

TABLE OF CONTENTS

COMPREHENSIVE DEVELOPMENT PLAN:1

ACTIVITY OBJECTIVES23

IMPLEMENTATION STRATEGY25

KEY PERSONNEL53

PROJECT MANAGEMENT PLAN58

EVALUATION PLAN61

BUDGET NARRATIVE:67

COMPREHENSIVE DEVELOPMENT PLAN:

This Title V Cooperative arrangement **“*Puentes: A Partnership to Improve Access to the Baccalaureate for South Texans through Writing and Math Innovation*”** will be a partnership between San Antonio College (SAC), Texas’ largest single-campus community college, and Texas State University-San Marcos (TxState), an emerging Hispanic-serving institution 45 miles northwest of San Antonio. By combining the resources and expertise of each institution, both SAC, which serves over 10,000 Hispanics a semester, and TxState, the largest producer of teachers in Texas, will be able to provide more learner-centered and culturally competent instruction to Hispanic Texans and remove obstacles in their path to the baccalaureate.

TxState has high rates of retention and graduation for the 21% of its student population that is Hispanic, but the proportion of Hispanics it serves is not reflective of the service area’s population. SAC prepares large numbers of Hispanics, but has low transfer rates and low productive grade rates in developmental and gatekeeper courses. With the assistance of TxState, SAC will improve the learning and teaching of writing and math, establish permanent Writing and Math Centers, and improve access to the bachelor’s degree for its student population, which is half Hispanic and/or low-income. With the assistance of SAC, TxState will increase the numbers of Hispanics attending the university to better reflect Texas’ population, improve services to Hispanic students, refine and expand its Developmental Education methodologies, and increase the numbers of Hispanics obtaining a bachelor’s degree from TxState.

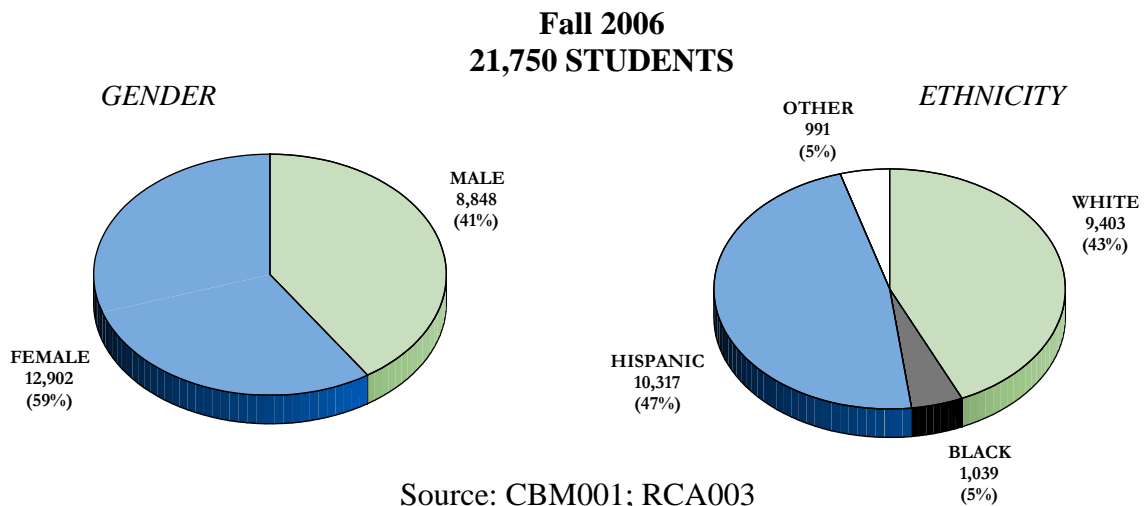
A common goal of the partnership will be to decrease the number of semesters Hispanic and low-income students spend in developmental courses. To this end, TxState will pilot and rigorously assess best practices in developmental education for Hispanics at SAC; practices proven to be effective will be implemented by both faculties through professional development.

THE INSTITUTIONAL CONTEXTS

San Antonio is located in south-central Texas about 140 miles northwest of the Gulf of Mexico and 150 miles north of the state’s border with Mexico. According to July 2005 Census Bureau estimates, San Antonio is the seventh largest city in the U.S., with a population of 1,522,401. San Antonio has the highest proportion of Hispanics among U.S. cities with populations over one million, with 61.2% of the city’s population being of Hispanic origin; 6.1% of the city’s population is African-American, 30.1% is non-Hispanic White, and 2.6% is “other.” The city’s population is growing at an annual average of 2%.

San Antonio College (SAC) is the largest of the four publicly-funded, independently-accredited colleges within the Alamo Community College District (ACCD). SAC was founded in 1925 and accredited by the Southern Association of Colleges and Schools in 1955; SAC became part of the ACCD in 1982. With 10,317 Hispanic students enrolled in Fall 2006, SAC has one of the largest concentrations of Hispanics on one campus in the nation.

The gender and ethnicity of SAC students in Fall 2006 are expressed below:



Texas State University, located in San Marcos, Texas, 45 miles northeast of San Antonio and 30 miles southwest of Austin, was established as a normal school in 1903 and is a doctoral-

granting university, the largest campus in the Texas State University System. TxState's original mission was to prepare Texas public school teachers, especially those of South Central Texas. Today TxState's mission is to be "a public, student-centered, doctoral granting institution dedicated to excellence in serving the educational needs of the diverse population of Texas and the world beyond." TxState's 27,503 students choose from 115 undergraduate, 85 master's and 6 Ph.D. graduate degree programs offered by seven colleges (Applied Arts, Business Administration, Education, Fine Arts and Communication, Health Professions, Liberal Arts, and Science), the University College, and the Graduate College, which has three Ph.D. programs in geography (Environmental Geography, Geographic Education and Geographic Information Science), two in education (School Improvement and Adult, Professional and Community Education) and a sixth in Aquatic Resources.

A School of Engineering, doctoral programs in criminal justice, mathematics, mathematics education and physical therapy, and master's degrees in fine arts, human nutrition and athletic training are being developed or pending Coordinating Board approval. A new nursing program has just been approved by the Coordinating Board. Research expenditures increased to \$23.3 million in 2005-2006, and the National Endowment for the Humanities designated TxState the nation's study center for the Southwest, one of eight regional centers.

According to the Texas State Factbook, in Fall 2006 21% of TxState's 27,503 students (5,396 students) were Hispanic. The number of Hispanics applying to TxState increased 34.5%, from 2,472 in 2003 to 3,324 in 2006, compared to an increase of only 1.7% among white students. African American applications increased 29.5%, and those of Asian/Pacific Islanders 8%. In Fall 2005, 35% of TxState's new Hispanic undergraduates transferred in from community colleges. As of Fall 2006, 23% of the university's Hispanics came from the San Antonio MSA. From Fall 1995 through Fall 2005, 9.6% of Hispanic transfers (522 students) were from SAC.

TxState is retaining and graduating these minority students. Compared to the 10 largest Texas public universities, TxState ranks third in retention and graduation of both African-American and Hispanic students. Of the 523 Hispanic students that entered TxState in 2004, 76.9% were retained for a year and 69% were retained for two years. Without having reached HSI status, TxState already ranks 17th in the U.S. in the number of baccalaureate degrees awarded to Hispanic students. TxState's graduation rate is fifth among the 35 public colleges in Texas and the freshman-to-sophomore retention rate is eighth.

NEED:

In an article titled "The Future of Texas is tied to Education of its Minorities" Monica Wolfson of the Scripps Howard Austin Bureau pointed out that the ethnic breakdown of Texas was projected to change from 53 percent Anglo, 32 percent Hispanic, 11 percent black and 3 percent other in 2000 to "roughly 59 percent Hispanic, 24 percent Anglo, 7 percent black and 8 percent other" by the year 2040 (November 19, 2003). Although Texas' student enrollment in K-12 is rising, the number of white students graduating from public schools in Texas is projected to decline from 108,602 in 2007 to 96,568 in 2015. At the same time, it is projected that a total number of Hispanic high school graduates will increase 36.7%, from 88,242 in 2007 to 120,607 in 2015. Modest increases will also occur among African American, Asian/Pacific Islander and Native American students. This demographic shift will represent either economic disaster or economic boom, depending on how well Texas prepares its low-income minority residents to enter the workforce. White students are more affluent and more likely to attend and graduate from college than minorities. Texas institutions of higher education will have to make radical improvements in order to increase the number of Hispanic college graduates.

Need at SAC: As the largest provider of higher education to San Antonio minority residents, SAC's ability to appropriately educate its students and to ensure that as many as possible get bachelor's degrees at places like TxState is crucial to our state's economy. However, the latest Student Migration Report from the Texas Higher Education Coordinating Board (THECB) shows that from Fall 2002 to 2003, only 9.9% of SAC enrollees transferred to four-year public institutions in Texas, and only 4.2% of enrollees graduated with an Associates Degree or a technical certificate in Arts, Science or Applied Science. These rates are lower than Texas' transfer rate of 10.5% to four-year public schools, but higher than Texas' graduation rate of 3.4%. Fall-to-Fall 2002-03, 43.8% of non-graduates were retained at SAC (41.9% for Texas).

The reasons for low transfer and graduation rates can be found in the economic, educational, and language barriers faced by SAC students. The modal student at SAC is a Hispanic female aged 19 and 30 in at least her second semester of enrollment, but probably not continuously enrolled as a full-time student, and employed at least part-time. She is still a freshman and the first in her family to enter college. At least one of her parents did not finish high school. Her family resides within ten miles of campus, and she commutes by public transportation or with a friend/relative. Her family income is near 150% of the federal poverty level.

According to ACT Assessment Program Services (Habley), the five most critical issues contributing to drop-out potential, in order of effect, are 1) low academic achievement, 2) limited educational aspirations, 3) inadequate financial resources, 4) indecision about major/career, and 5) economic disadvantage. From Kindergarten through college, poverty correlates more closely with academic deficiency than any other factor (McCabe, 1999). Economic or financial difficulties also affect and potentially compromise the relative value students attribute to the cost of their education (Tinto, 1996). Bedsworth, Colby and Doctor (2006) found in their analysis of NELS data that **only 21% of low-income ninth graders attained college degrees by age 26,**

compared to 35% of all students. U.S. Census 2006 estimates indicated that 17.3% of Bexar County's population lived below the poverty level, compared to the U.S. rate of 12.7%.

According to the Texas Education Agency (TEA) **62.8% of the students in the Education Region SAC serves are economically disadvantaged.**

THECB reported in its 2006 Annual Data Profile that **59% of SAC students during 2004-2005 were "Economically Disadvantaged."** Forty-three percent (43%) of SAC students receive Pell grants, which require incomes below 150% of the poverty level. In January of this year, 39.4% of the 13,760 students who responded to SAC's Student Tracking Survey (among 22,485 enrollees) worked full-time, and 29.6% worked part-time; 16% were seeking jobs.

Ishitani (2003) also determined that the **risk of attrition for first-generation students**, after controlling for race, gender, grade point average and income, **was 71% higher than for their counterparts over time.** Of the 14,411 students who specified their parents' education on SAC's Spring 2006 Student Tracking Data Form, only 20.5% indicated that their mother had a BA degree or higher, and 23.2% said that their father had a BA or higher, indicating that **at least 75% of SAC's students are first-generation-in-college (FGIC).** According to THECB, 41% of SAC students in Fall 2004 were "academically disadvantaged."

Educational Attainment for the Population 25 years and over				
	San Antonio ISD Hispanic*	SAISD *	San Antonio**	United States**
Less than HS/GED	48.2%	40.8%	21.1%	15.9%
High School Graduate only	26.5%	27.1%	25.9%	29.6%
Some College, no degree	15.8%	18.1%	22.7%	20.1%
Associate's Degree	3.6%	4.0%	6.8%	7.4%
Bachelor's Deg. and higher	5.9%	9.9%	23.4%	27.2%

*Sources: * School District Demographics System, NCES, Census 2000 School District Tabulation
**U.S. Census Bureau Data Set: 2005 American Community Survey*

Underpreparedness is also an issue; SAISD's average math SAT scores for 2001 to

2004 ranged from 400 to 409, compared to an average of 499-500 for Texas and 514-518 for the nation. Less than 47% of those who graduated from the four high schools closest to SAC in 2004 attended public postsecondary institutions in Texas (THECB 2005 Data Profiles).

Using data from the U.S. Department of Education, Clifford Adelman (1996) found that developmental (remedial) education outcomes were best for students who needed fewest developmental courses. Students who placed into only one developmental course were much more likely to graduate than students who placed into two or more. Adelman also found that those who place into both developmental English and Reading face the highest risk of attrition. The THECB reported in 2005 that 49% of all first-time-in-college (FTIC) community college students in Texas were enrolled in remediation during the Fall 2003 semester. During that same semester, **SAC enrolled 79% of its FTIC students in developmental classes.** The chart below describes the proportion of students taking specific developmental classes at SAC:

Number of SAC Students Taking Developmental Courses Fall 2005					
<u>English</u>		<u>Mathematics</u>		<u>Reading</u>	
# Students	% A,B,C	# Students	% A,B,C	# Students	% A,B,C
1,794	53.19%	6,819	38.5%	2,113	60.5%
Total unduplicated number enrolled in one or more remedial courses			6,854		
Total enrolled in all three areas			826		

Some SAC students also face language and cultural barriers. THECB reported that **6% of all SAC enrollees in Fall 2004 indicated “limited English proficiency.”**

Research skills, critical thinking skills, and time management are all areas that SAC faculty identified, in a 2000 Faculty Senate study, as **deficiencies among their students that fail.** Research skills are not developed in homes or at inner-city schools where there is low English literacy and limited access to library or computer resources. Critical thinking is not

encouraged by working-class parents whose survival under an agrarian system of *patronismo* has required obedience. Time management is an alien concept in households where, because of poverty and underemployment, crisis management is the norm.

In Spring of 2007, the Title V Working Group conducted a Writing and Math Support Needs Survey among full-time faculty. They felt that **writing and math issues impeded student success in over 200 courses in 23 disciplines, that writing issues impeded success in an additional ten disciplines and that math issues impeded success in three additional disciplines**. They also felt that **student access to faculty coaches could remedy the problem**.

Need at Texas State: According to the THECB University Performance Report (2006), 21% of the student population of 27,129 students at TxState in Fall 2005 was Hispanic, but only 17.6% of degrees awarded at the University went to Hispanics. **As of Fall 2005, the six-year graduation rate for Hispanics entering TxState in 1999 was 47.4%, compared to a 61.4% rate for all students**. The Fall 2005-to-Fall 2006 retention rate for two-year transfers was **81%; for Hispanics it was 79%**. Although TxState produces more teachers than anyone else in this majority minority state, only 14.6% of students taking the teaching certification exam at TxState in 2005 were Hispanic; however, the pass rate on the exam for Hispanics was 96%, compared to 97% for white students.

In 2006, **36.8% of Hispanic students at TxState received Pell grants, compared to only 20.5% of white students**. Since eligibility for Pell requires an income below 150% of poverty, this indicates that **Hispanic students at TxState have lower incomes than their peers**.

RATIONALE FOR COOPERATIVE PARTNERSHIP: Texas State is less than an hour from San Antonio. Because it has not reached HSI status, it is to TxState's benefit to partner with SAC, which can help the university reach this goal. Because it is an affordable, student-centered, public university, with a reputation for academic excellence and an excellent record of success

with Hispanic students, it is to the benefit of SAC to partner with TxState and open this pipeline to the baccalaureate for more of our students. SAC faculty will also be able to obtain affordable professional development from education experts at TxState through this partnership.

INVITATIONAL PRIORITIES: This proposal will address “strengthening of academic offerings and program quality” and “improving tutoring designed to improve student success” in mathematics, which is foundational to most of the disciplines listed in Invitational Priorities 1 and 3. *Puentes*’ use of an outside evaluator and TxState’s graduate candidates to conduct rigorous assessment of project outcomes will also fulfill Invitational Priority 5.

ANALYSIS OF STRENGTHS AND WEAKNESSES AT SAC

San Antonio College (SAC) has spent the last five years intensely involved in planning as a result of the convergence of its Reaccreditation Review and its involvement in the national demonstration project of the Lumina Foundation, “Achieving the Dream” (AtD). Both required that SAC examine closely how well they were helping their students learn. The Southern Association of Colleges and Schools required that SAC develop a “Quality Enhancement Plan” to improve student learning, and AtD focused on the improvement of developmental and “gatekeeper” (core courses with high enrollment and high failure rates) course outcomes for low-income and minority students. The goals of both of these efforts are closely related to the goal of the Title V Developing Hispanic Serving Institutions (HSI) program, “to assist HSI’s to improve and expand their capacity to serve Hispanic students and low-income individuals.”

The following efforts focused attention on student learning issues and got faculty and administrators thinking about ways to evaluate and improve student learning for our Achieving the Dream and Quality Enhancement Plans: 1) SAC’s first **Title V** individual grant; 2) participation in the Community College Survey of Student Engagement (**CCSSE**); 3) a **report on recruitment** conducted by the Intercultural Development Research Association (IDRA) and

the development of an **Institute for Community Initiatives**; and 4) the findings of a **Retention Task Force** formed by our College Academic Council. All of these efforts involved most of the following: a) an analysis of the institution's strengths and weaknesses; b) a representative cross-section of the campus participating in the analysis process; c) the application of research-based solutions to the identified problems; d) the implementation of comprehensive programs; and e) the evaluation of results. Below are elaborations of these efforts:

The Impact of Title V: The development of SAC's 2001 Title V individual grant produced six strategies designed to improve student success for low-income/Hispanic students: 1) linked-course **learning communities**, 2) **supplemental instruction** for targeted "gatekeeper" courses, 3) a **computer literacy/Internet skills center**, 4) a **data warehouse**, 5) the expansion of a six-week intensive counseling-based classroom intervention, **Strategies for Success**, for students on probation for poor grades, and 6) **faculty professional development in alternative learning strategies**, including Learning Styles, Problem-Based Learning, and Learner-Centered Teaching.

Title V results were excellent. Four out of five **Learning Community** cohorts **had higher cumulative GPAs** than non-Learning Community students enrolled in the same course, the greatest difference for one semester being **2.86 GPA for enrollees vs. 1.41 for non-enrollees. Fall-to-spring persistence rates also increased** for 80% of Learning Communities, with a difference as large as 25% between enrollees and non-enrollees for one cohort.

From Fall '01 to Fall '05, the **Strategies for Success** intervention **had served 4,974 students on continued academic probation**, 65% of whom were Hispanic. **Hispanic completers of Strategies for Success** from Fall '01 through Fall '05 showed an **0.4 increase in their GPA**. Strategies completers showed substantial improvement in all areas assessed by the Learning and Study Strategies Inventory, and a **semester-to-semester retention rate of over**

60%. This retention rate was 15% higher than the semester-to-semester retention rate for continued academic probation students before Strategies' initiation.

By the end of the Title V funding, the **numbers of Hispanics graduating had increased by 43%** and the **percentage of Hispanics transferring** to public institutions in Texas **had risen from 6.5% to 7%**. The numbers of Hispanics receiving credit for internet courses had gone from 1,784 to 5,573 students. **Fall-to-Fall retention** of Hispanics went from **44.9% to 45.8%**.

The Community College Survey of Student Engagement (CCSSE): In 2001 and 2003, SAC participated in a pilot of the Community College Survey of Student Engagement (CCSSE) which assesses institutional practices and student behaviors that are correlated highly with student success and persistence/retention. CSSE results indicated that SAC needed to improve in these areas: 1) **student teacher interaction**; 2) **student effort**; 3) **active/collaborative learning**; and 4) **academic challenge**. The CSSE found that SAC students were less likely to engage in the following activities than their counterparts at other large community colleges: work with instructors on activities other than coursework; receive prompt written or oral feedback from instructors on their performance; read unassigned books on their own for personal enjoyment or academic enrichment; take advantage of peer or other tutoring, and/or use a math or English skills lab. SAC students also less frequently asked questions in class or contributed to class discussions and were less likely to apply theories or concepts to practical problems or in new situations and/or use information they had read or heard in class to perform a new skill.

The IDRA Report on Recruitment: In 2002, SAC commissioned the Intercultural Development Research Association (IDRA) to study why SAC was not recruiting more students from the four inner-city high schools closest to the college. IDRA's research and focus groups revealed that changing city demographics and a high dropout rate, a lack of transportation and a perceived lack of potential financial support were contributing factors.

Other IDRA findings corroborated a 2000 SAC Faculty Senate study, which identified several factors that contributed to attrition at SAC: **lack of academic preparedness**; unfamiliarity with college procedures and resources; and **unrealistic expectations of the time and effort needed to be successful in college**. IDRA's recommendations included the **improvement of course articulation** between high schools, SAC, and 4-year schools, and improvements to student support services, including **better tutoring** and **financial support through scholarships**. In response to the IDRA report, SAC established **peer mentorship program** and **education promotion by parents** at five inner-city minority high schools. This program has given scholarships to 158 college and high school peer mentors, and trained 50 parents to be Education Promoters. The 2004-05 pilot **yielded enrollment at SAC of 204 students, including parent *promotores*** (crucially important for the targeted population of first-generation students; according to Ishitani and DesJardins (2002), a student whose mother went to college was 25% less likely to leave college than one whose mother had not attended college).

The Retention Task Force: In late 2002, Title V evaluation results prompted the formation of a Retention Task Force, led by the Chair of the Math Department, which included faculty members, key university administrators, and staff representatives from campus programs. The Task Force inventoried retention strategies being used by SAC faculty and support staff and made recommendations for planning in this area to the College Academic Council. What they found was that many faculty were using research-based "best practices" and that many others had developed their own learner-centered methodologies to improve retention, but few had measured the success of their strategies. Data was collected only for exam review sessions, which yielded an 80% course completion in Sociology and a 100% NCLEX pass rate in 2002 for SAC's border Nursing Program. The results of this study led the President to ask the Retention Task Force to become the core of the Committee charged with developing a Quality

Enhancement Plan for the college's reaccreditation review.

Achieving the Dream: In Spring 2004, the Lumina Foundation for Education, which recognizes that community colleges are the key to opening access to higher education to minorities and low-income students, awarded the colleges of the Alamo Community College District an Achieving the Dream (AtD) planning grant. The data collected for AtD was revelatory. SAC's AtD Data Team found that while **low-income students with financial aid** are retained at higher rates than SAC students overall, they **complete gatekeeper English and Math at lower rates than the overall student population** and **graduate at substantially lower rates**. The data showed that **Hispanics complete gatekeeper Math and English courses at lower rates** than the overall population. They also found that **students in programs conducted with small groups, more personal attention, peer support, and more interaction do better than other students**.

AtD objectives matched objectives being developed for the Quality Enhancement Plan: 1) successful **completion of remedial courses** and progression to college-level courses; 2) enrollment in and successful **completion of college-level "gatekeeper" courses**; 3) **productive grades** (C or higher) in all courses; 4) semester to semester **persistence**; and 5) **graduation**.

Projects that have been implemented as a result of SAC's participation in AtD include an Accelerated Completion Program for first-time college students testing into three developmental courses, which allows at-risk students to complete all or most of their developmental coursework in one semester as a cohort, and a Writing Center Pilot. The Accelerated Completion Program pilot has shown promising results; the productive grade rates (PGR's) of cohort students in math have been 30%-49% higher than non-ACP students, and PGR's in Reading and English have been 1% to 23% higher. The Writing Center Pilot, which targeted specific gatekeeper courses, has shown equally impressive results (see below, Rationale).

The Quality Enhancement Plan: SAC's Quality Enhancement Plan (QEP) was the result of

nearly two years of intensive work by 14 key individuals at San Antonio College, including the President and Vice President, faculty, deans, directors, staff and students, assisted by input from every constituency on SAC's campus. The charge of the QEP Working Committee was to design a project to substantially improve student learning at SAC.

It became apparent to the Committee that in order to improve grades and persistence and to improve in the areas cited by the CCSSE (faculty-student interaction, active/collaborative learning, student effort and academic challenge), SAC needed to build upon previous institutional efforts in all of these areas through the promotion of **student-centered teaching and learning strategies**. The result was the establishment of an institutionally-funded "**College-Wide Professional Development Initiative Utilizing Teaching and Student Support Strategies that Improve Student Learning,**" the **Murguía Learning Institute (MLI)**. During their first Fall semester at SAC, new faculty receive intensive orientation and instruction in teaching best practices, including student-teacher interaction and collaborative/active learning, Learning Communities and Service Learning programs, problem-based and/or inquiry-based learning, Supplemental Instruction, and teaching based on learning styles. A cohort of developmental and gatekeeper faculty is given opportunity for similar instruction in best practices and student-centered learning each spring semester. Graduate coursework is offered for faculty and staff on SAC's campus by the University of Texas at San Antonio (UTSA) in community college teaching theory and practice. The MLI is also providing shorter-term professional development workshops for faculty and staff and mentorship support for new faculty. All MLI components include training in the assessment of student learning.

The expected outcomes for the ten-year QEP are that increased numbers of SAC students will be taught using "best practice" strategies proven to improve student learning and critical thinking skills; and in-class retention and PGRs will increase for students in classes affected by

the MLI and sequential courses to those improved through the MLI. The success of professional development is being measured using the Assessment of Learner Centered Practices (ALCP), end-of-course measurements of skills mastery, measures of behavioral and critical thinking change and quantitative indicators such as grades, licensure examination scores, achievement in sequential coursework, persistence/retention, and graduation/transfer. (*Note:* neither the Achieving the Dream nor the Murguía Learning Institute currently receives outside funding.)

Program Review: For the last two five-year cycles of the English Department's Program Review, the **establishment of a Writing Center has been among the department's recommendations for improvement of instruction.** Also, an evaluation of the acquisition of core competencies by our students conducted in Fall of 2006 for the Southern Association of Colleges and Schools revealed that there was **inconsistency across sections in the coverage of learning objectives in developmental math courses**, especially among adjunct faculty.

ANALYSIS OF STRENGTHS AND WEAKNESSES AT TEXAS STATE

Among the six goals of Texas State University's Strategic plan (called "Embracing Change") for 2004-2009, Goal 5 is to "Enrich our learning and working environment by attracting and supporting a more diverse faculty, staff and student body." To accomplish that goal, the university will specifically increase the "intensity and scope of recruitment programs that have a special focus on minority students, seeking the goal of HSI status" and build "a more diverse faculty and staff."

TxState's commitment to a more diverse faculty and staff is paying off. Since September 2004, 42% of all new tenure-track faculty and 34% of all new full-time staff hires were ethnic minorities. The Provost's "Target of Opportunity" program, which allows a flexible hiring mechanism for the hiring of qualified minorities and women, has had a significant impact on the numbers of Hispanic faculty. Between the Fall of 2004 and the Fall of 2006 seventeen Hispanic

faculty and a basketball coach have been hired. Six percent of the faculty in the McCoy College of Business are Hispanic, compared to an average of 2.3% in business schools nationally.

Academic leadership also reflects the emphasis on growing the Hispanic community: three of the seven academic deans are Hispanic (the Colleges of Applied Arts, Education, and Science); and five Chairs are Hispanic (Departments of History, Family and Consumer Science, Communication Disorders, Radiation Therapy, Psychology).

TxState is also achieving its goal of recruiting Hispanic **students**, with the ultimate goal of achieving HSI status. Hispanic enrollment increased 31.4% from Fall 2000 to Fall 2005. The number of degrees awarded to Hispanics in that same time period increased by 31.5%. In Fall 2005, the number of Hispanic freshmen increased by 27% and African-American freshmen by 10%; diversity among entering freshmen reached a record 28%, with 22% (5404) of the class being Hispanic. **Overall, Hispanics now represent 21% of the entire student body.** In addition, the numbers of Hispanic students submitting applications for admission has increased 34.5 percent, from 2,472 in 2003 to 3,324 in 2006.

Many entities across campus are developing **new recruiting efforts** in order to attract more Hispanic students to TxState. The Associate VP for Enrollment personally recruits in locations where he can contact significant numbers of minority students (El Paso, San Antonio, Kingsville, Corpus Christi, and Brownsville, for example). The Admissions Office has recruiting officers stationed in the Rio Grande Valley, San Antonio, Houston and Dallas. The Office of Financial Aid and Scholarships has initiated a series of counseling sessions in Laredo to educate students and parents about the availability of financial aid. The University Marketing Department is running full-page ads in *Hispanic Magazine*. The College of Education also works closely with the San Marcos Consolidated Independent School District to recruit local students.

In order to keep the students who have been recruited, **retention initiatives have been**

implemented across the university. The Offices of Academic Development and Assessment and Professional Development have sponsored a retention-based program for first-generation college students. Faculty from the School of Journalism and Mass Communications participate in the Dow Jones Urban Journalist Program in San Antonio, a two-week program for minority high schools students hosted by SAC. The College of Health Professions, funded by a grant from the Texas Guaranteed Student Loan Corporation, developed a one-year project called Project MAPS (Making Access and Participation Successful) to increase the Hispanic presence on campus, promote academic success, and strengthen collaborations among university faculty and staff, Austin Community College and area high schools. The College of Liberal Arts has implemented a transformation program for multicultural courses and curricula and made the program available to faculty across campus. The College of Education has also developed a new programmatic track that will address the needs of English-as-a-Second-Language educators.

Several initiatives in the McCoy College of Business have been successful: the College developed a Latin American Business certificate, in which 48 students are enrolled, and from which 10 students have already received Latin American Business certificates; 37 students completed immersion business Spanish courses in Monterrey, Mexico; the College is sponsoring a program called “Infusion of Multiculturalism in the Business Curriculum” and multicultural sections of three courses were first offered in fall 2005; and new exchange programs, patterned after programs at Monterrey Technological University in Guadalajara, are being developed.

Clearly, the university’s market share of applications reflects Texas’ changing demographics. However, although transfer matriculation rates have remained stable, matriculation rates for incoming freshmen have declined slightly, due in part to higher admission standards at TxState. And, as cited above, **retention and graduation rates for Hispanics remain lower than those of Anglo students, and the racial/ethnic composition of the student**

population at TxState does not reflect the state's population.

TxState has set a goal of reducing the difference between Hispanic and overall graduation rates by the year 2020. This will contribute to the THECB's "Closing the Gaps" initiative target, which is to increase the number of Hispanic students completing bachelor's degrees, associate's degrees and certificates to 67,000 by 2015. To achieve this will require, however, that TxState graduate an additional 18 to 19 Hispanics each year above the current trend between now and 2020. To achieve this growth, **it is important that the academic preparedness of incoming Hispanic students be comparable to the preparedness of other ethnic groups.**

PLANNING FOR THE TITLE V COOPERATIVE: In early 2006, the President of San Antonio College met with development staff and MLI, Math and English faculty, to discuss the direction of SAC's next Title V project with the Deans and Directors. They determined that the most pressing issues that had emerged from the planning processes above were those of **improving transfer opportunities and preparation** for SAC students, primarily by **improving developmental and gatekeeper education at SAC through increased learner-centeredness and more appropriate delivery methods.** The Title V Working Group convened to develop the grant request included faculty from English and Math, the MLI Director and the Writing Center Pilot Director from SAC, developmental math and reading faculty and the Directors of the Education Institute and Writing Center from TxState, and development staff from both IHE's.

TxState representatives met with SAC's Deans and Directors to present their Writing Center and Developmental Math program models, which received unanimous approval. The Title V Working Group then identified the strengths and weaknesses charted below for each IHE and developed the Goals and Objectives below, which match SAC's College Strategic Goal 1, "San Antonio College will improve and increase matriculation, student learning, graduation and transfer" and Goal 2, "San Antonio College will continue to improve academic and support

services to our students through an environment conducive to achieving their educational goals.” They also match TxState’s Strategic Goal 5, to “Enrich our learning and working environment by attracting and supporting a more diverse faculty, staff and student body,” and its Diversity Strategic Plan Goal A, “TxState will increase the recruitment and retention rates of African American and Hispanic/Latino students with a special emphasis on achieving HSI designation.”

San Antonio College	Texas State University
<p>Major Strengths</p> <ul style="list-style-type: none"> 1) SAC has a full range of online courses, including a full associate’s degree, hybrid courses and online student support; 2) Data indicates that SAC students who transfer to four-year institutions perform as well as or better than peers who started at the four-year schools; 3) SAC has real participatory management/shared governance; 4) Faculty are participating in professional development; 5) SAC has a new “culture of evidence” 	<p>Major Strengths</p> <ul style="list-style-type: none"> 1) Numbers of Hispanics applying to university is high; 2) Retention rates are high; 3) The rate of students who graduate within 6 years is high; 4) Hispanic student success rates are high compared to other IHE’s; 4) TxState has an established Writing Center with measurable positive effects on student achievement (high passing rates in core English courses); 5) TxState offers one of 4 Developmental Education master’s programs in the US.
<p>Major Weaknesses</p> <ul style="list-style-type: none"> 1) Faculty-student interaction and active collaborative learning are too low; 2) Developmental education services, personnel, lab facilities and technology are not adequate; 3) The percentage of students who fail developmental courses is too high; 4) The attrition rate of students in each year is too high; 5) The percentage of faculty trained to develop and implement instructional interventions that increase the success of at-risk students in developmental and gatekeeper courses is too low. 	<p>Major Weaknesses</p> <ul style="list-style-type: none"> 1) The proportion of Hispanics at TxState is lower than the proportion of Hispanics in South Central Texas; 2) Graduation and retention rates for Hispanics are lower than for the general student population; 2) Too few culturally competent faculty for increasing numbers of Hispanic students; 3) Instruction in study skills in developmental courses is too low; 4) Too few professionally trained developmental writing and math teachers; 5) Too few math instructors are fluent in use/productive use of computer-based instruction.

Key Overall Shared Goals for San Antonio College and Texas State

Academic Programs	Goal I: To significantly improve the academic attainment of Hispanic and low-income students.
Institutional Management	Goal II: To significantly reduce student attrition among Hispanics and low-income students.
Fiscal Stability	Goal III: To significantly increase the funds available for student scholarships and programs and faculty fellowships and training.

Measurable Objectives

ACADEMIC PROGRAMS

Goal I: By the end of the Title V Grant period, San Antonio College and Texas State University will have significantly improved the academic attainment of Hispanic students through improved teaching and academic support.

Process Objective 1: By September 30, 2008, a permanent Writing Center will have been established and be open for all SAC students.

Process Objective 2: By September 30, 2010, a Math Center (MathSpace) will have been designed, developed and established for SAC math students.

Process Objective 3: By September 30, 2012, at least 160 SAC faculty members and 40 TxState faculty members will have been trained in best practices in teaching college-level writing or developmental and college-level mathematics, and/or other developmental education best practices.

Outcome Objective 1: By September 30, 2012, both persistence and productive grade rates in developmental math and in College Algebra courses will have increased by at least 5% from 2004-2005 baselines. (Dev Math PGR baseline of 37% at SAC, 62% at TX State)

Outcome Objective 2: By September 30, 2012, average productive grade rates for SAC students spending at least 20 hours in the Writing Center will be at least .25 higher than comparable students who do not participate, and participants will persist at a rate at least 10% higher than non-participants.

Outcome Objective 3: By September 30, 2012, San Antonio College will increase the number of Hispanic and/or low income individuals graduating with an associate's degree within three years by 10%, from a baseline of 416 in AY 04-05. (*HSI Performance Indicator*)

Outcome Objective 4: By September 30, 2012, Texas State will increase the percentage of Hispanics graduating within six years by 2%, from a baseline of 71.5% in 2005. (*HSI Performance Indicator*)

Outcome Objective 5: By September 30, 2012 San Antonio College will increase the transfer rate to four-year Texas public institutions for Hispanic students from a baseline of 7% of the total Hispanic student population in 2002-2003 to 12% of the total Hispanic student population.

Outcome Objective 6: By September 30, 2012 San Antonio College will increase the numbers of Hispanic students who successfully transfer to Texas State University by 100%, to at least 84 students each Fall. (Baseline: n = 42 Fall 2005)

INSTITUTIONAL MANAGEMENT

Goal II: By the end of the grant period, San Antonio College and Texas State will have significantly reduced attrition for Hispanic and low-income students through improved institutional management of developmental and gatekeeper education.

Process Objective 1: By September 30, 2012, San Antonio College administrators and key staff will have participated in at least 10 conferences, workshops, external committees, and/or graduate coursework related to improving developmental and/or gatekeeper education at their institutions.

Process Objective 1: By September 30, 2012, The number of Hispanic students attending Texas State will have increased by >1,479 students to at least 25% of enrollees.

Outcome Objective 1: By September 30, 2012, the percentage of full-time undergraduate students who were in their first year of postsecondary enrollment at SAC in the previous year and are enrolled in the current year at SAC will have increased by 2%. (Baseline: 58.8% Fall 2003) (*HSI Performance Indicator*)

Outcome Objective 2: By September 30, 2012, the percentage of full-time undergraduate transfer students who were in their first year of postsecondary enrollment at Texas State in the previous year and are enrolled in the current year at Texas State will have increased by 2%. (Baseline: 81% Fall 2006) (*HSI Performance Indicator*)

FISCAL STABILITY

Goal III: To significantly increase the funds available for student scholarships, program improvement and faculty professional development at San Antonio College and Texas State University.

Outcome Objective 1: By September 30, 2012, San Antonio College will have increased its Title V endowment fund by at least \$250,000, and Texas State will have created a Title V Endowment Fund of \$250,000.

The Working Group presented to SAC's College Academic Council the four components of the Title V "bridges": 1) pipeline activities designed to increase SAC transfers to TxState, 2) a permanent Writing Center modeled on Texas State's, 3) a Math Center (MathSpace) where best practices and alternative delivery methods could be used to help improve developmental and gatekeeper retention and success, and 4) Professional Development and Best Practices piloting and assessment for faculty at both IHE's. The Council voted unanimously to approve the Plan.

At TxState, the working group presented the proposed components to and received endorsements and approval from the following entities: The Dean of the College of Education,

Dr. Rosalinda Barrera; The Dean of the College of Science, Dr. Hector Flores, and the Chair of the Department of Mathematics, Dr. Stanley Wayment; the Dean of the College of Liberal Arts, Dr. Ann Marie Ellis, and the Chair of the English Department, Dr. Michael Hennessy; and the Associate Vice President for Research and Federal Relations, Dr. Billy C. Covington.

Institutionalization of Title V Practices and improvements:

Many of the bridges (*puentes*) that will be built during the grant period are relationships that will not need funding to be institutionalized. **Articulation agreements** will need only to be updated, and **recruitment activities for transfers from SAC to TxState**, if successful, will remain in place as cost-effective alternatives to current activities. Since both institutions have extremely high retention of their faculty, departmental and faculty relationships created between TxState and SAC, which will include the **mentor/mentee, SAC faculty/TxState intern, TxState faculty/SAC faculty-as-graduate-students, TxState-as-developer of best practices/SAC-as-incubator-of-best-practices relationships**, should remain in place long after the grant ends. For SAC, the institutionalization of graduate internship arrangements will be profitable, and for TxState, cost-free. Because of SAC's incentive structure, which promotes faculty based on graduate hours earned, TxState will be able to continue to profitably offer **graduate coursework at SAC**. Improvement in **faculty-student relationships** achieved at both IHE's through the professional development implemented during the grant period should be maintained through follow-up performed by SAC's MLI and TxState's Education Institute.

If the **MathSpace** is successful in improving student outcomes, the long-term staffing and maintenance for the MathSpace will be covered by tuition and state reimbursement funds for the lab hours attached to developmental coursework and for coursework delivered in the Center. The Writing Center, however, will have to be institutionally funded, since it does not generate revenue. **SAC is committed to covering the costs of a permanent Director and Assistant**

Director (1.8 FTE) and the cost of faculty tutors for the Writing Center (45 releases/yr).

In order to continue the **Summer Institutes and Academic Year Workshops**, as well as **curriculum stipends for faculty** after the grant period, Development staff at the partner institutions will have to seek additional outside funding; however, new SAC English and Math faculty and TxState graduate students will continue to be able to use the Math and Writing Centers as incubators for professional development in best practices.

Activity Objectives and Performance Indicators	
ACTIVITY: Improvement in Developmental and Gatekeeper Education	
Objectives	Measurable Results
Pipeline Development: addressing problems of low transfers at SAC and low Hispanic representation at TxState; Related to Goal II of CDP, reducing student attrition, and Goal III, increasing funds for students.	
1) To increase communication between faculty and administrators at TxState and SAC. 2) To increase articulation agreements between TxState and SAC. 3) To increase numbers of SAC students obtaining bachelor's degree at TxState 4) To increase funds available for Hispanic students to attend SAC/TxState	By September 30, 2012: At least 12 courses will have been aligned between SAC, TxState and/or feeder high schools; Sixty-one (61) 2+2's signed (baseline 54 of 115 programs); The number of students transferring from SAC to TxState will have doubled from a Fall 05 baseline; 85% of SAC transfers will be retained at TxState Fall-to-Fall; 61% of SAC students entering TxState with 60 hours of credit will graduate within three years; San Antonio College will have increased its Title V endowment fund by \$250,000, and TxState will have created an Endowment Fund of \$250,000.
Writing Center: addressing problems of inadequate developmental lab facilities and technology, high developmental courses failure and high attrition at SAC, lower graduation/retention rates for Hispanics at TxState; related to Goal I of CDP, improvement of academic attainment, and Goal II, reducing student attrition.	
1) To improve the academic success of Students at SAC through the establishment of a permanent Writing Center.	By September 30, 2012: At least 20 SAC faculty members will use Writing Center techniques to assist students with writing. Course retention, productive grade rates for English and History core courses campus-wide will improve over 2006 baseline. Average productive grade rates for SAC students spending at least 20 hours in the Writing Center will be at least 0.25 higher than comparable students who do not participate.

	<p>Writing Center participants will persist at a rate at least 10% higher than non-participants.</p>
<p>Math Center: addressing problems of inadequate developmental lab facilities and technology, high developmental courses failure and high attrition at SAC, lower graduation/retention rates for Hispanics at TxState; related to Goal I of CDP, improvement of academic attainment, and Goal II, reducing student attrition.</p>	
<p>To improve productive grade rates of math students at SAC and TxState through establishment of a Math Center where alternative delivery and best practices in math support are implemented.</p> <p>To reduce the time it takes students to obtain an associate's degree and/or complete transfer requirements.</p>	<p>By September 30, 2010, a Math Center (MathSpace) will have been designed, developed, piloted, and established.</p> <p>By September 30, 2012: There will be improved math course retention and productive grade rates for SAC students using Math Center</p> <p>The rate of SAC students repeating developmental math courses will be reduced</p> <p>IHE-wide persistence and productive grade rates in developmental math and College Algebra courses will increase by at least 5% from 2004-2005 baselines. (Developmental Math baseline of 37% at SAC, 62% at TX State)</p>
<p>Professional Development: addressing problems of low % of faculty trained to develop and implement instructional interventions that increase the success of at-risk students in developmental and gatekeeper courses at SAC, too few culturally competent faculty for increasing numbers of Hispanic students at TxState, too few TxState math faculty productively use technology; related to Goal I of CDP, improvement of academic attainment, and Goal II, reducing student attrition.</p>	
<p>To increase the numbers of SAC & TxState Faculty that utilize best practices in teaching developmental, gatekeeper and writing intensive courses.</p>	<p>By September 30, 2012: At least 160 SAC faculty members and 40 TxState faculty members will be trained in best practices in teaching college-level writing or developmental and college-level mathematics, and/or other developmental education best practices.</p> <p>At least 20 SAC/TxState administrators and key staff will have participated in conferences, workshops, external committees, and/or graduate coursework related to improving the pipeline, developmental and/or gatekeeper education at each IHE.</p> <p>More SAC & TxState Faculty will utilize best practices in teaching developmental math, college algebra, and writing intensive courses.</p> <p>Course retention & productive grade rates, student success in sequential courses, and/or scores on Community College Learning Assessment (CCLA) show that students in courses taught by faculty receiving Title V training or with curricula revised through Title V have improved outcomes.</p> <p>Assessments of Best Practices for teaching Hispanic/low-income students are published and/or disseminated.</p>

<u>IMPLEMENTATION STRATEGY AND TIMETABLE</u>		
APPLICANT: San Antonio College (Texas State University)		ACTIVITY: Improvement of Developmental and Gatekeeper Academic Programs
YEAR ONE – 2007-2008		
Specific Tasks to be Completed	Primary Participants; Methods Involved/Activities	Outcomes
<p><u>Pipeline Activities:</u></p> <p>Two-year-to-Four-year “Alignment Conversations” between key TxState & SAC chairs and faculty initiated</p> <p>Recruitment/Application/Enrollment Coordination meetings TxState/SAC leadership & staff</p> <p>Development of Tx State orientations at SAC for transfer students and/or “satellite” coursework in San Antonio.</p>	<p>SAC Title V Project Director and TxState Title V Coordinator will work with SAC Transfer Coordinator , Administrators and Department Chairs and faculty; TxState Recruiter(s), Administrators, Chairs and TxState Faculty to coordinate coursework alignment and increasing the number of 2+2 agreements among SAC/TxState programs.</p> <p>Additional venues will be created whereby TxState enrollment personnel can perform on-site application and enrollment activities at SAC.</p> <p>TxState recruiters will work with Title V personnel to develop TxState orientation classes at SAC and/or core junior and senior coursework to be offered locally to commuting/concurrently enrolled San Antonio transfer students.</p>	<p>15% increase in transfers to TxState from SAC from AY 06-07</p>
<p><u>Writing Center Established:</u></p> <p>Renovation of 3 classrooms to establish permanent college-wide Writing Center; Purchase computers, furniture & software for Writing Center</p> <p>Hire and train Writing Center Coordinator</p> <p>Hire and Train Assistant Coordinator.</p> <p>Hire and train tutors</p>	<p>Director of Writing Center Pilot, with the advice of the TxState Writing Center Dir., will oversee the renovation of space for a permanent Writing Center and the hiring of a Writing Center Coordinator.</p> <p>The Writing Center Coordinator will work with the TxState Writing Center Dir. to equip the Center, hire an Assistant Coordinator, and to hire and train SAC adjunct faculty tutors to customize and deliver individualized and group writing instruction using pedagogically sound techniques, including Writing in the Disciplines and specialized training for Learning Disabled (LD) and English-as-a-second-language (ESL) students.</p>	

Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
<p><u>Writing Center – cont.</u></p> <p>Writing Center Opening & Implementation</p>	<p>Faculty and undergrad tutors will obtain discipline-specific expertise from rhetoric and composition specialists and instructional experience and agility needed to spontaneously design a sequence of related lessons that fit students' writing and learning needs. Some tutor training will occur at TxState in conjunction with TxState tutor trainings.</p> <p>Students schedule half-hour tutoring sessions with a faculty/undergrad tutor, available both by appointment and on a walk-in basis. Using Dell PC workstations in the Writing Center, tutors help students with writing connected to their academic/professional development</p>	<p>Permanent College-Wide Writing Center Established at SAC</p>
<p><u>Math Center Development:</u></p> <p>Development of Design for Developmental Math Center</p> <p>Train Math Center Director</p> <p>Visit Model Math Centers</p> <p>Begin renovation of three classrooms to create MathSpace facility</p>	<p>SAC's Math Ctr. Director will work with TxState & SAC Developmental Math faculty to research and develop a model for a Math Center where students can receive individual tutoring, labwork, and/or faculty supervision of hybrid internet/classroom or modular courses, as well as concept-based group instruction, delivered in flexible formats to meet differing needs. Math Center Director will train at TxState, at conferences/workshops, and through visits to model math centers at other institutions.</p> <p>Bids for renovation completed; renovation begun.</p>	<p>Math Center for SAC designed and planned; ready for implementation</p> <p>Director trained</p> <p>Renovation of facilities begun</p>
<p><u>Professional Development:</u></p> <p>Faculty, tutors attend tutor training at TxState</p> <p>First Summer Institutes in Developmental Math and Writing</p>	<p>Writing & Math Ctr. Coordinators will arrange for Writing and Math Center faculty tutors and undergraduate tutors to attend tutor trainings at TxState each semester with TxState tutors</p> <p>Writing Ctr Pilot Director and Writing & Math Ctr. Coordinators will work with TxState Writing Center Dir and Dev. Math faculty to design and develop Maymester Institutes. 20 SAC/TxState faculty will attend week-long Institutes during Maymester: Developmental Math will include the AIT Algorithmic Method (see Yr 2 and Rationale below) & other Math Best Practices and/or Instructional Technology in Math; Teaching in Math Modules; and Course Hybridization.</p>	<p>Student learning in developmental and gatekeeper courses at SAC and TxState, as evidenced by productive grade rates, persistence and retention, will have improved.</p>

Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
<p><u>Professional Development - cont:</u></p> <p>Academic Year Writing and Math Workshops</p> <p>Academic Year Workshops for TxState faculty</p> <p>Curriculum revision by faculty of developmental/ gatekeeper courses to include best practices and/or improve alignment</p> <p>Development of Internships for TxState graduate students in Developmental Math, English and Reading</p> <p>Design and development of TxState/SAC Best Practices research projects/pilots</p> <p>TxState graduate courses offered to SAC faculty at SAC</p>	<p>Writing Summer Institute will include Writing across the Curriculum (WaC), Writing within the Disciplines (WiD), and Teaching Learning Disabled (LD), ESL or Generation 1.5 students. Writing and Math Center tutors will participate in Institutes.</p> <p>1 to 3-day workshops for SAC/TxState faculty will be held during Fall/Spring weekends and holidays at SAC and TxState on WaC & WiD, Writing for LD/ESL/Generation 1.5 students; AIT Math; Alternative delivery methods, Math Across the Curriculum (MaC) and other Math Best Practices, taught by TxState and outside trainers.</p> <p>Workshops at TxState for TxState faculty interested in learning more about teaching Hispanics and meeting the needs of Hispanic students will be held for SAC/TxState faculty by experts on teaching and learning for Hispanics</p> <p>Math/Eng/History faculty from SAC/TxState will apply for stipends to revise curriculum, either in bi-institutional teams or individually, which infuse Best Practices learned in trainings or improve alignment between high school, 2-year and 4-year content and methods.</p> <p>SAC faculty participating in Title V training work with TxState faculty to host TxState graduate interns in developmental courses</p> <p>TxState and SAC faculty collaborate to test/pilot best practices in developmental and gatekeeper courses at SAC.</p> <p>TxState English Dept offers graduate-level “Teaching Learning Strategies and Critical Thinking,” TxState Dev Ed offers “The Underprepared Learner in American Postsecondary and Adult Education” on SAC Campus for SAC faculty and other graduate students.</p>	<p>Student learning in developmental and gatekeeper courses at SAC and TxState will have improved, as evidenced by productive grade rates, persistence and retention.</p>

YEAR TWO - 2008 - 2009		
Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
<p><u>Pipeline Activities:</u> Alignment of TxState/SAC coursework</p> <p>Recruitment/Application/Enrollment</p> <p>Orientations/satellite courses piloted</p>	<p>SAC Transfer Coord/Administrators/Chairs; TxState Administrators/Chairs continue to develop 2+2's and discuss 6-16 alignment.</p> <p>TxState Recruiter , TxState Enrollment personnel continue to conduct recruitment, enrollment at SAC</p> <p>TxState personnel conduct orientations and/or coursework locally for commuting/concurrently enrolled San Antonio transfer students.</p>	<p>15% increase in transfers to TxState from SAC from AY 07-08</p>
<p><u>Writing Center Activities:</u> Train Tutors</p> <p>Recruitment of students</p> <p>Implementation of one-on-one and group tutoring services at Writing Center (WC)</p> <p>In-class group workshops</p>	<p>Train new adjunct faculty/undergrad/graduate-level tutors at Writing Center (WC) and TxState.</p> <p>Dev & gatekeeper faculty made aware of WC facilities through Chairs, send students to WC; students learn through newspaper, word of mouth.</p> <p>Students schedule half-hour coaching sessions with a faculty tutor, available by appointment and walk-in. Faculty/undergrad tutors help individuals or small groups of students, using PC workstations in the WC, with any writing connected to their academic and/or professional development, including: English essays, research papers for history or social sciences, scholarship essays, cover letters for job apps. Students are encouraged to schedule weekly/ bi-weekly tutoring sessions.</p> <p>WC faculty/tutors deliver in-class workshops on writing techniques by faculty request – four presentations ea. semester.</p>	<p>Average productive grade rates and persistence for students spending at least 20 hours in the Writing Center will be higher than comparable non-participants.</p>
<p><u>Math Center Establishment:</u> Renovation of 3 Classrooms to establish Math Learning Center; Purchase computers, furniture and software for Math Center</p> <p>Hire, train Center faculty and tutors</p>	<p>SAC's MathSpace Coordinator oversees completion of Math Center renovation and furnishing.</p> <p>SAC's Math Ctr. Director hires faculty coaches and undergrad tutors. Faculty, faculty coaches, and undergrad tutors are trained in AIT and other best practices at TxState and at SAC.</p>	<p>Math Center established and staffed</p>

Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
Math Center Opening	Math Ctr. Director, Math Ctr faculty, coaches and tutors begin pilot implementation of faculty and computer-assisted labs, hybrid & modular classes, concept sessions, and group/individual tutoring.	
<p><u>Professional Development:</u> Faculty coach, tutor training at TxState</p> <p>Summer Institutes in Writing and Dev Math</p> <p>Academic Year Writing and Math Workshops</p> <p>AY Workshops for TX State faculty</p> <p>Curriculum revision by faculty</p> <p>TxState/SAC Best Practices assessment projects/pilots implemented</p>	<p>(See Yr 1 for Writing, See Math below)</p> <p>Summer Institutes in Developmental Math and Writing (to include WaC, WiD, LD and ESL training, AIT, Alt. Delivery , MaC, see Yr 1)</p> <p>Workshops: WaC, WiD, and LD and ESL training; 3-day workshop prior to each long semester on Dev. Math Best Practices. Math Institute and Workshops for faculty, coaches and tutors will include: 1) a description of the AIT program; a review of the instruction handbook & orientation to its use; 2) a demonstration of several activities including at least three activities per each of the four phases; 3) practice activities for each of the four phases; 4) accountability and evaluation requirements such as conducting student surveys and pretests/posttests, 5) maintaining a descriptive log of instructor developed lesson plans and activities, keeping a journal of actual classroom events and personal reflections on the day's events, and collecting samples of student work; 6) an overview, discussion, demonstration, and practice of non-traditional instructional techniques especially collaborative learning; 7) use of technology in the classroom; 8) workshops on learning styles and multiculturalism</p> <p>SAC and outside experts conduct discussions/workshops on multiculturalism and teaching at TxState</p> <p>SAC/TxState Faculty receive stipends to revise developmental and "gatekeeper" courses to reflect Best Practices and/or for 6-16 alignment.</p> <p>Revised developmental/ gatekeeper courses from Yr 1 piloted and evaluated; Best Practices implemented in SAC classrooms and assessed as part of TxState graduate developmental ed projects</p>	<p>More SAC & TxState Faculty are utilizing best practices in teaching developmental math, college algebra, and writing intensive courses.</p>

Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
<p>TxState Graduate Internships</p> <p>TxState graduate courses offered SAC faculty at SAC</p>	<p>TxState graduate students in Developmental Math, English and Reading do teaching internships in SAC Writing and Math Centers, classrooms.</p> <p>Yr Two graduate coursework offered might include: “Teaching Basic Writers,” “Implementing Technology in Schools,” “Internship Practicum in Developmental & Adult Education”</p>	<p>SAC/TX State faculty partnerships formed around assessment of best practices and internships</p>

Year Three - 2009-2010		
Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
<p><u>Pipeline Activities:</u></p> <p>Alignment of TxState/SAC coursework, 6-16 alignment discussions; Additional 2 + 2 agreements signed with TxState</p> <p>Recruitment/Application/Enrollment activities by TxState onsite at SAC</p> <p>Orientations/satellite courses continued</p>	<p>SAC Transfer Coord/Administrators/Chairs; TxState Administrators/ Chairs continue to align coursework and develop 2+2’s.</p> <p>TxState Recruiter, TxState Enrollment personnel continue to conduct recruitment, enrollment at SAC</p> <p>TxState faculty continue to conduct orientations and/or coursework locally for commuting/concurrently enrolled San Antonio transfer students.</p>	<p>30 new 2+2’s signed</p> <p>20% increase in transfers to TxState from SAC from AY 08-09</p> <p>Increase in % of SAC transfer students retained Fall to Fall</p>

Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
<p><u>Writing Center Activities:</u></p> <p>New tutors hired, trained</p> <p>Continued implementation of writing tutoring at Center</p> <p>In-class workshops on writing techniques</p>	<p>Train new/replacement adjunct faculty/undergrad/graduate-level tutors.</p> <p>Students schedule tutoring sessions with faculty tutors, tutors help individuals or small groups of students, with writing connected to their academic and/or professional development. Students encouraged to schedule weekly or bi-weekly tutoring sessions.</p> <p>Writing Center faculty deliver in-class group tutoring on writing techniques by faculty request - 6 presentations ea. semester.</p>	<p>> 8,000 students a year participating in WC activities.</p> <p>Improved course and college retention, productive grade rates for students using Center.</p>
<p><u>Math Center Activities:</u></p> <p>Training of new Center faculty, tutors</p> <p>Students referred, assigned to Math Center</p> <p>Implementation of modular, hybrid lab/course instruction in Center, and individual and group tutoring/concept sessions</p>	<p>Math faculty, faculty coaches, and peer tutors are trained in AIT and other best practices at TxState and at SAC.</p> <p>Math faculty send students to lab hour at MathSpace; Modular, hybrid courses listed in Catalog</p> <p>Math Ctr. Director, Math Ctr. faculty, coaches and peer tutors evaluate and refine pilots of tutor & computer-assisted labs and alternative delivery courses as well as efficacy of concept sessions/group tutoring.</p>	<p>>6,000 students a year using Math Center.</p> <p>Improved course and college retention, productive grade rates for students using Math Center</p>
<p><u>Professional Development:</u></p> <p>Faculty coach, tutor training at TxState</p> <p>Summer Institutes in Writing and Dev Math</p> <p>Academic Year Writing, Math, Reading and Multiculturalism Workshops</p>	<p>(See Yr 1 for Writing, See Year 2 for Math training descriptions)</p> <p>Summer Institutes in Developmental Math and Writing (to include WaC, WiD, and LD and ESL).</p> <p>TxState, outside experts present workshops : WaC, WiD, and LD and ESL training; 3-day workshop on Dev. Math Best Practices, including MaC, and Multiculturalism.</p>	<p>More SAC & TxState Faculty are utilizing best practices in teaching developmental math, college algebra, and writing intensive courses.</p>

Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
<p>Curriculum revision by faculty TxState/SAC Best Practices assessment, research projects/pilots implemented</p> <p>TxState graduate internships at SAC</p> <p>TxState/SAC Best Practices assessment projects continue</p> <p>TxState graduate courses offered SAC faculty at SAC</p>	<p>SAC/TxState faculty receive stipends to revise developmental and “gatekeeper” courses to reflect Best Practices and/or for high school alignment. Revised dev/gatekeeper courses from Yr 2 piloted and evaluated; Yr 1 Pilots improved, implemented and re-evaluated.</p> <p>TxState graduate students in Developmental Math, English and Reading do internships in SAC Writing and Math Centers, classrooms</p> <p>SAC faculty implement Best Practices and assess effectiveness with assistance of TxState graduate students; TxState/SAC faculty partners disseminate initial results internally</p> <p>Year Three potential offerings: “Language Problems in a Multicultural Environment,” “General Topics in Curriculum and Instruction,” “Internship Practicum in Developmental & Adult Ed”</p>	<p>Preliminary results of best practices assessment used to improve, revise Title V pilots</p>

Year Four – 2010-2011

Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
<p><u>Pipeline Activities:</u></p> <p>Alignment of TxState/SAC coursework; Additional 2 + 2 agreements signed with TxState</p> <p>Recruitment/Application/Enrollment activities by TxState at SAC Satellite Tx State Coursework</p>	<p>SAC Transfer Coord/Administrators/Chairs; TxState Administrators/ Chairs continue to align coursework and develop 2+2’s.</p> <p>TxState Recruiter, TxState Enrollment personnel continue to conduct recruitment, enrollment at SAC; TxState faculty continue to conduct orientations and/or coursework locally for San Antonio transfer students.</p>	<p>20% increase in transfers to TxState from SAC from AY 09-10</p> <p>85% of SAC transfers retained Fall to Fall, 61% graduate within three years</p>
<p><u>Writing Center Activities:</u></p> <p>New tutors hired, trained</p> <p>One-on-one and group tutoring services at Center</p>	<p>Train new/replacement tutors at Writing Center and at TxState.</p> <p>Students schedule tutoring sessions with faculty/undergrad tutors. Tutors help individuals or small groups with writing connected to their academic/professional development. Students schedule tutoring sessions</p>	<p>Students using WC graduate and/or transfer in less time than comparable students</p>

<p>In-class group workshops on writing techniques</p>	<p>Writing Center faculty deliver in-class group tutoring on writing techniques by faculty request – 8 presentations each semester.</p>	
<p><u>Math Center Activities:</u> New coaches and tutors hired, trained Math Best Practices continue to be implemented, piloted, evaluated and revised in Math Center</p>	<p>Faculty, faculty coaches, and peer tutors are trained in AIT and other best practices at TxState and at SAC. Modular, hybrid &/or tutor/software-assisted labs, Individual and group tutoring/concept sessions conducted in Center; Math Ctr. Director, Math Ctr. Faculty Coaches and undergrad tutors continue to evaluate and refine center-based lab and coursework, concept sessions and coaching/tutoring.</p>	<p>Improved course and college retention, productive grade rates for students using Math Center; Improved retention and PGR for hybrid or modular courses piloted in Center</p>
<p><u>Professional Development:</u> Faculty Coach, Undergraduate Tutor Training Summer Institutes, Academic Year Workshops Developmental or “gatekeeper” course revision. TxState/SAC Best Practices assessment projects/pilots implemented Developmental Ed graduate internships continue TxState graduate courses offered</p>	<p>(See Yr 1 for Writing, See Year 2 for Math training descriptions) 3-day workshop prior to each long semester on Dev. Math Best Practices Summer Institutes and AY workshops on Developmental Gatekeeper Education Topics to be determined by needs assessment SAC/TxState Faculty receive stipends to revise developmental and “gatekeeper” courses to reflect Best Practices and/or for high school alignment. Revised developmental/ gatekeeper courses from Yr 3 piloted and evaluated; Yr 2 pilots improved based on evaluation, implemented and re-evaluated. SAC faculty implement Best Practices and assess effectiveness with assistance of TxState graduate students; TxState/SAC faculty partners disseminate results TxState graduate students in Developmental Math, English and Reading do internships at SAC Year Four potential graduate-level offerings: “Foundations in Rhetoric and Composition,” “Topics in Reading Leadership,” “Internship Practicum in Dev & Adult Ed”</p>	<p>Course retention & productive grade rates, student success in sequential courses, and/or scores on CCLA show that students in courses taught by faculty receiving Title V training/revised through Title V have improved outcomes. Interim results of assessment of Best Practices for teaching Hispanic/ low-income students reported.</p>

Year Five – 2011-2012		
Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
<p><u>Pipeline Activities:</u></p> <p>Comprehensive 2 + 2 agreements signed with TxState</p> <p>Recruitment/Application/ Enrollment</p> <p>Satellite TxState undergraduate coursework offered in SA</p>	<p>SAC Transfer Coord/Administrators/Chairs; TxState Administrators/Chairs complete alignment of coursework and signing of articulation agreements.</p> <p>TxState Recruiter, TxState Enrollment personnel continue to conduct recruitment, enrollment at SAC</p> <p>TxState faculty continue to conduct orientations and/or coursework locally for commuting/concurrently enrolled San Antonio transfer students.</p>	<p>12 courses aligned; 31 additional 2+2's signed, all programs aligned</p> <p>By Fall 2012, # of students transferring from SAC to TxState will have doubled from Fall 05 baseline.</p> <p>Increases in % of SAC transfers retained at TxState, % getting bachelor's degrees within 3 years.</p>
<p><u>Writing Center Activities:</u></p> <p>New tutors hired, trained</p> <p>One-on-one and group tutoring services at Center</p> <p>In-class group tutoring on writing techniques by faculty request</p> <p>End-of-Project evaluation</p>	<p>Train new/replacement tutors.</p> <p>Students schedule tutoring sessions with tutors. Tutors help individuals or small groups of students, with writing connected to their academic and/or professional development. Students schedule regular tutoring sessions.</p> <p>Writing Center faculty deliver in-class group tutoring on writing techniques by faculty request – 8 presentations/semester.</p> <p>Participant surveys, focus groups w/ 2003 Center participants</p>	<p>At least 20 SAC faculty members are using Writing center techniques to assist students with writing.</p> <p>Course retention, PGR for English and History core courses campus-wide improve over 2006 baseline.</p>

Specific Tasks	Primary Participants; Methods Involved/Activities	Outcomes
<p><u>Math Center Activities:</u></p> <p>New tutors hired, trained</p> <p>Lab and modular, hybrid course instruction in Center; Individual and group tutoring/concept sessions</p> <p>End-of-Project evaluation, focus groups with MathSpace participants</p>	<p>Faculty, faculty coaches, and peer tutors are trained in AIT and other best practices at TxState and at SAC.</p> <p>MathSpace Coordinator and Mode Coordinators, faculty and tutors continue to evaluate and refine center-based lab & coursework, concept sessions and coaching/tutoring.</p> <p>Student performance, sequential course/graduation data and focus group results collected and analyzed. Pending results, Math Center Personnel, Math Chair and SAC Administrators plan expansion of MathSpace curricular, laboratory, and delivery methods to all Dev Math courses/sections.</p>	<p>Rate of SAC students repeating developmental math courses is reduced; productive grade rates in College Algebra increase college-wide.</p>
<p><u>Professional Development:</u></p> <p>TxState/SAC 2-day Regional Conference</p> <p>Summer Institute for faculty and Academic Year Workshops for Administrators/Professional Staff at SAC/TxState</p> <p>Revision of Developmental & “gatekeeper” courses</p> <p>Developmental Ed graduate internships continue at SAC</p> <p>TxState/SAC Best Practices research projects continue; publish and disseminate results</p> <p>TxState graduate courses offered</p>	<p>TxState consultants will host a culminating Conference/Institute to disseminate best practices professional development materials created over the 5-year grant project. The Year Five Institute would feature materials and program evaluation documentation conducted in collaboration between SAC faculty and TxState faculty consultants.</p> <p>Revised dev/gatekeeper courses from Yr 4 piloted and evaluated; Yr 3 pilots improved from evaluation, implemented/re-evaluated.</p> <p>TxState graduate students in Developmental Math, English and Reading continue to do internships at SAC</p> <p>TxState/SAC Best Practices assessments continue.</p> <p>Yr Five potential offerings: “Internship Practicum in Developmental and Adult Ed”</p>	<p>Dissemination of Title V results to larger community.</p> <p>Publication of assessments of best practices for teaching Hispanic/low-income students.</p> <p>Course retention & PGR, student success in sequential courses, and/or scores on CCLA show that students in courses taught by faculty receiving Title V training/revised through Title V have improved outcomes.</p>

Title V Improvement of Developmental and Gatekeeper Programs Timetable

Tasks	Year One			Year Two			Year Three			Year Four			Year Five		
	Fall	Spr	Sum	Fall	Spr	Sum	Fall	Spr	Sum	Fall	Spr	Sum	Fall	Spr	Sum
Pipeline															
Recruitment of transfers	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x
New/revised 2+ 2's	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x
6-16 articulation teams			x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x
Writing Center															
Renovation for Writing Ctr	xxx	xxx	x												
Hire/train Writing Ctr Dir.	x	xxx	xxx												
Train Writ. Ctr Tutors		xx	xxx												
Writing services operational				xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
In-class Writing Workshops			x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x	x x
MathSpace															
Design Math Center space and programming	xxx	xxx													
Renovation for MathSpace			xxx	xxx	xxx										
Train MathSpace Director	xxx	xxx													
Hire/Train faculty coaches & undergrad tutors				xxx	xxx										
Implement Lab Hour						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Implement AIT/hybrid/modular course pilots							xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Professional Development															
Faculty coach/tutor training		x		x	x		x	x		x	x		x	x	
Summer Institutes			xxx			xxx			xxx			xxx			xxx
AY Workshops		x		x	x		x	x		x	x		x	x	
TxState graduate internships			xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Pilot/Assess best practices				xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Data collection and analysis		xx	xx		xx	xx		xx	xx		xx	xx		xx	xx

RATIONALE FOR THE WRITING AND MATH CENTERS AND INSTRUCTIONAL REFORM:

In a 2002 report prepared for the League for Innovation in the Community College, Hunter R. Boylan & D. Patrick Saxon of the National Center for Developmental Education rigorously reviewed approximately 600 books, articles, and technical reports published over the past 30 years on developmental/remedial education. They found that, although two thirds of the studies they looked at had methodological flaws, the material from 200 studies yielded solid evidence to support the following “best practices” in developmental education that will be used in the design of the SAC/TxState partnership project described here: 1) the provision of **training and professional development** for those who work with underprepared students; 2) the establishment of **clearly specified goals and objectives** for programs and courses ; 3) the **application of sound cognitive theory** in the design/delivery of remedial courses; 4) **training for tutors** that allows them to help students with a **variety of learning styles**; 5) the use of a **variety of instructional methods/approaches**; 6) the **integration of classroom and laboratory** activities; and 7) the use of **formative evaluation** in program development and improvement.

More recently, research funded by the Pew Foundation has corroborated some of Boylan and Saxon’s findings about using a **variety of learning modes for different learning styles**, and identified additional elements as contributing to success in experiments they assessed, including **active instead of passive learning, individual tutoring/on-demand assistance, and immediate feedback** for students. **Consistency** between sections and **time flexibility** were also cited in the Pew studies as contributors to students’ success (Pew, 2006). The design of the proposed Math and Writing Centers will focus on **active learning in a variety of delivery modes** and the **relationship between the student and faculty member or tutor** in order to achieve substantially better student outcomes – including productive grade rates, retention and persistence in higher education. The MathSpace will add the **immediate feedback and learner-**

paced aspects of computer-assisted instruction/lab work to these best practices.

Sound cognitive theory

While little research has been conducted on the utility of math centers such as the one we envision, the **writing center model** has been thoroughly evaluated. The development of comprehensive writing centers over 30 years has coincided with the professional development of composition and rhetoric specialists who focus on a synthesis of classical rhetorical studies, linguistics, and cognitive psychology. According to cognitive psychologists Gagne and Briggs (1974), modularized and individualized instruction increases student success. Hillocks (1986), using the basic educational concept of professional tutoring sequenced according to the skill levels outlined in Bloom’s Taxonomy, recommends that tutors use “formative evaluation” sessions, offering students feedback and further instruction as needed during the writing process.

Writing Center tutors are trained to purvey to their students the higher-level thinking skills in Bloom’s Hierarchy —*application, analysis, synthesis, and evaluation*—necessary for competent compositions. Cognitive-field psychologists term the transfer of knowledge and comprehension from lower-level cognition to higher level-thinking skills *transposition*, which occurs “in the form of generalizations, concepts, or insights that are developed in one learning situation being employed in others” (Bigge, 1982). This transfer will occur only if an opportunity arises when a *trained* individual sees or senses the opportunity and the student is disposed to take advantage of the opportunity (Bigge, 1982).

In addition to being a transferable skill that enables students to succeed throughout their lives, both in academic and work settings, writing is also a means of learning. Immersion in the writing process engages and enlarges students’ critical faculties. Both the writing process and the dialogue that shapes writing tutorials utilize Bloom’s higher-level thinking skills. This type of student intervention demystifies the rigors of *application, analysis, synthesis, and evaluation*

and **contributes to broad academic success.**

SAC's application of these theories in its **Writing Center Pilot** has yielded excellent results. **Productive grade rates** (PGRs) for students who had three or more tutorial contacts in the Writing Center **were between 16% and 48% higher** in the targeted developmental and gatekeeper courses than for non-participants. Both persistence and PGR's were also higher for Writing Center participants when they took sequential courses. Another direct correlation was found between students' current semester GPA and the number of times they work with writing center professionals: the greater the number of tutoring sessions, the higher the student GPA.

The **curricular changes in developmental and gatekeeper math coursework** that are envisioned for both the Math Center and math classrooms at SAC as a result of *Puentes* will be based in part on the work of Dr. Selina Vasquez-Mireles of TxState, who will provide much of the professional development that leads to these curricular changes. Her Algorithmic Instructional Technique [AIT] aims to help developmental mathematics students gain both fundamental and problem-solving skills, the mathematical foundation **needed to complete mathematics coursework and to think critically in various academic and professional settings outside the math classroom.** According to the National Council of Teachers of Mathematics (NCTM), algorithms **are processes or sets of rules that** allow students to "reflect upon and clarify their thinking about mathematical ideas and relationships" (NCTM, 1989). Since algorithms individualize the learning experience by allowing each student to develop and use algorithms that he/she is most likely to grasp, they can help diminish academic difficulties. Reliable algorithmic guides to problem solving, if developed and used correctly, will result in more correct solutions and better conceptual understanding, and may reduce mathematics anxiety by giving structure to problems. Students also interact more with other students and the teacher when using these methods, reducing some of the social/emotional barriers to retention in

developmental mathematics.

Using constructivist and social cognitive theory to develop a nurturing environment where productive behaviors are modeled, Vasquez-Mireles' AIT helps students progress through four phases: **modeling, practice, transition, and independence**. The progression begins with teacher-directed instruction of fundamental topics and continues towards a student-directed learning environment for complex topics in a problem-solving context. The AIT centers on natural mathematical tendencies, enhancing students' ability to find patterns, make conjectures, and validate their hypotheses with proof. Cooperative learning, whole-class discussion, and tutoring are used to help students formalize their thoughts through discussion and demonstration, accommodating various learning styles.

In AIT, the instructor first models the creation and use of algorithms, shows various algorithms for one problem, stresses that algorithms may be unique while still conveying the same underlying concept, and notes that algorithms are not a "cookbook" approach to mathematics but are a product of observation, inductive reasoning, and investigation. Next the instructor provides several opportunities for the students to get guided practice in creating and implementing algorithms, using group work, board work, and handouts. In the transition phase, the instructor continuously relinquishes responsibility to the student, becoming a facilitator; feedback is still provided but not until students, working in groups, produce a product or at least make several attempts at creating and implementing algorithms. In the independence phase, the instructor provides students with many opportunities to illustrate their algorithmic capabilities. A supportive environment emphasizes aspects of problem solving such as strategies, real-world applicability, and an integrated curriculum. For example, when discussing the distance of a number from zero using a number line, the facilitator may introduce absolute value notation, use whole-class discussion to investigate types of absolute value equations and create an algorithm,

and then apply the algorithm to real-world practice problems. A subsequent question of representing distance between any two numbers on the number line may instigate a new lesson.

AIT training of TxState's developmental math faculty corresponded with improved sequential course pass rates for their students. During the AIT program's first two years of implementation, sequential course pass rates for completers of developmental Math 1300 rose to an average of 71%, compared to a <50% average before AIT, and completers of developmental Math 1311, who averaged sequential pass rates of <60% pre-AIT, had sequential pass rates of 66%. **The AIT program has sustained these results for six years; 65% of the program's Spring 2005 participants earned productive grades in their subsequent math courses.**

Since at SAC up to 8,000 students each semester are enrolled in developmental math, and since only 35% of students are passing College Algebra at SAC, the successful application of the AIT has tremendous potential to impact a large number of students, especially underprepared low-income and/or Hispanic students.

Professional Development

A large component of this Title V partnership will be **professional development for faculty** through Summer Institutes and Academic Year Workshops offered to faculty at both IHE's, and through graduate coursework offered by TxState on-site at SAC, including doctoral-level courses focusing on mathematics education, including Developmental Mathematics, which will be offered by TxState Department of Mathematics starting in Fall of 2008. Although offerings will focus on Math and Writing and improvement of developmental and gatekeeper coursework (supporting Achieving the Dream goals to redesign developmental courses), the Writing Across the Curriculum/Writing in the Disciplines (WAC and WiD) and Math Across the Curriculum (MAC) and other offerings will be available to faculty in all fields. Induction into the AIT, math tutoring and Writing Center methodologies will occur during Summer Institutes and

workshops at the beginning of each semester for new faculty and coaches/tutors.

The League for Innovation report cited research by Boylan, Bonham, Claxton, and Bliss (1992) who found that students were more likely to pass remedial courses, earn higher grades, and be retained longer if remedial programs placed **a strong emphasis on professional development for faculty and staff**. In further analysis of this research, Boylan, Bliss, & Bonham (1997) found that **professional development contributed to increased effectiveness of instruction, counseling, and tutoring and to overall program effectiveness**.

The graduate coursework and Summer Institutes that this project will offer SAC and TxState faculty through TxState's Developmental Education departments and SAC's Murguía Learning Institute (MLI) will help faculty understand **how their students learn**. It will also encourage and allow developmental/gatekeeper faculty to understand and better **articulate philosophies, goals and objectives**. Boylan and Saxon's 1998 study of Texas community college students found that students were more likely to pass a state-mandated achievement test when their remedial courses were **based on recognized theories of teaching and learning**. Also cited were Casazza and Silverman (1996), Maxwell (1997), and Boylan and Saxon (1998), who found that an **underlying program philosophy accompanied by program goals and objectives based on this philosophy** appeared to characterize successful programs. The report also found valid studies showing that "remedial instruction based on carefully defined **goals and objectives** was associated with improved student performance" (Donovan, 1974; Cross, 1976; Kulik and Kulik, 1991; Boylan, Bonham, Claxton, and Bliss, 1992; cited in Boylan and Saxon, 2002).

The proposed professional development component of this project will also focus on creating **learner-centered developmental and gatekeeper classrooms**. In a national study of 4,615 adolescents and their teachers, Herman, McCombs and Meece (2003) found that

adolescents reported stronger mastery and performance goals when they perceived their teachers as using learner-centered teaching practices. The strongest correlation with improved learning outcomes was found when teachers were perceived to promote **positive interpersonal relationships**. At Adams State College in Colorado, faculty members were trained in learner-centered practices through the Title V-funded CELT program, and evaluated using the faculty and student versions of the Assessment of Learner Centered Practices (ALCP), which provided a comparative analysis of faculty perceptions of their classroom practices and educational beliefs contrasted to their students' perceptions, and feedback on how to develop and implement more learner-centered qualities and practices. Students found CELT-trained faculty to be more learner-centered than non-CELT faculty. The semester after newly-hired faculty participated in MLI training at SAC, **the average productive grade rate** for students in classes taught by new faculty who had been trained in learner-centered practices and used the ALCP **was 66% compared to a 61% average PGR for the faculty members' departments**, and the **average retention rate for participants was 78% compared to an average of 73% for departments**.

Tutor/Coach Training

Boylan, Bonham, Claxton, and Bliss (1992) found that tutoring did not improve student success in remedial programs unless the tutoring program included a **strong tutor training component**. MathSpace and Writing Center **coaches and tutors will receive intensive training** from TxState and SAC faculty. The Writing Center and the MathSpace will use undergraduate tutors in addition to adjunct faculty and graduate intern tutors/coaches. All tutors and coaches will provide **on-demand assistance** to students. Boylan and Claxton (2002) found that "the effectiveness of tutoring is strongly influenced by the **quality and the amount of training received by tutors**". MacDonald (1994) found that effective tutors had to be able to consistently and usefully **apply strategies appropriate to each student's situation**.

TxState will help train faculty coaches and undergraduate tutors for the MathSpace, and Developmental Math interns from TxState will help staff the MathSpace, and/or perform assessments of the project for graduate school research projects. At TxState, senior faculty members collaborate to construct an environment where instructors are carefully guided through well thought-out, research-based, supported training to become highly qualified to serve the learning needs of developmental mathematics students. Trained faculty use an instruction handbook that includes guidelines for instruction such as what to do and how (e.g., whole-class discussion, Socratic questioning), what to stress (e.g., conceptual understanding of absolute value as it relates to the number line), and what type of activities to use (e.g., Traveling on the Number Line). This prevents instructors unfamiliar with new practices from teaching by using their own traditional classroom experiences as a model for teaching and leads them toward incorporating more successful non-traditional instructional techniques. Discussion is fostered among developmental mathematics instructors as they create contributions to the handbook based on their experiences and feedback from their coworkers, as part of an extensive on-going evaluation process. The program SAC will emulate fosters fundamental and problem-solving skills in developmental mathematics, and provides on-the-job training for developmental mathematics instructors through an instructional framework that embraces change and improvement.

Variety of Learning Modes

Sanchez (2000) cited concurrent studies which found that both Hispanic and Native American students, in comparison to white students, exhibited a high propensity for participation in **active, concrete learning experiences, cooperative situations, and elaborative processing**. Lamire, (1998) in his study of learning styles among developmental students, cites six studies of community college students which indicated that a **dominant learning style** among them was **visual, followed by learning by doing**. Boylan and Claxton concluded in their 2002 report that

the research they studied showed that **“students in remedial courses were likely to be more successful when a variety of instructional methods were used.”**

The provision of this variety of learning modes is fundamental to *Puentes* design. Title V institutes and workshops will offer faculty training in new teaching techniques, and both Centers will offer both individual assistance and instruction and small group instruction to supplement classroom or online coursework. The Writing Center will offer in-class small group instruction for participating faculty. The Math Center will pilot the AIT, “hybrid” classes and “modular” classes. Hybrid (or “blended”) courses, which combine online instruction with face-to-face in-class instruction, have been developed at SAC because developmental math courses delivered exclusively online have not retained or passed students as well as expected; time students spend in the MathSpace will enhance these courses. The “modular” pilot will divide each developmental math course into three modules taught by faculty, each of which can be repeated by the student until they master the concepts/processes in that module. Students can reduce the time they spend in developmental courses because they repeat only a portion of a course rather than the whole semester. Some modular instruction will occur in the MathSpace.

Integrated classroom and lab; Computer-assisted learning

Another principal feature of both the Writing and Math Centers will be the **integration of classroom and laboratory activities**. The Writing Center will link the classroom closely to writing center activities (see below, Methodology). The Math Center “MathSpace” be used to implement a fourth lab hour recently added to SAC’s remedial math courses combining one-on-one faculty or tutor assistance with individual and group concept-based sessions and computer-based instruction. Boylan, Bliss, and Bonham (1997) found that **integrating classroom and laboratory instruction** was associated with student success in remedial courses; Boylan and

Saxon (1998) found that classroom/lab integration was also related to student success on a state-mandated achievement test in Texas. In Summer of 2007, SAC's Senior Summer, a Bridge for incoming freshman from low-performing local high schools, **added a lab hour with tutoring and MyMathLab** for students attending developmental math courses. The 2007 PGR was 58%, 12% higher than the previous year's Senior Summer PGR of 46%. Developmental English PGRs in Senior Summer also rose 22.3%, from 56.9% in 2006 to 79.2% in 2007, through the use of **a lab hour in the Writing Center** (SAC Senior Summer Office, 2007).

Maxwell (1997) and Boylan & Saxon (1998) also found that **when computers were used as a supplement**, students were more likely to complete remedial courses and to earn higher grades. Developmental math students using MyMathLab computer-assisted instruction software at Florence Darlington Technical College in South Carolina had a PGR of 65.8% in Math 031 in 2006 and 2007, compared to a PGR of 50.6% for 031 lecture classes, and a MyMathLab PGR of 76% compared to a 50.2% PGR for lecture for Math 032 (Speckler, 2007). At Jefferson Davis Community College in Alabama, where developmental education was enhanced through **computer-assisted instruction, individualized written assignments, and job awareness activities**, there was a 7% reduction in Elementary Algebra withdrawals compared to the term previous to the enhancement, and an 11% reduction in the number of unsatisfactory grades (Lancaster, 2001).

Boylan, Bonham, Claxton, and Bliss (1992) found that **program evaluation** was positively related to student grades in remedial courses and to the long-term retention of remedial students. The proposed Title V Cooperative will be evaluated in a number of ways. Data collection and analysis for Achieving the Dream, competencies measurements for our accreditation bodies, and new assessment measures being implemented for the Alamo Community College District's Strategic Plan will complement the assessments described below

in the Evaluation Section. The partnership with TxState will also allow assessment to be conducted, by TxState graduate students, on the methodologies piloted in SAC classrooms through Title V. Analysis of data from a National Study of Developmental Education report found that programs performed better when they used a combination of formative and summative evaluation and when **formative evaluation** data was used to refine and improve the program (Boylan, Bliss, & Bonham, 1997). Formative evaluation was also associated with student success in Boylan & Saxon's 1998 study of Texas community colleges.

Math and Writing Center Methodologies

Facilities: Two separate facilities at SAC will be renovated, rewired, and furnished to house the Writing Center and the MathSpace. Both renovation projects involve transforming three connected classrooms into versatile and inviting spaces. Because of the similar functions of the two Centers, the plans for the Writing Center's 1,500-square-foot facility and the Math Center's 2,100-square-foot space have very similar designs. The middle room of each renovated Center will serve as an open lab with computers, study areas, reference books, and course materials available. Tutors will be available in the open lab to provide on-demand assistance and instruction. The second room will contain one-to-one tutoring stations separated by movable walls. These walls can be removed to accommodate larger workshops. The third area for the two Centers will be several smaller media-equipped conference areas for group tutoring, tutor training, and Writing-Across-the-Curriculum/Math-Across-the-Curriculum faculty consultations/workshops. The MathSpace will also utilize the College's network of computer labs as satellites for developmental math lab hour sessions that combine computer-assisted instruction (CAI) with group and individual tutoring.

Instruction: The Math and Writing Centers will employ and train faculty and peer tutors to deliver individual and small-group instruction in non-threatening environments. The core of

the Centers' services will be individualized instruction and integrated lab activities that empower students to play a more active role in their learning, services that can help develop the math and writing skills of students in all disciplines.

Instructional Capacity: In their first year of operation, (Year Two for Writing Center and Year Three for the MathSpace), the Centers will each be open 60 hours a week, including some evening and weekend hours. Though both Centers will commit over half of their resources to working with developmental/gatekeeper students, they will also offer tutoring and workshop opportunities for students having math or writing difficulties in any class.

SAC Writing Center Year Two Instructional Capacity			
Activities	Weekly Sessions Available	Weekly Instructional Contacts Available	Instructional Contacts Available/Semester
Individual Tutoring	416	416	6,656
Group Tutoring	104	520	8,320
In-Class Workshops	20	560	8,960
Center Workshops	2	60	960
Total Instructional Contacts		1,556	24,896
(Required Gatekeeper & Developmental Instructional Contacts)			14,259
Total Instructional Contacts Available to SAC students			10,637

Since the results of SAC's Writing Center Pilot showed a strong correlation between the amount of time spent in Writing Center activities and increases in student success and retention, the College will require all gatekeeper and developmental English students to have three or more instructional contacts with writing center tutors. This course requirement will ensure that 21% of SAC students participate each semester in writing center activities at a level that has been proven to improve retention and academic success. The year two staffing level enables as much as an additional 16% of SAC students enrolled in courses other than gatekeeper or developmental writing courses to receive three instructional contacts each sixteen-week term. Thus, based on Fall 2006 enrollment (22,485 students), **the Writing Center will be able to have up to 37% of**

the total SAC enrollment participate each long semester in Center activities at a level that has been proven to improve student retention and success.

SAC MathSpace Year Three Instructional Capacity			
Required Developmental Lab Hour Activities			
Activities	Weekly Sessions	Weekly Instructional Contacts	Semester Instructional Contacts
Lab Hours w/ CAI/Tutors	213	4,473	71,568
Lab Hour Workshops	75	1,575	25,200
Total Lab Hour Contacts		1,556	96,768,
MathSpace Activities Available to any SAC Student			
Individual Tutoring	600	600	9,600
Group Tutoring	100	500	8,000
Classroom Workshops	20	500	8,000
Total Instructional Contacts Available to any SAC Student		1600	27,600

The MathSpace staffing and lab hour involvement will enable the College to have a broad impact on the math competency and academic success of SAC students. **The developmental lab hour requirement will ensure that 30% of SAC's total enrollment, the students with the greatest math needs, receive extensive small group and individual instruction each sixteen-week term.** The staffing level will also enable SAC students enrolled in other math or math-related coursework to receive three instructional contacts each sixteen-week term. Thus, based on Fall 2006 enrollment (22,485 students), **up to 71% of SAC students may participate each long term in MathSpace activities** at a level that can impact student retention and success.

Developmental lab/supplement: Working in the Centers will be a course requirement for all developmental math and most English classes. **Developmental math classes will have a fourth lab hour attached to them for weekly work in the Math Center.** The lab hour will be attached to ALL sections of developmental math, including online and alternative delivery classes. Students will spend 75% of the weekly lab sessions working through tutorials and quizzes in the appropriate MyMathLab software module. These CAI sessions will be

supplemented with on-demand faculty coach and tutor assistance. Students will spend the other 25% in small-group workshops or one-one one tutorials in the MathSpace. **To better integrate lab activities into developmental math coursework, developmental math faculty will review the workshop catalog and then select and schedule the four workshops for their classes.**

Developmental and gatekeeper English students will be required to have three instructional contacts with writing center tutors per course via workshops and/or tutoring sessions. Math and English instructors will be informed of students' Center activities via tutorial contact reports generated twice a month by the MathSpace and Writing Center Coordinators.

Group Instruction: Faculty tutors in both Centers will facilitate small-group workshops and group tutoring sessions that involve active and collaborative learning. All group instruction will adhere to sound constructivist and cognitive theory by empowering students to take charge of their learning. In the math group sessions, an AIT trajectory (modeling-practice-transition-independence) and discovery-based activities that address learning-style considerations will shape the activity sequences that tutors facilitate. The studying, developing, and evaluating of algorithms to better understand mathematical patterns and tendencies at the core of the AIT instruction model mirrors the process-based practices writing tutors employ in group workshops; writing tutors help students feel comfortable working through and understanding their writing processes as they become more comfortable with the idea of writing to learn, coinciding with an understanding of learning to write. In addition, the Centers will develop catalogs of lesson plans for small-group workshops that cover a broad range of writing and math topics and concerns.

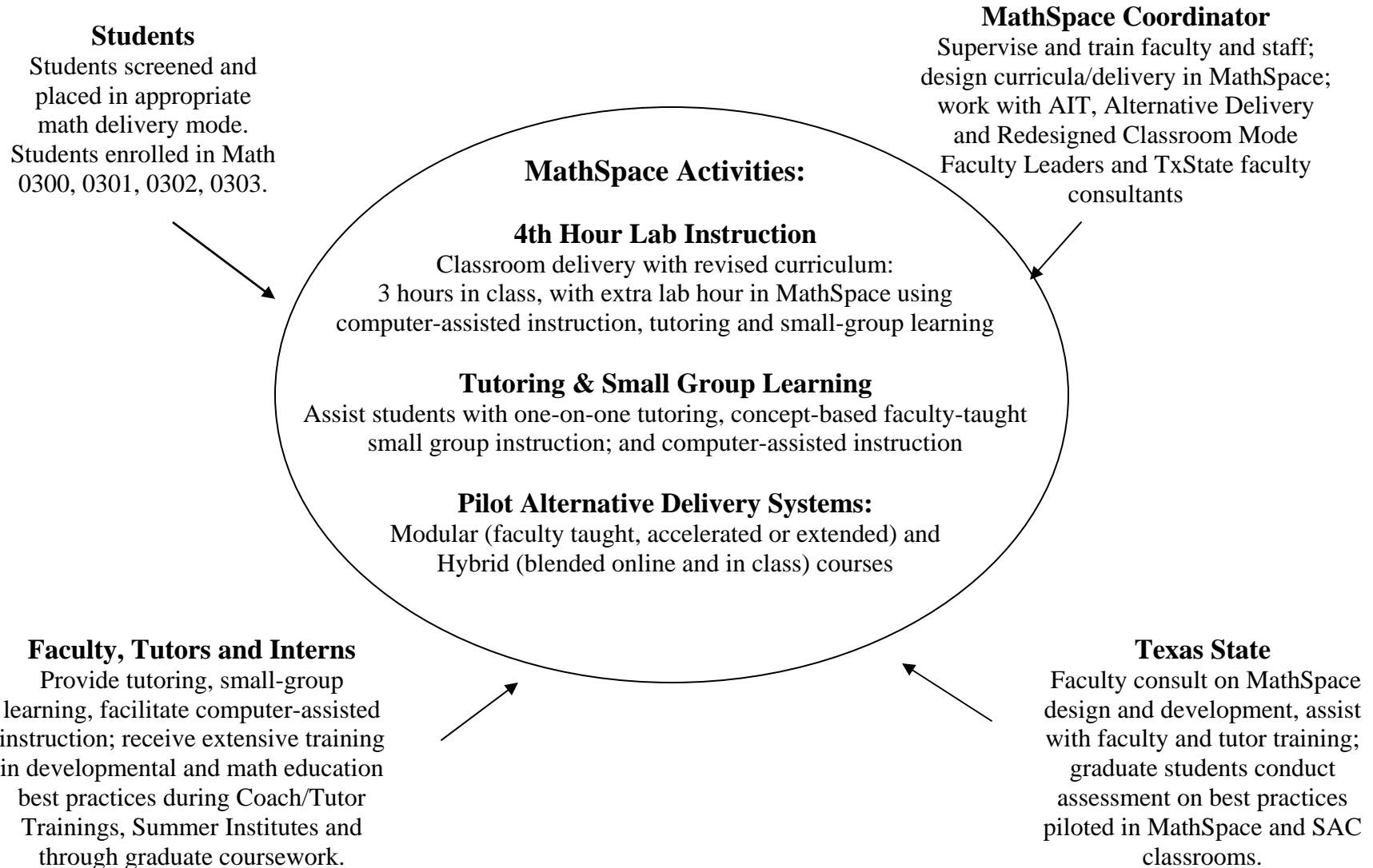
Lesson plans for workshops will be assembled and designed by SAC Math and Writing Center Coordinators, TxState Math and Writing Consultants, the faculty participants in Summer and Academic Year Institutes, and faculty coaches or undergraduate tutors in each Center.

The MathSpace will also pilot best practices, such as the AIT method developed at

TxState, and alternative delivery systems for developmental math, including hybrid courses that combine online and classroom delivery, modular (accelerated or extended), and the lab hour that will combine computer-assisted instruction with “human-based,” classroom, small group and one-on-one instruction by intensively-trained faculty and tutors. The MathSpace Coordinator will work with three SAC faculty who have been designated as mode coordinators for each aspect: 1) the lab hour (redesigned classroom mode), 2) the AIT method, and 3) hybrid online/face-to-face delivery or modular (faculty-led, concept-based sections of each course that can be repeated if not mastered) courses to be piloted as part of this project. These four lead faculty will design lab and coursework with the assistance of TxState faculty and develop plans for the implementation of these new modes of instruction/delivery in the MathSpace, online, or in class.

One-to-one Tutoring in the Centers: Students needing math and writing help in any discipline will be able to receive individualized instruction from faculty and professional tutors in a non-threatening environment. Walk-in tutoring will be available in both Centers, but students will be encouraged to schedule appointments. Both Centers will also employ a formal referral system for faculty who will be encouraged to identify and refer struggling students to the appropriate Center early in the semester. As in the small group instruction, tutors will heavily involve the students in the evaluative process of articulating the problem and then the possible solutions to the problems, but gently guide the session when needed, in order to provide direction without driving students back into a passive role.

MathSpace Overview



The Centers as Incubators: The Centers will also have an impact on the retention and success of students in sections taught by faculty who either work in the Center or with the Center. Faculty tutors will receive training and work in the Centers, using different methods of teaching in one-to-one and group settings, an invaluable teaching practicum. Best practices at the tutoring table will transfer into the classroom. If each Center trains and uses 10 adjuncts a year, and each adjunct teaches three classes, these practices can positively effect learning for 1,500 students outside the Centers in just one year. As a bonus, retention of adjuncts will improve both because they will be more fully employed and because they will be better teachers with more satisfying student-teacher relationships. Some tenure-track/tenured math faculty (especially new faculty) will also teach lab hours in the MathSpace and be trained in math best practices while they are working there. SAC will rotate as many faculty as possible through the facility so as to distribute best practices across all math classrooms. In addition, since the Writing Center will provide small group instruction for individual classes, and the MathSpace will conduct small-group instruction around concepts identified by instructors as bottlenecks, faculty tutors will work with other faculty, sharing teaching techniques with them. Center staff and tutors will consult with instructors to design sessions. This process will expose faculty to Center methods, and faculty will learn how to facilitate the same activities in their classroom. Involvement with the Centers will also promote the expansion of faculty learning about these methods through Title V Best Practices Institutes and Workshops.

Full citation of all references cited above available upon request to seppinoza@mail.accd.edu

KEY PERSONNEL:

The Title V Director/Pipeline Coordinator, Diana Ramirez, M.Ed., transferred from SAC to Texas State as an undergraduate math major, and continued at Texas State to get her M.Ed. in

Mathematics, minoring in Developmental and Adult Education. She has been coordinating the Supplementation Instruction program (a Title V project institutionalized this year) at SAC since 2004, taught developmental math at the University of Texas at San Antonio (UTSA) in 2005-06, and has been teaching math Basic Skills and College Algebra at SAC since 2006. While obtaining her Master's degree at Texas State, she co-managed a FIPSE grant and for two years was graduate coordinator for a National Science Foundation grant, establishing collaborative learning communities for science majors. Her experience with both institutions as a student and with teaching developmental math students relate to *Puentes* Pipeline activity objectives for increasing TxState's Hispanic enrollment, increasing SAC transfers, and for establishing the MathSpace. She will dedicate 100% of her time to the management of the Title V grant, including fiscal management and evaluation, and to coordinating Pipeline activities.

English Instructor Ernest Tsacalis, MFA, who has taught full-time at San Antonio College for 5 years and is currently the Director of SAC's pilot Writing Center, has eight years experience teaching developmental and gatekeeper writing courses in a college setting. Mr. Tsacalis has also taught writing, grammar and TOEFL preparation for university ESL programs. From 2000 to 2002, Mr. Tsacalis successfully re-established and directed the Writing Center at St. Philip's College, improving the retention, productive grade rates and persistence of the at-risk college students he served, which relates to activity objectives for establishing the Writing Center and raising the grades of participants. He will spend 60% of his time in Year One establishing SAC's permanent Writing Center and hiring and training a Writing Center Coordinator.

Cristella Diaz, MS, Assistant Professor, has taught developmental math and college algebra at SAC for ten years. A transfer student from a 2-year college herself, Ms. Diaz has a broad experience in teaching math to at-risk Hispanic students. While obtaining her bachelor's and master's degrees in math from UTSA, Ms. Diaz worked as an instructor, tutor and teaching

assistant at SAC, Palo Alto College and UTSA, on the Texas/Mexico border, and in high school. In 2006 she attended a course on teaching best practices, including the Assessment of Learner Centered Practices, through SAC's MLI. She serves on SAC's Policy and Governance and Core Curriculum Committees and on the Math Lab Committee. Her experience is related to activity objectives for establishing the MathSpace and increasing math students' retention and PGR. She will spend 80% of her time managing the MathSpace, and 20% teaching in the MathSpace.

Dr. Johnnie Rosenauer, Director of the Murguía Learning Institute (MLI) for faculty professional development, has a EdD in Adult and Higher Education from Texas A & M University, a Master's degree in Management and Higher Education from UTSA, and a Bachelor's degree from Texas State. Before taking over the MLI, he was Coordinator of the Real Estate Program at SAC. As the MLI Director, he has been responsible for the development of on-campus graduate school opportunities (he teaches graduate courses at UTSA), for teaching best practices courses for new faculty and developmental/gatekeeper faculty, and for the coordination of all professional development offered through the MLI. Dr. Rosenauer's thirty years of teaching and administrative experience will help him achieve activity objectives related to training faculty and key administrators and staff at both IHE's. He will spend at least 30% of his time developing, supervising, and evaluating Title V Professional Development activities.

Selina Vasquez-Mireles, PhD, Associate Professor of Mathematics, has taught at Texas State (where she got her master's degree) since 1998, when she received her PhD in Mathematics education from UT at Austin. She has published widely on developmental mathematics best practices, including her AIT method (see above), on the use of technology in teaching math and on the teaching of math and science together, and has conducted numerous training workshops for mathematics and science educators throughout Texas. She has received **two** FIPSE grants from the Department of Education, and administered a Louis Stokes (LS-AMP) grant for

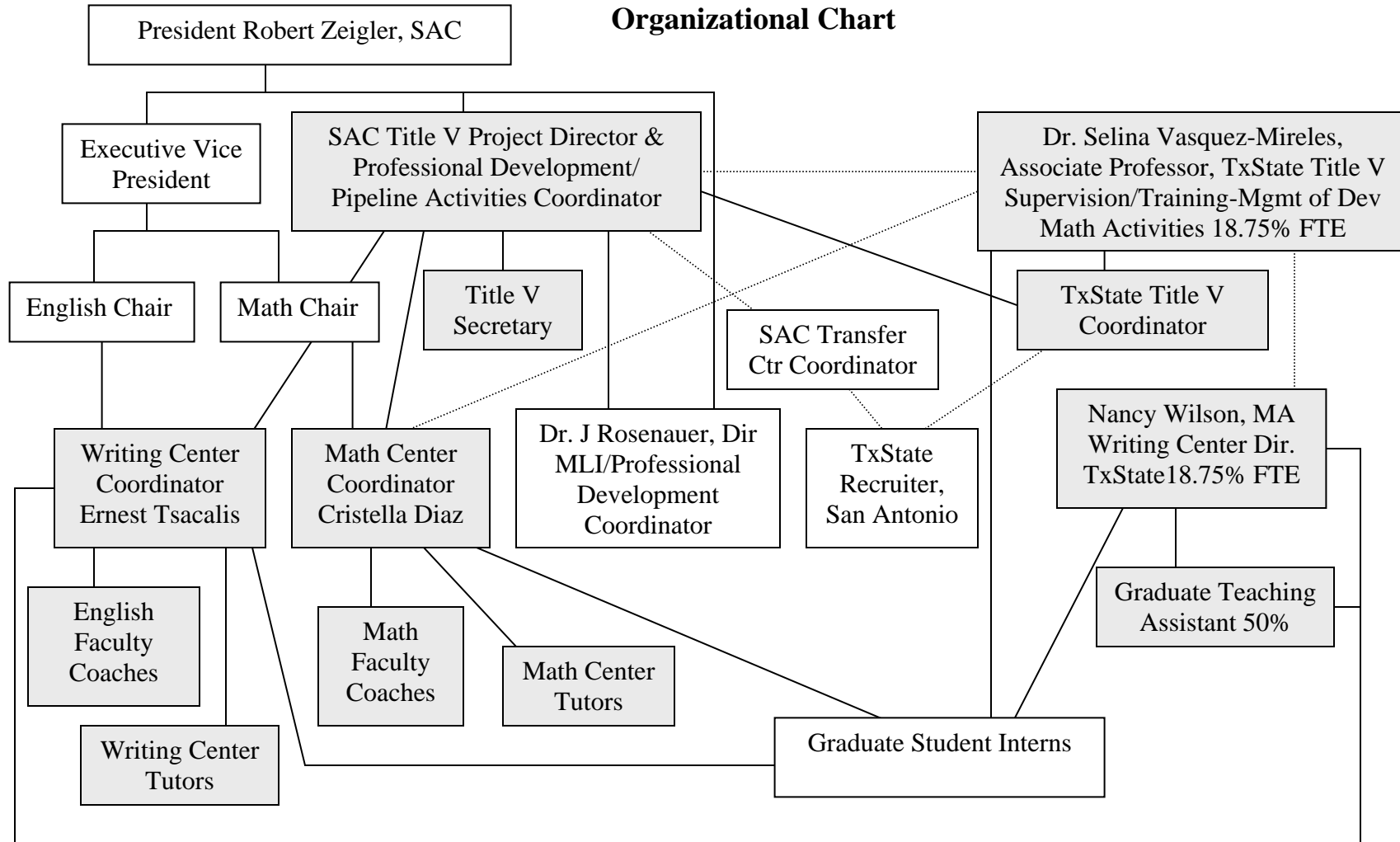
minority students. She has twice received TxState’s Presidential Award for Excellence in Teaching at the College of Science. Her experience relates to activity objectives for establishment of the MathSpace, improving retention and PGR of math students, and training for faculty in best practices. She will spend at least 3.75% of her time supervising TxState’s Title V Coordinator, and 15% of her time training SAC and TxState Developmental math faculty and tutors and coordinating best practices pilots at both schools.


Nancy Wilson, MA, Director, Texas State Writing Center, has been working at the Writing Center since its inception 20 years ago, and been Director for seven years. She is also responsible for training writing center tutors and has conducted trainings throughout Texas on setting up writing centers and training writing center tutors. Her experience relates to Title V objectives to establish a Writing Center, improve Center participants’ PGR and retention, and provide faculty professional development. She will spend 18.75% of her time in Years 1 & 2 helping SAC establish its permanent Writing Center and the Center’s tutor training component.

The TxState Title V Coordinator (to be hired) will have at least a bachelor’s degree (master’s preferred) and two years experience in both grants management and recruitment or enrollment management for minority/low-income students, in order to achieve enrollment objectives for Texas State. This person will spend 100% of his/her time coordinating Title V activities, to include scheduling, fiscal management, and assisting recruitment, enrollment and retention personnel with pipeline activities, and in collecting TxState data for evaluation.

President of San Antonio College	2%
Title V Director (Diana Ramirez)	100%
Writing Center Coordinator (Ernie Tsacalis, interim; permanent to be hired)	80%
Math Center Coordinator (Cristella Diaz)	80%
Murguía Learning Center Director (Johnnie Rosenauer)	30%
TxState Title V Supervisor/Math Activity Coordinator (Selina Vasquez-M)	18.75%
TxState Writing Center Activity Coordinator (Years 1 & 2)	18.75%
TxState Title V Coordinator/Pipeline Coordinator (to be hired)	100%

Puentes
Organizational Chart



 Shading indicates grant-funded positions.

PROJECT MANAGEMENT PLAN

The President of San Antonio College, Dr. Robert E. Zeigler, will oversee the implementation of the Title V Cooperative grant. A full-time Title V Project Director, Diana Ramirez, M.Ed., will be responsible for the overall day-to-day management of Improvement to Academic Programs activities for Title V throughout the project period. The Title V Director will also be responsible for the coordination of activities for the “pipeline” component of the grant. The Title V Director will be directly responsible to the President for meeting the administrative objectives of the Title V grant, and have **full authority and autonomy** to administer the project according to this plan. She will be a member of the President’s staff during the project period, meet with the President at least monthly, and be supported by a half-time secretary hired to provide Title V clerical support. At TxState, Title V activities will be overseen by Dr. Selina Vasquez-Mireles, Associate Professor of Mathematics, who will meet at least monthly with TxState’s Title V Coordinator.

The Director will have administrative responsibility and authority to ensure that the Writing Center Coordinator, the MathSpace Coordinator, the Murguía Learning Institute Director, and the Title V Coordinator at TxState, meet Title V management and evaluation objectives. Each Coordinator, including the Title V Director in her role as Pipeline Coordinator, will have administrative control of his/her activities and will have the primary responsibility for accomplishing the objectives of the component and verifying accomplishments.

The Project Director will develop and work with an Advisory Committee composed of key stakeholders in the improvement of developmental/gatekeeper education at SAC and TxState and in the increase in successful transfers of Hispanic and low-income SAC students to TxState. Transfer and enrollment staff from each institution, the Chairs of SAC’s English and Math

Departments, developmental and gatekeeper education faculty from both IHE's, students, and representatives of the business and non-profit communities who employ SAC TxState students will serve on this advisory committee, which will meet twice a year to review project progress and make recommendations. Recommendations of the Advisory Committee concerning the implementation of project activities will become part of the continuous quality improvement process carried out in the ongoing evaluation and administration of the project.

Procedures developed to administer the project will reflect concern for eventual full project integration into regular institutional operations at both IHE's. Policies and procedures will be continually refined over the grant period, to include internal monitoring and reporting systems, and efficient project operation leading to the achievement of objectives. Title V Administrators will ensure full compliance with both institutional and federal requirements, and that the project will be smoothly and fully institutionalized at both IHE's.

The Director will meet with the Coordinators, including the TxState Coordinator, on a monthly basis, with every third meeting occurring at TxState. Each coordinator will prepare brief monthly reports on progress toward achievement of objectives, and barriers and facilitators, and present these at the monthly staffings, where recommendations for program improvement will be discussed. Administrators, faculty and other participants will be invited to monthly meetings. The Title V Director will make monthly reports about Title V progress to the 78 faculty and staff leaders in SAC's College Academic Council and to the Institutional Effectiveness Steering Committee (see Evaluation). Since the IESC is responsible for measuring the SAC's progress toward achieving College Plan Objectives, this will greatly facilitate the integration of the Title V project with related, ongoing institutional activities. Because administration and implementation of Title V activities is being carried out by faculty using specific interventions to improve the academic programs with which they work daily,

institutionalization of new practices/programs will occur in a seamless and efficient manner.

As Pipeline Coordinator, the Title V Director will, with the assistance of the TxState Coordinator, coordinate meetings between faculty and staff of the two IHE's around transfer, course alignment and articulation agreement issues, and ensure documentation and follow up for these activities.

Writing Center Interim Coordinator Ernest Tsacalis will oversee classroom renovation for the creation of a permanent Writing Center, and hire and train a permanent Coordinator for the center and adjunct faculty as Writing Center tutors. The MathSpace Coordinator, Cristella Diaz, will work closely with the Math Chair, SAC Faculty and Dr. Vasquez-Mireles to design and develop the MathSpace, and will supervise the renovation of facilities for the MathSpace.

Both the Writing Center and MathSpace Coordinators will be responsible for training and/or coordinating training for all Center faculty/staff and for scheduling instructional activities in the Centers. They will develop systems to ensure that all student activity in the Centers is documented and will be responsible for the collection of data for formative and summative evaluation of activities and student performance at their Centers. The Coordinators will also be responsible for publicizing their Center's activities among faculty and students, and for creating faculty tutor training manuals and operations manuals for their Centers that include Center policies and procedures, and templates for internal and external Center documents and reports, including faculty, tutor and student surveys.

The Director of the MLI will, with the assistance of the TxState Coordinator and the Title V Secretary, be responsible for coordination and scheduling of the Summer Institutes, Academic Year Workshops and graduate coursework offered at SAC by TxState, and for recruitment of faculty from both schools to participate in professional development activities.

All five Coordinators will prepare comprehensive semester-end reports on component

activities that include the data required to measure the accomplishment of Title V objectives. They will also be responsible for assisting the Title V Project Director in compiling annual reports, and for participating in continuous quality improvement of Title V's implementation.

EVALUATION PLAN:

Responsibility for Evaluation activities: The Title V Project Director will direct the overall project evaluation, and be responsible for evaluation of the Pipeline component of the project. Evaluation for the Writing Center and MathSpace will be managed by the Coordinator for each Center, and evaluation for the Professional Development component will be managed by the Director of the Murguía Learning Institute. Evaluation of TxState's achievement of objectives will be overseen by Professor Vasquez-Mireles, and managed by the Title V Coordinator there. Much of the data collection and some of the analysis will be conducted by these individuals and their clerical staff, assisted by the Offices of Institutional Research at SAC and TxState that aid departments in designing databases for data collection and in creating reports for evaluation purposes. These offices will help Title V staff generate the reports needed to do the quantitative evaluation of their objectives and to do the qualitative and comparative study and analysis that will reveal the effectiveness of the Title V program.

External Evaluation: SAC will hire an evaluation consultant to assure objectivity and comprehensiveness in its evaluation of institutional change, **meeting Invitational Priority Five.** David F. Trujillo, MA, Dean of Grants Development and Special Initiatives, Northern New Mexico College, who has conducted outside evaluations for SAC's Title III and V projects for a decade, will be contracted to assess all dimensions of the Title V project over five years. He has evaluated Department of Education projects since 1982 for Hispanic-Serving and other institutions throughout the country, was a past Upward Bound Director, and has administered

three Title III/V projects as well as many other federal grants. At the grant's outset, he will provide consultation around the design of the evaluation plan. During biannual site visits to SAC/TxState (at least ten days of assistance over the grant period), Mr. Trujillo will review all assessments of quantitative and qualitative data performed by the Title V Director and Coordinators, perform additional evaluation activities, and make recommendations for improvement of the program and the evaluation process in a report delivered annually to the Project Director and administrators, which will be made part of reporting to the Department of Education.

The Title V Working Group has developed a project evaluation design and methodology that 1) identifies relevant data/information needs, 2) identifies available sources of data/information and, 3) carefully analyzes the data using standard descriptive and inferential analytic techniques.

Data Elements and Data Collection:

Title V Staff will record **formative** activity information for all Title V planning, training and development activities. This will include a log of planning sessions, transfer, alignment, and articulation meetings, Faculty/Tutor Trainings, Summer Institutes and Academic Year Workshops for faculty, enrollment of faculty in graduate coursework offered by TxState at SAC, and reports on the design and development and on facilities renovation for the establishment of the Writing and Math Centers. Writing and Math Center Coordinators will submit reports to the Title V Director on the utilization patterns at each Center twice a semester. Faculty receiving stipends for curriculum development will submit their curricula to staff for submission with Title V reports, and a listing will be made of every course offered that has been revised by faculty using Title V stipends. The Title V Director will also include information from Title V staff meetings in required reports.

Summative data, both quantitative and qualitative, will be gathered by the Title V Coordinators on an ongoing basis and reported to the Title V Director, who will work with

internal and external evaluators to analyze it for program improvement and reporting purposes.

Quantitative Evaluation:

Baseline Indicators: Title V designers have chosen baseline indicators for quantitative *Puentes* outcomes dealing with enrollment at TxState, in-course retention, productive grade rates, performance in sequential coursework, persistence in higher education, graduation at both IHE's, and transfer from SAC to TxState. The principal data sources for this information will be student information systems at each institution, which contain demographic information on every student who will participate in or profit from Title V activities, including information about their class enrollment, grades, and certificate/degree acquisition or transfer status. In addition, baseline data for the HSI Performance Indicators (Fall-to-Fall retention rates and 3- and 6-year graduation rates at each IHE) will be collected from Texas Higher Education Coordinating Board (THECB) "Accountability: Key Measures" and "Migration" reports.

The **Writing Center and MathSpace Coordinators** will track student use of the Centers through sign-in sheets and/or computer logins that identify participants and determine the type and length of their participation. This information, which will be kept in a database developed specifically for each center, will allow the Coordinators to track **whether in-course retention, productive grade rates, course-to-sequential course success, and college persistence** is higher for participants than for non-participants. During the last three years of the project, data will be collected to determine previous Center participants' later **performance in English 1301 and 1302 and College Algebra**. The MLI Director will collect data for the Professional Development Component showing whether **course retention and productive grade rates, student success in sequential courses, and/or scores on the Community College Learning Assessment (CCLA) show that students in courses taught by faculty receiving Title V training/revised through Title V have improved outcomes**.

In Year Five the Title V Director will extract data from each IHE's student information system to see if **course retention and productive grade rates for College Algebra and English and History core courses have improved campus-wide, and whether the rate of SAC students repeating developmental math courses has been reduced over 2007 baselines.**

Qualitative Evaluation:

Several qualitative evaluation strategies will be implemented to measure the effectiveness of the Title V Program. The Writing and Math Centers will administer **satisfaction surveys** to students and instructors at the beginning and at the end of the semester to measure perceived accessibility, availability and effectiveness of Center activities, and the Writing Center will provide students with tutorial evaluation forms at the end of each tutoring session. Student concerns emerging from these surveys will be used for program improvement, tutor training and planning. The Murguía Learning Institute Director will measure the success of the Professional Development activities by looking at instructor outcomes using the qualitative **Assessment of Learner Centered Practices**, and through **faculty participant surveys**. Twice a year Title V staff and faculty will complete a **survey on program effectiveness**, including questions on barriers and facilitators encountered during project implementation and lessons learned.

In addition, early in Year Five, a **survey and focus groups on the long-term results of the interventions** provided through Title V will be distributed to/conducted with samples of students who participated in Title V interventions (including Writing Center & Math Center activities and coursework taken from faculty who received professional development) during Years 2 and 3, in order to determine if these interventions have improved students' longer-term quality of student life and academic progress.

Since the majority of students targeted are minority students, and many are first generation college-goers, evaluation instruments used will reflect sensitivity to the cultural and

socioeconomic characteristics of our students. To ensure realistic measurement, efforts will be made to identify socioeconomic, ethnic and/or entrance/placement assessment variables when utilizing non-participant control data for comparison.

Data Elements	Data Collection; Persons Responsible
Pipeline meetings, Center renovations, Faculty participation in training/Development activities	Program documentation; <i>Puentes</i> Dir., five Coordinators, Secretary
Student participation in Center Activities and/or courses with revised curricula	Program documentation; <i>Puentes</i> Dir., Writing Center, MathSpace and MLI Coordinators
2+2s, SAC transfer #'s, aligned courses	TxState Student info syst., prog docs; Proj.Dir
Student Success Data: Productive grade rates, in-course retention, retention, persistence to graduation/transfer, grad and transfer rates	SAC/TxState student info systems & THECB Reports; Institutional Research, <i>Puentes</i> Director and Coordinators.
SAC transfer, retention and graduation rates	TxState Student info syst; TxState Coordinator
Student success in sequential coursework	Stud info syst; Proj Dir, MLI, WC, MS Coords
HSI Perform. Indicators: Fall to Fall retention and 3-yr Associates/6-yr bachelors degree rates	THECB Key Measures and Migration Reports; <i>Puentes</i> Director
Revised curricula	Program files; <i>Puentes</i> Director, MLI Director
#'s of SAC/ TxState Faculty are utilizing best practices in developmental/gatekeeper ed	Program documentation; <i>Puentes</i> Director, MLI Director
Publication of research on Best Practices for teaching Hispanic/low-income students.	Program files; Dr. Vasquez-Mireles & Director of Education Institute at TxState

Analysis and Use of Formative and Summative Evaluation Information: Following are the roles and responsibilities of those involved in analyzing and disseminating evaluation data:

SAC President – Direct Title V Director’s evaluation activities and ensure institutionalization of successful Title V activities into regular institutional operations; Title V Director – Supervise data collection, data analysis and presentation of results to support Title V progress reports relevant to performance evaluation measures; prepare and present scheduled reports to SAC/TxState Institutional Effectiveness Steering Committee, the Advisory Committee, and SAC’s College Academic Council (Chairs and Directors); Title V Coordinators – Assist Project Director in collection and analysis of Title V data; Advisory Committee – Review reports and present recommendations to SAC’s President and TxState administrators; SAC Institutional Effectiveness Steering Committee and & TxState Office of Institutional Effectiveness – Review

all assessments of Title V on a regular basis, utilize reports to monitor the progress of project and its impact on the various units of each IHE, and assist in institutionalizing the Title V strategies.

Reports of progress by *Puentes* Coordinators and the results of ongoing data collection and surveys will be discussed at monthly Title V staffings and meetings with the President. The Director will solicit ongoing suggestions for improvements or adjustments to the Title V Plan as it is being implemented from Title V faculty/staff, SAC's President, Dr. Vasquez-Mireles at TxState, and from the student and faculty clients served by the project.

The data collected through the evaluation process will be analyzed statistically whenever possible for quantitative analysis. For qualitative analysis, the results of student and faculty satisfaction surveys will be compiled and analyzed by the Title V Director and Institutional Effectiveness staff. Every six months, the Title V Director and the External Evaluator will review and add observations to analyzed data, including a description of barriers and facilitators in project implementation, and produce reports on *Puentes* progress and results.

This analysis will be presented to Title V faculty/staff, the President, the IESC at SAC and the Office of Institutional Effectiveness at TxState, the College Academic Council at SAC, and administrative leadership at TxState. Further analysis may be done in conjunction with these entities to finalize the Year-End Report. Year End Reports will be submitted to the Department of Education in a timely manner.

Evaluation of the *Puentes* Project will be augmented by the assessment of best practices that will take place as a result of the participation of TxState graduate students in pilots of best practices to take place in SAC classrooms as part of Title V activities. The dissemination and/or publication of the results of this graduate work will add to the project's ability to assess the effectiveness of Title V academic program improvements.

Budget Narrative/Activity Budget: Improving Academic Programs						
A. PERSONNEL:	Year 1	Year 2	Year 3	Year 4	Year 5	5-yr Total
Title V Director/Pipeline Activities Coord. (Ramirez)100% FTE	39,831	41,026	42,257	43,523	44,830	211,468
Writing Center Interim Activity Coordinator (Tsacalis) @ 20% release, Year One	6,900		0	0	0	6,900
Writing Center Coordinator 80% Release (Spring and Summer Yr 1); in Yr. 4 SAC will pick up 25% and in Yr 5 50% of cost.	18,400	28,428	29,281	22,619	15,532	114,260
Math Center Coordinator 60% release Yr 1, 80% Release Yrs 2-5; in Yr. 4 SAC will pick up 25% and in Yr 5 50% of cost.	18,400	28,428	29,281	22,619	15,532	114,260
Writing Center Assistant Director 1 FTE (six months in Year 1) (in Yr. 4 SAC will pick up 25% and in Yr 5 50% of cost).	17,000	35,020	36,071	27,864	19,133	135,088
Tx State Title V Supervisor/Developmental Math Trainer-Manager (Dr. Vasquez-Mireles) will spend 3.75% of time on supervision of Title V Coordinator, 15% on training of SAC/TxState instructors & tutors and management of Best Practice pilots & assessment. 18.75% FTE	14,500	14,935	15,383	15,845	16,320	76,982
Title V/Pipeline Activities Coordinator (TxState) 100%	36,000	37,080	38,192	39,338	40,518	191,129
Tx State Writing Center Director (Wilson) will assist SAC staff with establishment & training for the WC 18.75% FTE Years 1 & 2	8,000	8,240				16,240
Total full time	159,031	193,157	190,464	171,808	151,865	866,327
Title V Secretary 50% FTE; will assist with scheduling, coordination of meetings/trainings and data collection.	9,500	9,785	10,079	10,381	10,692	50,437
Writing Center Tutors: Adjunct Faculty release ea @ \$2,300 ea course release: Yr 1: 5 faculty x 1 release for Summer x \$2,300 = \$11,500; Yrs 2-5, 10 faculty x 2 releases/ea, Fall and Spring semesters, 5 fac x 1 release Summer = 45 releases/yr x \$2369 = \$106,605 Math Ctr Tutors: 4 faculty x 3 releases/yr x \$2,369 = \$28,428 yrs 2-5 (6 additional faculty x 3 releases/yr x \$2,369 = \$42,642, paid for by tuition/reimbursement for dev math lab hour)	11,500	135,033	139,084	143,257	147,554	576,428

Note: Since a minimum (unduplicated) of 8,000 students/year will be served by this project, Title V unit cost/student to accelerate progress toward degree is estimated at less than \$87/student/year.

	Year 1	Year 2	Year 3	Year 4	Year 5	5-yr Total
Tx State Graduate Teaching Assistant for establishment of SAC Writing Center, 50% FTE Years 1, 2 & 3	6,000	6,180	6,365			18,545
Undergraduate/Graduate Student Tutors @ \$9/hr x 19 hrs. week x 4 ea Center x 40 wks yr = \$54,720 Yrs 2-4 (Year One, Writing Center only, nine mos = \$18,331)	18,331	54,720	54,720	54,720	54,720	237,211
Total Salaries:	204,362	398,875	400,712	380,166	364,832	1,748,948
B. FRINGE:						
Full time Fringe Benefits: (Calculation/FTE: FICA = Salary x .0765; LTD Ins = Salary x 0.0037; Life Ins = Salary x .00256; Workers Comp = Salary x .00799; TRS = Salary x .06; Health Insurance @ average \$489/mo plus STD Ins = \$48/yr/employee) FTE's: 5.09 in yr 1, 5.18 in yr 2, 4.79 in yr 3, 4.14 in yr 4, 3.49 yr 5	54,087	59,763	57,050	50,393	43,540	264,833
Part-time fringe: FICA and Workers Comp = .08449 x wages	2,858	5,972	6,013	5,500	5,527	25,870
Total Fringe	56,945	65,735	63,063	55,893	49,067	290,703
C. TRAVEL:						
For Annual Title V Meeting, Project Director and TxState rep @ \$1,148 for 2 days = \$2,296 Airfare: \$800; Hotel: \$120/ea; per Diem: \$108 (per diem based on District rate \$36/day out-of-state, \$24/day in-state) = \$1,148	2,296	2,296	2,296	2,296	2,296	11,480
Travel for faculty to visit model centers, attend trainings @ \$1,148/ea for 2 days; 4 faculty Yr 1 = \$4,592; 2 fac Yr 2 = \$2,296	4,592	2,296				6,888
Travel for faculty/staff between TxState and SAC, 5,000 miles/yr. @ 0.445/mile. = \$2,225	2,225	2,225	2,225	2,225	2,225	11,125
Travel/lodging for TxState/outside expert instructors/presenters: travel @ \$800 1 national, \$100 1 local expert each year = \$900; lodging @ average \$120/day, 2 x 5 days, = \$1,200. Total = \$2,100; Evaluator Travel: \$600 Airfare + \$120 x 3 nights lodging + \$35 per diem x 3 = \$1065	3,165	3,165	3,165	3,165	3,165	15,825
TOTAL TRAVEL	12,278	9,982	7,686	7,686	7,686	45,318

	Year 1	Year 2	Year 3	Year 4	Year 5	5-yr Total
D. EQUIPMENT	0	0	0	0	0	0
E. SUPPLIES:						
Office Supplies for Title V Administration and Pipeline activities; educational materials for professional development	5,291	4,084	3,495	3,411	4,571	20,852
Furniture (for computer workstations, tutoring tables, chairs) Writing Center Yr 1, Math Center Yrs 1-5)	22,700	6,000	10,000	6,000	6,000	50,700
26 PC workstations for Writing Center, Yr One, @\$1,672/ea = \$43,472; 21 additional laptops yrs 3-5 through Five, @ \$1,896/ea = \$39,816/yr; 26 PC stations for Math Center Year 2 @ \$1,672/ea = \$43,472; 30 additional/replacement PC's Yrs 3-5 = \$50,700/yr	43,472	43,472	29,992	29,992	29,992	176,920
1 Networked Color printer for Writing Center Yr 1 = \$1,900 4 B/W Printers for Writing Ctr Yr 1 @ \$1,300 ea = \$5,200 5 b&w printers for Math Center Year 1 = @ \$1,400 ea = \$7,000	14,100					14,100
2 Ceiling mount projectors @ \$2,600/ea = \$5,200			5,200			5,200
Software for Math Center (to be selected/developed) est @ \$5,000; maintenance/license yrs 3-5		5,000	1,000	1,000	1,000	8,000
General Supplies for Writing and Math Centers	4,000	4,000	4,000	4,000	4,000	20,000
Writing and Math Center Materials Educational written or audio/visual materials for outreach sessions or group tutoring/instruction	2,000	2,000	2,000	2,000	2,000	10,000
Total Supplies	91,563	64,556	55,687	46,403	47,563	305,772
F. Contractual						
Evaluation: Outside Evaluator @ \$5,000/yr;	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	25,000
TxState Evaluation of Writing Center & Dev Best Practices	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	50,000
Tx State consultants for Reading, English and General Developmental Education Curriculum revision and for Developmental Education Training Design	\$4,000	\$2,000	\$12,000	\$26,000	\$26,000	70,000

	Year 1	Year 2	Year 3	Year 4	Year 5	5-yr Total
TxState Faculty and Writing/Math/Developmental Education Experts to teach AY seminars and Summer Institutes @ \$500/day; 2 experts/instructors/day for Summer Institutes x 5 days = \$5,000; Instructors for Academic Year Seminars 2 x 4 days/yr = \$4,000	9,000	9,000	9,000	9,000	9,000	45,000
\$100/day stipends for SAC/TxState faculty to attend Summer Institutes and/or Academic Year seminars in Writing, Math or Reading: Summer Institutes 40 faculty/yr x 5 days x \$100/day = \$20,000 AY wkshops 20 faculty x 2 days @\$100/day = \$4,000	24,000	24,000	24,000	24,000	24,000	120,000
Faculty curriculum development stipends: \$2,000 stipends for faculty to revise/redesign math and English, reading or writing-intensive curricula and/or participate in TxState Evaluation of Best Practices projects, based on participation in Prof Development.	10,000	4,000	10,000	18,000	18,000	60,000
Total Contractual	62,000	54,000	70,000	92,000	92,000	370,000
G. Other						
Renovation of classrooms for Writing Center Yr 1: opening between two rooms; leveling existing 5-tier classroom into 3-tier conference areas, new flooring, painting, install marker boards mechanical, electrical, and data conduit upgrades/computer cables for new workstations, computers and printers. Total estimated renovation cost = \$101,285. Renovation of classrooms for Math Center Years 1-2: mechanical, electrical, and data conduit upgrades/computer cables for new workstations, computers and printers. Total estimated renovation cost = \$128,700 (Costs include contingency, overhead & profit)	175,000	55,000	0	0	0	230,000
Total Other	175,000	55,000	0	0	0	230,000
Endowment: SAC -\$125,000; TxState - \$125,000	46,000		51,000	66,000	87,000	250,000
Total Direct SAC/TxState Costs	648,148	648,148	648,148	648,148	648,148	3,240,741
Indirect Costs (8% of direct)	51,852	51,852	51,852	51,852	51,852	259,259
Total Direct and Indirect	700,000	700,000	700,000	700,000	700,000	3,500,000