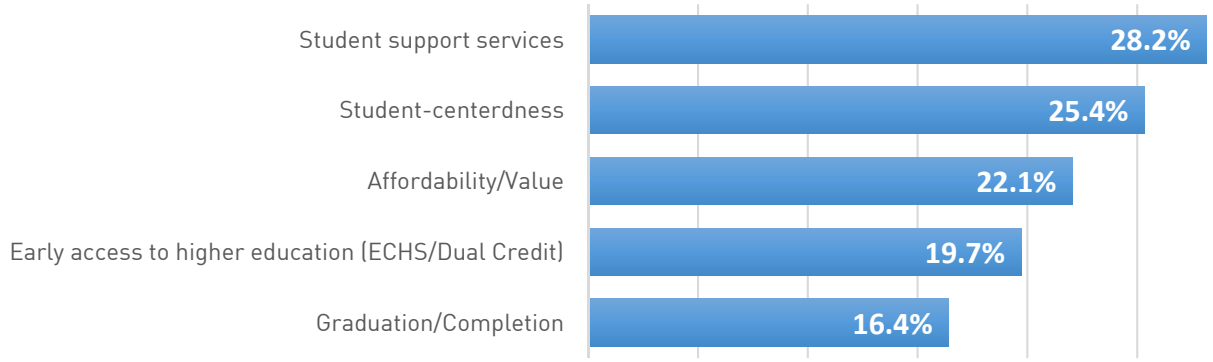
A yearly survey of perceived institutional strengths, weaknesses, opportunities and threats (SWOT) provides the various PAC stakeholders an avenue to provide feedback about current and future college operations and priorities. The SWOT survey is distributed electronically to key PAC stakeholder groups such as faculty, staff, students and external community members. A total of 194 individuals completed the Spring 2018 SWOT survey; *Figure 21* summarizes the proportion of responses by participant type. The largest group of respondents for this survey were currently enrolled PAC students (44.3%), followed by Professional Staff (20.6%).

Figure 21: Proportion of SWOT Responses by Participant Type



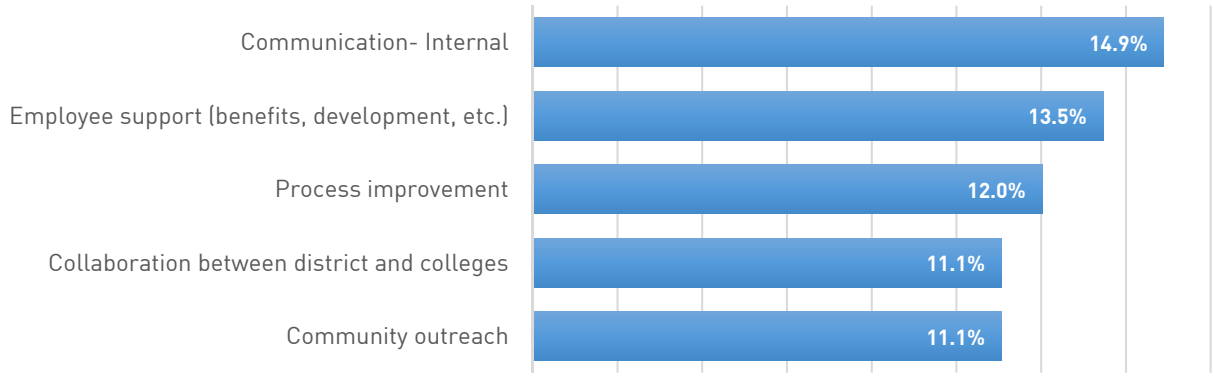
Examining results of the *strength* portion of the SWOT survey indicates that participants endorsed *student support services* (28.2%), *student-centeredness* (25.4%), *affordability/value* (22.1%), *early access to higher education* (19.7%) and *graduation/completion* (16.4%) statements most often. *Figure 22* summarizes the top 5 most often endorsed strength statements for the Spring 2018 survey administration.

Figure 22: Top 5 Strengths, Overall



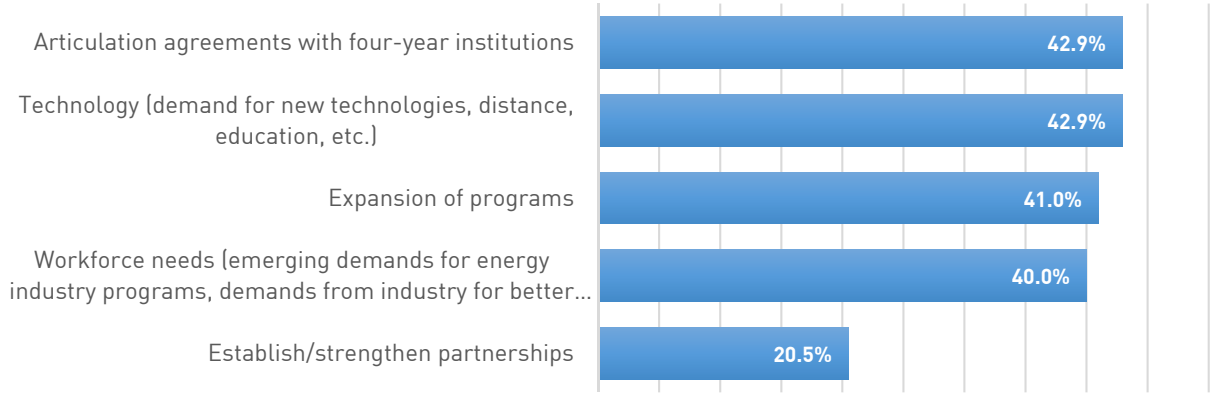
Reviewing results of the *weakness* portion of the SWOT survey reveals the top 5 concerns selected by participants: *communication-internal* (14.9%), *employee support* (13.5%), *process improvement* (12.0%), *collaboration between district and colleges* (11.1%), and *community outreach* (11.1%). Results for the weakness portion of the survey are summarized in *Figure 23*. The lower proportion of statement endorsement compared to the strength statements above suggest decreased agreement on the most important weaknesses as perceived by survey participants.

Figure 23: Top 5 Weaknesses, Overall



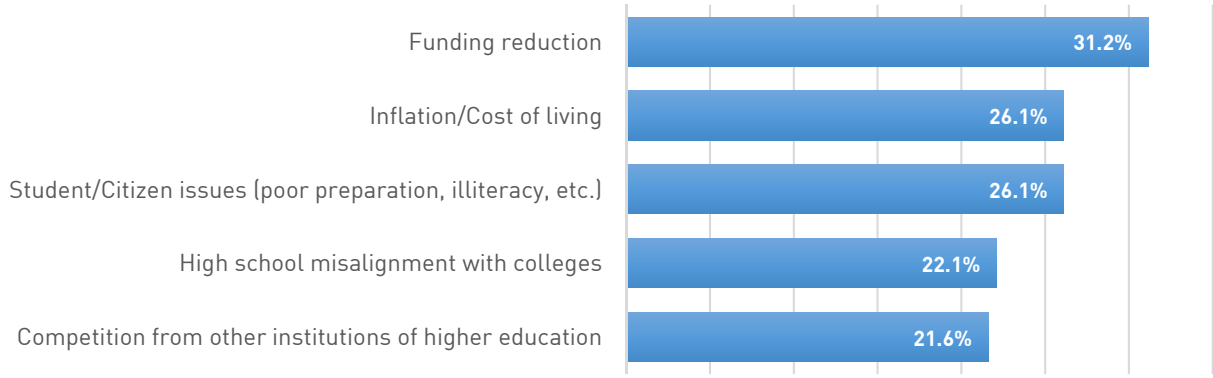
Analysis of results for the *opportunity* statements reveals comparatively larger agreement among survey participants, as indicated by larger endorsement percentages). The top 5 most endorsed statements for this section were *articulation agreements* (42.9%), *technology* (42.9%), *expansion of programs* (41.0%), *workforce needs* (40.0%), and *establish/strengthen partnerships* (20.5%). These results are summarized in *Figure 23*.

Figure 24: Top 5 Opportunities, Overall



Survey participants also indicated which *threat* statements they believed most important for PAC. Analysis indicates that *funding reduction* (31.2%), *inflation/cost of living* (26.1%), *student/citizen issues* (26.1%), *high school misalignment with colleges* (22.1%), and *competition from other institutions of higher education* (21.6%) were the most salient external concerns among participants. Threat statement endorsement results are summarized in *Figure 24*.

Figure 25: Top 5 Threats, Overall

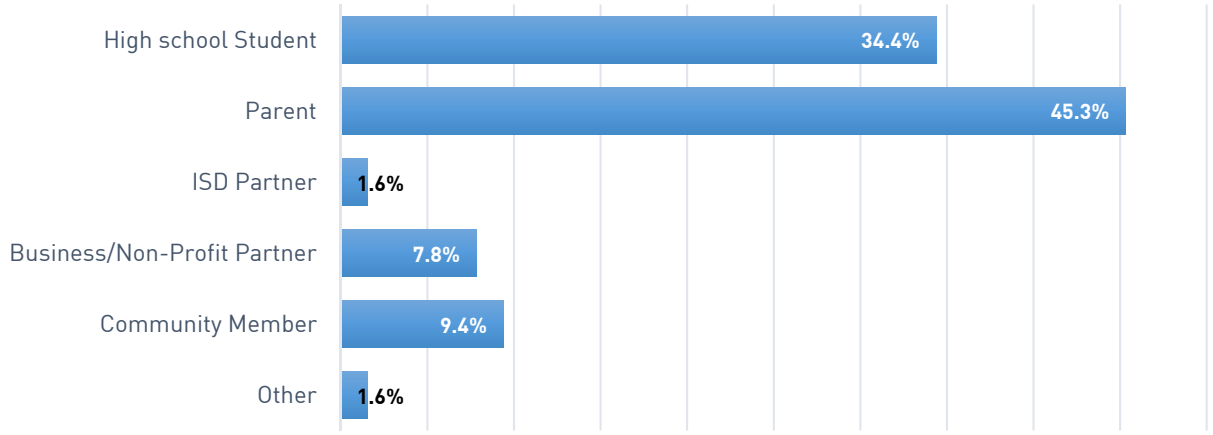


4.2 Open Forums – Community Feedback

Early in the Spring 2018 term, Dr. Flores, President of Palo Alto College, hosted a community forum. This event was open to the public and designed to facilitate communication between PAC and the community within which we are embedded. As part of the event, attendees were invited to complete a survey inquiring about their

satisfaction with key college services. A total of 64 responses were collected; participant type data is displayed in *Figure 26*. High school students and parents represented the largest groups of participants, with a collective 80% of responses.

Figure 26: Response Proportion by Participant Type



Results indicate that a majority of participants (59.4%) attended some PAC event, or used some PAC service. Participants were asked to indicate how they rated the college on four different areas related to community outreach: *reaching out to the community with special programs and events, improving the culture of the region though performing arts, reaching out to the youth in the community with special programs and events,* and *providing the community with professional and on-the-job training*. Responses to these items were ranked using a 5-point scale ranging from *poor* (1) to *excellent* (5), with a neutral (3) option serving as a scale midpoint.

Results of participant rankings are summarized in *Figure 27*. Feedback obtained during this community forum indicates a generally positive view of Palo Alto College community outreach efforts.

Figure 27: Community Outreach Ratings

5. LEGISLATION UPDATE

The State Educational Legislation section of our Environmental Scan contains legislation updates from the State of Texas 85th Legislative Session that affects community colleges.

S.B. 1- General Appropriations Bill

	FY Ending August 31, 2018	Current FY Ending Aug. 31, 2017
Core Operations	$ 680,406	$ 500,000
Student Success	$ 7,194,361	$ 6,653,203
Contact Hour Funding	$ 52,011,655	$ 52,797,731
Veterans Assistance Ctrs	$ 4,058,400	$ 4,450,000
Total	$ 63,944,822	$ 64,400,934

H.B. 493- College Credit for Heroes

Author: Perez, Mary Ann | Button, Angie Chen | Murphy, Jim | Clardy, Travis | Blanco, Cesar

Requires that the Texas Workforce Commission, in consultation with the THECB, report how many academic or workforce credit hours are awarded each academic year, under the College Credit for Heroes program.

H.B. 655- Pathway Selection by 30 hours Completion

Author: Clardy, Travis| Rodriguez, Justin

Directs community college students to select a pathway through a major or meta-major no later than having completed 30 semester credit hours.

H.B. 846- Financial Aid Information for Veterans

Author: Raney, John | Shine, Hugh | Miller, Rick | Roberts, Kevin | Guillen, Ryan

Student financial assistance programs for Veterans and families.

H.B. 928- Foster Youth Assistance

Author: White, James | Rose, Toni | Giddings, Helen | Neave, Victoria

Directs existing community resource groups to coordinate with school districts to identify foster youth eligible for existing tuition and fee waivers.

H.B. 1638- Dual Credit Program Goals

Author: Guillen, Ryan

Requires the Texas Education Agency (TEA) and THECB to develop and align goals for all dual credit programs to ensure the availability of standard outcomes on which these programs could be evaluated. Requiring memoranda of understanding for all dual credit programs to contain program-specific goals. Memoranda should be posted annually on each higher education institution partner's website.

H.B. 2223- Concurrent Enrollment in Developmental education and Freshman Level Course

Author: Giddings, Helen| White, James

Phasing in a co-requisite model under which a student concurrently enrolls in a developmental education course and a freshman level course in the same subject area for each subject area for which the student is referred to developmental coursework.

H.B. 2738- Cosmetologist Hours of Instruction

Author: Hernandez, Ana

The Texas Commission of Licensing and Regulation (TCLR) to adopt rules to authorize a school licensed relating to barbers and cosmetologists to account for any hours of instruction completed on the basis of clock hours or credit hours.

H.B. 2895- Mental Health Resources Postings

Author: Price, Four | Turner, Chris | Clardy, Travis | Moody, Joe | Burkett, Cindy

Public institutions of higher education post mental health resources on the institution's internet website.

H.B. 2994- CE Funding

Author: Ashby, Trent | Clardy, Travis | Phillips, Larry | Stephenson, Phil | Blanco, Cesar

Formula funding for workforce continuing education courses for high school students. A public junior college may enter into an agreement with a school district to offer workforce continuing education courses to persons enrolled in a high school who are at least 16 years of age.

H.B. 3349- Certification for Workforce Training Instructors

Author: Gervin-Hawkins, Barbara | Guillen, Ryan | Phelan, Dade

Educator preparation program for probationary and standard trade and industrial workforce training certificates.

S.B. 4- Sanctuary Cities

Author: Perry, Charles

Amends current law relating to the enforcement by campus police departments and certain governmental entities of state and federal laws governing immigration.

S.B. 22- Pathways in Technology ECHS

Author: Taylor, Larry

Repeals tech-prep education and requires the commissioner of education to establish and administer a Pathways in Technology Early College High School (P-TECH) program.

S.B. 59- Energy and Water Usage Reporting

Author: Zaffirini, Judith

Amends current law relating to energy and water management planning and reporting requirements for state agencies and institutions of higher education.

S.B. 255- Procurement Training

Author: Zaffirini, Judith

Transfers certain provisions relating to the training of governmental entities and vendors including purchasing and contract management training.

S.B. 537- Course Fees in Catalog

Author: Hinojosa, Juan

Requires each public institution of higher education to include in the institution's online course catalog, for each course listed in the catalog, a description and the amount of any special course fee.

S.B. 634- Skills Development Fund Reporting

Author: Estes, Craig

Require public community or technical college that provides workforce training under the skills development fund to submit a required biennial report to the Texas Workforce Commission.

S.B. 719- Workforce Education Program Data

Author: Zaffirini, Judith

Require the THECB to collect and maintain data relating to participation of persons with intellectual and developmental disabilities enrolled in a workforce education program.

S.B. 802- Transfer Credit Best Practice Report

Author: Seliger, Kel

Requires THECB to collect data and report regarding best practices in the transfer of course credit between public institutions of higher education.

S.B. 810- Open Educational Resources Grant

Author: Kolkhorst, Lois

Require the THECB to establish and administer a temporary grant program to encourage faculty at public institutions of higher education to adopt, modify, redesign, or develop courses that use only open educational resources.

S.B. 887- Student Education Loans Information

Author: Seliger, Kel

Require higher educational institutions that enrolls one or more students receiving state financial aid administered by the THECB to provide student at least annually certain estimates regarding the student's education loan obligation.

S.B. 969- Sexual Assault Reporting

Author: Watson, Kirk

Prohibit a public, private, or independent institution of higher education from taking any disciplinary action against a student enrolled at the institution if the student reports to the institution of being the victim of or a witness to an incident of sexual assault.

S.B. 968- Electronic Report Log of Certain Offenses

Author: Watson, Kirk

Require institutions of higher education to provide an option for a student enrolled at or an employee of the institution to electronically report an allegation of sexual harassment, sexual assault, dating violence, or stalking, regardless of the location at which the alleged offense occurred.

S.B. 1091- Dual Credit Courses in Core Curriculum

Author: Seliger, Kel

Requires that the institution may offer undergraduate course credit for a dual credit course only if the course is in the core curriculum of the higher education institution that offered the course, a career and technical education course, or a foreign language course. Does not apply to a dual credit course completed by a student as part of the early college education program.

S.B. 1123- Tuition & Fees Exemption for Foster Care Students

Author: Zaffirini, Judith

Tuition and fee exemption at public institutions of higher education for adopted students formerly in foster or other residential care.

S.B. 1649- Campus Criminal Trespass

Author: Watson, Kirk

Seeks to improve campus safety by revising the conduct that constitutes the offense of criminal trespass.

S.B. 1782- Dropped Course Maximum

Author: West, Royce

Require the THECB to adopt rules under which a public institution of higher education is required to permit a student to drop one additional course beyond the maximum number of courses permitted to be dropped, if the student has reenrolled at the institution following a break in a 24-month period.

S.B. 2118- Baccalaureate Degree Programs

Author: Seliger, Kel

THECB may to authorize community colleges to offer bachelor degree programs in the field of applied science, applied technology, or nursing and have demonstrated a workforce need.

Appendix A

Appendix A. Industries at a Glance

List of Supersectors and Associated Subsectors	
Information	
	Newspaper, Periodical, Book, and Directory Publishers: NAICS 5111
	Software Publishers: NAICS 5112
	Motion Picture and Video Industries: NAICS 5121
	Sound Recording Industries: NAICS 5122
	Radio and Television Broadcasting: NAICS 5151
Financial Activities	
	Monetary Authorities - Central Bank: NAICS 5211
	Depository Credit Intermediation: NAICS 5221
	Nondepository Credit Intermediation: NAICS 5222
	Activities Related to Credit Intermediation: NAICS 5223
	Securities and Commodity Contracts Intermediation and Brokerage: NAICS 5231
Professional and Business Services	
	Legal Services: NAICS 5411
	Accounting, Tax Preparation, Bookkeeping, and Payroll Services: NAICS 5412
	Architectural, Engineering, and Related Services: NAICS 5413
	Specialized Design Services: NAICS 5414
	Computer Systems Design and Related Services: NAICS 5415
Educational and Health Sevices	
	Elementary and Secondary Schools: NAICS 6111
	Junior Colleges: NAICS 6112
	Psychiatric and Substance Abuse Hospitals: NAICS 6222
	Specialty (except Psychiatric and Substance Abuse) Hospitals: NAICS 6223
	Nursing Care Facilities: NAICS 6231
Leisure and Hospitality	
	Promoters of Performing Arts, Sports, and Similar Events: NAICS 7113
	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures: NAICS 7114
	Independent Artists, Writers, and Performers: NAICS 7115
	Museums, Historical Sites, and Similar Institutions: NAICS 7121
	Amusement Parks and Arcades: NAICS 7131

Source: U.S. Bureau of Labor Statistics (www.bls.gov)

Note: Appendix A shows partial list of supersector and associated subsectors. For a more datailed list visit: https://www.bls.gov/iag/tgs/iag07.htm

Appendix B

Appendix B. Program(s) of Study and Training by Occupation

Program(s) of Study and Training by Occupation	
Mathematical Science Occupations	
	26.1102 Biostatistics
	27.0101 Mathematics, General
	27.0102 Algebra and Number Theory
Occupational Therapy & Physical Therapist Assistants & Aides	
	51.0803 Occupational Therapist Assistant
	51.0806 Physical Therapy Technician/Assistant
	51.2604 Rehabilitation Aide
Supervisors of Food Preparation & Serving Workers	
	12.0503 Culinary Arts/Chef Training
	12.0505 Food Preparation/Professional Cooking/Kitchen Assistant
	12.0508 Institutional Food Workers
Preschool, Primary, Secondary, & Special Ed School Teachers	
	13.1099 Special Education and Teaching, Other
	13.1202 Elementary Education and Teaching
	13.1203 Junior High/Intermediate/Middle School Education and Teaching
Nursing, Psychiatric, & Home Health Aides	
	51.2601 Health Aide
	51.2602 Home Health Aide/Home Attendant
	51.3902 Nursing Assistant/Aide and Patient Care Assistant/Aide
Health Diagnosing & Treating Practitioners	
	51.2009 Industrial and Physical Pharmacy and Cosmetic Sciences
	51.2306 Occupational Therapy/Therapist
	51.2501 Veterinary Sciences/Veterinary Clinical Sciences, General
Other Healthcare Support Occupations	
	51.0601 Dental Assisting/Assistant
	51.0801 Medical/Clinical Assistant
	51.0808 Veterinary/Animal Health Technology/Technician and Veterinary Assistant
Other Education, Training, & Library Occupations	
	19.0706 Child Development
	19.0707 Family and Community Services
	25.9999 Library Science, Other
Computer Occupations	
	11.0101 Computer and Information Sciences, General
	11.0102 Artificial Intelligence
	11.0103 Information Technology

Source: Economic Development and Employer Planning System (www.edeps.org)

Note: Appendix B shows partial list of programs of study by occupation. For a more detailed list visit: http://www.edeps.org/SelectUA.aspx?st=ZZ