

**bold  
informed  
progressive  
resilient  
influential  
confident  
visionary**

Bakersfield College  
Educational Master Plan 2014-2017



# Acknowledgements

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This 2014-2017 Educational Master Plan would not be possible without the commitment of the Core Team, which guided focus groups and gathered information. Thank you to Leah Carter, Ann Tatum, Manny Mourtzanos, Bonnie Suderman, Liz Rozell, Richard McCrow, Academic Senate President Corny Rodriguez, Classified Union President Tina Johnson, SGA President Shelby Sward, and Data Lead Janet Fulks.

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# About Bakersfield College

Bakersfield College was founded in 1913 and is one of the nation's oldest, continually-operating community colleges. The college serves more than 18,000 students on the 153-acre Panorama Campus in northeast Bakersfield, at the Weill Institute in downtown Bakersfield, and at the Delano Campus 35 miles north of Bakersfield. Additional instructional services are scheduled around Bakersfield College's service area as enrollment dictates. Courses are offered on a traditional 16-week semester calendar as well as in a variety of non-traditional scheduling and modalities: evenings, weekends, short-term training programs, and online.<sup>1</sup>

## About the Process

This Educational Master Plan represents a collaborative effort within the Bakersfield College community to bring together key information that will guide and inform the college through 2017. A core team, made up of administrators, faculty, and staff gathered documents that analyze academic areas of study for all students, including grant proposals and updates, new initiatives, instructional program reviews, and multiple sources of state, county and local data. To achieve a fully-informed document, the college also held focus groups with administrators, faculty, and staff representing the three main foci of Career and Technical Education, Transfer, and Basic Skills. The focus groups discussed how to best serve students in alignment with the college's Strategic Focus Plan.

The 2014-2017 Bakersfield College Educational Master Plan was approved by the Bakersfield College Academic Senate on October 29, 2014, and by the Bakersfield College College Council on October 31, 2014.

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# Introduction

Bakersfield College has just celebrated its centennial anniversary, and the institution is poised to enter its second century with stability in leadership, solid academic offerings, and a strong, focused plan for the future. This Educational Master Plan for 2014-2017 represents an exciting time of innovation for Bakersfield College, marked by research and development of programs to both increase student success and decrease students' time to completion. Over the decades, Bakersfield College has become an indelible landmark in the greater Bakersfield area and Kern County. As local industries, from petroleum to healthcare, have blossomed, so has the college as it continues to deepen its roots in Delano to the north, and to reaffirm its commitment to educating 21<sup>st</sup> century learners throughout 5,000 square miles of California's San Joaquin Valley, located in the southern portions of the Central Valley. Active business and industry advisory committees and robust community partnerships have led students to jobs through academic preparation, as well as clearly defined career and technical education pathways. For example, many students, who may be the first in their families to attend college, have graduated from the nursing program and are now contributing to members of the health care community in Kern County. Working with high school and higher education partners has produced more clearly defined outcomes for all students—especially for students who are the first in their families to attend college. Challenges remain, however, in educating a growing number of students who are unprepared for college-level courses. Regardless, the message of success is the same for each and every one of the diverse students who enroll at the college: Bakersfield College meets every student where they are, regardless of income, lifestyle, language spoken at home, ethnicity, or family experience with higher education.<sup>2</sup>

Bakersfield College is the largest of the three colleges in the Kern Community College District. The Kern Community College District serves nearly 25,000 square miles in California in parts of Kern, Tulare, Inyo, Mono, and San Bernardino counties.<sup>3</sup> Bakersfield College's road to student success runs parallel to that of the southern Central Valley. Local industry executives are examining how to better educate the Central Valley's workforce to benefit the entire region through re-investment and stronger partnerships with Bakersfield College and other colleges and universities. In direct correlation, Bakersfield College is addressing industry needs by creating new programs and entering into partnerships with industry, high schools, colleges, and universities. Bakersfield College is carefully planning to meet its first priority of student success and is being realistic about constraints related to funding, facilities, and hiring enough faculty to teach the most impacted courses in math, science, and English, as well as new programs of study. The college is also aware of recruitment challenges with low enrollment in some areas that were highly recommended by local industry professionals, but failed to translate into sustainable programs.<sup>4</sup>

Over the coming years, Bakersfield College will explore new avenues to educate an ethnically diverse and socioeconomically disadvantaged population. The sons and daughters of Kern County's low-wage earners will be able to prepare for their successful futures at Bakersfield College in disciplines as diverse as nursing, agriculture, and the culinary arts. Further supporting the college completion

<sup>2</sup> Christian, Sonya. Phone interview. May 2014.

<sup>3</sup> Cambridge West Partnership, LLC. 2011-14 Educational Master Plan. Bakersfield College. Web. 27 May 2014.

<sup>4</sup> Bakersfield College administrators, faculty. "CTE Focus Group." Discussion. 5 May 2014.

needs of Bakersfield College’s service area, the college is aggressively working to become a pilot site for a new statewide Online Education Initiative pilot, which aims to provide a quality college education for all Californians regardless of where they live. Bakersfield College believes that with the rural communities its programs already touch in physical classrooms, the online initiative has the capacity to dramatically change the lives of potential students in its far-reaching service area through associate degree programs and transfer pathways to four-year colleges.<sup>5</sup>

Further, Bakersfield College faculty and administrators are working to establish the college as a pilot site for the baccalaureate degree through Senate Bill 850, Community College District Baccalaureate Degree Pilot Programs. Bakersfield College seeks to prepare students with bachelor’s-level degrees in applied science in industrial technology and more fields through this innovative initiative (see Transfer Plan section, beginning on page 30).<sup>6</sup> In the next three years and beyond, the college will promote a continuous, upward progression for students who will, as Bakersfield College’s mission states, “engage productively in their communities and the world.”<sup>7</sup> Building upon more than 100 years of excellence, Bakersfield College continues to contribute to the intellectual, cultural, and economic vitality of the communities it serves.

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5 *California Community Colleges. Online Education Initiative. Web. 27 May 2014.*

6 *Carroll, Constance M. Baccalaureate Programs at the California Community Colleges: Overview and Summary of Issues. Web. 27 May 2014.*

7 *Bakersfield College. “Mission Statement.” Adopted by College Council, 14 May 2014. Web. 28 May 2014.*

# Bakersfield College Mission, Vision, and Values

## Our Mission

Bakersfield College provides opportunities for students from diverse economic, cultural, and educational backgrounds to attain degrees and certificates, workplace skills, and preparation for transfer. Our rigorous and supportive learning environment foster students' abilities to think critically, communicate effectively, and demonstrate competencies and skills in order to engage productively in their communities and the world.

## Our Vision

Building upon more than 100 years of excellence, Bakersfield College continues to contribute to the intellectual, cultural, and economic vitality of the communities it serves.<sup>8</sup>

## Bakersfield College Core Values

### Learning



We foster curiosity, inquiry, critical thinking, and creativity within a safe and rigorous academic environment so that we might be empowered to radically transform our community into one that gives voice and power to all people.

### Integrity



We continue to develop and follow an ethical and moral consciousness which places the collective wellbeing and health above the self; this principled environment allows for open, constructive conversations and teaches us to trust each other's vision so that we will be useful and effective in providing support, resources, and encouragement.

### Wellness



We believe health and wellness to be integral and foundational elements, and we understand that a holistic education improves all aspects of the individual and the society including the mind, body, and spirit; through education, we will positively impact the health of the natural environment and the global community.

### Diversity



We insist that diversity be valued and promoted, recognizing that multiple perspectives lead to a better education and knowledge of the world; listening and witnessing different experiences helps us to understand and contextualize power and privilege related to gender, race, class, religion, disability, and sexuality in terms of access and barriers to resources and opportunities.

### Community



We commit to the wellbeing of all members of our community; we maintain strong ties with the surrounding community, and we respond to their needs by serving as an open institution which engages all students, faculty, and staff; in our college, we have built and continue to build an environment in which all members participate as a community through democratic engagement.

### Sustainability



We recognize our responsibility for continuing and maintaining this institution which has been shaped by over 100 years of resolute and tenacious labor and judicious foresight, so we unceasingly place our energies into imagining how we might sustain and renew our fiscal, human, and environmental resources into the future.

**Students first:** We affirm our focus on our students and their success.

**BAKERSFIELD  
COLLEGE**  
1913 – 2013

# Environmental Scan

## ***Bakersfield College and California’s Master Plan for Higher Education***

When California adopted its California Master Plan for Higher Education in 1960, the state addressed the need to provide broad access to an exceptional educational experience for all students. The system, comprised of the University of California, California State University, and California Community College systems, organized access to higher education to meet the increasing demand for college education. Bakersfield College continues the community college tradition of offering education to any high school graduate or adult student who wishes to attend. An emerging trend is developing avenues for high school students to attend Bakersfield College through concurrent or dual enrollment options (see page 13). A shortage of college graduates to meet employer demand and ongoing statewide budget cuts have presented challenges for higher education in the past decade. A 2010 report from the Public Policy Institute of California projects a deficit of “1,000,000 college-educated workers” in the state by 2025 unless California produces more graduates. Bakersfield College and its higher education partners must work to ensure that California educates 21<sup>st</sup> century thinkers and workers to close this gap.<sup>9</sup>

## ***Kern County and The Central Valley***

Bakersfield College, situated in California’s vast and richly textured Kern County, is working to meet the ever-changing needs of a growing population. According to statistics from the California Department of Finance released in April 2014, the city of McFarland, located north of Bakersfield, is the state’s fastest growing community. Bakersfield continues to be on the state’s list of top ten largest cities, with a population of 367,315 as of January 1, 2014. The city posted an annual growth rate of nearly two percent between 2013 and 2014.<sup>10</sup>

According to Bakersfield College’s 2012 Self Evaluation Report of Educational Quality and Institutional Effectiveness<sup>11</sup> and research by the Great Valley Center, the Bakersfield area has experienced extensive job growth as of 2012, with a total of “144,400 available jobs added over an eight-year period.” The college has responded to this growth in jobs by extending areas of Career and Technical Education and community partnerships to increase access to meaningful educational programs. According to Bakersfield College’s 2012 Self Evaluation Report of Educational Quality and Institutional Effectiveness, “If California’s Central Valley were a state, it would be ranked first in the nation in agricultural production.” However, the type of available jobs is shifting as the region adjusts to a loss of farmland and traditional agricultural jobs. “Significant job loss in the agricultural industry has forced many to seek higher education as a means of finding stable employment,” the report states.<sup>12</sup>

The regional economy is also heavily dependent on energy and petroleum industries. Kern County is “the largest oil producing county in the state,” with an estimated 70 percent of California’s oil

<sup>9</sup> Johnson, Hans. *Public Policy Institute of California 2010. Higher Education in California: New Goals for the Master Plan. April 2010. Web. 28 May 2014.*

<sup>10</sup> CA Dept. Finance, Demographic Research Unit. “Tables of January 2014 City Population Ranked by Size, Numeric and Percent Change.” 30 Apr. 2014. Web. 27 May 2014.

<sup>11</sup> <https://www.bakersfieldcollege.edu/accreditation/accreditation-2012>

<sup>12</sup> Bakersfield College. *2012 Self Evaluation Report of Educational Quality and Institutional Effectiveness. 18. 9 Aug. 2012. Web. 27 May 2014.*

reserves, according to the 2012 Kern County Labor Market Study. Energy and natural reserves have played a major role in the county’s economy. In 2010, this sector “contributed \$8.3 trillion (34 percent) to Kern’s private sector gross domestic product,” the study shows. Within the eastern portions of the county, wind energy also is on the rise. Wind energy developments in the Tehachapi Mountains yield about 40% of California’s total wind-generated power.<sup>13</sup>

Private and public sectors, local utilities, major energy users, nonprofits, and educational institutions, including Bakersfield College, are collaborating to make Kern County the largest producer of renewables in the state.<sup>14</sup>

**Regional Industry Sectors**

The Kern Economic Development Corporation cites five major industry sectors that comprise the County’s labor portfolio.

Industry	Total Companies	Total Employees	Fields
Transportation, Logistics & Advanced Manufacturing	60%	25,000	Energy, Agriculture, Distribution Centers
Energy & Natural Resources	20%	20,000	Petroleum, Wind, Solar, Geothermal, Biomass
Value-Added Agriculture	10%	53,000	Processing/Packaging: Almonds, Pistachios, Carrots, Grapes, Cotton, Milk, Potatoes
Healthcare Services	5%	24,500	Hospitals, Nursing Care, Physician's Offices, Laboratories, Mental Health
Aerospace & Defense	5%	20,000	Aerospace, Engineering, Aircraft Manufacturing

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In the Bakersfield-Delano Metropolitan Statistical Area, a few industries are projected to grow faster than others between 2010 and 2020. The California Employment Development Department estimates a booming 43.3% growth in construction jobs, and 36.4% growth in administrative and support, waste management, and remediation services jobs in the same timeline. Professional and business services, including technical services are projected at a 34.5% growth. Mining and logging, oil and gas extraction (27.5% growth); educational services, healthcare, and social assistance (27.1% growth); and transportation, warehousing, and utilities (26.2% growth) complete the list.<sup>16</sup> Specific occupations with the fastest job growth are expected to be: iron and rebar workers, telecommunications line installers and repairers, health and safety engineers, environmental technicians (including health workers), and software developers.<sup>17</sup>

<sup>13</sup> Holsonbake, Cheryl. *CSU Bakersfield & Kern Economic Development Corp. 2012 Kern County Labor Market Study*. 31. Web. 27 May 2014

<sup>14</sup> Kern Economic Development Corp. *Energy & Natural Resources. "Kern County: Energy Capital of the Nation!"* Web. 27 May 2014.

<sup>15</sup> Kern Economic Development Corp. *"Target Industries."* Web. 27 May 2014.

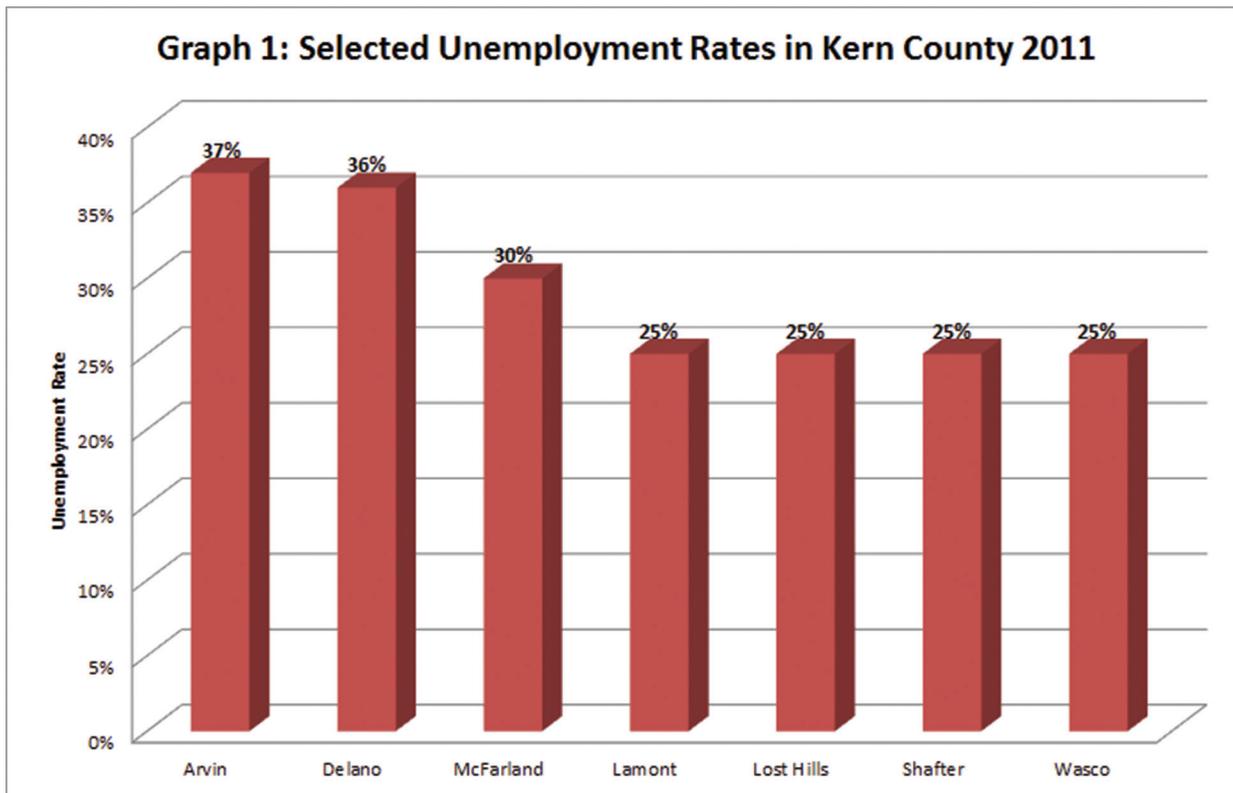
<sup>16</sup> CA Employment Dev. Corp. *Labor Market Information Div. "2010-2020 Industry Employment Projections: Bakersfield-Delano MSA."* 1 Nov. 2012. Web. 29 May 2014.

<sup>17</sup> CA Employment Dev. Corp. *Labor Market Information Div. Kern County Profile. "Employment and Wages: Occupations with Fastest Job Growth 2010-2020."* Web. 29 May 2014.

**Educating the Region**

A better-trained workforce will improve not only the economic health of the Bakersfield region, but also the prosperity of the state of California. Emerging markets for specific crops such as almonds harvested in the Central Valley, which stretches from Redding south to Bakersfield, call for both skilled and semi-skilled workers. According to *Local Harvest*: “increasing demand for California-grown foods holds promise for the state’s economic future, the picture for particular producers is likely to change considerably. Small family farms are being replaced by larger operations that rely on technology to remain competitive. More sophisticated farm operations require a skilled workforce, but questions remain about whether there will be sufficient properly trained workers to satisfy the need.”<sup>18</sup> High under-employment tied to relatively low levels of education attainment is stubbornly undermining the promise for prosperity.

**Graph 1: Selected Unemployment Rates in Kern County 2011**



<sup>18</sup> Klowden, Kevin and Priscilla Hamilton. Milken Institute. *Local Harvest: Developing the Central Valley Workforce for California's Future Agriculture*. Apr. 2014.

**Table 2: Degree Attainment in Bakersfield College’s Service Area Communities**

Location	High School	Bachelor’s Degree or Higher, 25+, 2008-2012
Arvin	36.70%	3.90%
Bakersfield	78.20%	19.90%
Delano	53.10%	6.80%
Lamont	36.40%	2.60%
McFarland	41.80%	4.80%
Shafter	57.00%	6.10%
Taft	67.30%	8.90%
Tehachapi	72.90%	9.10%
Wasco	52.80%	4.20%

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The good news for the region is that unemployment rates for the Bakersfield-Delano Metropolitan Statistical Area have gradually improved from a high of 17.9% in March 2010 to 11.4% in April 2014.<sup>20</sup> Bakersfield College plays a key local role in boosting the educational attainment of residents as they seek a secure future of steady employment.

**Early Start: High School Pathways to College Success**

Bakersfield College is striving to become a more visible community resource for Kern County through offering career and technical education, precollegiate coursework, and transfer programs to residents as early as 9<sup>th</sup> grade. The college endeavors to create a culture of “seamless transitions,” where high school students graduate with a clear vision for their future.<sup>21</sup> The college has invested in building early, positive relationships with the next generation. Bakersfield College’s recently established Outreach and School Relations Program has developed a full schedule of events to aggressively recruit students. The inaugural Panorama Campus event was attended by more than 400 area high school students, students who had been admitted to the college but had not yet enrolled in courses. This is one of many events promoted as “It’s Possible”. Students attending these one-day events are provided comprehensive services, an orientation to college, guidance with financial aid registration, and assistance with creating an Abbreviated Student Educational Plan, their own a set of blueprints for their academic future. The event was inspired by a resolute focus on guiding students early on toward college success. The Outreach and School Relations Program is part of a multi-faceted approach to streamline student access and success that includes:

1. **Bringing assessment/placement testing to the high schools.** This new approach is based on data showing improved performance on these tests in students who are able to take the tests in familiar environments. Comparison of placement test data results from 2013 and

<sup>19</sup> US Census Bureau

<sup>20</sup> CA Employment Dev. Dept. “Historical Civilian Labor Force—Bakersfield-Delano MSA.” 16 May 2014. Web. 29 May 2014.

<sup>21</sup> Christian, Sonya. Phone interview. 6 June 2014.

2014 shows that a larger percentage of students placed into higher levels of math and English when they took tests on their own high school campuses (see Appendix B).

2. ***Training high school counselors to help high school students create Abbreviated Student Educational Plans.*** With their own personal roadmap to success created before they leave high school, students will be better prepared and arrive at Bakersfield College with plans for their academic future.
3. ***Ramping up dual enrollment opportunities at area high schools.*** Dual enrollment allows a high school student to take an approved college course at their high school, and then receive both high school and college credit. Bakersfield College has offered chemistry, English, and business as dual enrollment courses at El Tejon High School, Frazier Mountain High School, and the Kern High School District Regional Occupational Center. An extensive schedule of general education, dual enrollment courses have been offered since 2013 at Delano's Paramount Agriculture Career Academy, a charter school (see page 24). According to the Community College Research Center at Columbia University, over the past five years, dual enrollment students are more likely succeed at a college or university. Bakersfield College's goal is to provide Kern County high school students with an early start on college completion through more dual enrollment options.
4. ***Focusing on collaborative initiatives with local high schools and businesses to create new career pathways for students and a seamless transition from high school to college.*** The grant-funded Paramount Agriculture Career Academy is designed to provide high school students with solid preparation for college and a foundation to pursue careers in agriculture and plant science (see Career and Technical Education section, starting on page 22). Bakersfield College is also collaborating with local high schools and California State University, Bakersfield to improve the preparation of all students for college, in particular, students who are underrepresented in higher education. The California Academic Partnership Program brings together business leaders and academic faculty to focus on expository writing, reading, math, and effective academic support systems such as the high schools' Advancement Via Individual Determination program and Bakersfield College's Habits of Mind.

# Students at a Glance

## Ethnicity

Bakersfield College student ethnicity shows a diverse student population that has grown 11% in the last five years. Latino students represent 67.1% of the fall 2013 first-time students.

**Table 3: Five-Year Changes in Bakersfield College Student Ethnicity**

Race & Ethnicity	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	5-year change
<b>Bakersfield College</b>						<b>% Points</b>
African American	7%	7%	7%	6%	5%	-2
American Indian	1%	1%	1%	0%	1%	0
Asian/ Filipino/ Pac. Isl.	5%	5%	4%	5%	4%	-1
Hispanic/ Latino	51%	53%	55%	58%	62%	11
White	32%	30%	29%	27%	24%	-8
Two or more races	2%	3%	3%	3%	3%	1
Unknown	2%	1%	1%	1%	1%	-1
<b>Total Students</b>	<b>18,690</b>	<b>19,886</b>	<b>18,078</b>	<b>18,101</b>	<b>18,296</b>	

## Cities of Residence

Bakersfield College students are primarily from the city of Bakersfield, and Delano, a predominately Latino rural community 35 miles north of Bakersfield. The majority of Bakersfield College’s Latino student population are of Mexican descent. Students from other smaller rural communities make up the remaining 18% of Bakersfield College’s enrollment. Most of Bakersfield College’s students attend college on the 153 acre Panorama Campus.

**Table 4: Bakersfield College Students’ Cities of Residence**

City of Residence	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
<b>Bakersfield College</b>					
Bakersfield	76%	75%	76%	76%	76%
Delano	6%	7%	7%	7%	7%
Arvin	2%	2%	2%	2%	2%
Tehachapi	2%	2%	2%	2%	2%
Wasco	2%	2%	2%	2%	2%
Lamont	2%	2%	2%	2%	2%
Shafter	2%	1%	1%	1%	2%
Other In-District Service Area	4%	5%	4%	4%	4%
Other Out-of-District Service Are	4%	4%	4%	4%	3%
<b>Total Students</b>	<b>18,690</b>	<b>19,886</b>	<b>18,078</b>	<b>18,101</b>	<b>18,296</b>

### Levels of Education

Bakersfield College students who hold high school diplomas are the overwhelming majority of the college’s enrollment, and the number has increased by 5% over the last five years. Despite their completion of a high school course of study, 84% of Bakersfield College’s first-time students are underprepared, which means they are not ready for college-level English, math, reading, or a combination of these.

**Table 5: Bakersfield College Students’ Level of Education**

Educational Level	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	5-year change
<b>Bakersfield College</b>						<b>% Points</b>
Not HS Grad	2%	3%	2%	2%	1%	-1
Special Admit	1%	1%	0%	0%	1%	0
Enrolled at Adult School	0%	0%	1%	0%	0%	0
Received HS Diploma	79%	80%	82%	81%	84%	5
Passed GED	8%	7%	6%	7%	5%	-3
Received HS Prof.	1%	1%	1%	0%	1%	0
Foreign Secondary School	1%	1%	1%	1%	1%	0
Received AA	5%	4%	4%	5%	4%	-1
Received BA	3%	3%	3%	4%	3%	0
Unknown	0%	0%	0%	0%	0%	0
<b>Total Students</b>	<b>18,690</b>	<b>19,886</b>	<b>18,078</b>	<b>18,101</b>	<b>18,296</b>	

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### Educational Goals

Bakersfield College students are asked to indicate their educational goals when first completing an enrollment form. More than 59% indicate that their goals are to earn a bachelor’s degree either with or without an associate of arts degree, while only 9% indicate a goal to reach an associate of arts or certificate alone. A significant number of students (17%) have goals other than degrees, certificates, or transfer, and an additional 15% indicate that they are undecided. Bakersfield College has plans in place to address the number of students who have identified themselves as “undecided”. Early intervention in the educational process, and the development of either an Abbreviated Student Educational Plan or Comprehensive Student Educational Plan and the strategies employed in the outreach and mentor program called “Making it Happen” are key to student success. Early and intrusive intervention will engage students with college personnel to support their completion of an educational goal.

23 *KCCD Institutional Research and Reporting, Internal Scan, June 2014, p.9.*

**Table 6: Bakersfield College Students' Educational Goals**

Educational Goal	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
<b>Bakersfield College</b>					
Associates degree w/out transfer	4%	3%	2%	2%	5%
BA after completing AA	51%	49%	50%	50%	49%
BA w/out completing AA	8%	8%	7%	7%	10%
Vocational degree/certificate	4%	4%	4%	3%	4%
Other <sup>1</sup>	18%	21%	21%	20%	17%
Undecided	13%	14%	16%	17%	14%
Unknown/ Uncollected	2%	1%	0%	1%	1%
<b>Total Students</b>	<b>18,690</b>	<b>19,886</b>	<b>18,078</b>	<b>18,101</b>	<b>18,296</b>

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<sup>24</sup> *KCCD Institutional Research and Reporting, Internal Scan, June 2014, p. 13.*

# Bakersfield College Degrees and Certificates

The founding of Bakersfield College was tied to the idea of bringing Berkeley to Bakersfield. Bakersfield College has historically been identified as a transfer institution focusing on students completing freshman and sophomore general education requirements, and who then transfer to a four-year university. Bakersfield College's current selection of degrees reflects a new approach to transfer. Recent legislation, the Student Transfer Achievement Reform Act, also known as Senate Bill 1440, mandated California community colleges and the California State University campuses reach agreements on specific transfer pathways or transfer major requirements for students. Bakersfield College now has 17 state-approved transfer pathways, called Associate in Arts for Transfer (AA-T) and Associate in Science for Transfer (AS-T). Students who complete the requirements for these clear transfer pathways at Bakersfield College are guaranteed admission into the California State University system.

Bakersfield College has also expanded its programs to offer more Career and Technical Education pathways, which lead to degrees, certificates, or employment. Career and Technical Education degrees may also lead to transfer, like the new Associate in Science for Transfer degrees in Business Administration and Computer Science. Certificates are short-term programs that provide in-depth study and skill attainment and are likely to lead directly to employment. Whether it is the Child Development Teacher Certificate of Achievement that supports a state required permit to teach in a children's center or a Principles of Fluoroscopy Job Skills Certificate, students who earn a Bakersfield College certificate are prepared to enter the workforce (see Career and Technical Education section, starting on page 22).

Recognizing that 84% of the students who enroll in Bakersfield College are underprepared for collegiate course work has caused Bakersfield College to refocus its efforts to provide support for students inside and outside of the classroom. Supplemental instruction, embedded remediation, and compressed and accelerated courses are part of the redesign of curriculum that increases success and completion and reduces the time to reach college level courses.

Bakersfield College offers 78 degrees (18 are associate degrees for transfer), 40 certificates, and 23 local Job Skills Certificates (see Appendix F and G).

### Student Awards

**Table 7: Bakersfield College Student Awards (2008-2013)**

Awards	2008-09	2009-10	2010-11	2011-12	2012-13	5-year % change
<b>Bakersfield College</b>						
AA/AS	1,039	977	941	889	778	-25%
AA-T/AS-T				4	31	87%
Certificates of Achievement	233	250	169	226	283	21%
Job Skills Certificates	551	485	529	671	736	34%
<b>Total Awards</b>	<b>1,823</b>	<b>1,712</b>	<b>1,639</b>	<b>1,790</b>	<b>1,828</b>	<b>0.3%</b>

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### Top Three Awards

AA/AS degrees:

- Liberal Studies
- Registered Nursing
- Business Administration

Certificates:

- Child Development Assistant Teacher
- Child Development Associate Teacher
- Emergency Medical Technician

### Bakersfield College Enrollment Trends

**Table 8: Bakersfield College Student Enrollment 2011-2013**

	Fall 2011	Fall 2012	Fall 2013
Student Headcount	17,726	17,741	18,154
Enrollment at Census	52,111	50,784	52,752
Sections Offered	1,554	1,588	1,599
FTES (FT Equivalent Students)	5,804	5,943	6,254
Productivity (FTES/FTEF)	17.0	17.7	17.8
Delano FTES	444	455	453
Weill FTES	106	96	110
Online FTES	369	362	378

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Bakersfield College’s student headcount had steadily declined between 2008 and 2011, following a statewide trend of decreasing enrollment for California’s community colleges as a result of severe state budget cuts. California’s Great Recession fueled cutbacks for adjunct faculty, student support, and reduced course offerings. According to the Public Policy Institute of California, staff and course limitations led “to a dramatic reduction in access to the community colleges. Participation rates

<sup>25</sup> KCCD Institutional Research and Reporting, ODS Report, August 2014

<sup>26</sup> KCCD. Fast Facts 2013. Jan. 2014. Web. 8 June 2014.

reached a 20-year low in California” during this time, data show.<sup>27</sup> Since 2011, student enrollment at Bakersfield College has increased slightly but is expected to stabilize during 2014-15.

Bakersfield College Panorama Campus continues to be the major enrollment site of all of the college’s enrollment sites. Online enrollment is second with 14%, and Delano Campus represents the second largest physical enrollment site at 10%.

**Table 9: Bakersfield College Campus Enrollment Changes over the Last Five Years**

Campus	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	5-year change
<b>Bakersfield College</b>						<b>% Points</b>
Bakersfield Main	78%	76%	77%	79%	79%	1
Online	15%	16%	14%	14%	14%	-1
Delano	9%	9%	9%	10%	10%	1
Bakersfield Area	14%	14%	13%	11%	9%	-5
Northwest Extension	1%	3%	4%	4%	3%	2
Weekend Classes	3%	3%	2%	1%	3%	0
Weill Institute	2%	3%	3%	2%	2%	0
Shafter-Westec	4%	4%	3%	3%	2%	-2
Arvin-Lamont	0%	1%	1%	1%	1%	1
Apprenticeship	1%	1%	1%	1%	1%	0
ITV	3%	0%	0%	0%	0%	-3
Stockdale High School	4%	3%	3%	0%	0%	-4
<b>Total Students</b>	<b>18,690</b>	<b>19,886</b>	<b>18,078</b>	<b>18,101</b>	<b>18,296</b>	

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**Table 10: Success and Retention by Course Type**

	2008-09	2009-10	2010-11	2011-12	2012-13	5-year Change % points
Overall Retention Rate (All Courses)	84.2%	84.0%	82.7%	83.2%	85.1%	0.9
Overall Success Rate (All Courses)	65.5%	65.8%	64.3%	66.1%	68.0%	2.5
<b>Success Rates by Course Type</b>						
Online Course Retention	74.7%	75.1%	73.0%	71.4%	75.0%	0.3
Online Course Success	48.7%	50.6%	47.7%	48.3%	52.6%	3.9
Basic Skills Course Retention	80.8%	79.3%	78.9%	79.8%	81.8%	1.0
Basic Skills Course Success	53.6%	50.9%	51.3%	54.8%	57.7%	4.1
CTE Course Retention	88.7%	87.6%	86.8%	86.6%	88.6%	-0.1
CTE Course Success	77.0%	76.0%	75.1%	75.1%	77.4%	0.4

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*Success and Retention by Ethnicity*

Bakersfield College is committed to address inequitable success and retention among our students, such as the disproportionate retention and success rates of African American students. Bakersfield College has developed two strategies addressing this disparity. The African American Mentor

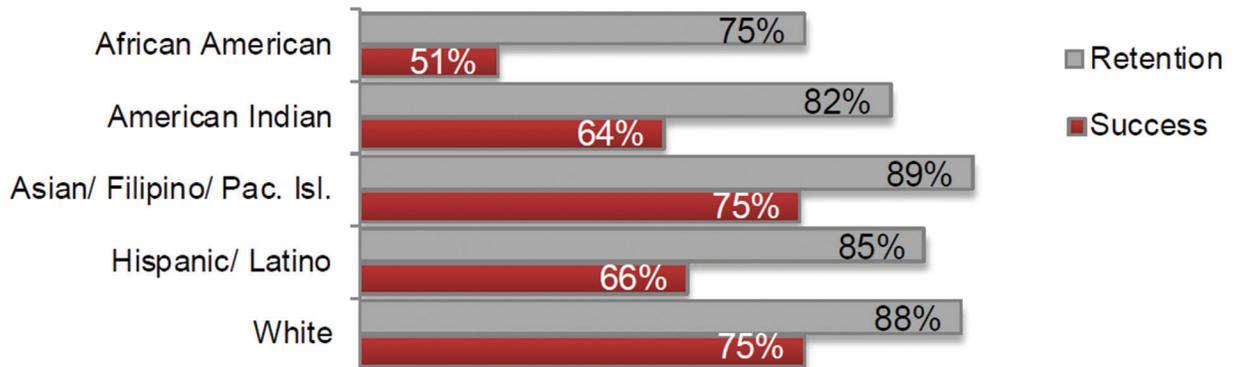
27 Bohn, Sarah, Belinda Reyes and Hans Johnson. *The Impact of Budget Cuts on California’s Community Colleges*. March 2013. Web. 5 June 2014.

28 KCCD Institutional Research and Reporting, Internal Scan, June 2014, p.17.

29 KCCD Institutional Research and Reporting, Internal Scan, June 2014, p.27.

Program and the African American Success Through Excellence and Persistence program have established a structured support system in partnership with the African American community to provide close mentorship and contact with African American students at Bakersfield College.

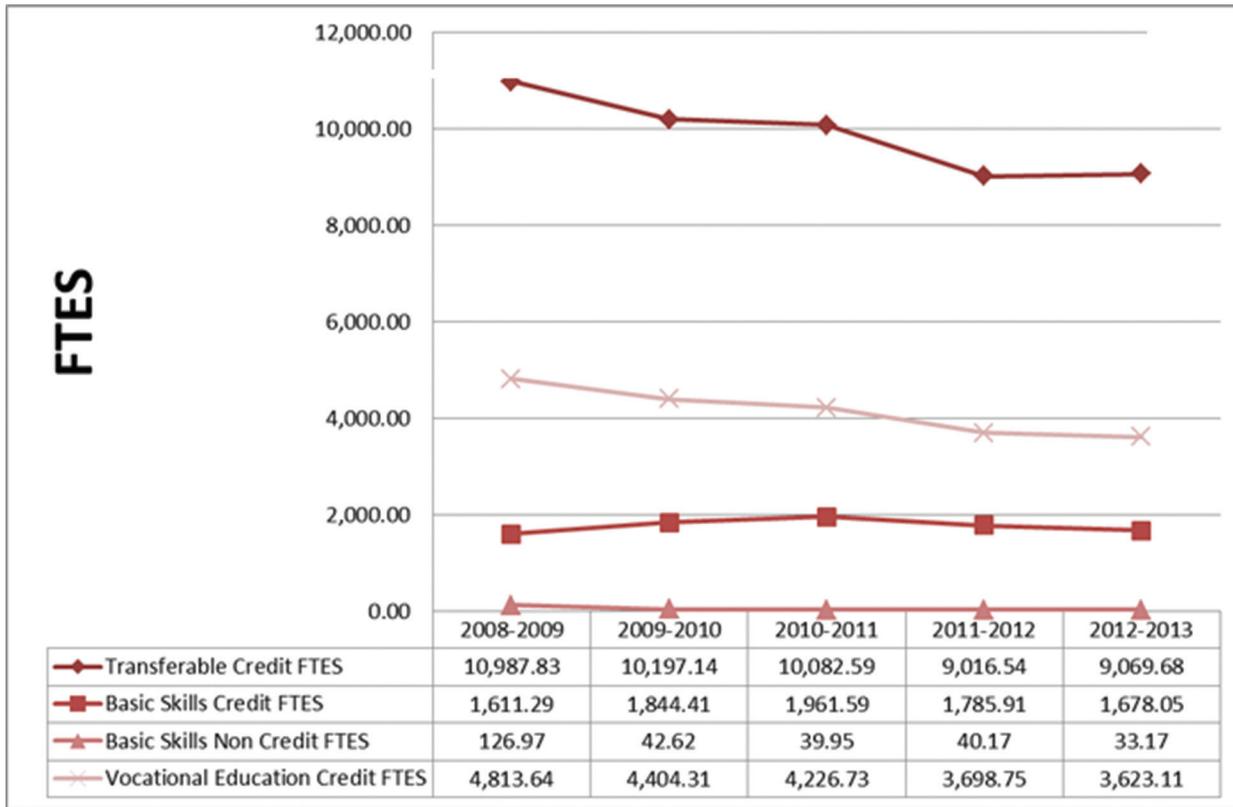
**Graph 2: Bakersfield College 2012-13 Success and Retention by Course Ethnicity**



***Bakersfield College's Enrollment Trends***

Bakersfield College students enroll in one of three main curriculum areas, Career and Technical Education, transfer, and Basic Skills. Enrollments are tracked by the number of Full Time Equivalent Students. The majority of Full Time Equivalent Students is found in the transferable credit area, followed by vocational education credit, then basic skills credit. Approximately 84% of students included in the transferable credits data are underprepared for college and need basic skills instruction in writing, reading, or math. In recognition of the high percentage of underprepared students at the college, supplemental assistance is offered to support students' success. Enrollment trends over the last three years remained steady for Career and Technical Education and Basic Skills in spite of reductions in course offerings due to state budget cuts over the last five years. The majority of the reductions at Bakersfield College were in transfer courses offerings.

Graph 3: FTES Trends in Transfer Credit, Basic Skills, and CTE 2008-2013



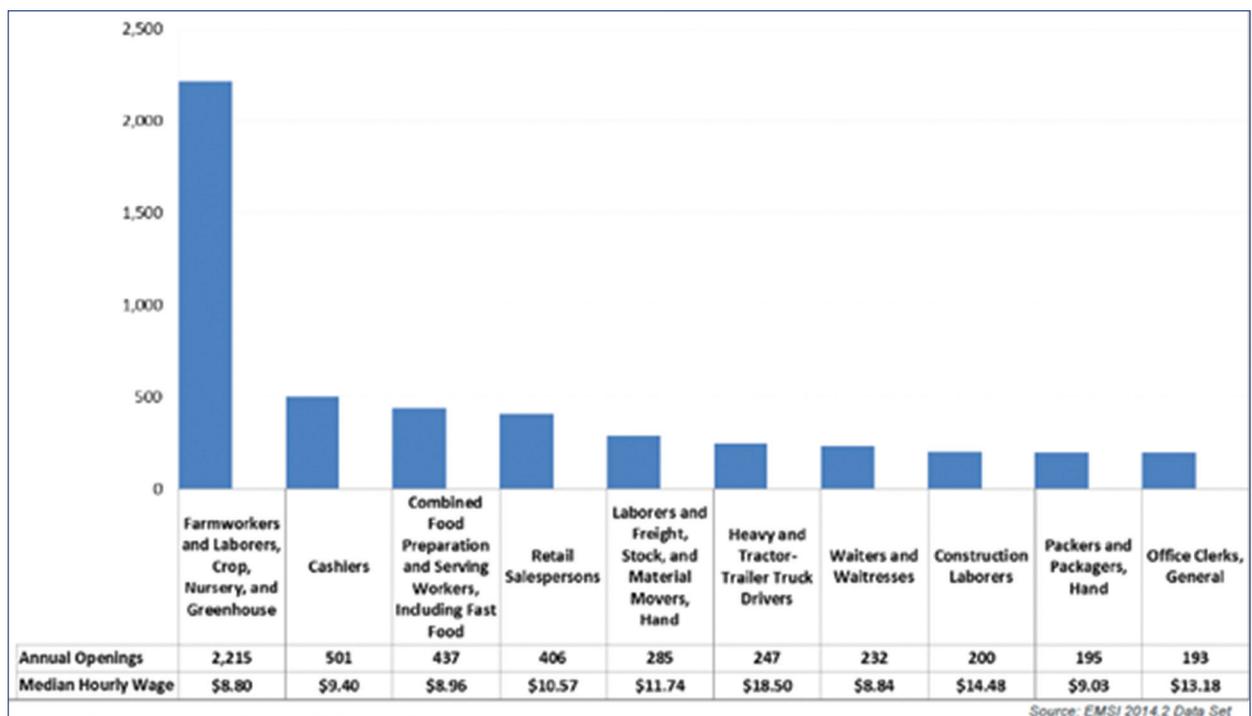
30

30 Fulks, Janet. Data Analysis. "FTES Trends in Transfer Credit, Basic Skills and CTE." 5 June 2014.

# Career and Technical Education Plan

Bakersfield College plays a critical role in connecting students of the southern San Joaquin Valley to a pipeline of highly skilled, in-demand careers through its Career and Technical Education programs. The college works with an array of industry and education partners to identify the most critical areas of workforce demands throughout the greater Bakersfield area and surrounding rural communities. The diversity of Career and Technical Education pathways grows each year, with 19 programs currently available for students to pursue, ranging from the deeply needed regional workforce in agriculture to the expanding fields of industrial technology and healthcare (see Appendix C).

**Graph 4: Top Ten Occupations with the Greatest Number of Job Openings**



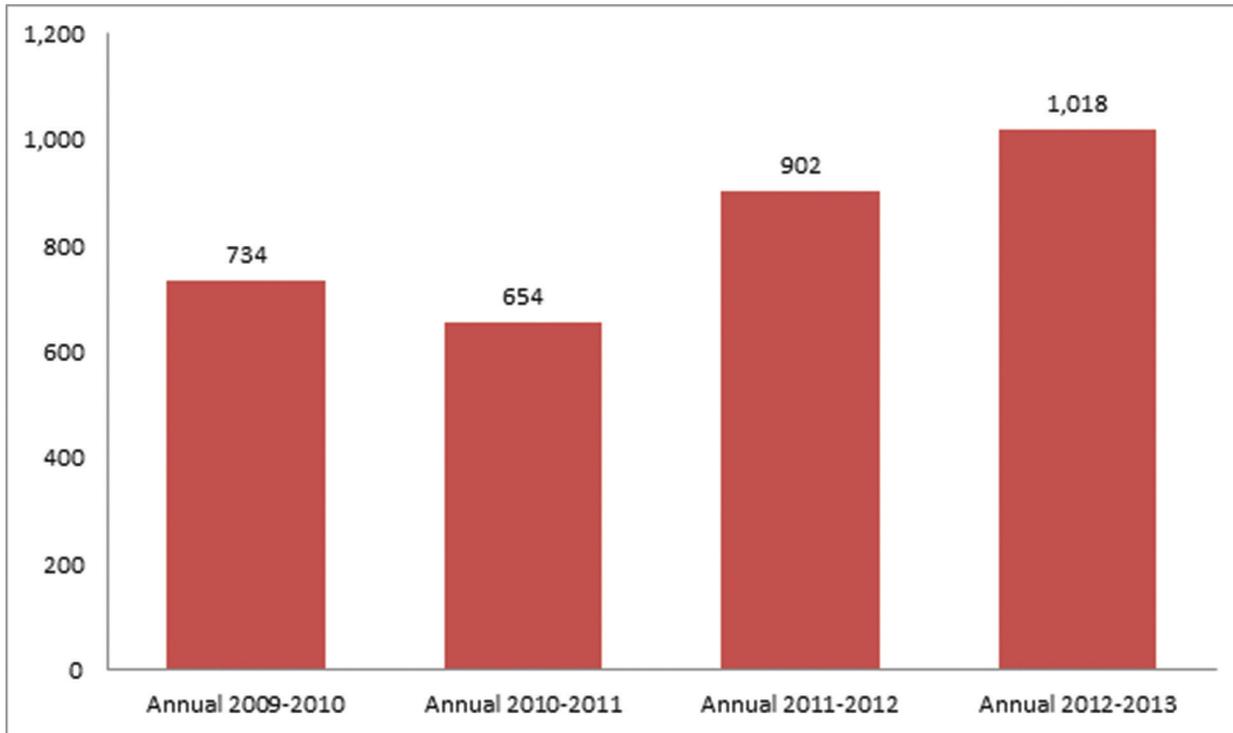
Career and Technical Education programs prepare students for employment in high skill, high demand technical careers in a competitive global economy. Students acquire skills that prepare them for successful career entry, advancement, and/or continuing education. These skills transfer directly from the classroom to the job site and provide them with a foundation for learning throughout their careers. Bakersfield College’s Career and Technical Education programs are organized into six career pathways based on California’s 15 industry sectors. The pathways are:<sup>31</sup>

- *Agriculture & Natural Resources*: Agriculture, Agriculture Business Management, Animal Science, Environmental Horticulture, Forestry, Horticulture, Plant Science, Registered Veterinary Technician
- *Arts, Media & Communication*: Photography, Digital Arts, Journalism

- *Management & Information Technology:* Business Management & Information Technology, Computer Science (formerly Computer Studies), Web Development, Office Assistant, Accounting, Bookkeeping, General Business
- *Engineering & Industrial Technology:* Architecture, Automotive Technology, Construction Technology, Electronics Technology, Engineering Technology, Industrial Technology, Industrial Drawing/CAD, Manufacturing Technology, Welding, Woodworking
- *Health Services and Public & Human Services:* Child Development, Fire Technology, Radiologic Technology, Registered Nursing, Vocational Nursing, Emergency Medical Technician

The overall number of Job Skills Certificates and Certificates of Achievement issued by Bakersfield College has increased substantially for each of the last three years. These certificates are designed as direct pathways to specific careers.

**Graph 5: Number of Certificates Issued 2009-2013**



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**Early Start: Partnerships with High Schools**

Bakersfield College has built a strong foundation in Career and Technical Education and continues to update and develop instructional programs by matching curricula with evolving needs of the local labor market. Bakersfield College is tying these programs to the larger vision of helping students starting in the 9<sup>th</sup> grade so they can gain marketable skills and experience a seamless transition into career pathways and college. This process includes increasing articulation agreements, and dual enrollment opportunities, as well as strengthening other high school partnerships.<sup>33</sup>

32 [ccc.edu Datamart http://datamart.cccc.edu/outcomes/program\\_awards.aspx](http://datamart.cccc.edu/outcomes/program_awards.aspx) August 24, 2014

33 Bakersfield College Exec. VP Nan Gomez-Heitzeberg. Phone Interview. 4 June 2014.

The college has articulation agreements with 39 area high schools in Kern County. Bakersfield College and high school faculty work closely to align learning outcomes in the articulated courses. A student who successfully completes an articulated high school course earns college credit. This creates a seamless transition from high school to a college certificate, or associate or transfer degree without duplicating coursework. Articulation emphasizes a streamlined approach to educating workers for California's 21<sup>st</sup> century labor market.<sup>34</sup>

### **Looking Ahead—Career and Technical Education**

New pathways are continually under review. Potential programs that could meet emerging needs in the petroleum and agriculture industries are drone technology and programs that address the state's pressing drought impact. Also under consideration is the development of a viticulture program, the study of growing grapes to produce wine.<sup>35</sup>

In order to prepare more Kern County residents for employment, Bakersfield College is committed to addressing the pressing need for adult education. Bakersfield College has joined a regional consortium that will assess current services, the unmet need, and the delivery of education to rural areas. This initiative is funded by Assembly Bill 86, with \$25 million to provide two-year planning and implementation grants to regional consortia of community colleges and school districts. The legislation seeks to gather regional plans to better serve the educational needs of adults.<sup>36</sup>

Bakersfield College's Career and Technical Education faculty in agriculture have built on a signature partnership with Paramount Academy, a charter school in Delano, to establish the Paramount Agriculture Career Academy. The Academy is part of a regional collaborative and includes Paramount Academy Charter School, four school districts, three community colleges, six major agriculture production and processing companies, and Paramount Education Programs.<sup>37</sup> Agriculture faculty members have successfully designed the partnership so that high school students have the opportunity to earn college credit for agriculture courses while in high school. The college has developed a cohort of students who will be able to complete four years of high school at either Paramount, McFarland or Wasco Union high schools, and also earn a diploma or a state-approved community college certificate in one of three pathways<sup>38</sup>:

- *Agricultural Business Management (transfer)*: Students will be able to apply principles and technical skills in human resources, purchasing, storing, inspecting, marketing and selling agricultural products.
- *Agricultural Mechanics (non-transfer)*: Students will be able to focus on skills, knowledge and training needed for employment in equipment repair maintenance and assembly.
- *Plant Science (transfer)*: Students will be able apply the theories, principles and practices involved in production and management of food and soil conservation.

These certificates or associate degrees will qualify students for a variety of agriculture industry positions in accounting, general administration, human resources, procurement or supervision.

<sup>34</sup> BC. "Tech Prep, Bakersfield College: From High School to College and Beyond!" Web. 27 May 2014.

<sup>35</sup> Bakersfield College Dean of Instruction. Phone interview. 7 May 2014.

<sup>36</sup> Chancellor's Office, CA Community Colleges. AB 86: Collaborating to Better Serve the Educational Needs of Adults. Web. 27 May 2014.

<sup>37</sup> Grant Application. California Career Pathways Trust Application Narrative. "Paramount Academy Parts 1 & 2." Web. 28 May 2014.

<sup>38</sup> Bakersfield College Dean of Instruction. Phone interview. 7 May 2014.

Paramount Agriculture Career Academy students will learn from and be mentored by employees from local industry partners such as Paramount Citrus, Paramount Farming, Paramount Farms International and Roll Global. The Paramount Agriculture Career Academy summer program began in 2014 with 280 9<sup>th</sup> graders. Over the next five years, the number of students in agriculture pathways is expected to increase to 1,360 students.

Bakersfield College is one of the Paramount Agriculture Career Academy regional partners, along with Reedley and West Hills community colleges, that offers college courses in high school districts. Through this program, students will earn college credit through dual enrollment for both general education and agriculture courses, beginning in the 9<sup>th</sup> grade. Students in the program can earn from 45 to 60 transferable college credits.

These career pathways, along with other Bakersfield College initiatives, strengthen the college's commitment to meeting a growing demand for skilled workers in agriculture automation and advanced technology. Upcoming employment opportunities include positions in manufacturing, packaging, and particularly water systems and controlling water use, according to the 2014 policy report *Local Harvest: Developing the Central Valley Workforce for California's Future Agriculture*.<sup>39</sup>

### ***A Consortium for Better Jobs***

In addition to expanding the various Career and Technical Education programs, Bakersfield College has recognized the need to embed basic skills development within the Career and Technical Education curriculum in the form of contextualized learning. Experiential learning through internships helps students move from certificate or degree completion to the workplace as quickly and effectively as possible. These initiatives are funded by a federal grant to the Central California Community Colleges Committed to Change Consortium, which is comprised of 11 community colleges from the Central Valley Higher Education Consortium. The U.S. Department of Labor and Department of Education grant focuses on two components: the Workforce Initiative and College Readiness. The 2014 Central California Community Colleges Committed to Change Consortium narrative outlines how Bakersfield College faculty and officials have worked to create “accelerated, intensive programs of study so students can earn a degree or credential of value in a reasonable amount of time, enabling them to enter the workforce of critical industries with growing occupational demand.” The project aims to serve 3,069 students.<sup>40</sup>

The geographically large San Joaquin Valley “presents challenges in delivering services to the potential target population of trainees as well as providing a large enough scope of employment opportunities in a given geographic area.”<sup>41</sup> The targeted industries/certificates of the Central California Community Colleges Committed to Change grant are:

- Healthcare
- Agriculture and Manufacturing
- Alternative fuel credentials: State licensing and certifications
- Welding

<sup>39</sup> Klowden, Kevin and Priscilla Hamilton. Milken Institute. *Local Harvest: Developing the Central Valley Workforce for California's Future Agriculture*. April 2014.

<sup>40</sup> C6 Consortium. “C6 Consortium Narrative.” 1, 35. Web. 27 May 2014. [http://c6.whccd.edu/labor/Documents/WHCL-C6-Consortium\\_Narrative\\_Final.pdf](http://c6.whccd.edu/labor/Documents/WHCL-C6-Consortium_Narrative_Final.pdf)

<sup>41</sup> C6 Consortium. “Executive Summary: C6 Dept. of Labor TAACCT Grant.” 2. Web. 27 May 2014.

A key component of the Central California Community Colleges Committed to Change grant is embedded remediation addressing the skill level that has been identified by employers and needed by students.<sup>42</sup> Bakersfield College is working toward integrated program design where “students enroll in a single, coherent program—not unconnected courses.”<sup>43</sup> Research shows that “student outcomes in terms of persistence and completion at community colleges would be significantly enhanced by programming that offers more intentionally designed pathways, reducing the complexity of registration, course selection, and course scheduling and offering the student greater transparency, simplicity, and predictability in this process.”<sup>44</sup>

As of December 2013, 121 students have completed training programs, including the Certified Nurse Assistant cohort, paramedic cohort, Licensed Vocational Nurse to Registered Nurse cohort, Certified Nurse Assistant to Home Health Aide cohort, and welding cohort. The Bakersfield College consortium program reports an enrollment of 355 students to date, with a 94% student retention rate for all programs.<sup>45</sup> Building on the success of the Central California Community Colleges Committed to Change grant, Bakersfield College is participating in a new grant application, which would support new programs in the healthcare, manufacturing, and agriculture industries. In healthcare, under the Allied Health umbrella, Bakersfield College seeks to add four new areas: a Registered Nurse work-study program; a medical assisting program leading to a Certificate of Achievement; a CNA/Home Health Aide/Acute Care Aide program that leads to a Job Skills Certificate; and a central service/supply technician Job Skills Certificate program. Manufacturing faculty plan to develop three new industrial maintenance courses that emphasize troubleshooting and repair. These courses will be paired with existing courses to provide an introduction to electronics, welding, and mechanical systems to complete an Industrial Maintenance Certificate. In agriculture, Bakersfield College intends to develop programs for farm maintenance technicians, natural resources, and food processing “farm to fork” quality control.<sup>46</sup>

### **Measuring Success in Career and Technical Education Programs**

Bakersfield College’s Career and Technical Education programs are supplemented with funds from the Carl D. Perkins Vocational-Technical Education Act. The Carl D. Perkins Vocational-Technical Education Act is a federal program which requires the college to set specific performance targets for core indicators. Bakersfield College tracks Career and Technical Education indicators of Skill Attainment, Completion, Persistence, and Employment, for all students and Participation and Completion rates for females or males in non-traditional occupations. These are in alignment with the college’s strategic focus goals and institutional level outcomes. The California Community College Chancellor’s Office provides detailed data for analysis of all Career and Technical Education programs, based on degree and certificate holders’ wage earnings three years after receiving their awards. This is one way to measure Career and Technical Education program success. Over a period of eight years, 2001-2009, the top five highest wage earnings areas are nursing, machining and machine tools, electrical, sheet metal, and structural metal, and architecture and architectural

<sup>42</sup> C6 Consortium. “C6 MOU.” 24 Mar. 2011. Web. 29 May 2014.

<sup>43</sup> C6 Consortium. “C6 Consortium Narrative. 12. Web. 6 June 2014.

<sup>44</sup> C6 Consortium. “C6 Consortium Narrative. 12-13. Web. 6 June 2014.

<sup>45</sup> BC. *Quarterly Narrative: RED Team and College Lead Progress Report Guideline. Central California Community Colleges Committed to Change. Oct-Dec 2013. Web. 28 May 2014.*

<sup>46</sup> Bakersfield College Dean of Instruction & Bakersfield College Allied Health C6 Program Manager. *Emails. 10 June 2014.*

technology ranging from \$55,000 to \$70,000 a year (see Appendix D).

Bakersfield College has strengthened its Career and Technical Education outreach efforts, career pathway guidance, and hands-on, experiential learning for students. By increasing availability of educational advisors, recruitment efforts have increased in the communities served by Bakersfield College. The number of students placed in the internship program has increased. Career and Technical Education educational advisors visit classrooms to educate students about certificate completion, and work closely with students who are near completion of certificate or degree requirements. The number of certificates has increased since this focused effort began. Although hands-on, experiential learning has always been an integral part of Career and Technical Education programs, Bakersfield College is also partnering with local employers to develop internships. Employers and college staff establish the requirements for workplace internships and employers interview prospective interns. Students are prepared for an internship through a Job Readiness Academy where they receive training about the soft skills of communication, teamwork, customer service, and work ethics. Students are also able to earn college credit through their internship experience. Over 100 internship opportunities have been developed. Bakersfield College, like other California community colleges, also partners with local unions to provide on-the-job-training through an apprenticeship program. The apprenticeship program places students in the field with an experienced journeyman. Selected “Related and Supplemental Instruction”<sup>47</sup> is provided by the employer in the evenings or on weekends. With these strategies, Bakersfield College’s Career and Technical Education students are well prepared to enter the workforce.

Career and Technical Education faculty, advisors, and administrators engage local industry representatives through advisory boards and program events. Programs are kept current through advisory board recommendations about workforce skills, emerging trends, and employment opportunities. In addition, faculty are fully invested in tracking student progress and analyzing trends in order to meet employer needs and meet reporting requirements for grants.

### ***Highlights from Bakersfield College’s Career and Technical Education Programs***

Career and Technical Education Programs are shifting priorities and updating curriculum to better support students in transferring or becoming employable in Kern County.

#### ***Agriculture & Natural Resources Pathway: Agriculture Business Management, Animal Science, Environmental Horticulture, Forestry, Plant Science.***

Bakersfield College’s Agriculture faculty are involved in developing new degrees, outreach efforts, and creating industry partnerships. Agriculture coursework is being revised to align with new Associate Degrees for Transfer criteria. These new transfer degrees will create clear pathways for transfer and make the degrees more achievable (see Transfer Plan section, starting on page 29). Agriculture faculty have built on their strong relationships with high schools and the community to recruit students and develop leadership opportunities across the various agriculture programs. In a new partnership with Roll Global, an international agricultural corporation, Bakersfield College faculty, staff, and administrators designed the first agriculture career summer campus for middle school students. Paramount Agriculture Career Academy is a summer residential program which provides middle school students with hands-on projects to learn about agriculture and related

careers. The Agriculture Department is also taking the lead in organizing the first annual Kern Agriculture Summit, to be held in October 2014. Rep. Kevin McCarthy, Majority Leader of the U.S. House of Representatives, is the chair of the Summit. Karen Ross, Secretary of the California Department of Food and Agriculture, is a keynote speaker.<sup>48</sup> This event will bring together high-level leaders from the Central Valley's largest agriculture companies to focus on emerging issues, such as California's water shortage and Kern County employment needs.

*Engineering & Industrial Technology: Architecture, Automotive Technology, Construction Technology, Electronics Technology, Engineering Technology, Industrial Technology, Manufacturing Technology, Welding, Woodworking.* Bakersfield College's Electronics and Engineering Technology faculty have developed a long range plan to provide technicians for the electronics and engineering fields. Future job skills certificates will include Industrial Automation, Industrial Communications and Industrial Maintenance. Bakersfield College has effectively utilized Carl D. Perkins Vocational-Technical Education Act and Science Technology Engineering and Mathematics grant funds to provide the necessary equipment for automation courses that are inter-disciplinary and incorporate elements of electrical and computer engineering, Computer Integrated Manufacturing, and robotics. Industrial Design faculty have developed a design center to prepare students to fabricate 3-D prototypes using a specialized printer and laser equipment. Students are now able to take a design from idea to product, increasing the skill set they need in industry. Bakersfield College faculty are making sure area high school students have an early start on college by establishing articulation agreements, bringing students on campus for an open house, or building relationships by visiting high schools. The Electronics program has designed an engineering pathway for Project Lead the Way, a Kern High School District program that introduces students to the fields of engineering and electronics. The welding program has expanded over the last five years, with a demonstrated increase of 100% in certificates awarded. This high demand, high wage program connects students with prospective employers. The college has maintained its strong welding program on the Panorama Campus and is now building a welding program on the Delano Campus. Welding and the proposed Industrial Maintenance program in Delano will support the goals of the Rural Communities Initiative, by addressing the high unemployment rates in the area. Construction Technology faculty recently updated curriculum to include sustainability concepts into residential construction courses. This change also reflects the college's value of sustainability. Additional funding is being sought to support this program that prepares students for an identified growth industry in Kern County.

*Health Services and Public & Human Services: Allied Health, Child Development, Fire Technology, Radiologic Technology, Registered Nursing, Vocational Nursing, Emergency Medical Technician*

In the Health Services field, Bakersfield College has established a plan to expand existing programs and develop new programs to meet emerging needs in Kern County. A recently established Home Health Aide program provides short-term training and entry into an employable field. Medical Equipment Preparer and Pharmacy Technician are two other short-term programs are being considered for development. Whether it is providing a short term training or a degree program like Respiratory Therapy, Bakersfield College is responding to the needs of the fast growing health services industry in Kern County. Bakersfield College's Allied Health programs have a long history of securing grants and developing strong partnerships with community hospitals. Nursing faculty who have participated in the Central California Community Colleges Committed to Change grant

are committed to building on the strategies developed in the grant: improving student success, increasing the use of technology to improve instruction and decreasing materials cost through the development of open (free) education resources. Both grants and partnerships will be beneficial in garnering financial support for startup costs and developing new programs to meet employment needs. Bakersfield College's success and retention rates are generally higher than the state averages for Nursing, Allied Health, and Fire Technology.

***Growth Opportunities for Existing Programs***

- Agricultural Business (building the program)
- Agricultural Mechanics (redesigning the program)
- Pest Control Management
- Viticulture
- Water Technology
- Web 2.0

# Transfer Plan

Transfer is one of the three primary functions of the community college mission. Bakersfield College has developed clear transfer pathways for students as a function of curriculum and articulation. Identifying and communicating these pathways is a joint responsibility of Academic Affairs and Student Affairs. The full implementation of Senate Bill 1440, called the Student Transfer Achievement Reform Act, is expected to have a significant impact on the number of students who transfer from California community colleges to the California State University system. This initiative established a state-wide system for approving Transfer Model Curriculum for individual disciplines or majors. Faculty from community colleges and the state universities review and approve the major course requirements that become templates or prescriptive plan students. The Associate of Arts and the Associate of Science transfer degrees are limited to 60 college credits and cannot include additional local college requirements. Templates for the top 25 community colleges majors were initially developed and since then additional Transfer Model Curriculum have followed. The benefit for students who complete the requirements of a transfer degree program, complete the California State University's General Education Breadth or the University of California's Intersegmental General Education Transfer Curriculum requirements, and have a grade point average of at least a 2.0, is that they are guaranteed admissions to a California State University. Upon transfer, their California State University bachelor's degree can have no more than 60 additional units in the major. These new degrees simplify what was once a complex transfer pathway for all students but in particular for first generation students. It is expected that the number of Bakersfield College students transferring to a California State University with a degree will increase as a result of this implementation of the transfer degrees.

Bakersfield College committed to develop 20 Associate Degrees for Transfer degrees by fall of 2014 and to date, the college has received state approval for 19 new transfer degrees. Economics, Early Childhood Education, Elementary Teacher Education, Philosophy, and Chemistry are either waiting state approval or are under development.<sup>49</sup> Additional transfer legislation, SB440, sets guidelines for greater collaboration between community colleges and the California State University system, including specific timelines to develop and approve Associate Degrees for Transfer, and a new type of degree, built around "areas of emphasis" or similar majors. As new Transfer Model Curriculum are approved, Bakersfield College will follow the timelines embedded in the legislation to ensure that the degrees receive state approval within 18 months. Early indicators are that a state approved model curriculum will be developed for high unit majors like engineering and nursing.<sup>50</sup> The Associate Degrees for Transfer degrees provide students with a well-defined transfer pathway, "a blue print for their future".

## ***Transfer Center***

Bakersfield College has a long-established Transfer Center that provides support for students through direct counseling and advising, and numerous informative workshops. To strengthen the college's transfer efforts, the Academic Senate developed six goals as part of a 2010 transfer plan. The goals align with college goals and values and support the increase of transfer students,

<sup>49</sup> Dean of Instruction. *Transfer program updates*. 27 May 2014.

<sup>50</sup> Bakersfield College Executive Vice President and Administration. "Transfer Strategic Plan." Aug. 2013.

collaborative partnerships with transfer institutions, improved services, and revision of policies and process to strengthen and clarify the transfer process and support students who have been historically underrepresented. Progress toward meeting the Senate's established goals:

- Completed 19 state approved Associate Degrees for Transfer by Fall 2014
- Tracking state approved Model Curriculum pathways for high-unit degree disciplines like Engineering, Nursing, Chemistry
- Provided discipline-specific orientations and activities inside and outside of the classroom
- Implemented a new counseling and advising Student Educational Planning model
- Utilized technology to better support the student educational planning process, My Degree Path <sup>51</sup>

Bakersfield College's Student Affairs has focused on the challenges that students, especially first generation students, encounter when enrolling in college. In response, a comprehensive student education plan model has been developed to counsel and advise students. That plan includes: a more intrusive approach to counseling and advising; an extensive career development model; and greater student access to technology. This model plan was designed to better support all students in identifying a career pathway and better inform the development of their educational plans. For example, My Degree Path, an online approach to educational planning, provides students, counselors, and advisors with an accessible degree audit system and student education plan that can be easily updated to remain current.

Maintaining quality programs and clear pathways is a process that starts at the program level and moves through the curriculum review process. In spring 2013, faculty in multiple departments engaged in the serious work of reviewing their curriculum, degree requirements, and pathways to completion. Computer Studies redesigned degree requirements and developed the more focused major of Computer Science that includes a new Associate in Science for Transfer degree and certificates. Agriculture is reviewing curriculum to better align with degree requirements for Associate in Science for Transfer degree pathways. Other disciplines such as Human Services and Fire Technology now have a one-degree pathway.

Bakersfield College also plans to increase the number of students who transfer to both California public and private colleges and universities through collaborations and partnerships. Bakersfield College and California State University, Bakersfield have partnered on several grants to increase the number of students who earn degrees and transfer in the disciplines of Science, Technology, Engineering and Math. Ongoing dialogue between Science, Technology, Engineering and Math discipline faculty and the development of articulation agreements has successfully increased the number of Bakersfield College students transferring to California State University, Bakersfield in the sciences. With the development of the growing California State University, Bakersfield engineering program, students enrolled in Bakersfield College's engineering program have a seamless pathway from Bakersfield College to California State University, Bakersfield. Employment opportunities include well-paying engineering jobs that provide a powerful incentive for students to complete a degree locally.

California State University, Bakersfield guidance and counseling personnel have been assigned to the

<sup>51</sup> Bakersfield College Academic Senate. "Approved Transfer Plan." Feb. 2012.

Panorama Campus and work collaboratively with Bakersfield College’s counseling and advising staff. In addition, Bakersfield College and California State University, Bakersfield have collaborated on a California Office of Statewide Health Planning and Development grant, which supports a California State University, Bakersfield nursing advisor presence on campus for students wishing to transfer to California State University, Bakersfield as Associate Degree in Nursing to Bachelor of Science in Nursing students. This partnership has resulted in an enormous increase in the number of Bakersfield College Associate Degree in Nursing students transferring to California State University, Bakersfield. The Bakersfield College Transfer Center has collaborated with University of Merced, University of California Los Angeles, and private institutions such as Fresno Pacific University and National University to provide workshops on admission, majors and careers, writing admission’s personal statement, general transfer, and transition information. The annual fall Transfer Day Fair brings admissions representatives from California State University and University of California systems, and private in-state and out-of-state colleges and universities on the Panorama Campus. This well attended event provides Bakersfield College students with the most current transfer information and helps to create more transfer options for them.

In 2011-2012, 831 Bakersfield College students transferred to California State University or University of California systems. The top three transfer universities for Bakersfield College are California State University Bakersfield, California State University Fresno, and California State University Northridge. By far, the greatest numbers of students transfer to California State University, Bakersfield. It is expected that with the increased number of Associate Degrees for Transfer, and more clearly defined pathways, more students will earn degrees before transferring.<sup>52</sup>

### ***Access & Equity for Transfer Programs: Science, Technology, Engineering and Math & Beyond***

Responsibility for informing and supporting students about transfer opportunities also reside within academic areas. The Science, Technology, Engineering and Mathematics disciplines provide academic support and counseling to promote transfer options for Science, Technology, Engineering and Math students.

Bakersfield College’s Science, Technology, Engineering and Math initiative, “Turning a Gateway into a Pathway to STEM Degrees for Hispanic and Low-Income Students in the Southern San Joaquin Valley,” sets the stage to help students cross the bridge between remediation and transfer preparation.<sup>53</sup> A college career begins at Bakersfield College and takes students to four-year bachelor’s degree programs by developing pedagogies, enriching learning environments, and providing support services and hands-on classroom resources. As part of the Science, Technology, Engineering and Math grant, Bakersfield College has organized events to bring together Bakersfield College and California State University, Bakersfield students, faculty, and staff from the seven Bakersfield College Science, Technology, Engineering and Math disciplines. This initiative has the capacity to significantly impact the lives of students in the greater Bakersfield area. Bakersfield College serves more than 18,000 students per semester, and of those, 57% are Latino. California State University, Bakersfield serves 6,500 undergraduates, with a 43% Latino population. The initiative has been effective in boosting the overall numbers of students involved in Science,

<sup>52</sup> Bakersfield College Executive Vice President and Administration. “Transfer Strategic Plan.” Aug. 2013.

<sup>53</sup> Bakersfield College STEM Grant. “Annual Program Review, Year 1. Executive Summary.”

Technology, Engineering and Math coursework, as well as the numbers of Latino students. In its first year, Bakersfield College experienced a 28% growth in enrolled Science, Technology, Engineering and Math students and increased Latino students' participation in Science, Technology, Engineering and Math majors.

A generous donation from Aera Energy, LLC, one of California's largest oil and gas producers, will support the development of the new Aera STEM Success Center. This modernized facility will provide a central location where students will receive supplemental instruction, have extended tutoring and advising services, and be able to study in a quiet area. Plans have been developed to track students' use of the Aera STEM Success Center to assess student need and services. Science, Technology, Engineering and Math faculty, counselors, and staff regularly extend their support and time to increase faculty-student interaction, arguably a high need for students at a commuter college.<sup>54</sup> One approach to increasing the number of Science, Technology, Engineering and Math transfers is through the development of new transfer degrees in disciplines such as chemistry.<sup>55</sup>

Auxiliary programs, funded through grants and sponsorships, enhance the learning environment for Science, Technology, Engineering and Math students. Mathematics, Engineering, Science Achievement supports students through ongoing peer support, trips to colleges and universities, and their model orientation program, Week Zero. This signature orientation program provides students with hands-on learning experiences to ignite their interests and motivate them to fully engage them in their Science, Technology, Engineering and Math studies. Last year, Week Zero included a new Biology Film Study project and Automation/Computer Integrated Manufacturing project. These cross discipline activities have increased student engagement. The Science, Technology, Engineering and Math program will continue to support and expand such offerings.<sup>56</sup> A new grant, the A+ Scholarship, provides transferring Science, Technology, Engineering and Math students with scholarships and an opportunity to work with faculty on research projects. All of these efforts play a role in helping students remain engaged and complete their degrees and transfer. Science, Technology, Engineering and Math student activities include colloquia and seminars with guest speakers who are working in Science, Technology, Engineering and Math fields. The Science, Technology, Engineering and Math colloquia also brings together Science, Technology, Engineering and Math students with faculty, encouraging them in exchanging ideas related to Science, Technology, Engineering and Math discipline content.

### ***Baccalaureate Initiative and Pre-Law Pathway***

Bakersfield College faculty and administrators are seeking to establish the college as a pilot site for the baccalaureate degree through Senate Bill 850, Community College District Baccalaureate Degree Pilot Programs. Bakersfield College's proposal of a baccalaureate degree in Applied Science in Industrial Technology, Industrial Automation, or Advanced Manufacturing Automation. There are Industrial Technology degrees or minors at the following public universities: Fresno State, Cal Poly San Luis Obispo, San Francisco State, California State University Los Angeles and San Jose State. Industrial Technology bachelor's degrees generally focus on global issues regarding manufacturing materials and processes, industrial management, quality assurance, applied design processes, facilities

<sup>54</sup> Bakersfield College STEM Grant. "Annual Program Review, Year 2. Executive Summary."

<sup>55</sup> Bakersfield College Dean of Instruction Liz Rozell. Email. 4 June 2014.

<sup>56</sup> Bakersfield College Dean of Instruction Liz Rozell. Email. 4 June 2014.

planning, and other mid-level management operations. Bakersfield College has exemplary facilities and current technologies that would provide a solid technical foundation to all students.

Bakersfield College is one of 24 community colleges that entered into an Memorandum of Understanding to establish a special relationship with six law schools in the Community Colleges Pathway to Law School Initiative. The program, established under the State Bar of California's Council on Access and Fairness, provides a pathway to law school for students whose post-secondary education begins at a community college. Under the program, students may enroll in pre-law coursework at Bakersfield College as early as spring 2015, and enter law school as soon as fall 2018. Pre-law courses, and this pathway, will also be available to Delano Campus students <sup>57</sup>

<sup>57</sup> *Partnership bet. CA community colleges, UC Regents, LMU, Loyola Law School, Santa Clara Univ., USC, Univ. of San Francisco. MOU: Community Colleges Pathway to Law School Initiative. 1 May 2014. Web. 28 May 2014.*

# Pre-Collegiate Plan

In recent years, Bakersfield College has enrolled an ever-increasing number of students who are unprepared for college-level work.<sup>58</sup> The college has noted the growth in this student population through assessment results show more students testing up to four steps below college level work in math and writing. This reality holds true system-wide in all community colleges. Nearly 90% of all incoming community college students arrive unprepared for college-level math, and 75% are not ready for college-level English.<sup>59</sup> Recently, educators at the national and state levels have shifted focus to redesign how basic skills courses are taught to move more students into college-level courses faster, and to increase the number of students enrolled in higher-level courses. Examples of new strategies include: accelerated and compressed courses; contextualized learning; use of multiple measures in the initial placements of students; and use of technology to create alternative learning environments.<sup>60</sup>

Bakersfield College faculty are at the forefront of the important conversations about curriculum redesign, assessment and placement, and compressed and accelerated courses. Faculty leads in English, math, and academic development have joined to develop strategies and start the work of redesigning courses and pedagogy to better support underprepared students. In the summer of 2011, Bakersfield College directed Basic Skills Initiative funding to support research and training to bring about effective change in basic skills curriculum and delivery.<sup>61</sup> Bakersfield College has been especially effective at leveraging grant resources to address the needs of academic development students. Three years ago, Bakersfield College received a Department of Labor and Department of Education grant through Central California Community Colleges Committed to Change consortium. The grant focused on the strategy of contextualized learning, which develops students' foundation skills and improves "their ability to transfer skills from one context to another, think critically and continuously acquire new knowledge and skills."<sup>62</sup> Bakersfield College faculty members have applied these strategies in Career and Technical Education programs like Allied Health and Industrial Technology (see Career and Technical Education section, starting page 22). Bakersfield College continues to deepen and institutionalize these processes, through implementation of the Achieving The Dream initiative and a proposal for a Title V grant. Bakersfield College is leveraging federal and state resources to make its programs truly accessible and relevant to its largely underprepared student population. Based on the data from the Basic Skills Cohort Tracking Tool and the Bakersfield College goal of student success, Academic Development faculty began redesigning lower level pre-collegiate courses in summer 2011. This redesign was directly linked to Bakersfield College's Strategic Initiative of Student Learning—a commitment to eliminate achievement gaps. An important element in this process was the research about current best practices at other institutions. Faculty visited institutions in Tennessee and throughout California to study effective approaches. They used this knowledge to design high tech/high touch lower level courses in reading,

<sup>58</sup> CA Community Colleges. *Student Success Initiative. Unprepared students are defined as those whose lowest course attempted in math and/or English was remedial level.* Web. 30 May 2014.

<sup>59</sup> CA Little Hoover Commission. *Serving Students, Serving CA: Updating the CA Community Colleges to Meet Evolving Demands.* "Executive Summary." ii. Feb. 2012. Web. 8 June 2014.

<sup>60</sup> Christian, Sonya. *Phone interview.* 31 May 2014.

<sup>61</sup> BC. *2012-2013 ESL/Basic Skills Allocation End-of-Year Report.* 5-7. 2013. Web. 28 May 2014.

<sup>62</sup> Chancellor's Office, CA Community Colleges. *Contextualized Teaching & Learning: A Faculty Primer.* 5. Spring 2009. Web. 1 June 2014.

writing, and mathematics. These courses were initially introduced as learning communities in fall 2012. Both anecdotal and qualitative data were used to compare results from previous semesters and to determine the effectiveness of the new courses. Using a sustainable quality improvement approach, courses were revised and are being reassessed. Bakersfield College's English faculty also developed the first pilots of both accelerated and compressed courses in 2011. Based upon national acceleration research, these courses are designed to provide the same level of instruction necessary to allow students to meet the traditional course student learning outcomes, but in a shorter amount of time—decreasing stopping-out points and increasing student retention and success. Department faculty became strong advocates in the Central Valley for acceleration, with Bakersfield College faculty providing professional development opportunities to faculty from neighboring institutions and in other disciplines. Bakersfield College offers accelerated courses in English and Academic Development, and compressed courses in learning communities in the disciplines of English, Academic Development, and English as a Second Language. Compressed courses in mathematics have recently been piloted. Basic skills students now have a basic skills pathway that provides for faster progression to college level coursework.

A host of initiatives aims to welcome students into a community of learning, fortified with streamlined educational paths and clearly attainable outcomes. These initiatives bring both student services and instructional staff to work in collaborative teams on these goals. Bakersfield College is revitalizing and strengthening its Summer Bridge programs to bring underprepared students onto campus before the semester begins to provide orientation to the college setting and clarify academic expectations. Overall, the pre-collegiate plan is a data-driven approach to supporting students who need the most intensive support to achieve success.

Bakersfield College success rates<sup>63</sup> are vastly different for underprepared versus prepared students. The success rate for unprepared students was 34.8% in 2012-13, compared to 67.2% for prepared students.<sup>64</sup> The next table breaks down success rates by ethnicity for students earning degrees or certificates, transferring or being transfer ready. The outcomes shown measure students' ability to complete a degree, certificate, transfer, or obtain transfer-ready status within six years.

<sup>63</sup> CA Community Colleges. *Student Success Scorecard success outcomes are defined as the success in completing a certificate, degree, transfer or transfer-ready status.*

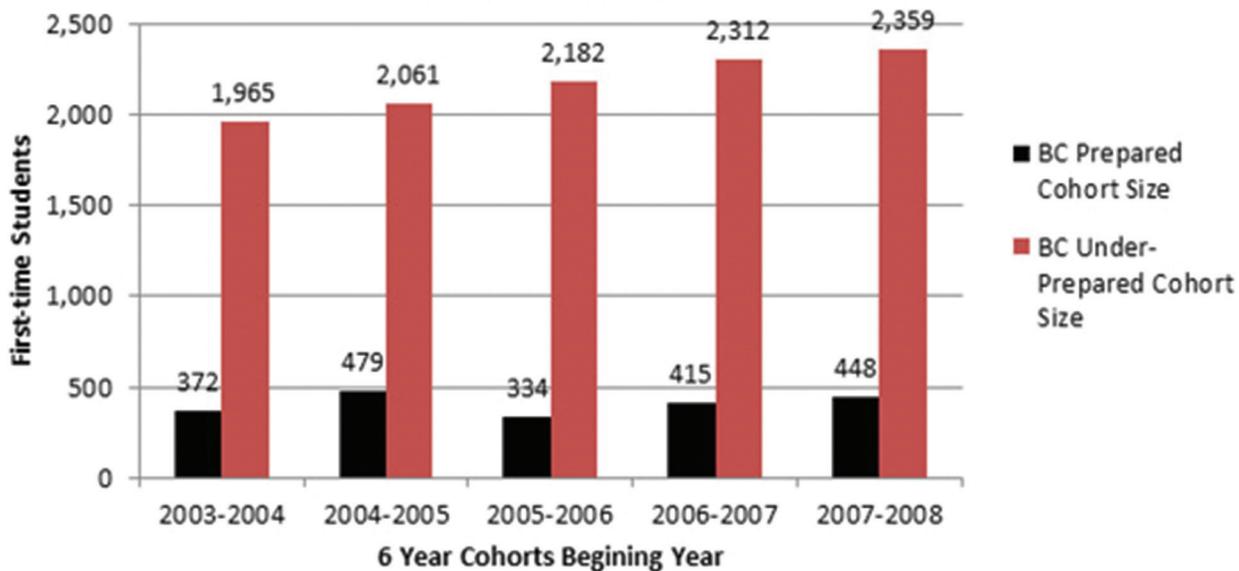
<sup>64</sup> Bakersfield College work group. *Precollegiate Success, Placement Testing, Multiple Measures and Predictive Analytics at Bakersfield College 2014.* 22 Apr. 2014.

**Table 11: Bakersfield College Placement Changes 2009-2013**

Incoming Student Placement	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	5-year change
<b>Bakersfield College</b>						<b>% Points</b>
<b>English</b>						
Remedial	69%	67%	68%	63%	64%	-5
Transfer	31%	33%	32%	37%	36%	5
Total Students Assessed	4,201	4,093	3,363	3,402	3,465	
<b>Math</b>						
Remedial	66%	68%	74%	74%	71%	5
Degree-Applicable	15%	14%	12%	12%	13%	-2
Transfer	19%	18%	14%	14%	16%	-3
Total Students Assessed	4,314	4,187	3,515	3,668	3,869	
<b>Reading</b>						
Remedial Needed	38%	38%	39%	37%	35%	-3
No Remediation	62%	62%	61%	63%	65%	3
Total Students Assessed	4,051	3,914	3,248	3,217	3,285	

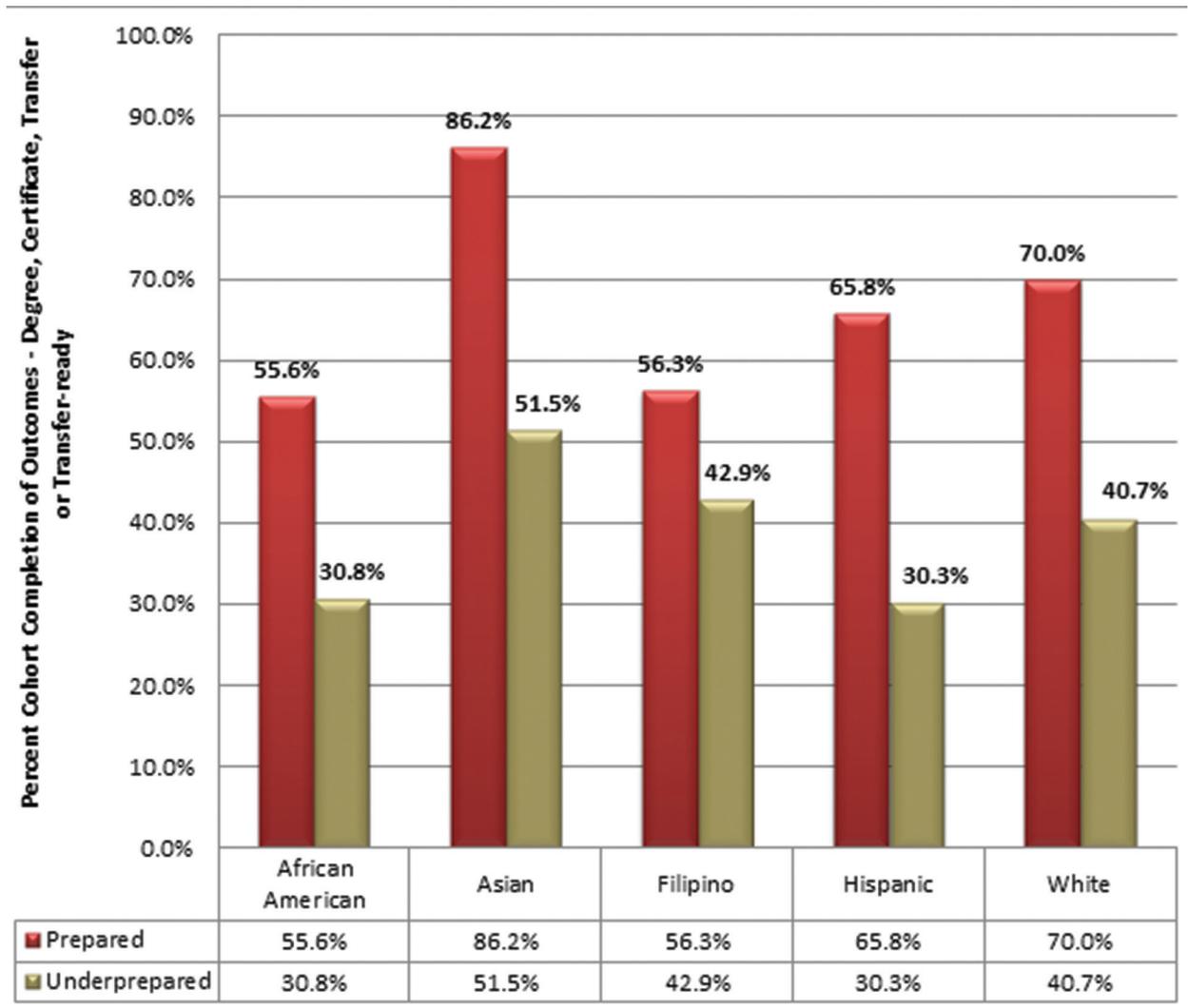
65

**Graph 6: Bakersfield College Number of Unprepared Students Compared to College-Prepared Students**



65 KCCD Institutional Research and Reporting, Internal Scan, June 2014, p.11.

**Table 11: Bakersfield College Placement Changes 2009-2013**



66

*Accelerated and Compressed Courses:* Initial results from accelerated courses show strong promise. English success rates in the traditional two semester course progression are 30% and with the accelerated one semester course 50.1%. Academic Development success rates in the traditional two semester sequence is 32% compared with a 48.6% in a one semester accelerated courses. Mathematics offered the first compressed options to students in spring 2014, and Academic Development developed curriculum to move the compressed mathematics community to an accelerated single course.

Data for the compressed course format also shows promise. Bakersfield College has offered compressed courses in English, academic development and math. Bakersfield College’s “Writing Express” offers two semesters in the writing sequence in condensed format in one semester, allowing students to move from one level below transfer through the transfer course in one semester. Retention rates in the traditional two semester approach is 82% and in the compressed one

semester sequence 91% and 84% for the higher level course. The success rates in the two semester sequence are 58% and 63% for the higher level course. Success rates in the traditional sequence are 58% and 63% compared to 72% and 77% for the higher course in the compressed sequence.

Format of Courses	Course Name	Retention	Success
Compressed	ENG B50	91%	72%
	ENG B1A	84%	77%
Traditional*	English B50	82%	58%
	English B1A	82%	63%

\*Traditional data includes results from compressed courses

Data from the California Community Colleges Chancellor's Office show that of the 498 students who began English 50 in fall 2012, 292 succeeded and only 145 then enrolled in an English 1A course in spring 2013. This demonstrates the favorable result that students are less likely to "stop out," or temporarily leave the college, when they are enrolled in a compressed sequence of English courses.<sup>67</sup>

### **Academic Support for Pre-Collegiate Students**

*Bakersfield College's Remediation/Retest:* Students who start their pathway at the lowest levels of writing, reading, and math are the least likely to succeed. This has been the impetus to develop a new remediation/retest option. A new testing policy was developed that allows students to re-take a placement test if they believe they were placed too low. In order to qualify for a re-test, students use the support provided by the Student Success Lab to remediate their skills and possibly test at a higher level.

*Bakersfield College's Critical Academic Skills Workshops:* Critical Academic Skills workshops, originally stand-alone workshops, have expanded to include contextualized skills taught within a course or as a supplement to a course. Survey results show 98% of students in traditional Critical Academic Skills workshops reported they used the skill in their courses. In contextualized workshops, 100% of welding students and 91% of culinary arts students stated they used the skills in their courses.

*Bakersfield College's Writing Center:* The Writing Center provides assistance to students in all disciplines. Professional, degreed writing consultants work one-on-one with students. This writing support service has grown significantly in the past two years. Writing consultants completed almost 2,700 appointments with students in the last year. Ninety percent of the surveyed students rated their appointment as excellent.

*Bakersfield College's Habits of Mind:* Habits of Mind is a proactive support program designed to help students develop and sustain foundational habits for academic success and productive lives. The Habits of Mind program was started in summer 2013 with a group of faculty, administrators, and Student Government Association officers. This group researched scholarly articles, revisited Bakersfield College's Community College Survey of Student Engagement and First Generation Study data, and the efforts at other community colleges. The group developed It's Possible at Bakersfield College: P=Persist, O=Organize, S=Strive for excellence, S=Stay Involved, B=Be

focused, L=Learn for Life, E=Emphasize Integrity.

A comprehensive approach to marketing, and educating the campus community about the initiative has been implemented. Professional development events for faculty leaders and first-time faculty were incorporated this year. Habits of Mind has been integrated into the ‘Making It Happen’ pilot project that is the college’s model for student success. Through this model, Habits of Mind intervention strategies will be tested in the classroom and assessed.<sup>68</sup>

Technology has played a key role in Habits of Mind. An extensive webpage has been developed with videos for students use, and classroom strategies and resources for faculty. The first Bakersfield College mobile application was developed for Habits of Mind.

*Supplemental Instruction:* Pre-collegiate students are an academically at-risk group. Bakersfield College’s supplemental instruction project was developed to better support them. Faculty recommend former, successful students to provide support outside of the classroom for the accelerated and compressed courses. These student peers have successfully completed the course, attend the current semester course, and receive specialized training. In assessing supplemental education, a correlation was found between the number of supplemental instruction sessions attended and student success. Of the students who attended sessions four or more times, 94% passed the course compared to 62% of students who did not attend. Data from the 2013 Bakersfield College Student Success Scorecard also revealed that there have been slight increases in success rates for English, math, and English as a Second Language. English and math are still below state average, but Bakersfield College did not experience significant downward trends during this time of great change in coursework.<sup>69</sup>

In spring 2013, 117 students participated in supplemental instruction sessions. Data show that students who came six times or more experienced an average Grade Point Average for their course that was 6% higher than students who came 3-5 times. Additionally, average Grade Point Averages of those students who came six times or more were a significant 12% higher than their counterparts who only participated 1-2 times or did not participate at all.<sup>70</sup>

### ***A Big Tent for Equitable Student Success—Hispanic Serving Institution***

Bakersfield College’s pre-collegiate priority is closing the achievement gap for underprepared students. The college has put in place several initiatives to narrow the gap. These efforts tie into a new Bakersfield College Title V grant proposal, “Making it Possible—A Big Tent for Equitable Student Success.” The proposal outlines how Bakersfield College aims to more fully integrate student services and instruction, support faculty development and curriculum redesign, create more seamless and contextualized pathways for students, improve and document student academic achievement, and nurture faculty and staff sensitivity to ethnic and learning style diversity.<sup>71</sup>

Bakersfield College is committed to access and success for all students through a variety of approaches, including early start and outreach, strengthening partnerships with high schools,

68 Bakersfield College Dean of Instruction. “Re: Master Plan.” Message to editor. 28 May 2014. E-mail.

69 BC. 2012-2013 ESL/Basic Skills Allocation End-of-Year Report. 5-7. 2013. Web. 28 May 2014.

70 Bakersfield College Dean of Instruction. Email to editor. 10 June 2014.

71 BC. Title V Part A Project Narrative. V2. 1. 2 May 2014.

redesigning curriculum, and establishing easy to follow pathways. These plans include:

- Creating outreach events to welcome high school students to campus and sharing data with local high school principals.
- Providing Expository Reading and Writing courses to high school seniors in preparation for college-level writing.
- Training high school counselors about transfer, certificate and degree programs, SEPs and discussing assessments.
- Collaborating with California State University, Bakersfield’s California Student Opportunity and Access Program to engage low-income and rural students early in high school through college orientation, registration and beyond.
- Collaborating with area high schools, colleges, and California State University, Bakersfield through the California Academic Partnership Program designed to identify strengths and deficiencies at the high school and college levels, and bring discipline faculty together to effect change.
- Piloting alternative basic skills formats, such as accelerated courses in pre-collegiate English and mathematics, combining curriculum, and moving students through two course levels in one semester, among other measures.
- Supporting Mathematics, Engineering, Science Achievement and Science, Technology, Engineering and Math students with intensive services including counseling and tutoring.
- Offering a seamless pathway from Bakersfield College to California State University, Bakersfield, to locally produce more degree-holding engineers.

A Bakersfield College Title V team began working in February 2014 to address ways to infuse a new college culture of evidence and data to inform change that will result in student success. Data show that the success rates of Latino students at Bakersfield College are lower than those of other students. Closing this “equity gap” requires data-informed decision-making.<sup>72</sup> The following five-year, big-picture goals inform this work:

- develop a “holistic” basic skills pathway for underprepared students
- significantly increase underprepared student learning and success rates while closing the equity gap
- significantly increase Bakersfield College’s overall six-year completion rate by addressing the needs of underprepared students.<sup>73</sup>

<sup>72</sup> BC. Title V Part A Project Narrative. V2. 2 May 2014. Table—“Five-year plan for improving services to Hispanic and other low-income students.”

<sup>73</sup> BC. Title V Part A Project Narrative. V2. 57. 2 May 2014.

Summary of Hispanic Success Data Among Five Similar Community Colleges within the Valley					
	Bakersfield College	College of the Sequoias	Merced Comm. College	Modesto Junior College	Comment
Percent of Hispanic Students	53.9%	55.3%	48.2%	37.2%	In this Hispanic serving region, more Hispanic students come to Bakersfield College and COS than comparable colleges.
Successful Completion SPAR of College Prepared Hispanic Students	69.1%	69.3%	63.3%	57.1%	More prepared Hispanic students are successful at Bakersfield College than at other nearby college of same size.
Successful Completion by Under-prepared Hispanic Students	35.5%	33.0%	28.7%	34.5%	More underprepared Hispanic students are successful.
Percent of Successful Transfer that were Hispanic Students	37.0%	33.0%	31.0%	28.0%	Bakersfield College transferred a higher percent of Hispanic students to four-year colleges.
Number of Hispanic Transfer Students	280	187	118	174	This translates into a large number of Hispanic student transfers to help bridge the equity gap in degree completion

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### ***Bakersfield College’s Achieving the Dream***

Bakersfield College began participating in Achieving the Dream in 2013, working as part of a vast network of colleges and universities that aims to close achievement gaps and accelerate student success nationwide. Achieving the Dream principles align with college Strategic Focus goals and are integrated into the fabric of the college.

The college’s Achieving the Dream priorities are:

1. Improved matriculation rates among First Time in This College students.
2. Accurate placement of students into higher levels of math and English.<sup>75</sup>

The Achieving the Dream National Reform Network leverages four overarching approaches and strategies to accomplish its outcomes:

- *Guiding Evidence-Based Institutional Change:* Working directly with community colleges, offering support that includes leadership and data coaching, technical assistance, and peer learning experiences.
- *Influencing Policy Reform:* Helping state leaders create powerful reform agendas, provide technical assistance, and create peer learning opportunities to establish an environment that supports community college student success and completion.
- *Generating & Sharing Knowledge:* In service to educators and the community college sector at large, conducting and making available original research on success strategies and meaningful metrics.
- *Engaging the Community:* With the nation’s most comprehensive network of community college reformers, establishing a common understanding of the barriers to student success and

<sup>74</sup> Fulks, Janet. Analysis. Scorecard. "Datamart." CA Community Colleges Chancellor’s Office. 2013.ource is the 2013 CCCCO Score\_Scorecard.aspx

<sup>75</sup> Bakersfield College ATD Implementation Team. Implementation Plan Template: Achieving the Dream. 5-7. 22 May 2014.

forged commitments to a shared success agenda.<sup>76</sup>

The college is reviewing these strategies to address the large percentage of underprepared students and their impact on overall success rates. Pre-collegiate students fail math, English, and English as a Second Language at high rates: between 2010 and 2013, failure rates in basic skills math ranged from 28-67%; in English from 18-43%, and in English as a Second Language from 19-43%. Latino students are at particular risk for failure. During this time frame, the failure rate among Latino students in their first math course at Bakersfield College was about 56%.<sup>77</sup> Key findings have emerged through the Achieving the Dream framework that guide Bakersfield College's approach to serving unprepared students.

- Students should take four years of math and four years of English in high school, or they will most likely be stuck in a prolonged basic skills series of courses.
- Students should be able to take the college placement test at the high schools as this appears to be significantly more correlated with their work on the transcripts. This also results in higher scores and better assessment of student's actual abilities and knowledge.
- Students should be prepped by the high schools before taking the test (practice sessions).
- By applying multiple measures to student placement, Bakersfield College can positively affect many Science, Technology, Engineering and Math students, placing them into college level math, making them eligible to begin Science, Technology, Engineering and Math courses earlier. This conclusion was based on the course-taking patterns in high school transcripts where students had successfully completed biology, chemistry, physics, and high-level math courses.
- Multiple measures are likely to increase high-level outcomes as acceleration and higher placement of students into a more successful group (e.g. academically prepared students achieve at a rate of 68-70%, while underprepared students achieve at a rate of 34-39%).
- Accelerated courses appear to have a higher success rate and provide great opportunities for those students assessed at basic skills levels but are responsive to college-level coursework.
- Correcting the testing problems alone has a great potential to increase terminal outcomes measured in the California Community Colleges Chancellor's Office Student Progress and Achievement Report.
- Bakersfield College is currently re-engineering placement processes and looking into automating the process, based on predictive values of student data.
- Bakersfield College will collect data from the process to ensure adequate numbers of sections of courses through enrollment management.
- This process allows for strategic placement of students into summer school.
- The process for summer school registration should be different from the fall because the priority registration regulations are not applicable to summer coursework.

The goal is to allow motivated students an opportunity to remediate basic skills needs before starting the fall semester. This overall approach also helps direct students to bridge programs, like Academic Development, and specialized student support services such as Educational Opportunity Programs and Services, African American Male Mentoring Program, Mathematics Engineering Science

<sup>76</sup> *Achieving the Dream, Inc. "Our Approach: Four overarching approaches to close achievement gaps." Web. 1 June 2014.*

<sup>77</sup> *ATD Implementation Plan authors. Implementation Plan Template. "Appendix A: Institutional data on student success." 35. 22 May 2014.*

Achievement, and Science, Technology, Engineering and Math.<sup>78</sup>

***Making it Happen: Testing the Premise for the Future***

Bakersfield College is testing interventions for student success through a longitudinal pilot program which began summer 2014 with 454 students from the California Student Opportunity and Access Program. The college is focused on improving completion and graduation rates by helping students make full use of point-of-entry and matriculation services, with ongoing student services. These services include:

- Orientation
- Assessment and placement
- Educational planning
- Intentional, proactive, and timely advising with counseling center staff and mentors.

By the end of the spring 2015 semester, each of the 454 students will have completed a Student Educational Plan and the entire matriculation process. Progress and completion data will be compared to a control group. Future cohorts will be added to this longitudinal program and closely monitored.<sup>79</sup> Bakersfield College is committed to ensuring alignment with the Achieving the Dream priorities of improving student matriculation rates, and accurately placing basic skills students in courses with appropriate progression through coursework using proven measures such as accelerated curricula.

<sup>78</sup> Bakersfield College Work Group. *Pre-collegiate Success, Placement Testing, Multiple Measures and Predictive Analytics at Bakersfield College 2014*. 10. 22 Apr. 2014.

<sup>79</sup> Bakersfield College ATD Implementation Team authors. *Implementation Plan Template*. 22 May 2014.

# Rural Communities Initiative

*“We cannot seek achievement for ourselves and forget about progress and prosperity for our community...Our ambitions must be broad enough to include the aspirations and needs of others, for their sakes and for our own.” ~Cesar Chavez*

The Central Valley of California is an area rich in history and resources. The fertile soil, flat land, and ideal growing climate have enticed immigrants from across the country and the world to the area, and it has made this part of California the supermarket for the rest of the country; as of 2012, “a third of all produce grown in the United States” is grown here.<sup>80</sup> In addition to feeding the nation, the valley is also a significant oil producer: in 2009, California was the third largest oil-producing state, with Kern County producing about 75% of the total. From John Steinbeck’s *Grapes of Wrath* to Cesar Chavez’ grape boycott, the valley has inspired artists and activists, and while a few large cities dot the highways stretching north and south, the bulk of the towns have maintained a distinctly rural culture, unlike much of the rest of the state.

Unfortunately, the abundance that the Central Valley shares with the rest of the United States has not been returned. Bakersfield to Delano, along with Fresno and Modesto, are “among the top five U.S. regions with the highest percentage of residents living in poverty”.<sup>81</sup> Along with the rest of the country, California’s economy suffered during the recession, and the vulnerability of much of the Central Valley’s population became painfully apparent. Both northern and southern Kern County rural communities have extremely high poverty rates:

- Delano 31.3%
- McFarland 34.9%
- Wasco 28.4%
- Arvin 36.3%
- Lamont 29.7%<sup>82</sup>

While the overall unemployment in Kern County, which includes Bakersfield and surrounding areas, has dropped from its high of 17.8% in March 2010, it has not gone back to its low of 7.5% at the height of the housing boom.<sup>83</sup> In January 2014, the unemployment rate for Kern County was 12.3%, up from 2013’s 11.8% average.<sup>84</sup> When the unemployment rates for the surrounding rural areas are separated out, a bleaker picture emerges:

- Delano 32.7%
- McFarland 27%
- Wasco 24.1%
- Arvin 33.9%
- Lamont 23.3%<sup>85</sup>

<sup>80</sup> Bittman, Mark. “Everyone Eats There.” *The New York Times Magazine*. *The New York Times*. 10 Oct. 2012. Web. 15 May 2014.

<sup>81</sup> “Census Shows Central Valley Areas among Poorest in Nation.” *San Jose Mercury News*. *San Jose Mercury News*. 21 Sept. 2012. Web. 15 May 2014.

<sup>82</sup> United States Census Bureau. “State & County Quick Facts.” Web. 15 May 2014.

<sup>83</sup> State of California Employment Development Department. “LMI for Kern County California.” Web. 15 May 2014.

<sup>84</sup> State of California Employment Development Department. “LMI for Kern County California.” Web. 15 May 2014.

<sup>85</sup> State of California Employment Development Department. “LMI for Kern County California.” Web. 15 May 2014.

One major reason for the high poverty and unemployment rate is a lack of employment opportunities due in large part to the perception that most of the population lacks the skills that would attract new businesses. State data shows that careers are present and in need of workers, such as home health aides, operating engineers, and software developers; however, some kind of education or training beyond a high school diploma is needed.<sup>86</sup> The same is true for careers that are projected to be in demand: corrections officers and quality control managers. Unfortunately, many of the people living in these communities lack formal education. In the northern Kern cities, between nearly 50% of all people over 25 have a high school diploma; only 6% have a bachelor's degree or higher. In Arvin and Lamont in the south, only around 36% of people over 25 have a high school diploma, and as few as 4% have a bachelor's degree or higher.<sup>87</sup> Adding to the areas' troubles are college costs and "brain drain": "Students who want to get a college degree face many barriers... Those who do graduate leave to find jobs elsewhere".<sup>88</sup>

Latinos, predominantly of Mexican descent, make up the majority of these students, as the rural communities of Kern County are overwhelmingly Latino, with a low in Delano of 71.5% and a high in Lamont of 94.5%.<sup>89</sup> By 2013, "one out of every two youths under the age of 18 in California [was] Latino" and by 2050 they will be the majority in California.<sup>90</sup> While 39% of Whites have earned a bachelor's degree or higher, only 11% of Latinos have done the same.<sup>91</sup> Even more disturbing, "In 2012, 37.7% of Latinos had not completed high school, compared to 9.7% of African Americans," the next lowest completion rate measured.<sup>92</sup> This lack of education can translate to reduced employment opportunities and increased poverty. Educational and economic inequity will persist if these numbers do not change, and the result for California and Kern County will be tragic.

These numbers present a painful reality of the poverty facing rural communities, but they also present an opportunity for transformation. Bakersfield College can play an important role in changing the lives of area residents. These communities have rich histories of community involvement, and the college can tap into that passion to build strong alliances and promote equity for those who are being left out of the current economic system. A clear vision and a solid plan are the first steps toward addressing the rural communities' challenges.

### ***Defining Rural Communities for Bakersfield College***

While official federal resources do not agree on all aspects of the definition of rural, they do agree that these communities must have a population below 2,500 residents. As the economics, job opportunities, and educational attainment rates must also be considered, Bakersfield College has defined the following communities as rural for the purposes of the Bakersfield College Educational Master Plan 2014-2017:

- Delano
- McFarland

<sup>86</sup> State of California Employment Development Department. "LMI for Kern County California." Web. 15 May 2014.

<sup>87</sup> United States Census Bureau. "State & County Quick Facts." Web. 15 May 2014.

<sup>88</sup> "Census Shows Central Valley Areas among Poorest in Nation." *San Jose Mercury News*. San Jose Mercury News. 21 Sept. 2012. Web. 15 May 2014.

<sup>89</sup> United States Census Bureau. "State & County Quick Facts." Web. 15 May 2014.

<sup>90</sup> The Campaign for College Opportunity. "The State of Latinos In Higher Education in California." Nov. 2013. Web. 20 May 2014.

<sup>91</sup> IBID.

<sup>92</sup> PPIC: Public Policy Institute of California. "California Stats—Educational Attainment." PPIC. n.d. Web. 20 May 2014.

- Wasco
- Arvin
- Lamont

### ***Creating a College-Going Culture: Bakersfield College in Rural High Schools***

Bakersfield College wants to improve the lives of students in its rural communities, and one way the college is attempting to do this is by increasing involvement in the high schools. A number of programs and partnerships are underway to help more students see college as a viable option for a better future.

In order to help students in the Arvin and Lamont area gain a sense of college culture, Bakersfield College is working with Arvin High School and Building Healthy Communities South Kern to identify and address the needs of those students. For the 2013-14 school year, Bakersfield College provided a part-time counselor at the high school who shares information about college opportunities and assists with educational planning. This counselor also gives presentations about Bakersfield College in the community, including local service organizations, other schools, and local apartment community meetings. Additionally, Bakersfield College is committed to offering enough courses at Arvin High School that college-ready students will be able to complete the requirements for a Liberal Arts degree within 2-3 years.

Because including families is vital to developing a college culture in these tight-knit communities, in fall 2013 this same group hosted a Parent College Night at Arvin High School that included information for family members about Bakersfield College, California State University, and University of California programs. The successful event drew more than 300 participants, and a fall 2014 Parent College Night is already planned. Bakersfield College's own data has shown that there are specific resources that rural communities are missing out on. For example, very few students complete a student education plan, so more student development courses and new student workshops are going to be offered to assist students with this process. Not surprisingly, finances are most commonly reported as the main roadblock for families who would like to send their children to college, yet information about financial aid is difficult to access for this population. As a result, Bakersfield College has a part-time financial aid advisor who assisted students and their families with financial aid paperwork; dates have been developed for follow-up meetings to keep communication with the families going.

Bakersfield College is working with the Delano Joint Union High School District to implement the "Get Focused . . . Stay Focused" initiative. Students are given the information and direction they need to develop a long-term goal called the "10-year Career & Education Plan".<sup>93</sup> The details of the project will be modified to meet the specific needs of Delano students, and at Bakersfield College, work has been done on a curriculum that will allow participating high school students to get college credit. Once the program is piloted in Delano, it can be offered to other rural high schools as an option.

Also under consideration is an Early College High School Program through Robert F. Kennedy

<sup>93</sup> *Get Focused . . . Stay Focused! Web. 15 May 2014.*

High School. The school is located next door to the Bakersfield College Delano Campus, and shares some facilities. In addition to Robert F. Kennedy High School, the Delano Joint Union High School District has proposed something similar in the nearby rural community of Earlimart, home to another underserved and impoverished population. Early College follows the model of dual enrollment, allowing high school students to earn college credit and use college services, such as academic support, financial aid, and career counseling. Bakersfield College has piloted dual enrollment courses in Delano at the Paramount Academy. Through this effort, high school students who participate in a college-level experience, and the idea of college as a possibility, could begin to become embedded into the culture of the community. Other early start approaches include establishing and maintaining articulation agreements with rural high schools. Currently, articulation agreements are in place with Arvin, Shafter, and Wasco high schools, and four schools in Delano (Robert F. Kennedy High School, Caesar Chavez High School, Delano High School, and the Delano Adult School). The focus of these articulation agreements is on Career and Technical Education.

Bakersfield College's research shows that students do better on placement tests when they take the tests on their own high school campus. Last year, Arvin High School was the first location chosen to pilot on site assessment testing. With the shift to a web-based assessment test, providing assessment testing in rural high schools has become accessible.

Students who complete education plans and have access to an informed counselor or advisor are much more likely to successfully navigate the sometimes confusing community college system. Bakersfield College's new Student Success and Support Plan (see page 54) ensures that all students, regardless of their location, will have access to counseling and advising services. Establishing regular and consistent counseling and advising services for rural communities is the key to building a college going culture.

As with any new project, challenges and needs become apparent. This Rural Community Initiative ensures that the overall college planning processes will include those students who are location bound and unable to come to the Panorama Campus. Facilities and staffing plans for rural communities have been included in resource planning.

### ***Moving Beyond Bakersfield College: Transfer Degrees and Pre-Law***

Bakersfield College's new Associate Degrees for Transfer provide a perfect opportunity for the Delano Campus to develop clear pathways, and further, the opportunity to create a schedule that allows students to complete their entire degree on campus is a possibility. Long term plans for new degrees are in place for Business Administration, Computer Science, and possibly Engineering. Bakersfield College's Introductory Engineering course will be taught at the Delano Campus for the first time in 2014-2015, with the ultimate goal to bring the full series of Science, Technology, Engineering and Math courses to rural communities.

In an effort to increase diversity in the legal profession, the State Bar of California and the California Community Colleges have joined together in creating an initiative to "put talented and promising community college students on a trajectory to enter some of the finest law schools in

the nation and receive the support they need to succeed . . .”<sup>94</sup> Students in the Community Colleges Pathway to Law School initiative will have their coursework accepted at participating law schools, will receive advising from the law schools and preparation for the Law School Admission Test, among other benefits. Bakersfield College is one of the 24 campuses selected to participate, and the Delano Campus will have access to this program of study.

In order for these ambitious plans are to be successful, resources will be allocated to the Delano Campus and rural communities. More students looking to transfer means that more counseling and advising will be needed to help students choose schools, or find work or internships that could help them supplement their studies. Although these students may leave the area, career counselors could help them connect with local mentors who may be able to show the students opportunities in their hometown that they could participate in after they graduate, thus bringing their education and experience back to their own communities.

### ***Creating Opportunities: Workforce Training Programs***

The mission of the California Community Colleges places them in a unique position; unlike their four-year counterparts, community colleges are required to offer training for California residents to improve their skills for employment. Given the high rate of poverty and unemployment, and the low rate of education in Kern County rural communities, Bakersfield College has the opportunity to play a vital role in creating economic equity in the region with its numerous options for creating and expanding Career and Technical Education programs.

*Agriculture:* Agriculture will continue to be a major industry in California, even as the industry must adapt to changes in the environment and consumer demands. Currently, Bakersfield College is partnering with Paramount Academy in Delano to create an agriculture pathway that will result in students being able to leave the school with an Associate of Science degree in Agricultural Mechanics and Agriculture Business (see Career and Technical Education Plan section, starting page 22). There is some local demand for an Agricultural Industrial Certification, and this program would be ideal in Delano. The campus has 20 acres close by that is available for program expansion. Partnerships with surrounding farmers could result in development of new programs, donations of equipment and space, as well as opportunities for internships and employment.

*Allied Health Programs:* As the population in the United States ages, and medical advances continue, demand for various health industry careers will continue to rise. Bakersfield College has been working to expand its allied health offerings to rural communities and also to create new curriculum for additional career opportunities. The Allied Health department is currently developing curriculum for a certificate for Medical Assistant Front Office and is also researching the costs to bring Phlebotomy training to Delano, at the Adult School. The Adult School is no longer able to offer a popular Pharmacy Technician program. This is another program that Allied Health is reviewing. Another local adult school, the McFarland Learning Center, will begin offering Certified Nurse Assistant with Home Health Component courses that are part of Allied Health’s career pathway. Clinical placement is a serious challenge for all Allied Health program, regardless of location. The North Kern Medical Training Advisement Group, a group of medical professionals, is willing to

<sup>94</sup> California Community Colleges Chancellor’s Office. “California Community College Students to Get Leg Up on Way to Top Lay Schools Under First of its Kind Pathway Program.” 1 May 2014. Web 15 May 2014.

advise on any of the proposed North Kern medical training plans.

*Automotive:* Bakersfield College currently offers eight certifications in automotive, and these certifications are among the most requested in the North Kern area. Local business is interested in assisting Bakersfield College in development of a program to serve the needs of area. Space and equipment will be required, but with the help of interested business leaders and the Delano Joint Union High School District, this program could be a possibility in the next 3-5 years.

*Corrections:* California's overcrowded prisons have been making national headlines for years, and recent legal decisions are resulting in increased demand for correctional officers. California has to reduce over-crowding of inmates, and one of the ways they will do this is by transferring inmates to local correctional custody facilities. Delano, Shafter, and McFarland currently operate (or have reopened) correctional custody facilities which traditionally employ people from out of area because the local community lacks training. In addition, the state predicts a need for 7,000 replacement correctional officers over the next three years.<sup>95</sup> Westside Energy Services Training, a local non-profit training center and partner of Bakersfield College, has developed and maintained a correctional officers training program at its facilities near Shafter. It is certified by the Department of Corrections-Corrections Standards Authority. Delano Campus partnered with Westside Energy Services Training to offer an introductory core course and firearms safety course were taught in summer 2014. These courses are expensive for low-income students. Enrollment in the courses will be evaluated in order to determine the demand for the entire series of correctional officer courses in Delano.

*Green Energy:* For years, Kern County has been working with wind, solar, and utilities companies to bring green technology—and the jobs that go with them—to the area. The county's goal has been to develop enough wind and solar fields to generate 4,000 megawatts of electricity<sup>96</sup>. The Kern Community College District has already been working on the Green Builders Program, with some classes taught in Delano.<sup>97</sup> Demand for this kind of work will continue to grow and the district already has a program and the necessary equipment, allowing expansion of the program to Delano.

*Industrial Maintenance:* Bakersfield College is planning the implementation of an Industrial Maintenance program to support northern Kern County communities. The planned growth will establish programs that meet industry needs. The program design specifically targets the job knowledge and skills needed to support hiring in the field of industrial maintenance. The first step to implementing the program was to establish a welding program in Delano. The welding program is a key component to the Industrial Maintenance program foundation. Bakersfield College added a Delano Campus industrial arts faculty member to facilitate the growth of Career and Technical Education programs in northern Kern County. The new Bakersfield College Industrial Maintenance program will facilitate program planning and includes Industrial Technology faculty, and a soon-to-be-hired Career and Technical Education Educational Advisor. The U.S. Department of Labor has a Trade Adjustment Assistance Program to increase attainment of certificates, degrees, and other

95 Simas, Dana. "CDCR to Hire Approximately 7,000 Correctional Officers." *Insider CDCR News*. CDCR. 3 Dec. 2013. Web. 20 May 2014.

96 Kern Economic Development Corporation. 2014 Kern County Economic Forecast. "<http://kedc.com/wp-content/uploads/2013/12/2014-Kern-County-Economic-Forecast.pdf>" Web. 30 October 2014

97 Kern Community College District. "General Obligation Bonds, Election of 2002, Series 2013 C, and Series 2013 Refunding Bonds Rating Presentation." Caldwell Flores Winters, Inc. 5 June 2013. Web. 20 May 2014.

industry-recognized credentials to better prepare workers for employment in high wage, high skill occupations. The Industrial Maintenance program will include a foundational Industrial Maintenance Certificate program. The certificate program will include:

- ELET B1 Basic Electronics (4)
- WELD B1B Welding Processes (2)
- ELET B70 Mechanical Systems (3)
- MFGT B1ab Machine Tool Processes (3) [Existing Job Skills Certificate]
- New ELET B80 Industrial Maintenance 1 (Basics of PLCs/Motors/Instrumentation) (2.5)
- New ELET B81 Industrial Maintenance 2 (Basics of Motors/Instrumentation) (2.5)
- New ELET B82 Industrial Maintenance 3 (Repair and Troubleshooting) (4)

*Oil Industry:* Oil has been a major industry in Kern County for over 100 years, and in 2009, Occidental Petroleum announced their discovery of a reserve holding up to 250 million barrels.<sup>98</sup> This find could result in the need for the establishment of 200 additional oil rigs to support extraction services. Westside Energy Services Training also provides the required safety training and ‘passport’ that companies require. Plans to determine the viability of providing this training in the Delano area will be investigated.

### ***Moving Beyond Certificates: Opportunities and Needs***

Bakersfield College is in the process of designing career pathways that not only provide students the immediate training they want and need, but can leave them in a position to pursue their education further should they decide to do so. A number of certificates will include classes needed for a two-year degree or the recently established Associate Degrees for Transfer, which allow for easy transfer to a four-year school. Bakersfield College is also attempting to position itself as one of a handful of two-year colleges that can offer a baccalaureate degree in specific Career and Technical Education areas. All of these changes can be of tremendous benefit to the rural communities the college serves. For Career and Technical Education programs, job placement is a must, and close ties with community business leaders can help if they can be created and maintained.

### ***Adult Education***

In California, adult education is meant to serve those community members who are over 25 and who lack basic skills for employment. Some of these skills have been traditionally taught at Bakersfield College, some have been handled by the adult schools, and others have been covered by both. Recent legislation, Assembly Bill 86, has mandated that community colleges work with local adult schools to better accomplish this task in order to provide more economic opportunities for California’s most vulnerable populations. Because the Kern Community College District covers such a large geographic area, there are multiple groups working on adult education needs in rural communities. In the southern part of Kern County, Bakersfield College is working with the Kern High School District and Bakersfield Adult School, and in the northern part of Kern County, Bakersfield College is working with Wasco Independent School, Delano Adult School, and McFarland Learning Center. The proposal outlining how these various consortia will work is still in the planning process; once it is complete, it will detail how adult education will be handled in these communities. The goals are to evaluate current needs and programs for adult education in the

<sup>98</sup> “Occidental Petroleum Announces Significant California Oil and Gas Discovery.” Oxy Newsroom. Occidental Petroleum Corporation. 22 July 2009. Web. 20 May 2014.

region, and then develop plans to address those needs.

The North Kern Adult Education Alliance was recently established to address adult education program needs in northern Kern County. This alliance links the North Kern high school districts (Delano, Wasco, and McFarland) and Bakersfield College. Its goal is to provide an adult education system that provides the academic and career skills needed to prepare local community members for post-secondary education and/or employment. The group identifies problems, develops solutions, and implements the education and training required to address the needs of the local adult population. The North Kern Adult Education Alliance is committed to regular communication and planning in order to promote student education and training that can lead to higher education or employment.

Bakersfield College recently entered into an agreement with the Farmworker Institute for Education and Leadership Development, which is a non-profit educational organization that provides English as a Second Language classes to the large population of Kern County adults whose primary language is Spanish. The organization is known statewide for serving adult populations in rural areas through non-credit and credit English as a Second Language courses. By partnering with the Farmworker Institute for Education and Leadership Development, Bakersfield College will be able to reach an underserved population and provide them access to college level courses.

### ***Making It All Work: Student Services and Personnel***

The new Student Success and Support Plan mandates support for all students and also presents a challenge. Given the distance between these communities and the complexities of various programs. Student success staff or coordinators will be needed to provide outreach, academic support and development of programs and services. Outreach, testing in the high schools, tutoring, and other academic support services are all part of the network that will increase college access and success in rural communities.

Student engagement, whether through the student worker program, peer mentoring, or student leadership, has to be built into the Student Success and Support Plan. Part of creating a college-going culture involves cultivating future leaders. A comprehensive plan for student life is critical for rural students.

Faculty who work at the Delano Campus or teach at another rural location have similar but different experiences from those who teach online or on the Panorama Campus. As the Delano Campus grows, an all-area chair could fill the role of faculty/program advocate in Bakersfield College operational or governance committees. As the Rural Communities Initiative is implemented, a staffing plan and appropriate resources will be needed.

### ***Conclusion***

Bakersfield College's plan for the rural communities is to inspire community members to better understand their higher education options, and improve their lives. The challenge is great, but Bakersfield College is committed to creating a more equitable system for those who are facing the barriers of poverty and a lack of education.

# Facilities Plan

## *Building the Future*

Bakersfield College's Facilities Master Plan provides an important blueprint for how student services can be delivered in the long-term to maximize student success, particularly for first-generation college students. Under the plan, student support services and basic skills instruction will eventually be consolidated into the same general area of the Panorama Campus. This will help students enroll in key courses and receive crucial services like tutoring, counseling, supplemental instruction and the Writing Center, all in one general place. The hub would include the library, business office, campus center and future Basic Skills Center within a proposed new Student Services Welcome Center. The area also would include a new bookstore, and buildings for the culinary arts, conference center, administration offices, and college archives center.<sup>99</sup>

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<sup>99</sup> Bakersfield College proposed updates to long-range Facilities Master Plan. College Council. 7 Feb. 2014. Web. 1 June 2014.

# Student Support & Equity

Bakersfield College's values are undergirded by an affirmation to focus on students and their success. Bakersfield College supports and facilitates student learning and success by providing a wide array of support services and special programs that are responsive to the needs of the college's diverse student population. Working in collaboration with classroom faculty, the college's student affairs personnel provide high-quality counseling, financial aid, and supportive educational support services. The team is committed to developing innovative and flexible strategies to accommodate those students who are underprepared, and who frequently lack the resources for the post-secondary education. These efforts will necessitate data-informed, technological, and diverse approaches.

The college is focused on developing and implementing research-based initiatives that lead to student success. These include:

- Providing an abbreviated Student Education Plan to all entering students.
- Facilitating, promoting and increasing student success (students making progress toward and reaching their declared education goal).
- Provide orientation, assessment, counseling, advising, and other education planning.
- Implementing predictive analytics to ascribe focused supportive structures for those students most at need of services.
- Outreach, preparation, and developmental services that work in conjunction with a robust strategic enrollment plan to maximize effective educational services to our communities.
- Ensuring a focused effort on reducing the achievement gap.
- Providing follow-up services, especially to students identified as at-risk (students enrolled in basic skills courses, students who have not identified an education goal and course of study, or students on academic or progress probation).

# Technology Plan to Support Pedagogy

Bakersfield College uses instructional technology through online, hybrid, and real time broadcast of courses, as well as video content to make education accessible to students. A longstanding history of instructional technology faltered in the last decade due to state budget cuts that severely diminished the existing distance learning program. Course sections were reduced, and the educational services department that provided support for students and faculty was eliminated. In the last year, Bakersfield College has used restored resources to reestablish 21<sup>st</sup> century technology as a strategic priority.

The new Bakersfield College Technology Plan for 2014-17 addresses an updated student communications system for student success, infrastructure development, effective faculty and staff professional development, and distance and online learning. Student success is a primary driver for many of the technology initiatives and the student success theme runs throughout the technology plan. Bakersfield College prides itself in providing innovative and leading technology to prepare students for the workforce or further education. Technologies such as 3D printing, simulation mannequins in the nursing skills labs, computer-assisted drawing, and electronics labs provide students with hands-on opportunities and real-world experience.

Bring Your Own Device is also a focus of the technology plan, which balances user functionality and security. A key infrastructure goal is to provide complete wireless coverage on the Bakersfield College campuses so that students can utilize their mobile devices in a way that ensures student success. The Delano Campus has 100% wireless coverage, and the Panorama Campus has more than 65% wireless coverage with the goal of 100% wireless coverage. Technology infrastructure is constantly being improved to provide more, and faster, wireless coverage. At any given time during a semester, there are between 6,000 and 8,000 wireless connected devices. Bakersfield College expects this number to continue its rise.

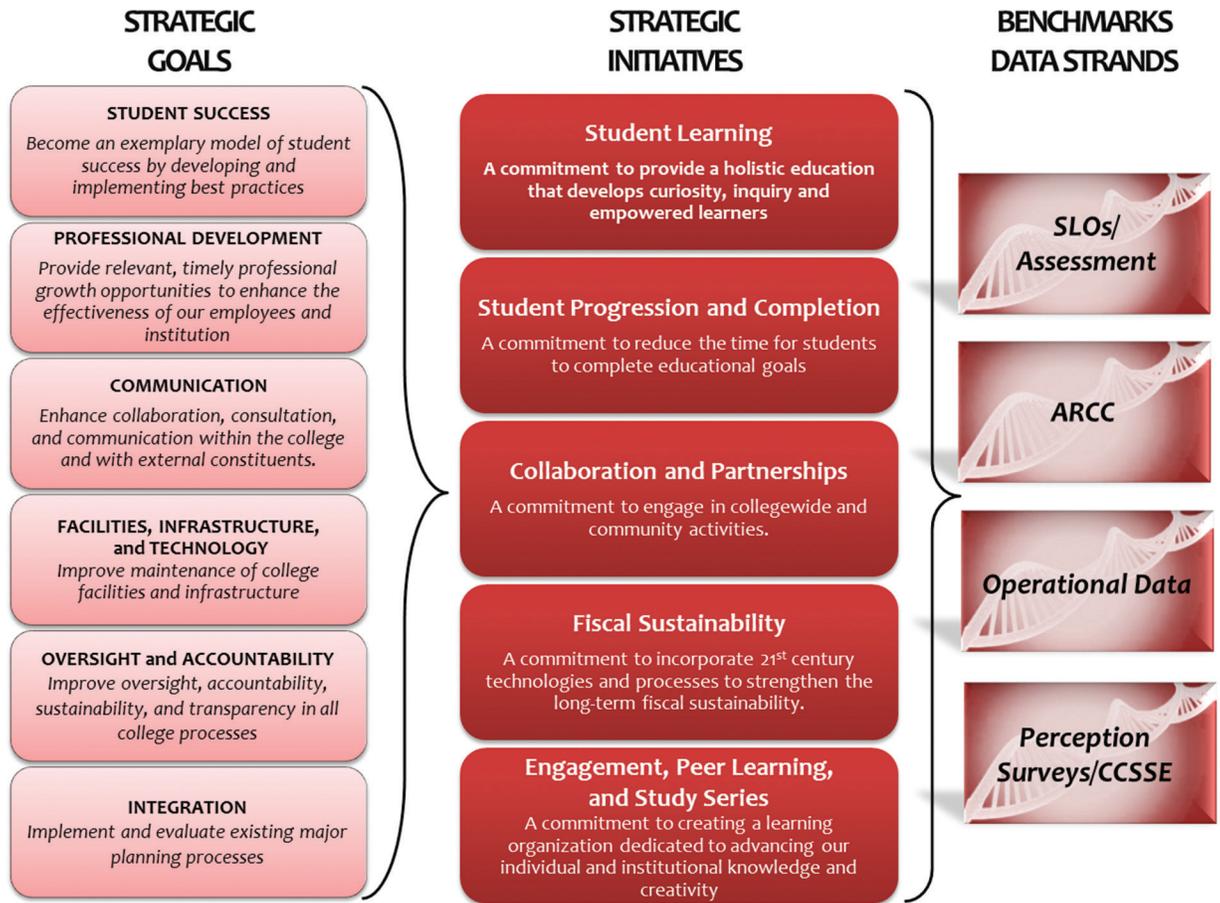
The Bakersfield College technology plan provides an increased focus on faculty and staff development. Because technology is constantly changing and improving, Bakersfield College recognizes the need to keep employees fluent in our emerging technologies. Professional development for faculty means finding new and creative ways to use technology to provide a richer learning experience. It also means keeping faculty trained on various student success technology tools. Professional development for administrators and classified staff is focused on improving skills on all administrative systems and student success tools. The focus on professional development ultimately improves employee technology literacy and encourages efficiency and innovation.

Finally, there is a renewed focus on distance and online learning. The online modality has experienced some challenges, but with new ideas and tools, the college anticipates improving student success and retention. Resources such as online orientation, online tutoring, online counseling, and an early alert system are expected to improve student success. The early alert system provides an opportunity for timely interventions. Bakersfield College understands the importance of offering

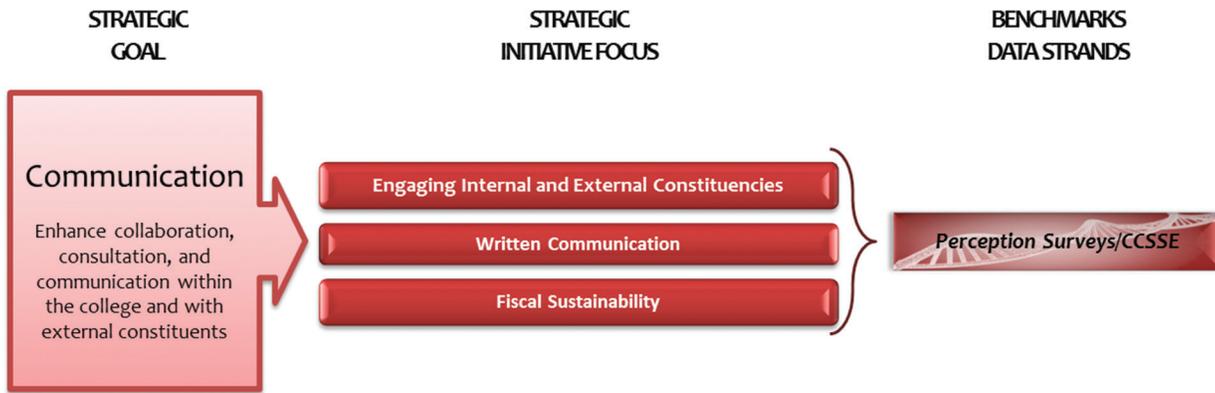
classes online for greater student flexibility, and is committed to improving online success using innovative technology (see Appendix E).

# Appendices

# A - Strategic Focus - 2014 and Beyond



**Strategic Focus 1: Communication**



**Engaging Internal And External Constituencies**

- Hold collegewide conversations on priority topics
- Develop a plan to leverage internal and external media to communicate and promote Bakersfield College
- Develop and sustain partnerships with educational institutions and businesses
- Evaluate collegewide morale and perception of communication

**Written Communications**

- Continue with Renegade Roundup and President’s blog

**Fiscal Sustainability**

- Create a learning and working environment for students by providing opportunities for them to work on articles, social media pieces, and other communique

## Strategic Focus 2: Oversight & Accountability



### Student Learning

- Continue to identify and represent what students have learned
- Determine strengths and weaknesses of the curriculum implementation and review process
- Identify and highlight four superior assessment plans to improve student learning
- Explore options for implementing a Master Teacher curriculum to improve instructional techniques among faculty

### Student Progression and Completion

- Continue to improve student progression towards their educational goals and improve their time to completing a degree or certificate
- Develop an Achieving the Dream student success plan for implementation in AY 2014-2015
- Collaborate with stakeholders to promote an institutional culture focused on student success principles
- Intentionally analyze, review, and respond to data on student progression and completion to inform institutional priorities and improve student success

### Fiscal Sustainability and Accountability for Institutional Effectiveness

- Improve the system of reallocating and repurposing technological resources
- Develop procedures to monitor progress on Strategic Plan objectives
- Monitor progress on Actionable Improvement Plans
- Evaluate instructional program viability criteria
- Develop student and administrative services' viability criteria
- Align data elements from the institutional score card with the four data strands
- Integrate the work of governance committees with Program Review

**Strategic Focus 3: Student Success**



**Student Learning**

- Increase student success by utilizing varied teaching methods such as compressed courses, expanded tutoring services, Habits of Mind, supplemental instruction, and early alert
- Advance the student learning outcomes work from Proficiency to Sustainable Continuous Quality Improvement on the ACCJC rubric
- Utilize the following five principles of student success: committed leadership, systematic institutional improvement, equity, use of evidence, and broad engagement
- Enhance online instruction and services

**Student Progression and Completion**

- Utilize data and improved services to close the achievement gaps among student groups
- Develop and implement prerequisites for general education courses
- Leverage technology to increase completion rates

**Institutional Capacity Building**

- Implement fully My Degree Path for student and staff use to include degree audits, what-if evaluations, Student Educational Plans, and reports
- Evaluate and improve matriculation services to increase student success
- Dedicate resources to advance student development, learning, and success

### **Strategic Focus 4: Facilities & Infrastructure**



#### ***Student Learning, Progression, and Completion***

- Update and modernize facilities and technology in the classroom
- Upgrade and expand wireless access across the BC campuses
- Develop a media rich, online student orientation
- Resolve CurricUNET Assessment module issues
- Identify collegewide learning environment and operational space needs

#### ***Communication***

- Create the web representation of the college score card with the four data strands
- Increase wireless coverage on campus

#### ***Fiscal Sustainability***

- Upgrade and refresh facilities, infrastructure, and technology and move to a goal of developing a scheduled maintenance plan
- Update technology plan
- Update facilities plan

## Strategic Focus 5: Integration



### Student Learning

- Continue to identify and represent what students have learned
- Enhance the Adjunct Faculty Orientation experience to include a more diverse offering of sessions and workshops

### Student Progression and Completion

- Improve student progression toward their goals and improve their time to completing a degree or certificate
- Develop an Achieving the Dream Implementation Plan to guide college efforts in closing the achievement gap for various student groups and populations
- Provide guidance, support, and accountability for academic programs with eligible Transfer Model Curricula (TMCs) to secure approval for offering Associate Degrees for Transfer (AA-T or AS-T)

### Fiscal Sustainability and Accountability for Institutional Effectiveness

- Improve districtwide assessment through collaborative efforts
- Explore further integration of the institution's budget development process
- Ensure internal deadlines are met
- Evaluate college planning processes
- Integrate the work of collegewide and governance committees
- Ensure integration of systems and processes related to program review, assessment, and curriculum
- Develop collaboratively an Integrated Program Review process proposal
- Continue with the Renegade Roundup and President's Blog
- Continue with the Community Voices pieces in *The Bakersfield Californian*
- Expand on BC news items in local journals like the *Kern Business Journal*

**Strategic Focus 6: Professional Development**



**Peer Learning Through On-Campus Conferences, Study Series, and Workshops**

- Organize collegewide discussions on topics that advance the strategic plan of the college
- Facilitate communication and integration
- Facilitate data and information literacy
- Facilitate workshops and other opportunities related to student learning, progression, and completion
- Facilitate workshops and other opportunities to maintain currency of employee skills with emerging technology

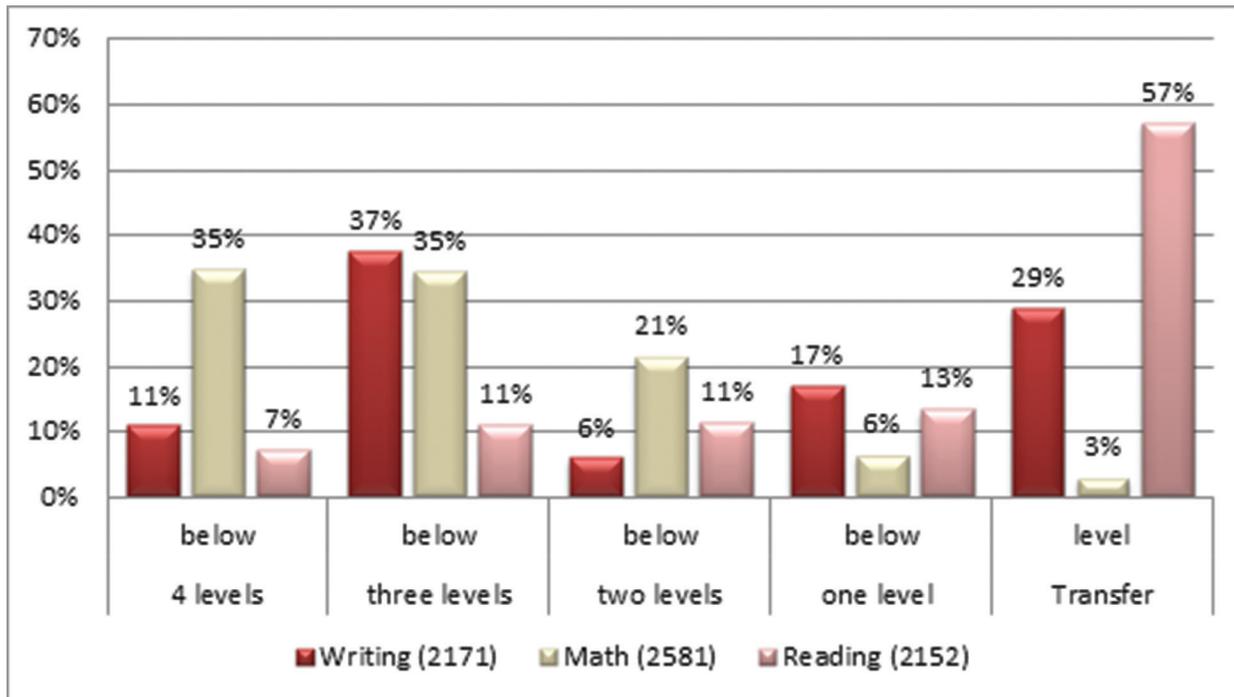
**Off-Campus Conferences**

- Fund teams to attend targeted conferences locally and nationally
- Create intentional connections and integration with college community

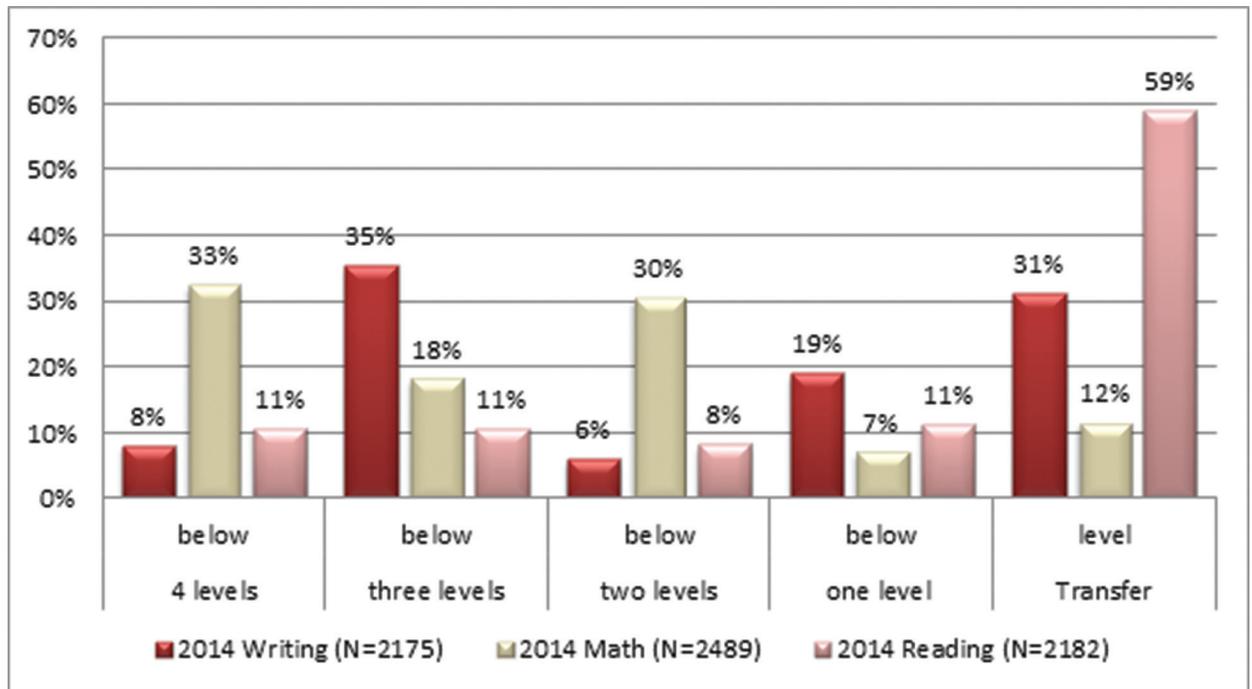
# B - Placement Test Results 2013-14 at High School Testing Sites

These two charts compare the test results of students taking placement exams during the first three months of 2013 at Bakersfield College with the assessment results of students taking the tests during the same time period in 2014, but predominantly at the high schools. Reading levels are comparable between the years. However, in math, 9% more students placed into transfer level math with a 2% decrease in students placing into Intermediate Algebra. In English, 2% more students placed into transfer level English (English 1A), and an additional 2% placed into one level below college. Data analysis by Janet Fulks.

## Placement Test Results January 1-April 1, 2013



**Placement Test Results January 1-April 1, 2014**



# C - Career & Technical Education Pathways

# Agriculture

## Program Abstract

- 1 CTE program to supply trained individuals to work in agricultural business
- 2 Ag Business supervisor jobs have increased 4% in county & state, which is highest % in any major occupational category.
- 3 Ag business jobs require an AA or 2-year degree.
- 4 80% of course offerings are transferable to CSU/UC & 6 course meet gen ed requirements.
- 5 All Bakersfield College Ag programs lead to 4 year degree (except Registered Vet Tech).
- 6 Bakersfield College is only Ag program in county; nearest sister program is 70 miles away.
- 7 Bakersfield College offers 6 Ag-related AA, AS, or certificates

## Program Strengths

- 1 Industry advice is being followed
- 2 New hires in Ag business
- 3 Enrollment in Ag courses has increased by 7% (1,915 unduplicated students).
- 4 Ag degrees/certificates grew from 31-48 during academic year
- 5 Began teaching Ag courses at Paramount Academy, a charter K-12 school in Delano
- 6 28 participating members on the Ag Advisory Board
- 7 Success & retention rates for F2F and Distance education exceed campus.
- 8 23 degrees awarded in 2008-09; 47 degrees awarded in 2012-13
- 9 Self declared majors in Ag have grown by 38% since 2008 from 414 to 570.

## Program Challenges

- 1 Lack of appropriate physical space for the program limits program growth.
- 2 Plant Science and Ornamental Horticulture show lower enrollments
- 3 Hiring new instructor, although great for program, negatively impacted budget.
- 4 Unforeseen resignation of adjunct instructors
- 5 Building facilities do not accommodate computer lab or research equipment areas.
- 6 26 students per section in 2008-09; 41 students per section in 2012-13

## Opportunities

- 1 Streamline the program to fall in line with proposed AS-T's (Associated Degree for Transfers).
- 2 Increasing outreach
- 3 Increase articulation of course to increase high school transfer students
- 4 Hiring new instructor
- 5 Combine Plant Science & ornamental horticulture into one C-ID degree.

## Program Goals

- 1 Increase instructional resources including classroom, lab and storage space, improved Technology and funding for animal feed.
- 2 Increase student success/completion rate by increasing section offerings and expanding articulation agreements (i.e.: Paramount Academy).
- 3 Increase student numbers & awards given in Plant Science and Ornamental Horticulture through Increased internships, jobs, and industry professional mentors. Focus on Advisory Board for support with this goal.

# Allied Health

## Program Abstract

- 1 Provide academic and vocational education to prepare men and women for careers in allied health fields.
- 2 The Health Services Career Pathway must be expanded to include fields other than nursing. This will give students an opportunity to earn certificate of achievements or AA/AS degrees.
- 3 Due to the changing environment of health care as created by the Affordable Care Act, the college must be responsive to the development of additional Allied Health fields. The department is proposing the following programs: Emergency Medical Technician-Paramedic, Medical Assisting, Central Service Technician, Coding and Health Information Technology.
- 4 Bakersfield College currently provides a contract education Emergency Medical Technician-Paramedic Program. Through the work of the C6 grant, the college has initiated the process of moving this to a credit granting program, which will lead to a Certificate of Achievement and/or A.S. degree.
- 5 Bakersfield College currently offers additional Allied Health Programs leading to job skills certificates: Nurse Assistant, Home Health Aide and Emergency Medical Technician-Basic. However, due to the definition of Program as defined by the CCCCCO these high unit courses are not captured in any statewide data or tracking despite the fact that they lead to jobs and are extremely Successful (i.e. 85%-95% retention and success and state or national licensure).

## Program Strengths

- 1 The existing programs in the Health Services Career Pathway are extremely successful; Emergency Medical Technician-Paramedic program has the 3rd highest national licensure pass rate, the CNA program maintains a 95% state certification rate, Emergency Medical Technician-Basic maintains 80% first-time pass rate on national exam.
- 2 The existing Programs have strong community support, which will enable the college's likelihood of success. The community currently commits to employment of graduates as well as clinical placement for mandatory clinical training.
- 3 Employment needs continue to project that Health Services Careers will continue to have high demand with continued growth.

## Program Challenges

- 1 The challenges in developing new Programs in Health Services Career Pathway are multifaceted and often complex. As is true of most Health Services programs, the majority of the proposed programs will require outside accreditation and/or approval by the nationally or state recognized approving agency.
- 2 Due to accreditation standards, the requirements for faculty are very specific and can often lead to recruitment challenges, especially related to private sector related wages are frequently much higher than higher education.
- 3 In addition, due to the outside agencies regulations or standards, most programs will require a FT faculty director and some also require Clinical Coordinators. This will require that the college commits funding for these positions.
- 4 College will have to commit infrastructure needs—facilities and technology, current facilities cannot accommodate growth.
- 5 Curriculum approval, both at local and state level, is not a fast process.
- 6 Current college program or department structure does not support Program development. Allied Health Dept. Chair position is a governance position only, which does not promote faculty leadership in the development of new programs.

**Opportunities**

- 1 Upcoming grant opportunities may provide funding sources to support start-up costs—TAACCCT, CTE Trust, etc.
- 2 College must increase governance structure, with a commitment of institutional dollars, to support Program expansion/development.
- 3 Maintain or exceed level of outside funding through hospital collaborations or grant funding.
- 4 The college must develop a comprehensive plan (and not rely on soft money) for equipment replacement, repair or upgrade for all CTE programs to maintain and/or meet current industry standards.

**Program Goals**

- 1 Primary goal is to develop new Allied Health Programs, starting with short-term stackable credentials or Programs that support Career Ladder concept.
- 2 Complete new Program approval application for Emergency Medical Technician-Paramedic program.
- 3 Provide career opportunities for students interested in health careers, other than nursing or radiologic technology. Existing programs are impacted with long wait lists. By providing additional career choices, students interested health careers will be able to get jobs sooner.
- 4 Develop: medical assisting, central service technician, medical coding, health information technology—online program.

# Architecture

## Program Abstract

- 1 The architecture program consists of two full time faculty members and two adjunct faculty members providing education and training for immediate transition to the workforce and skill building with the latest software and 3D printing technology.
- 2 Emphasizes educational path to certificates and associate degrees and a transfer degree for students desiring a baccalaureate in architecture.
- 3 Instruction includes BIM modeling as well as 3D printing of architectural models for sophisticated design.
- 4 The program offers Job Skills Certificate in Architectural Drafting, and an AA and AS in architecture.

## Program Strengths

- 1 Our students are given an orientation, counseling advice, and an educational plan is assembled in our Introduction to Architecture B1 course.
- 2 We continue to enhance our relationship with New School of Architecture and Design in San Diego through communications, multiple meetings at both campuses each year.
- 3 Each of our faculty members awards a 1,000 dollar scholarship to our top students who are accepted at New School.
- 4 An Advisory Committee meets regularly with area architects, engineers and contractors to discuss program strengths and needs.
- 5 We will be complementing our day instruction with an additional evening course to accommodate the needs of our community.
- 6 Through the addition of 3D printing we are able to further study students' design concepts.
- 7 Through the use of the laser cutter, CAD and BIM, students are developing and troubleshooting their design concepts at a much earlier stage.
- 8 A sink was relocated and a power strip was run along two walls in the Creative Design Center, creating better use of the small space.
- 9 No traditional student participation among female students and African American students have grown significantly in the past few years.
- 10 Our student retention rate is at 74.1% and our student success rate is at 88.1% both of these numbers being above the college success and retention rates.

## Program Challenges

- 1 We need to be more visible to the local high school students who are considering Bakersfield College
- 2 The emerging transition of hand sketches imported for conceptual modeling and further virtual analysis is increasing—the need for reliable computers, scanners and printers continue to be a constant need in our area.
- 3 We share computer labs with the CAD program and are finding it difficult to offer the courses required for both programs to be successful due to lack of space.
- 4 The Creative Design Center is the size of a large closet and has very limited space for growth.
- 5 Although the faculty are willing and able to support student learning with 3D printing, faculty need further training.
- 6 The department now has access to a 3D printer that is shared with other programs.
- 7 Our current FTES/FTEF for architecture is 13.9 which is slightly lower than our college productivity rate at 17.9.
- 8 Our success rate has dropped due to an increase in student expectations. We began holding our students to higher standards from data and information obtained from workshops and advisory committees.
- 10 Our retention rate has been steady; we tend to lose students to employers.
- 11 The number of certificates is down most likely to lack of follow through with paperwork.

- |                      |   |
|----------------------|---|
| <b>Opportunities</b> | 1 Sustainability is becoming a greater need as our generations continue to consume more resources in our planet, software and training in this field would be easy to integrate into our existing architecture courses.                         |
| <b>Program Goals</b> | 1 Continued strong partnership with Advisory Board and outside firms to meet the needs of the workplace.<br>2 Continued focus on recruiting non traditional student participation.<br>3 Add evening courses to accommodate additional students. |
| <b>Requests</b>      | 1 A 3D printer suited for architecture would involve 3D printing in color, allowing students to better analyze the use of materials and colors in both an external and internal environment.  |

# Automotive Technology

## Program Abstract

- 1 Automotive Technology program provides training for the following technician classifications: automotive, smog test, engine repair, engine machinists, onsite/field repair, heavy duty equipment & transmission repair. The program trains the following specialists: alignments, suspension, brake systems, tire service, air conditioning, and electrical diagnostic. The program also trains service writers and consultants, and parts persons.
- 2 The program participates in the internship and job placement activities offered by the college.
- 3 Bakersfield College's program is committed to relevant technology and high-wage, high-growth occupations within our service area.
- 4 The program offers Certificates of Achievement in Automotive: Brakes and Wheel Alignment, Power Trains, Engine Overhaul, Tune-up and Emissions Systems.
- 5 The program offers certificates in: Automotive heating, Ventilation & Air Conditioning, Automotive Management, Basic Clean Air Car Course, and Advance Clean Air Car Course.

## Program Strengths

- 1 Program receives support through donations made by the new car dealership association and members of the advisory board.
- 2 The Bakersfield College program has exemplary facilities and equipment in comparison to other CC programs.
- 3 Students complete many lab tasks through the semester which allow instructors to assess understanding.
- 4 Instructors analyze course proficiency at the conclusion of each task sheet to monitor program success.
- 5 Strong relationship with Advisory Board ensures program meets employer needs.
- 6 All instructors implemented information technology resources into the learning environment.
- 7 The program utilizes online training, computer simulation, and animation to engage student learning.
- 8 Instructors streamline course offerings and commit to meeting with students one on one to help them achieve their goals.
- 9 85% of students are working in some sector of the automotive industry while continuing their education.
- 10 Student retention rate is 88% and success rate is 79.9%
- 11 Collaborated on a student scholarship and job placement opportunities with the New Car Dealership Association.

## Program Challenges

- 1 Non-traditional students populations, specifically female enrollment, is a challenge but seeing growth due to targeted outreach; female enrollment grew 12%.
- 2 Continued challenge to meet the expectations of a complex industry. Program must continually increase expectations with a limited facility.

## Opportunities

- 1 Outreach opportunities such as all-female tours from local high schools may increase NT student populations.
- 2 Further streamlining of programs to increase persistence and completion rates.
- 3 Adopt new teaching strategies and resources such as informational technology to promote continued academic growth and retention and success rates particularly with underprepared students.
- 4 Employers are willing to offer internships, donations of equipment and money, mentoring their expertise, and entry-level employment.

## Program Goals

- 1 Maintain constant communication with advisory board industry partners to assess program and student preparedness.
- 2 Address gaps in non-traditional enrollment (female students) through outreach events tailored to female students.

**Requests**

- 1 Add short throw interactive projectors to the four automotive classrooms.

# Business Management & Information Technology (BMIT-BSAD)

<b>Program Abstract</b>	<ol style="list-style-type: none"> <li>The degrees and certificates in BMIT-BSAD provide career and technical education and transfer courses in business.</li> <li>The program currently offers 9 degrees and/or certificates.</li> </ol>
<b>Program Strengths</b>	<ol style="list-style-type: none"> <li>Training was administered to faculty promptly following program review of data in response to Open Entry Lab. (Results were favorable)</li> <li>Updated projectors and sound systems in some courses as a result of building upgrades.</li> <li>Upgrades in the Business Education building have created a cleaner, brighter environment that improved the atmosphere of the program.</li> </ol>
<b>Program Challenges</b>	<ol style="list-style-type: none"> <li>Office technology outcomes weren't as strong as hoped due to inconsistency among faculty in teaching open-entry lab.</li> <li>Coordinating scheduling with departments outside of business in which Business students must fulfill requirements.</li> <li>Course size has increase significantly</li> <li>Late start, open entry course offerings to accommodate Financial Aid needs create issues with students that frequently are no-shows in course.</li> <li>Institutional Research confirms that program data for BMIT is inaccurate and misrepresents the department's success and course offerings.</li> <li>Students continue to experience difficulty in completing the coursework necessary for a transfer degree due, largely, to the limited number of business math sections offered by the math department.</li> <li>The failure rate for students who have already completed two math courses is 70% in Finance 300</li> </ol>
<b>Opportunities</b>	<ol style="list-style-type: none"> <li>Offer an AS-T in Business.</li> </ol>
<b>Program Goals</b>	<ol style="list-style-type: none"> <li>The data for the Business side of BMIT remains inaccurate and misrepresents the department's success. The situation has been acknowledged but has not yet been resolved.</li> <li>Improve student success in online courses. The department will focus on student engagement and interaction.</li> </ol>
<b>Requests</b>	<p>Additional full-time faculty member to facilitate new AS-T degree. Equipment upgrades and enhancements would also improve student outcomes.</p> <p>Requesting two new faculty positions in order to bring the instruction of the business math courses in-house (to BMIT)</p>

# Business Management & Information Technology (COMS)

<p><b>Program Abstract</b></p>	<p>1 The BMIT department offers degrees and/or certificates in Computer Information Systems, Computer Science, Web Development, CompTIA, and Software Development.</p> <p>2 The program is responding the community needs by designing course work that all students to receive skills sets that the marketplace requires.</p>
<p><b>Program Strengths</b></p>	<p>1 The department has spent the better part of the last year redesigning the entire (Web Development) program, adapting the curriculum to meet the realities of other student population, external and internal environmental factors, the renewed emphasis on CTE programs, and the emphasis placed by the state on the development of TMC.</p> <p>2 The department reduced the number of programs from four to a single AS-T and three certificates of achievement.</p> <p>3 Developed an AS-T in Computer Science in response to support from the local CSU.</p> <p>4 A reduction in the number of articulation agreements with local high schools will strengthen our program and dramatically increase the number of students who are successfully completing programs.</p> <p>5 Retention rate improved from 78.6% to 83.9% and the success rate improved from 60.8% to 61.4%</p>
<p><b>Program Challenges</b></p>	<p>1 There is currently little to no programmatic data due to the complete overhaul of the curriculum.</p> <p>2 Existing degrees and certificates require too many units to complete.</p> <p>3 Insufficient staffing and adjunct pools to offer all of the advanced courses required.</p> <p>4 Technology resources limit teaching the latest software and hardware skills.</p> <p>5 Continually updating technology specific to the program is a challenge</p>
<p><b>Opportunities</b></p>	<p>1 Develop a more robust, integrated assessment plan.</p>
<p><b>Program Goals</b></p>	<p>1 Change the course identifier from COMS to COMP to eliminate the confusion with Communication Studies, eliminate with transfer schools, and to align with the C-ID identifier.</p> <p>2 Continue to lobby for changes in the data that identifies only students working in an actual computer technology company as working in the field, eliminating students working for government, agriculture, energy, another manufacturing industries from the category. This skews the data.</p>
<p><b>Requests</b></p>	<p>No Pending Requests.</p>

# Child Development

## Program Abstract

- 1 The Child Development department uses a multi-dimensional approach with our students to assist them in meeting their personal, academic, and professional goals.
- 2 Committed to providing excellent learning opportunities in basic skills, career/technical education, and transfer courses.
- 3 Addresses a diverse community in a rapidly changing world.
- 4 The Child Dev certificates are in line with the state permit matrix.
- 5 Courses are offered in Bakersfield and Delano.
- 6 The CD program offers 6 certificates/degrees.

## Program Strengths

- 1 In 2010 CD implemented Portfolio Assessments. Each degree/certificate has a portfolio assessment assignment with a rubric.
- 2 Assessments process has improved planning, course activities, and course offerings.
- 3 Updated the Open House and Program Brochures w/VTEA money.
- 4 The Atlantis federal grant that sends Bakersfield College students to Spain & Italy as well sends students from Europe to visit here is a strength.
- 5 Child Development Advisory committee is going strong.
- 6 The program is active in the community, sending faculty to participate in local networks and hosting a Child Dev Conference and Infant/Toddler Conf.
- 7 The department chair did not retire!
- 8 Having a nice looking campus contributes to a sense of well-being and so the FACE building updates (i.e.: paint, fixed potholes, upgrade of air conditioning unit, refocus on custodial service in the FACE building) was appreciated and seen as a strength.
- 9 Success/retention remains equal or exceeds campus in face to face courses.
- 10 Child Dev program excels at getting students to file for certificates or transfer.

## Program Challenges

- 1 Online success and retention has decreased.
- 2 Adding a computer lab to the FACE building would improve student success.
- 3 Lack of nontraditional (male) students are a challenge.
- 4 Number of students has decreased with the number of sections being offered but has maintained the same level of enrollment and productivity consistent with the campus.
- 5 Although on-line course success and retention meets or exceeds campus, the numbers have decreased.

## Opportunities

- 1 Last year, CD was noted as one of the top 10 degree majors to transfer to four year colleges.
- 2 Rewrite the Child Dev Brochure to outline multiple career opportunities with the degree and add illustrations of males working in the industry.
- 3 Improve success and retention in online courses
- 4 Recruiting male students

## Program Goals

- 1 Request to add a 1/2 unit portfolio completion course.

**Requests**

- 1 Replace and repair student seating in FACE23
- 2 Replace sound system in observation area of child dev. Lab
- 3 Need a computer lab

# Construction Technology

## Program Abstract

- 1 Students have the opportunity to obtain a Certificate of Achievement or an Associate of Science degree.
- 2 The program currently offers a Certificate of Achievement in Construction Technology and an AS in Industrial Technology (Construction Technology option).

## Program Strengths

- 1 Introduction to Construction and Estimating, Print Reading & Scheduling courses are transferable.
- 2 Transferring students in the architecture, industrial drawing, construction management and wood working programs find that the various construction courses and related construction experience complements their personal professional growth.
- 3 The construction program recognizes that many of the involved students are deficient in basic math, reading, writing and workforce preparation skills. Recognizing this, much of the instruction is self-paced and modularized.
- 4 The need to refine curriculum related to building green concepts, safety and other technical aspects related to construction was identified and addressed.
- 5 The need to also refine the lab construction lab for student efficiency and safety was addressed.
- 6 The need to develop lab activities complementing common construction standards was addressed.
- 7 The technical instruction has been refined into individual interactive computer based assignments.
- 8 The instructor refined the safety and technical redesigned safety modules. Many of these assignments are online.
- 9 The CNST 50A and CNST 50B courses have integrated green construction techniques into the instruction.
- 10 Students and instructor have installed lab safety accessories and related safety signage. Lab has been improved to industry standards.
- 11 The construction program is sensitive and dedicated to providing educational support to individuals with employment challenges (It should be noted that the construction instructor has extensive experience in supporting career development to those with employment barriers).
- 12 It is important to note that our "employment" core indicator shows 91.23% employment, compared with a state average of 83.35%. This is evidence that even though our success indicator is lower than state average, the final outcome (employment) of our training is very successful (above average).

## Program Challenges

- 1 Having two or three computers with related audiovisual equipment in the construction lab would give students the opportunity to complete their various assignments while in the lab. Instructor would also be able to present many quality safety and instructional videos that are available online.
- 2 Our "success" indicator is 18% below the state average. Our Bakersfield College "completion" Rate is 19% below our goal (although we were 22% above the state).
- 3 Of the courses in the certificate and the major, only four are taught as CNST courses. The remaining coursework is in other disciplines related to construction. Therefore a good portion of our students often complete just the CNST courses and possibly a few others, then seek employment, rather than stay in college long enough to complete all the required courses.
- 4 The construction program realizes the need to develop lab exercises that reflect common construction techniques and emerging green building techniques. To do this in a cost effective manner is a challenge.

<p><b>Opportunities</b></p>	1	<p>In order to improve success and completion, the faculty plans on continuing our efforts to increase student success through the following initiatives: 1) tailored instruction on basic skills, particularly in the area of math, 2) continued use of computer-based instruction in safety and on construction-related topics, 3) continued evolution of coursework and projects in the various CNST courses, including more structured, project-based assignments, and 4) reevaluating assessment methods and grading standards.</p>
<p><b>Program Goals</b></p>	1	<p>It is a goal to seek advice on integrating green technology into coursework from both industry professionals and construction advisory members.</p>
	2	<p>Continue to coordinate with local industry through the work of advisory boards and other collaborative efforts.</p>
	3	<p>Continue to address gaps in core indicators. This is continued from last year—especially in terms of non-traditional student (female) enrollment.</p>
<p><b>Requests</b></p>	1	<p>None Pending.</p>

# Culinary Arts and Nutrition

## Program Abstract

- 1 Food and Nutrition offers 5 areas of study including Nutrition, Culinary Arts, Food management, Dietetic Services, and Child Nutrition Management.
- 2 Each area of study integrates theoretical and practical course work to prepare students for service-area work.

## Program Strengths

- 1 The program offers Certificates of Achievement in Child Nutrition management, Culinary Arts and Dietetic Services Supervisor. The program offers an AS in Child Nutrition Management, and AS in culinary Arts, and AS in Food Service Management.
- 2 The program leadership uses assessment results to fine-tune programs and target recruitment efforts.
- 3 Assessment data confirms the value of the Culinary Open House in the fall, Culinary Arts EXPO targeted at high school students, and working with Academic Development Department.
- 4 Food and Nutrition success and retention rates are higher as a result of the use of assessment data.
- 5 The food and Nutrition Department maintain success and retention rates above the college wide average percentage.
- 6 The Face building has had several maintenance upgrades and is in good condition. The program praises the custodial service that maintains such an active facility.
- 7 The FTEs/FTEF ration in Nutrition is 25:1 which is higher than the college-wide average.
- 8 Online Nutrition Courses were successful in both student success rates as well as retention.
- 9 The Food and Nutrition program has a strong revenue stream from the Renegade Room Restaurant, which means that they do not use GU money.

## Program Challenges

- 1 Although new technology has been placed in several rooms inside the FACE building, the Food Program (other than Nutrition) does use these facilities.
- 2 The Non-Traditional student population—African American—has dropped from 15% in 2010-11 to 8% in 2012-13 (but remains higher than the college wide average).
- 3 The reduction of course sections from 32 in 2008-09 to 26 in 2012-13 has had a direct impact on enrollment headcount.
- 4 The reduction of nutrition courses from 36 in 2008-09 to 27 in 2012-13 also reduced enrollment
- 5 The Culinary Arts Lab (Renegade Room) would benefit from smaller enrollment to address safety concerns.

## Opportunities

- 1 The program has physical plant is a capacity; in order to grow, we would need to expand the physical plant.

## Program Goals

- 1 Increase both success and retention rates
- 2 Focus recruitment on non-traditional population—African American

**Requests**

- 1 Assessment data shows a lack of space to operate the Renegade Room; expansion of the program cannot be done in the present facilities. By administrative request, the Food and Nutrition will present a plan to expand usage of the Renegade Room Restaurant, to develop a lecture/demo kitchen.
- 2 Requesting a computer lab dedicated to the Food and Child Development program in the FACE building.
- 3 Remodel the physical plant.

# Electronics Technology

## Program Abstract

1 The Electronics Technology program at Bakersfield College provides training for electronics technicians, automation technicians, instrumentation technicians, consumer electronics technicians, maintenance mechanics, radio and telecommunications technicians, installation technicians, electronic systems fabrication technicians, operators, and other related occupations.

## Program Strengths

1 Participated in several of the strategic goals and initiatives of the college, including student success (through our participation in the C6 consortium and its activities), and fiscal sustainability (through our participation in the STEM program and through sizeable grants from Chevron and the Central California Section of the International Society of Automation).

2 Our facilities and equipment are exemplary among similar programs in the State,  
3 Strong support from the Advisory Committee for addressing the changing technical demands of our local employers.  
4 New equipment provided by VTEA, STEM and private grant money was positive.  
5 Participation in MESA Week Zero built a stronger connection to STEM initiatives.  
6 Addition of a third full-time faculty member allowed program to accommodate the additional workload that comes from teaching new technology.  
7 Faculty member improved labs and implemented new equipment and technology into their instruction.  
8 C6 Grant increased the number of daytime sections offered to students.  
9 Percent of females students has increased from 3% to 4% in the past year due, perhaps, to the VTEA funding focus area.  
10 Traditional undergraduate age of students has increased slightly.  
12 Certificates awarded were up slightly and the number of AS degrees double from the '08-09 year.  
11 Latino students have risen from 51% to 61%.  
12 Course sections are typically full and waitlisted.  
13 Employer involvement in the program including offering internships, donations of equipment and funding, expertise, and entry-level employment.

## Program Challenges

1 Program relies heavily on adjuncts to meet the growth of sections. (Addition of new tenure-track faculty member was a plus!).  
2 The increased course sections due to the C6 grant have created a challenge for faculty since these courses cannot be assigned to adjuncts.  
3 Added computer based instruction in several courses is putting a burden on the Internet connection to computers.  
4 In order to support academically under-prepared students, examine teaching strategies, consider remediation and "Habits of the Mind" strategies.

## Opportunities

1 Development of an Engineering Technician AS is in process.  
2 Create a more predictable course sequence, centered around various Job Skills Certificates, which will help with the entry-level employment, job advancement, and persistence through the program.  
3 Make greater use of the instructional technology in our labs and the online instructional portal (Moodle) to provide "hybrid" instruction. This will allow us to schedule advance-level and potentially lower-enrolled courses more often.  
4 Decrease completion times for students with the implementation of hybrid instruction.  
5 Increase the number of Job Skills Certificates available.

**Program Goals**

- 1 Seeking input from community through the implementation of Advisory Boards. Continued collaboration in this area.
- 2 Continue to address gaps in core indicators. Program will focus on improved instruction, embedded remediation, block scheduling, and online curriculum access.
- 3 Develop a mechatronics program with the Electronics Technology program to meet needs requested by the industry.
- 4 Examine strategies to increase success and retention rates to at least equate to the college average.

**Requests**

- 1 Storage and lab space are needed for the addition of the new program equipment acquired through various grants.

# Engineering/Engineering Technology

## Program Abstract

- 1 Engineering Technology is an instructional program that strives to offer effective and student centered instruction in the engineering discipline, being sensitive to diverse students, educational needs and career goals.
- 2 Since engineering is a high unit major, students are best served completing the lower division preparation courses at Bakersfield College and continuing in transfer to a four-year university, rather than completing the general education required for an A. S. degree.
- 3 Degrees/certificates offered include an AS in engineering and an AS in Engineering Technology.

## Program Strengths

- 1 Faculty plan to offer support services in technical writing skills for students, either through supplemental learning or technical writing workshops.
- 2 A STEM Transfer Mentor (CSUB Engineering Student) was recently hired to provide leadership among the Supplemental Learning Program in engineering.
- 3 In order to strengthen programming skills, a new robotics platform (Arduino board) will be incorporated into the engineering programming course this year.
- 4 The Accreditation Board of Engineering and Technology (ABET) has specified that a desired outcome of engineering curriculum is an emphasis on design. Thus, most of the engineering courses at Bakersfield College have design project assignments.
- 5 The EIT department is developing a Creative Design Center (CDC) that will integrate computer-aided-design, engineering, and other disciplines.
- 6 Through the STEM, Engineering, and the Chevron grants, EIT has been able to remodel MS11b (location of the CDC) and add a laser cutter and new 3D printer to the existing 3D printer equipment. INDR B42, a Solidworks course, was offered for the first time during the summer of 2013. This course supports welding, manufacturing, industrial drawing and engineering. Use of the Solidworks software was incorporated in the Introduction to Engineering Design and Engineering Statics courses. Two students were hired in internships due to their experience in the Solidworks software. This software will also be the primary platform for the Engineering Graphics course offered in the spring semester of 2014.
- 7 Through Project Lead the Way (PLTW), credit by examination to obtain credit for ENGR B47 (Introduction to Engineering and Design) was offered to senior PLTW students at Centennial HS. Three students participated and two received credit. We will continue to grow this pathway.
- 8 The dean and STEM counselor met with CSUB administration to propose a more rigorous STEM TAG agreement. A clearly defined pathway for STEM disciplines will result in a higher transfer rates to CSUB.
- 9 MESA, Bakersfield College Engineers Club, Society of Hispanic Engineers (HOPES), National Society of Black Engineers, Women in Science and Engineering WISE, and Society of Women Engineers student chapters continue to serve a critical role in providing leadership opportunities for engineering students.
- 10 MS12 is an architectural/industrial drawing lab that was renovated using funds from the Engineering grant. Britelinks technology was added along with multiuse drawing stations. Although this is not an engineering lab, it is used by engineering support courses.
- 11 Hispanics enrolled in engineering courses has increased 8% over the last five years, now comparable to the 56% Hispanic enrollment college wide.
- 12

<p><b>Program Strengths</b></p>	13	<p>There was a 44% increase in the number of Hispanic students declaring engineering majors from Fall, 2010 to Fall, 2012. There was also a 38% increase in the number of Hispanic Freshmen students (&lt; 24 units) declaring engineering as a major during the same period.</p>
<p><b>Program Challenges</b></p>	14	<p>During 2012-2013 the retention rate was 86.4% which was slightly higher than the college wide retention rate of 85.9% (only face-to-face). During 2012-2013 the success rate was 73%, higher than the college wide success rate of 69.1% (only face-to-face).</p>
<p><b>Opportunities</b></p>	1	<p>Technical writing skills among engineering students need to be improved.</p>
<p><b>Opportunities</b></p>	2	<p>CSU system has reduced the Engineering Technology program offerings; encouraging students to pursue Engineering as a major.</p>
<p><b>Opportunities</b></p>	3	<p>The only full-time engineering instructor accepted an Interim Dean of Instruction position for 18 months. Thus, the course sections are being covered using adjunct faculty.</p>
<p><b>Opportunities</b></p>	4	<p>As a result of the transfer emphasis, very few degrees were awarded over the past five years. (6 AS degrees total)</p>
<p><b>Opportunities</b></p>	1	<p>In response to industry changes, the department is expanding the automation curriculum, a large component of an engineering technician curriculum. It seems prudent to align the Engineering Technology A.S. degree to the curriculum necessary for employment as an engineering technician. This curricular change should be taking place this year.</p>
<p><b>Program Goals</b></p>	1	<p>It is a departmental goal to maintain currency of the technology in the CDC, which may require categorical funds to purchase equipment.</p>
<p><b>Program Goals</b></p>	2	<p>During the 2013-2014 academic year, engineering faculty will submit updated curriculum to align with the C-IDs and the Model Curricula once these are finalized at the state level.</p>
<p><b>Program Goals</b></p>	3	<p>Complete the Creative Design Center and develop a cohort program with basic skills to engage students in technological skills.</p>
<p><b>Program Goals</b></p>	4	<p>In an effort to provide a broader support base for women seeking STEM careers (including engineering), the Society of Women Engineers Club was renamed the Women in Science and Engineering (WISE) Club. This goal will be supported further by offering Webinars and other resources on campus.</p>
<p><b>Requests</b></p>	1	<p>None Pending.</p>

# Fire Technology

## Program Abstract

- 1 The Fire Technology program offers pre-service, in-service and professional development courses in fire technology. The program prepares non-firefighters for a career in fire science, and includes a Firefighter Academy that is accredited through the Office of the State Fire Marshal.
- 2 The program provides in service training to members of local fire departments through Instructional Service Agreements.
- 3 Many of the professional development courses are either degree applicable or can be used as elective units or tied to a state fire marshal certificate program.
- 4 The program provides curriculum for training skills and techniques as follows: Working knowledge and understanding of fire positions; Workplace safety and Orientation; work ethic; attitudes; principles; responsibility; discipline and initiative, technical language; vocabulary; equipment; materials; modes of operation; and broad background in the mental and physical skills necessary to operate in the world of firefighting.
- 5 The program offers an AA in Fire Technology, and AS in Wildland Firefighting, and a Certificate in Fire Technology.

## Program Strengths

- 1 When Bakersfield College completes the state marshal accreditation in spring of 2014, the program will receive national recognition.
- 2 7% increase in female participants. 6% increase in African American, and a 33% increase in Hispanic/Latino participation over last year.
- 3 FTF Success rate of 98.4%, Retention rate of 99.5% / FTF College wide Retention rate of 84.3%, Retention rate of 67.6%
- 4 DE Success rate of 46.4%, Retention rate of 72.7% / DE College wide Success rate of 48.8%, Retention rate of 72.5%
- 5 Bakersfield College is one of the top three FTES producing colleges in the State with 467,523,141 FTES credits.
- 6 The program services 1,707 students, 79 sections, produces 467.5 FTES, 7.2 FTEF.
- 7 The overall retention rate of 93.3% and success rate of 87.4% is commendable.
- 8 The program offers 26 degrees and 13 certificates, issues over 1,400 State Fire Marshal Certificates.
- 9 The program oversees and manages two different contracts (Olive Drive Fire Training and the Forest Service).

## Program Challenges

- 1 Outcomes assessment informed the program that some students are struggling to understand some of the SLO's.
- 2 Program constitutes one fulltime faculty and one fulltime clerical person is not enough to adequately operate the program.

## Opportunities

- 1 None at this time.

## Program Goals

- 1 Revision of the curriculum was completed for 22 courses. New goal to revise 50 additional courses.
- 2 Add four new certificates including: Emergency Medical Technician Skills Certificate, A Firefighter 1 and 2 Certificate, an Academy Certificate, and a Wildland Firefighting Certificate.

**Program  
Goals**

- 3 Approval of four articulation agreements with Cal State, Cal Poly, Kern High School District, and a reaccreditation of the State Fire Marshal.
- 4 Improve the Success and retention rate through workshops for instructors.

**Requests**

- 1 From the ISIT request—The program would benefit from the purchase of a Bullex Flashover Simulator.

# Industrial Technology

## Program Abstract

- 1 Program provides training for day and night students seeking careers in EIT related fields, career advancement, or skills updating.
- 2 Program uses a multi-dimensional approach for preparing students for their specific career goals, meeting personal academic goals, and intellectual goals.
- 3 There are several Industrial Technology courses, along with a number of AS degrees with options within the disciplines that comprise the IT area.
- 4 The IT program offers 8 degrees/certificates
- 5 The program offers one degree (Industrial Technology, General) and the following disciplines: Automotive, Construction, Electronics, Industrial Drawing, Manufacturing, Welding, and Woodworking.

## Program Strengths

- 1 The Occupational Readiness course meets educational planning requirements for certificates and degrees and is well suited for Industrial Tech students.
- 2 The Special Problems courses provide opportunity for students to practice advanced skills, organize projects and assist other students; these courses are offered as no-load for the faculty, which is zero cost to the college.
- 3 Replaced retiring faculty members and hired new faculty.
- 4 Integration between Engineering and Industrial Technology and other STEM areas has improved the program.
- 5 C6, STEM, and Chevron grant funding improved/updated equipment.
- 6 Embedded remediation/basic skills instruction through C6 Grant & Critical Academic Skills workshops increased student performance.

## Program Challenges

- 1 INDT B10 can only accommodate 120-150 students each year but we need to serve thousands of students in the program.
- 2 Safety audit of our labs by SISC last year identified deficiencies and needs that should be addressed and will need to be addressed by the budget.
- 3 Resources, staffing, equipment updating/replacement are challenges.
- 4 Student preparation is a challenge.
- 5 VTEA grant money no longer supports purchasing equipment to maintain current practice with industry.
- 6 No stand-alone Industrial Technology lab or area, other than the computer lab in IT205. Lab space is challenging.
- 7 From Institutional Research, we need a single report that combines all 09 TOP Codes, which will allow faculty to look at IT trends and outcomes together.

## Opportunities

- 1 Design a single AS degree (rather than 8) while still retaining the discipline-specific nature of the degree.
- 2 Offer INDT B10 course as a hybrid
- 3 Turn some of the Job Skills Certificates into Certificates of Achievement to increase completion rates
- 4 Bring back the Water Technology program (Water and Wastewater Treatment); high demand in the industry.

<b>Opportunities</b>	5	Redesign INDT B10, Occupational Readiness so more students can participate.
<b>Program Goals</b>	1	Continue to grow the advisory boards and other collaborative efforts.
	2	Increase non-traditional students in program.
<b>Requests</b>	1	Train all Engineering and IT faculty and adjuncts on the “best practices” developed and used in the various grants and initiatives.

# Manufacturing Technology

## Program Abstract

- 1 The program at Bakersfield College provides training in the use of machine tools for production.
- 2 Students learn use of lathes, milling machines, drilling machines, band saws, grinders, and measurement tools in cutting operations to produce precision parts from metal stock.
- 3 Training in the use of manually controlled machine tools as well as computer numerical control, or CNC, machine tools, is also provided.
- 4 Students in the program are prepared for work as machinists, welders, electronics, maintenance technicians, and pre-engineering students.
- 5 Degrees/certificates in Industrial Technology, manufacturing technology, basic machine tool operation, and in programming of CNC lathes and milling machines.

## Program Strengths

- 1 A new course in the use of SolidWorks mechanical design software was added to the curriculum.
- 2 CAD labs have seen increased use.
- 3 Continuous emphasis on safety in all MFGT courses.
- 4 Additional course time (extending courses to meet twice a week) has resulted in deeper student knowledge.
- 5 Certificate awards were well above average in '11-'12.

## Program Challenges

- 1 Need to replace outdated equipment with newer technologies: circa 1950's vertical band saw and manual milling machine.
- 2 A one-faculty member program is challenging, particularly when that individual is requested to take on additional assignments outside of the program.
- 3 Staff is time-challenged due to extending course times to meet twice a week (but the benefits have been tremendous for the students).
- 4 Non-traditional student participation and completion rates are a challenge.
- 5 Retention rate is slightly lower than the college average (82.3%)

## Opportunities

- 1 The program will attract/retain more students with improved instructional technology.
- 2 Courses taken in the manufacturing technology program serve students in welding, industrial drawing, electronics, and pre-engineering.

## Program Goals

- 1 Continue to grow and develop advisory board relationship.
- 2 Continue to target outreach efforts to nontraditional students in Manufacturing Technology programs.

## Requests

- 1 Need to replace outdated equipment with newer technologies: circa 1950s vertical band saw and manual milling machine.
- 2 Replace the CNC lathes in the lab with a state of the art CNC lathe.
- 3 Replace the Tree Journeyman CNC mill with a state of the art CNC mill.
- 4 New computers in the IT 205 computer lab would allow for the teaching of SolidWorks. (SolidWorks will function only on Windows Vista and newer)

# Radiologic Technology

<b>Program Abstract</b>	1 The Health Services Career Pathway, students have an opportunity to earn an AS in Radiologic Technology and certificates in Principles of Venipuncture and Fluoroscopy.
<b>Program Strengths</b>	<p>1 Three sets of program surveys delivered annually provide feedback on student preparation. The surveys include Employers, Graduates, and Exit surveys.</p> <p>2 An advisory committee for student success, learning, and retention provides direction to the program leaders.</p> <p>3 Inclusion in the DOL TAACCCT (C6) grant was a strength.</p> <p>4 Program admissions prerequisites were changed favorably.</p> <p>5 Student success strategies and embedded remediation activities practiced through the DOL grant have altered teaching and learning practices in the program.</p> <p>6 Student workshops on test taking strategies, memory, and note taking were strengths.</p> <p>7 American Registry of Radiologic Technologists is excellent.</p> <p>8 2012 Graduates achieved a 94.4% pass rate on their fist attempt with 100% pass rate on the second attempt.</p> <p>9 All 2012 graduates who applied for the State of CA fluoroscopy permit earned the permit (100%)</p> <p>10 100% of 2013 graduates rate the program as excellent or good on the Program Completion Survey.</p> <p>11 100% of 2012 graduates rated the quality of faculty as excellent or good.</p> <p>12 A new computed radiography imaging system was funded through VTEA.</p> <p>13 Success and retention rates continue to remain excellent and above college-wide statistics. 2012-13 trend data showed a 99.97% retention rate and a 99.2% success rate.</p>
<b>Program Challenges</b>	<p>1 The radiographic and fluoroscopic equipment is out dated and does not meet industry/employer standards. (This is a concern of the advisory committee)</p> <p>2 The AS Degree 24-month attrition rate needs to be lower than the established programmatic accreditation benchmark of 25%.</p> <p>3 Although improved from the original 2-3 ear Wait List for program admissions, students continue to Waitlist 1-2 years to enter the program once they have completed the program prerequisites.</p> <p>4 The program has a 16% higher enrollment rate of white students in comparison to the college trend.</p> <p>5 The program falls below the state apportionment allotted for FTES for smaller programs.</p>
<b>Opportunities</b>	1 None specified.
<b>Program Goals</b>	<p>1 Develop curriculum for Computed Tomography Course in collaboration with Fresno City College.</p> <p>2 Complete accreditation reports for national/state approval: JRCERT Interim Report, Sate Fluoroscopy Program Report, State Venipuncture Program Report.</p> <p>3 Rad Tech Core Indicator in Persistence was lowered in 2012-13 @ 63.89 that the performance goal of 85.86%. (Impact of the implementation of the new prerequisites is suspected cause and is under review).</p> <p>4 Continue C6 grant workshops.</p>

**Requests**

- 1 New x-ray equipment for the on-campus lab.
- 2 An estimate of \$250,000-\$300,000 is needed to fund new x-ray equipment.

# Registered Nursing

<p><b>Program Abstract</b></p>	<p>1 The mission of the Association Degree Nursing (RN) Program is to prepare entry-level registered nurses as providers and managers of care across the health/illness continuum.</p> <p>2 Offers academic and vocation education to prepare men and women for careers in Nursing.</p> <p>3 The RN Program fosters a teaching and learning environment that is conducive to student academic and/or career success and achievement.</p> <p>4 Bakersfield College offers an AS in Nursing.</p>
<p><b>Program Strengths</b></p>	<p>1 Annual pass rates have increased from 93% to 97%.</p> <p>2 Student success coach, utilization of online resources (ATI), early identification of at risk students with development of learning contracts.</p> <p>3 74% of students complete the program in 4 semesters (which has improved from 67% in 2010-11 and 74% in 2011-12)</p> <p>4 Faculty committed to implementing strategies that improve student success.</p> <p>5 Although the NCLEX test plan and passing standard changed making the exam more difficult, our pass rate increased from 93% in 2011-12 to 97% for first time test takers in 2012-13.</p> <p>6 The Bakersfield College RN program recently received the following updated technologies: Virtual IV arm, Nurse's Touch for the C6 Cohort, COW (Computer on Wheels) which contains electronic health record software for students to document their patient care activities), Electronic Health Record software, and Sim Pad (Remote control for vital Sims)</p> <p>7 Flipped classrooms, streaming simulations, podcasting, lecture capture, and i-clickers are technologies advancing instruction and student success in the RN program.</p> <p>8 Minor remodel of our simulation control room and debriefing area resulted in the ability to provide realistic simulation experiences.</p> <p>9 Compliant with the states 1:10 faculty to student ratio in a clinical setting.</p> <p>10 Research indicated that at least 90-95% of our graduates are employed locally.</p>
<p><b>Program Challenges</b></p>	<p>1 We missed an opportunity to administer the student satisfaction survey and the employer satisfaction survey in 2012-13, which would have informed our planning.</p> <p>2 In 2013, four full time faculty resigned for a variety of reasons, primarily, however, to seek higher wages.</p> <p>3 One of the greatest challenges is keeping up with current technology that makes our Bakersfield College training relevant to the workforce. Although we have equipped our skills labs with highly specialized technological equipment and we are able to provide simulated clinical learning experiences, new technologies emerge constantly.</p> <p>4 Male student participation is trending down.</p> <p>5 Headcount and sections have decreased over the past 5 years, which decreases our FTES/FTEF.</p>
<p><b>Opportunities</b></p>	<p>1 None specified.</p>
<p><b>Program Goals</b></p>	<p>1 Improve time completion rate by continuing to utilize the program's early identification process for at risk students, make referrals to the success coach and tutors, and strengthen the terms sated in the learning contracts.</p>

**Program Goals**

- 2 Complete a major RN curriculum revision to include leveling of courses and inclusion of topics recommended by the Board of Registered Nursing.
- 3 Complete a self-study in preparation for Board of Registered Nursing Accreditation Visit in Fall of 2014.

**Requests**

- 1 Simulation equipment needs to be updated. Specifically, maintenance packages and warranties must be kept current for simulation equipment.
- 2 The development of LA107c into a thin lab (grant funded) will be utilized to support the demand of online testing as well as for simulated concept/case studies.
- 3 Need replacement faculty.
- 4 Requesting institutionalization of the educational advisor.

# Vocational Nursing

## Program Abstract

- 1 The aim of the Program is to provide a positive, innovative learning model that fosters the development of critical thinking and problem-solving skills so that the student completing the program is equipped to deliver care to a culturally diverse population in a variety of healthcare settings.
- 2 Although vocational nursing education is offered by proprietary agencies and the adult school in our service area (RN education is only offered by Bakersfield College and CSUB), our advisory boards indicate the vacancy rate for nurses is greater than what Bakersfield College, CSUB, or the proprietary agencies can provide and recommend that we maintain our current enrollment levels for both Nursing Programs.
- 3 Although the VN program is purely CTE in its mission, it is also considered part of a career pathway in which students start with Certified Nurse Assistant (Job Skills Certificate) Licensed Vocational Nurse (Certificate of Achievement)Registered Nurse (Associate of Science Degree).

## Program Strengths

- 1 Employer surveys and anecdotal data for the Nursing Programs indicate that at least 90-95% of our graduates are employed locally.
- 2 2012-13 Success: 89%; 2012-13 Retention: 93%
- 3 NCLEX Pass Rate: 2013: 94%
- 4 Employer feedback indicates that the graduates are prepared to provide nursing care in structured health care settings for clients who are experiencing common, well-defined health problems.
- 5 An academic "Boot Camp", early intervention model, tutoring, and mandatory supplemental materials are provided to students to facilitate student success.
- 6 The LVN faculty make good use of required program evaluations, annual planning, and analysis of SLO, PLO, and AUO data. Results of these processes are used to monitor the program's effectiveness and attain desired student outcomes.
- 7 The program has a strong relationship with their Advisory Board.
- 8 2012-13 Certificates awarded: First time Licensure rate—100%, Certificates- 16
- 9 Of our graduates who desire employment, 90% are employed and 95-100% of those employed, remain in our service area.
- 10 State of the art skills lab on Bakersfield College Panorama Campus and a smaller lab at the Weill Institute. Both are capable of low, mid, and high fidelity simulation.
- 11 Expanded peer tutoring program.
- 12 The nursing programs have a dedicated Educational Advisor through the C6 grant.
- 13 Program makes strong use of technology including: Comprehensive Assessment and Remediation Program (CARP), I-Clickers, tablets in the classroom, computer for testing, ATI to facilitate curriculum evaluation, Skills Lab/Simulation, Inside Bakersfield College for communication and access to course/program materials, and a department Facebook page.

**Program Challenges**

- 1 Turnover and inexperience of the faculty may contribute to a dip in retention rates. Three Faculty members resigned in the spring of 2013.
- 2 The number of students completing the program in the desired 3-semester is lower than desired.
- 3 Need adequate staffing and resources to continue to deliver a successful program.
- 4 On time completion rate in 2012-13 was at 56% due to underprepared students, faculty turnover, new faculty issues, and student personal issues.
- 5 Underprepared students continue to be a challenge but the program leaders are mitigating this challenges through strategies listed above under **Program Strengths**. These interventions include Boot Camp, early Intervention, Tutoring, and dedicated Advising.
- 6 C6 Implementation of supplemental instruction and embedded remediation created a challenge (to carve out course time) but turned out to benefit the program and student success rates.
- 7 Nontraditional male population is consistently low in program.
- 8 Socioeconomic challenges and challenges experienced by first generation students are a strong consideration in the program.
- 9 The productivity rate remains low as the team strives to find a balance between a ratio that seems conducive to instruction of 1:10 (faculty to student) and the norm of 1:15.

**Opportunities**

- 1 High faculty turnover rate is being addressed through a stronger faculty orientation to include acclimation to academia, resources on instructional strategies, faculty peer support, and strategies that will facilitate student success.
- 2 Faculty evaluation and revision of course content may lead to further proposed changes based on faculty meeting conversation.

**Program Goals**

- 1 Complete a major curriculum revision for the program including revising all clinical evaluations tools.
- 2 Improve retention and on-time completion rates by 5%.
- 3 Evaluate curricular changes based on student feedback. Plan revisions and submit to the BVN/PT for approval.
- 4 Update course, instructor, and faculty evaluation tools.
- 5 Improve collection of employer survey to address employment patterns, develop a timeline for survey administration, meet face to face with employers to garner feedback.

**Requests**

- 1 Dependable electronic media to support interactive classroom activities to conduct online testing.
- 2 Cosmetic upkeep (paint in classrooms, outside of building, carpet in classrooms & offices) to create a positive learning environment.

# Welding

## Program Abstract

- 1 Bakersfield College offers three Certificates of Specialization: Welding Certificate of Achievement & Welding Option AS degree.
- 2 Successfully qualified over 125 students in different procedures resulting in certification papers over the past 7 years.
- 3 The program offers Blue Print Reading, Pipe Layout for Welders, and Fabrication courses.

## Program Strengths

- 1 Enhances student experience with online instruction, develops Skills Certificates, uses embedded remedial skills in lecture an course, uses technology to increase completion rates, uses professional development opportunities to address retention.
- 2 Faculty embedded lecture that addressed soft skills, reading, and trade arithmetic in program courses.
- 3 Participates in the C6 Grant
- 4 Because institutional data reveals that student demand for welding courses remain high, 5 additional seas were added to all waitlists and were immediately filled.
- 5 Faculty has increased the emphasis on industry safety standards. All course place an emphasis on safe work practices (SWP)
- 6 The program acquired 2 new, state-of-the-art Pulse-GMAW Welders, one for each lab.
- 7 The grant is prepared to purchase additional Pulse GMAW Welders
- 8 Hispanic student participation increased due possibly to the C6 Grant.
- 9 Retention rats rose slightly (90.4% to 92.2%) possibly due to instructor encouragement.
- 10 Success rates also rose from 78.4% to 79.5%.
- 11 Instructors intentionally emphasize that completing a certificate makes them a more desirable candidate.
- 12 The implementation of Course Mate is improving success rates.

## Program Challenges

- 1 The C6 Grant, although a wonderful addition, overloads the faculty.
- 2 The addition of six extra sections at Bakersfield College and two in Delano are creating a need for additional faculty.
- 3 The extra workload caused by the C6 Grant has made it challenging for this department to participate in program promotion, professional development, and Committee involvement on campus.
- 4 General numbers have remained fairly constant with females constituting significantly fewer participants (19-23 female students vs. 311-313 male students).
- 5 African American Students fell significantly.
- 6 Because the welding industry does not require a degree, the number of degrees offered in welding is very low (3 issues in 2012-13).

## Opportunities

- 1 Teach two courses (WELD B1B and WELD B1A) at Delano High. (May need to hire an additional faculty member to accomplish this)
- 2 Many students and the Advisory Board members have expressed interest in a Certified Welding Inspector program.

## Program Goals

- 1 Program focus on creating an exemplary model program. Continued focus on supplemental online component to decrease seat time and increase lab (hands on) time.
- 2 Enhance collaboration, consultation, and communication within the college and with external constituents. Continued participation in C6 will help this goal.

<b>Requests</b>	1	None pending.
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# Woodworking

## Program Abstract

- 1 Through the Woodworking Technology Program (WTP) students will acquire woodworking and technology related skills that will allow them to seek positions in the woodworking and cabinetmaking trades.
- 2 The WTP directs students to part and full time work in their area of interest.
- 3 Degrees and certificates offered include and AS Industrial Technology, Woodworking and Cabinetmaking Option, JSC Woodworking/Cabinetmaking, and a CA Cabinetmaking.

## Program Strengths

- 1 A "hands-on" environment is the theoretical approach.
- 2 8% of the program's students were African Am, which was above the college-wide average.
- 3 The retention rate in the program was at 87% (above the college average).
- 4 The success rate for the program was at 78% (above the college average).
- 5 Students who take the coursework in the Woodworking Technology Program either transfer to a four-year institution or secure part or full-time employment in cabinetry, as well as related majors such as architecture, engineering, construction technologies, and industrial technology.
- 6 There tends to be a growing trend of students entering the Woodworking Technology Program who have completed four year degrees and have returned to the WTP to receive practical hands-on skill sets in order to make them a more valuable commodity within their career pathway.
- 7 All courses are delivered face-to-face in an environment which includes a combination of lecture, hands-on a combination of lecture, hands-on
- 8 Courses are "full" or "waitlisted" every semester.
- 9

## Program Challenges

- 1 Students often make academic plans around financial aid availability rather than personal interest. The instructors are challenged to excite students with developing their unique gifts while growing basic skill sets.
- 2 The average participation rate of nontraditional female students (17%) in the WTP is below the college-wide rate.
- 3 The population of Hispanic/Latino students in the program was at 47%, which is slightly below the college average. The white population was slightly above the college-wide average.
- 4 Currently there is only one professor in the WTP. Due to the lack of instructors, it takes a student approximately three years to complete the coursework.
- 5 The program has an Advisory board.
- 6 Students arrive to the program academically unprepared.

## Opportunities

- 1 Possible integration of WTP into other Bakersfield College programs.
- 2 Create a "margin" of space for Engineering and Architecture students to take basic woodworking program to apply the theoretical and abstract concepts in a concrete experience.

# D - Wage Gains for Award Recipients

CCCCO Wage-Tracker June 1, 2014 Wage Gains for Award Recipients College Summary Report		
	Award Year 2001-2002 through 2008-2009 Median Wage 3 Years After Award	Award Year 2001-2002 through 2008-2009 Total Awards
<b>Bakersfield College Award Discipline</b>		
Accounting-050200		
AA/AS Degree Recipient	\$25,326	36
Administration of Justice-210500		
AA/AS Degree Recipient	\$41,148	23
Architecture and Architectural Technology-020100		
Locally Approved Certificates Recipient	\$55,665	107
Automotive Technology-094800		
Locally Approved Certificates Recipient	\$22,970	82
Biology, General-040100		
AA/AS Degree Recipient	\$35,685	32
Business Administration-050500		
AA/AS Degree Recipient	\$36,800	64
Carpentry-095210		
CCCCO-Approved Certificates Recipient	\$46,675	22
Child Development/Early Care and Education-130500		
AA/AS Degree Recipient	\$23,436	35
Locally Approved Certificates Recipient	\$17,029	41
Drafting Technology-095300		
Locally Approved Certificates Recipient	\$39,960	28
Electrical-095220		
CCCCO-Approved Certificates Recipient	\$61,863	76
Human Services-210400		
AA/AS Degree Recipient	\$15,703	33
Liberal Arts and Sciences, General-490100		
AA/AS Degree Recipient	\$28,346	219
Liberal Studies-490120		
AA/AS Degree Recipient	\$20,305	41
Licensed Vocational Nursing-123020		
CCCCO-Approved Certificates Recipient	\$48,797	25
Machining and Machine Tools-095630		
Locally Approved Certificates Recipient	\$62,031	53
Manufacturing and Industrial Technology-095600		
Locally Approved Certificates Recipient	\$38,540	38
Plumbing, Pipefitting and Steamfitting-095230		

CCCCO-Approved Certificates Recipient	\$54,933	45
Psychology, General-200100		
AA/AS Degree Recipient	\$29,855	45
Radiologic Technology-122500		
AA/AS Degree Recipient	\$54,384	81
Registered Nursing-123010		
AA/AS Degree Recipient	\$70,616	441
Sheet Metal and Structural Metal-095640		
CCCCO-Approved Certificates Recipient	\$55,577	16
Sociology-220800		
AA/AS Degree Recipient	\$22,326	16
Speech Communication-150600		
Locally Approved Certificates Recipient	\$38,269	39
Welding Technology-095650		
Locally Approved Certificates Recipient	\$30,420	58

100

100 Analysis. CA Community Colleges Chancellor's Office. Wage Gains for Award Recipients College Summary Report. "Datamart." Chart. 1 June 2014.

## E - Technology Requests Aligned with Strategic Goals, Completed Summer 2013

<b>Funded Technology Requests Aligned with Strategic Goals</b>	<b>Funding Source</b>	<b>Amount</b>
SS3 (Convert from wireless cart to thin client lab)	BSI	\$80,000
FA-30 (Update projector, screen, instructor station)	SRID	\$12,000
Business Building (Updated wiring in classrooms & labs, new computers in B11, wireless coverage for whole building, switching infrastructure)	SRID/VTEA	\$120,000
MS 3/4 (New projector, computer and instructors station, wiring, wireless)	STEM	\$15,000
SE 7 (31 Computer replacements)	VTEA	\$31,000
LA-225 ( 31 Computer replacements, projector)	GUI	\$37,000
SE Building Wireless	STEM	\$15,000

The college also reviewed numerous requests from faculty and staff to upgrade technology during the 2013-14 FY.

Request	Amount	Department	ISIT Priority	Justification from Annual Update
Laptop Computer	\$2,000	Auto Tech	1	Within the next year, BAR will be requiring an addition to the Smog Machine. This will include a laptop computer, software from a BAR approved source and a bar code reader which will attach to the laptop.
Summer Project AG Build Tech	\$20,000	Technology Services (IT/MS)	2	Update existing projector/technology
Update Forums Technology	\$50,000	Technology Services (IT/MS)	3	Update existing projector/technology
Network Drop Replacement LA	\$4,500	Technology Services (IT/MS)	4	Replace network drops in the Language Arts building— Many drops come up from the floor (upstairs) and are unsafe and often broken by usage. There are some unstable drops downstairs also. Estimated replacement cost is \$300 per drop. 3 drops have been completed within 2013 so far due to this damage.
Electronic 16x9 Aspect screens	\$8,000	Biology	5	Would like 4 16x10 aspect ratio screens (electric) for SE 48, 51, 53, 56 to replace existing electric screens. These rooms are multipurpose rooms* added by Media Services
Technology Classroom	6,330.00	ASL/Foreign Language	6	(13) An Epson Brightlink Shortthrow Projector will finally allow ASL instructors to get their imaging equipment off of the floor where it blocks visual communication between teacher/student and student/student (Please refer to the photo on page 4 of the ASL APR). This item will replace a cumbersome, rolling black cabinet that substantially interferes with communication in the same way ongoing loud noise would in auditory instruction. (14) The equipment would serve approximately 250 students each semester. (19) This equipment would directly, and positively, affect instruction. Its installation would greatly enhance communication in our dedicated classroom. At the moment, not all students can see the instructor and the instructor cannot see all students. Again, this is directly analogous to a student being unable to hear the instructor, nor the instructor them. (20) Any additional resources are accounted for in the estimated cost.

Computer Replacement	\$25,000	Library	7	The computers currently used in the library classroom lab, L217, were installed four years ago and are beginning to require more maintenance and attention. This lab offers hands-on experience with library databases, the library catalog, and the Internet. Courses taught in this lab each semester are 3 sections of English B34, 75 workshops.
Computer Replacement	\$31,000	Library	8	The 31 public access computers in the library are four years old. These computers offer access to the library catalog, research databases, and the Internet. They are in nearly constant use every day throughout each semester. We've noted lately that more and more of these computers are exhibiting printing problems, freezing, and slow response times.
Update Music Lab Technology		Music/ Performing Arts	9	The Music program currently operates a music lab housed in FA73E with 8 stations of Apple computers used by approximately 70 students per semester. The current computers are more than 8 years old and can no longer be upgraded to support current software. In Fall 2014, this lab will be relocated to the newly renovated SPARC in a room specifically designed for such an activity and configured for 17 stations. Therefore, essentially half of this request is for replacement of obsolete equipment and the rest is new purchase. The quote includes both the hardware and software costs proposed as the addition.
Desktop Computers		Biology	10	Biology faculty received "repurposed" office, lab and classroom computers more than 4 years ago. This is to cover both areas in SE and MS 14/17.
Document Cameras	\$10,000	English	11	Document Cameras will replace the aging transparency machines in our classrooms: Humanities 2, 3, 4, 5, 6, 7, 20, 21, 22, and 23 (10 classrooms). Doc cameras facilitate learning by allowing instructors to make comments on student papers and in texts immediately (no prior preparing needed), addressing "in-time" instruction standards. Funding could possibly come out of Basic Skills Initiatives money. Will see if BSI can fund—Check with Bonnie
Data/Video Projector	6,330	Health & Physical Education	12	Gym 12 (funded dept.) Gym 17
Technology Classrooms		Foreign Language/ Spanish	13	Epson Brightlink Projector with mount and replacement lamp, air filter, pens, infrastructure, cabling and approx total cost \$6,330 per room. Priority #1 is LA 224, Priority 2 is LA 201, Priority #3 to LA 202
Technology Classroom Updates	\$25,320	Auto Tech	14	Update existing Technology for Auto Tech 2 Rooms may be funded 2 that are not DSA approved may not
Technology Classroom		Music/ Performing Arts	15	To update the instructional space in FA60. Necessary for instruction of multiple courses required by the AA-T in Music to be implemented

Technology Classrooms	25,320	Social Science/ History	16	We are asking for “short throw, wall mounted” projectors in rooms H12, H103, H13 and H15. At present, faculty believe the current television system is limited in its usefulness. The projector images are larger and easier to see, and do not require the teacher to strain his/her neck to use when standing in front of the computer. Estimated cost reflects cost of hardware, installation and additional wiring.
Spitz SciDome Projection Sys.	\$270,000	Physics/Astronomy	17	Eventual replacement of the Spitz SciDome all-dome projection system in the Planetarium. The system is essentially a computer system with a data projector. The computers are now 7 years old. None of the money generated from ticket sales goes into any hardware replacement fund---they all go into GUI. Bakersfield College student headcount served is about 250 but over 4500 K12 + adult general public attend planetarium shows.
B-11 Updates & Miscellaneous	\$8,840	BMIT/COMS	18	This is a request for various equipment and equipment configurations that are needed to enhance instruction and student learning outcomes in the Computer Studies programs: For classroom B11: Additional Cable drop needs to be installed to the instructor station. Classroom switch/router needs to be configured to allow instructors to set up and demonstrate networking protocols that should remain isolated within the classroom network. The following can be used in multiple computer labs. External hard drives (qty. 40—\$70 per unit) Wifi AP's (qty 2 at 120 per unit) USB Wifi Adapters (Qty 42 @ \$40 per unit) 10 cable cutters (\$20 per unit) wire strippers (\$20 per unit) crimping tools \$20 per unit, cat 6e twisted pair cabling \$200 per 1000 ft. box, and RJ-45 connectors \$20 per pack of 100. Voice over IP equipment headsets (Qty 45 @ \$20 per unit). The following are for classroom demonstrations: A switch that supports virtual LAN's (VLANS) Qty. 1 @\$100., Fiber optic equipment and cable Qty. 2 NIC's \$100 per unit, Qty. 1 switch \$100 per unit, Qty. 2 20ft. MMF \$50 per unit.
Technology Classroom	\$37,980	English	19	We request classrooms used by English in the Humanities building be updated to reflect Smart Classrooms or modeled after SS 3's technology. Our current classrooms (H-23, 22, 21, 21, 7, 6, 5, 4, 3, and 2) with the Monitor in the top corner of the room and the computer/DVD player, mouse, keyboard in the media cabinet directly below the monitor make it difficult to use the equipment--the mounted TV screens, media cabinets were additions to old classrooms that weren't originally created with technology in mind. The TV screens are outdated and incompatible with laptops. If only some of the classrooms can be updated, we'd ask for 4, 20, 7, 23, 6, and 3, in that order.

28-Person Computer Lab	\$100,000	AC/DV	20	a dedicated classroom computer lab with 28 student stations and an instructor station with projector. The outcomes in our pilot courses, which relied heavily on the open Student Success Lab, showed that students need more face-to-face instruction in the lab setting. Therefore, ACDV is requesting a second dedicated classroom computer lab with 28 student stations and an instructor station with projector to accommodate all our ACDV sections.
28-Person Computer Lab	\$100,000	AC/DV	21	a dedicated classroom computer lab with 28 student stations and an instructor station with projector. In Delano. The outcomes in our pilot courses, which relied heavily on the open Student Success Lab, showed that students need more face-to-face instruction in the lab setting. Therefore, ACDV is requesting a second dedicated classroom computer lab with 28 student stations and an instructor station with projector to accommodate all our ACDV sections.
Computer Lab	\$100,000	FACE—Culinary	22	The increased computer requirement for textbooks, on-line software and business/operational requirements justifies a computer lab in the FACE building. FACE 13 or FACE 12 remodeled
Desktop Computers	46,800	BMIT/COMS	23	Our utilization of the two computer labs in the Business Education building (B2 and B11) is high. Because of the high utilization of these labs, we are scheduling labs around campus (Library, Science and Engineering), for those courses we offer that can use more “generic” computers. Unfortunately, many times those computers are inadequate for some of our current courses (COMS B82, COMS B41, COMS B34, COMS B74a, COMS B93) and for courses we plan to add to the catalog. The flexibility in scheduling AND the ability to offer more computing intensive courses is paramount for the success of our programs. The requested configuration for the workstations in this lab will also allow the lab to be used as a traditional lecture room as well. This furniture is being requested via the M & O form.
B-2 Lab to Virtualization lab	\$34,000	BMIT/COMS	24	<ul style="list-style-type: none"> <li>• Minimum 8 GB RAM</li> <li>• USB 3.0 port accessible from the front of the system unit</li> <li>• 2 instructor workstations</li> <li>• Additional cable drop for additional instructor workstation</li> <li>• 40 external USB 3.0 Hard drives (like those in B11)</li> <li>• Classroom switch/router needs to be configured to allow instructors to setup and demonstrate networking protocols that should remain isolated within the classroom network</li> </ul>
Computer Lab	\$100,000	FACE—Child Development	25	FACE dept. is requesting a computer lab in the department to improve student success and retention rates.

Computer Lab	\$100,000	FACE—Child Development	26	Face dept. is requesting a computer lab in the department to improve student success and retention rates.
Wireless accessibility HS	\$5,000	DELANO	27	The lecture halls at Robert F. Kennedy High School (a Bakersfield College Joint Use facility) do not have Internet connectivity available to Bakersfield College instructors. The Bakersfield College IT needs to develop a solution that provides wireless access to faculty and students at this facility. Solutions include: wireless routers that expand Bakersfield College Delano's wireless access area to include the lecture halls; purchase MiDi internet connectivity for instructors; or other TBD. All solutions will require an agreement with Delano Joint Union High School district and E-rate regulations may limit the solutions.
Color 3D Printer	\$52,000	EIT (Engineering & Ind. Tech)	28	a color printer

# F - Degrees

Administrative Office Assistant  
 Agriculture Business Management  
 American Sign Language  
 Animal Science  
 Anthropology  
 Architectural Drafting  
 Studio Art  
 Biology: General Biology  
 Biology: Human Biology  
 Business Administration  
 Carpentry Apprenticeship  
 Chemistry  
 Child Development & Family Relations  
 Child Nutrition Management Program  
 Communication Studies  
 Computer Information Systems  
 Computer Science  
 Correctional Administration  
 Criminal Justice/Administration of Justice  
 Culinary Arts  
 Economics  
 Electrician Apprenticeship  
 Engineering  
 Engineering Technology  
 English  
 Environmental Horticulture  
 Fire Technology  
 Wildland Fire Technology  
 Food Service Management  
 Forestry  
 Geology  
 History  
 Human Services  
 Industrial Drawing  
 Industrial Technology  
 Industrial Technology, Automotive Option  
 Industrial Technology: Industrial Drawing Option  
 Industrial Technology: Construction Option  
 Industrial Technology: Electronics Option  
 Industrial Technology: Manufacturing Technology Option

Industrial Technology: Welding Option  
Industrial Technology: Woodworking and Cabinetmaking Option  
Journalism  
Liberal Arts  
Liberal Studies  
Mathematics  
Music  
Nursing  
Operating Engineers Apprenticeship  
Philosophy  
Physical Education/Kinesiology  
Physics  
Plant Science—Crops Emphasis  
Plant Science—Horticulture Emphasis  
Plumbers and Steamfitters Apprenticeship  
Political Science  
Political Science: Emphasis in Domestic Policy  
Political Science: Emphasis in International Relations  
Psychology  
Radiologic Technology  
Sheet Metal Apprenticeship  
Sociology  
Spanish  
Theatre Arts  
Web Development: Cross-Discipline Emphasis  
Web Development: Design Emphasis

Web Development: Web Programming Emphasis

## G - Certificates

Agriculture Business Management, CA  
 Animal Science, CA  
 Architectural Computer Aided Drafting, JSC  
 Auto Brakes and Wheel Alignment, CA  
 Auto Engine Overhaul, CA  
 Auto Tune-up and Emission Systems, CA  
 Automotive Heating, Ventilation and Air Conditioning-HVAC, JSC  
 Automotive Management, JSC  
 Automotive Power Trains, CA  
 Basic and Advanced Clean Air Car Course, JSC  
 Bookkeeping, CA  
 Cabinetmaking, CA  
 Carpentry Apprenticeship , CA  
 Child Development Assistant Teacher, JSC  
 Child Development Associate Teacher, JSC  
 Child Development Master Teacher: Infant Toddler, CA  
 Child Development Master Teacher: Special Education, CA  
 Child Development Teacher, CA  
 Child Nutrition Management Program, CA  
 Communication, CA  
 Computer Information Systems, CA  
 Computer Science, CA  
 Construction Technology, CA  
 Culinary Arts, CA  
 Dietetic Services Supervisor, CA  
 Digital Arts 05/14, CA  
 Electrician Apprenticeship , CA  
 Electronics Technology, CA  
 Emergency Medical Technology Program, Emergency Medical Technician-1, JSC  
 Environmental Horticulture, CA  
 Fire Technology, CA  
 Chief Officer Certification (Nfpa Standard 1021), CA  
 Fire Officer Certification (Nfpa Standard 1021), CA  
 Forestry, CA  
 General Business, JSC  
 Human Services, JSC  
 AutoCAD, JSC  
 Manufacturing Technology, CA  
 Basic Machine Tool Operation –Lathe, Mill, JSC  
 Computer Numerical Control Programming, JSC

Marketing , CA  
Nurse Assistant, JSC  
Office Assistant, CA  
Office Assistant, JSC  
Operating Engineers Apprenticeship , CA  
Plant Science, CA  
Plumbers and Steamfitters Apprenticeship , CA  
Principles of Fluoroscopy, JSC  
Principles of Venipuncture, JSC  
Registered Veterinary Technician, JSC  
Retail Management, CA  
Sheet Metal Apprenticeship , CA  
Vocational Nursing, CA  
Web Development: Cross-Discipline Emphasis, CA  
Web Development: Design Emphasis, CA  
Web Development: Web Programming Emphasis, CA  
Welding, CA  
Welding Certification, JSC  
Blueprint Reading and Layout for Welders, JSC  
Gas Metal Arc/Gas Tungsten Arc Welding/Flux Core Arc Welding, JSC  
Shielded Metal Arc Welding, JSC

Woodworking/Cabinetmaking, JSC

## H - Historical Data, Student Transfer to CSU

Student Transfer CSU	2007-08		2008-09		2009-10		2010-11		2011-12	
	#	% of Total								
Bakersfield	605	74.2%	554	73.9%	596	79.9%	569	74.7%	569	72.7%
Channel Islands	6	0.7%	3	0.4%	3	0.4%	3	0.4%	1	0.1%
Chico	12	1.5%	13	1.7%	5	0.7%	7	0.9%	7	0.9%
Dominguez Hills	3	0.4%	6	0.8%	3	0.4%	4	0.5%	7	0.9%
East Bay	2	0.2%	3	0.4%	5	0.7%	3	0.4%	3	0.4%
Fresno	39	4.8%	41	5.5%	38	5.1%	36	4.7%	53	6.8%
Fullerton	8	1.0%	7	0.9%	5	0.7%	5	0.7%	6	0.8%
Humboldt	2	0.2%	6	0.8%	4	0.5%	11	1.4%	8	1.0%
Long Beach	18	2.2%	13	1.7%	5	0.7%	11	1.4%	9	1.1%
Los Angeles	2	0.2%	7	0.9%	2	0.3%	4	0.5%	5	0.6%
Maritime Academy	1	0.1%	1	0.1%	0	0.0%	0	0.0%	0	0.0%
Monterey Bay	4	0.5%	4	0.5%	2	0.3%	5	0.7%	4	0.5%
Northridge	30	3.7%	24	3.2%	26	3.5%	39	5.1%	49	6.3%
Pomona	8	1.0%	4	0.5%	8	1.1%	10	1.3%	2	0.3%
Sacramento	6	0.7%	9	1.2%	7	0.9%	11	1.4%	13	1.7%
San Bernardino	1	0.1%	2	0.3%	1	0.1%	1	0.1%	2	0.3%
San Diego	18	2.2%	12	1.6%	7	0.9%	12	1.6%	6	0.8%
San Francisco	14	1.7%	12	1.6%	8	1.1%	10	1.3%	16	2.0%
San José	7	0.9%	9	1.2%	4	0.5%	5	0.7%	6	0.8%
San Luis Obispo	26	3.2%	15	2.0%	13	1.7%	14	1.8%	14	1.8%





