



MT. SAN ANTONIO COLLEGE

# Equity for All

## Institutional Responsibility for Student Success



June 24, 2009

# Executive Summary

In collaboration with the Center for Urban Education (CUE) at the University of Southern California, a team of Mt. San Antonio College faculty, staff and administrators worked with CUE staff to plan, research, develop and present this report on *Equity for All*. The invitation to participate in this special project was extended to the then President of the Mt. San Antonio Academic Senate, professor Phillip Maynard. Over the course of two years, the project team received training and met to conduct research, review and discuss findings. The final compilation of data, findings, recommendations and conclusions are included in this report.

The research design used in this study was to examine four cohorts of first-time freshmen students who enrolled at Mt. San Antonio College for the fall semesters of 1997, 1998, 1999 and 2000. Data was then collected to determine the students' statuses as of the fall of 2005 – some five to eight years after the students' initial college enrollment. This model took into account the many factors that can impact community college students' educational pursuits over time. The statistical basis for measuring equity that was provided to the team was the "Equity Index." This formula is a measure of proportionality based on the population for each ethnic group.

As the student population of Mt. San Antonio College continues to diversify, the importance of understanding and measuring student equity becomes even more critical if the college is to address its responsibility for student success for all students.

The report is divided into three sections: Academic Pathways, Persistence, and Transfer. There was some variability in attaining equity across student groups, with some student groups attaining or close to attaining equity in persistence, graduation and transfer. However, African American, Hispanic, and Mexican American students consistently were found to be below equity in almost all indicators. Pacific Islander students were also challenged in many equity indicators.

Despite some research challenges in measuring success in completing transfer-level English and math classes, the findings nevertheless indicate that successful completion of upper level math courses are critical for underrepresented students' success in college. These findings call for more focused attention for ensuring more equitable outcomes for all student groups, especially for African American, Hispanic, and Mexican American students at Mt. San Antonio College. The Equity for All Team encourages the college leadership to seriously study, engage in campus-wide dialogue and take purposeful steps to address the inequities presented in this report.

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# INTRODUCTION

The *Equity for All* report was developed by the Mt. San Antonio College *Equity for All* Evidence Team. Appointed by the college president, the team included faculty, researchers and administrators. Two resource persons were appointed to the team from the Center for Urban Education (CUE) at the University of Southern California. Mt. San Antonio College (Mt. SAC) and nine other community colleges were selected to participate in the USC *Equity for All* project based on the college's ethnic demographics, i.e., whether enrollment of Latino/a students is 25% or greater. Additionally, each college had to have a commitment to diversity reflected in their college goals and core values.

Large-scale demographic changes and social movements within the last 40 years have radically changed the postsecondary institutional environment, particularly that of the community college. This country's emphasis on access to greater postsecondary educational opportunities opened up pathways for ethnic minority students to enroll in institutions of higher education. As a result, the face of higher education has changed and now reflects a more diverse hue. Mt. San Antonio College is no exception as it is characterized by its rich diversity. Students who enroll at Mt. San Antonio College are a reflection of the large, urban metropolis in which the college is located.

This report provides a profile of our credit students disaggregated into international students and seven racial/ethnic categories: African American, Caucasian (White), Asian, Hispanic, Mexican American, Pacific Islander, and Southeast Asian. It was important to the team to identify

specific subgroups within racial/ethnic categories to determine if there are distinctive characteristics common to those particular groups. As a result, Mexican Americans, Southeast Asians, Pacific Islanders and International students were identified separately within these data.

The research cohorts were comprised of four groups of first-time freshmen who enrolled in the fall semesters of 1997, 1998, 1999 and 2000.

The main baseline data focused on:

- The number of students who enrolled as first-time freshmen in each ethnic group.
- The number of students who were enrolled in vocational or transfer pathways.
- The number of students who successfully completed transfer-level English or math.
- The percentage of students who earned certificates.
- The percentage of students who transferred to four-year institutions.

Student outcomes in Academic Pathways are measured through "vital signs." The vital signs are organized sets of data utilized as a starting point from which to measure the status of equity for a given perspective. To give a more accurate picture of the student's intent to transfer or complete a career/vocational pathway, enrollment patterns were used to infer educational goals to allow for further comparisons.

## Invitation to Participate in *Equity for All*

Mt. San Antonio College was invited to participate in the *Equity for All* project based on the racial/ethnic composition of its student body. All invited institutions met at least one of the following criteria for inclusion in the project<sup>2</sup>:

- The percentage of enrolled Latino/a students was 25% or greater
- The enrollment of Black students exceeded the California Community College system wide average of 7%
- The enrollment of Native American students exceeded the system wide average of 1%

- The total enrollment of White/Non-Hispanic students was 50% or greater

In addition to the fact that Mt. San Antonio College met the qualifications for participating in the *Equity for All* project, the institution was also a good match for the project in another important way. *Equity for All* is commensurate with the goals of Mt. San Antonio College, specifically: “The College will provide an environment for consciousness of diversity while also providing opportunities for increased diversity and equity for all across campus.” Additional equity goals are in the college’s Student Equity Plan, available online at <http://www.mtsac.edu/about/facts/equity.html>.



<sup>2</sup>2003 Enrollment data from California Postsecondary Education Commission (CPEC) was used to establish qualification. Asian and Pacific Islanders were excluded in the template provided for this project.

## Goals and Background of the *Equity for All* Project

Higher education decision makers have traditionally favored interventions that look to *change the student* so that they are better able to adapt to the processes and structures that govern postsecondary institutions. The *Equity for All* project seeks to broaden the discussion from *student responsibility* to *institutional accountability* and place the processes of higher education center-stage to bring about change at the institutional level. The research approach utilized was an in-depth examination of existing institutional data, disaggregated by race and ethnicity. The purpose of this model was to investigate the effectiveness of Mt. San Antonio College in promoting equity and excellence in the educational outcomes of historically underrepresented students.

The key foundation of *Equity for All* is that individuals at all levels of leadership, responsibility, and power are the ones who can make change happen to support equitable educational outcomes. The capacity of individuals to become agents of change can be facilitated by engagement in a collaborative, productive activity. In *Equity for All*, this principle was implemented by the formation of teams of practitioner-researchers who convened on a regular basis to examine data on student outcomes and develop a scorecard that represents the “state of equity.” These teams are referred to as “evidence teams” and were comprised of faculty, administrators, and staff who came together to critically examine and discuss routinely collected data in order to reach a measure of

understanding as to why inequities persist on their campuses. Members of the evidence teams assumed the role of researcher, whose job it was to “hold up a mirror to their respective institutions and reflect the status of underrepresented students on basic educational outcomes.” Participation in the evidence teams enabled various members of the college community to transform raw data into simplified, yet compelling “stories” that are now accessible to a wider audience. Organizational learning will continue to occur when new knowledge is constructed by evidence team members and this knowledge is used to induce institutional change for the improvement of educational outcomes for ethnic minority student groups.

Evidence team members began by analyzing available data, disaggregated by race and ethnicity. The initial analysis of the data led evidence team members to question and focus on specific educational outcomes by student groups. These questions in turn became the goals and measures by which institutional effectiveness was evaluated by the evidence team.

### The Equity Scorecard Framework

The Scorecard is a “living” assessment framework (figure. 1) that needs to be monitored to assess the extent that inequities are being reduced or eliminated. The Equity Scorecard contains a set of indicators that provides an institution’s leadership with a comprehensive view of how well historically underrepresented students are performing. As such, an institution’s Equity Scorecard should be modified and updated on a routine basis. Four perspectives make up the structure of the Scorecard:



### Academic Pathways

This perspective includes indicators that represent access to majors, programs, and tracks (e.g., transfer vs. vocational track).

### Persistence

Retention refers to continued attendance from one year to the next year and/or to completion of degrees.

### Transfer Readiness

This perspective consists of indicators that specify students' completion of required academic requirements for transfer and measures that indicate institutional structures and practices that are conducive to a transfer-oriented culture.

### Excellence

While indicators of retention may represent the fulfillment of minimal requirements for "academic survival", excellence indicators represent higher level academic accomplishments that can lead to majors in Science, Technology, Engineering and mathematics fields, transfer to selective institutions, winning academic scholarships, etc. The excellence perspective calls attention to the importance of institutions focusing on producing "leaders" and not just "survivors."<sup>2</sup>

<sup>2</sup>Gandara, P., & Maxwell-Jolly, J. (1999). *Priming the pump: Strategies for increasing the achievement of the underrepresented minority undergraduate*. New York: The College Board.

### NOTE:

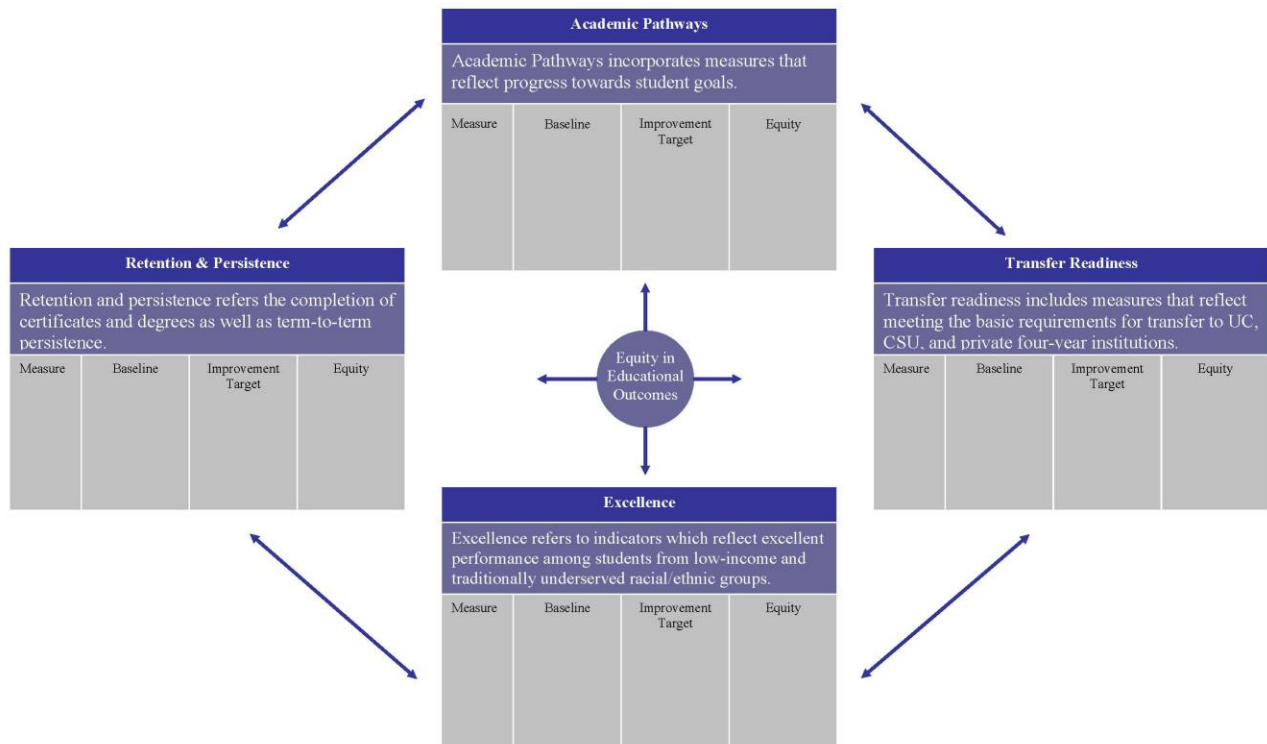
The Mt. San Antonio College Equity for All Evidence Team chose not to include the "Excellence" category in this report. It was believed that more substantive work needed to be undertaken to ensure that this aspect was robust and clearly indicative of measurements related to student equity.

In addition, there are two sections included within each of the three perspectives in the Scorecard: Measure and Baseline. Sections on Improvement Target and Equity were not completed in this document, but form the basis of the College’s Student Equity Plan.

1. A measure is something that illustrates possible areas of equity or inequity of educational outcomes among ethnic/racial groups of students. A possible indicator for Academic Pathways could be successful completion of courses for the Associate degree, for example.
2. The baseline constitutes the current status of the indicator. For example, one can determine the percentage of students in a given ethnic group who successfully complete courses for the degree.

3. The improvement target is a benchmark that expresses the criteria that indicate a goal has been accomplished. For example, the improvement target for completion of courses required for the degree could be a designated percent, such as 5% for a given ethnic group.
4. Equity represents a numerical goal that the team aims to achieve for a given indicator. For example, the team may decide that equity is achieved when at least 50% of all ethnic groups who attempt an Associate degree successfully earn the degree.

**Figure 1: Equity Scorecard Framework**





## **The Mt. San Antonio College Equity for All Evidence Team**

The Mt. San Antonio College *Equity for All Evidence Team* is comprised of seven faculty members, administrators, and staff from the campus and two researchers from the Center for Urban Education.

The Mt. San Antonio College *Equity for All Evidence Team*, led by Communications Professor Phillip Maynard, met six times from May 2005 through January 2006, with many sub-meetings between the team leader and institutional researchers.

### **Phillip Maynard, Team Leader**

*Former Academic Senate President & Communication Faculty*

### **Barbara McNeice-Stallard**

*Director, Research & Institutional Effectiveness*

### **Carolyn Keys**

*Dean, Student Services*

### **Dr. Audrey Yamagata-Noji**

*Vice-President, Student Services*

### **Angel Lujan**

*Counselor*

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*English Faculty (Department Chair)*

### **Dr. Gayle Watkins**

*Adjunct Faculty*

### **Marc Beam**

*Former Educational Research Assessment Analyst*

### **Dr. Robert Rueda**

*Research Associate,  
Center for Urban Education*

### **Leticia Tomas Bustillos**

*Research Assistant,  
Center for Urban Education*

Prior to the first team meeting, all team members attended an orientation to the project at the University of Southern California (USC) with the nine other participating institutions. In addition, three members of the team (Maynard, McNeice-Stallard, and Keys) attended the January 2006 workshop hosted by USC to further our understanding of project goals.

## **Institutional Content - Demographic Composition**

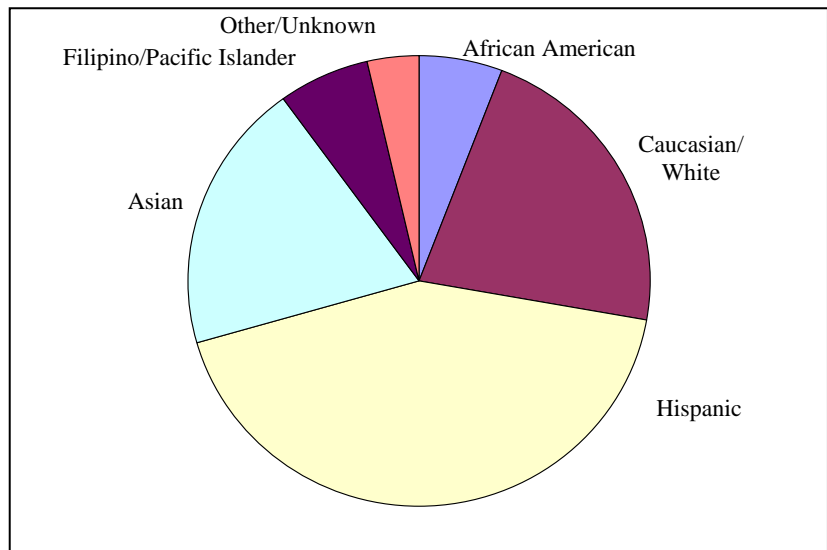
Mt. San Antonio College serves the cities of Pomona, Walnut, and surrounding communities located within Eastern Los Angeles County. Many students attend Mt. San Antonio College from San Bernardino and Orange Counties. The college is a Hispanic Serving Institution, as it enrolls a Hispanic student population that exceeds 25%, of which at least half are low-income. Mt. San Antonio College is one of the largest, single district community colleges in California. In fall 2004, Mt. SAC enrolled 24,103 credit students with 5.9% African American, 42.6% Hispanic (including Mexican American), and 25.9% Asian (including Filipino and Pacific Islander). Overall, Mt. SAC has a higher percentage of Hispanic and Asian students (62%) compared to many community college credit students statewide (40%) as shown in Table 1, Figure 2 and 3.

The intent of this report is to engage the campus community in proactive problem-solving and create an environment for open discussion. The *Equity for All Evidence Team* welcomes your comments or questions regarding these data and conclusions.

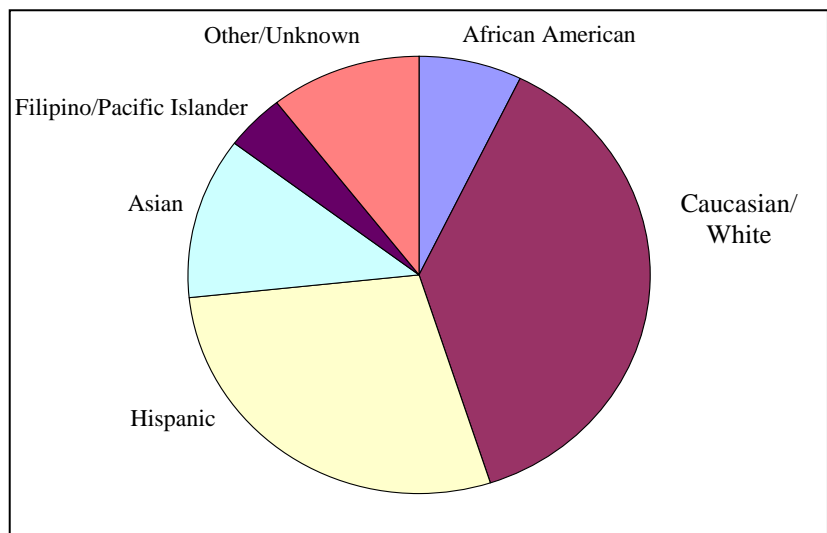
*Phillip Maynard,*  
Team Leader  
Professor of Communications

<b>Table 1: Community College Credit Student Headcount by Racial/Ethnic Composition</b>					
<b>Mt. SAC Credit Headcount – Fall 2004</b>			<b>CCC Statewide Headcount – Fall 2004</b>		
African American	1,431	5.9%	African American	116,688	7.3%
Caucasian/White	5,301	22.0%	Caucasian/White	603,378	37.6%
Hispanic	10,272	42.6%	Hispanic	454,542	28.3%
Asian	4,674	19.4%	Asian	193,112	12.0%
Filipino/Pacific Islander	1,568	6.5%	Filipino/Pacific Islander	68,207	4.2%
Others & Unknown	857	3.6%	Others & Unknown	169,355	10.5%
<b>Total Headcount</b>	<b>24,103</b>	<b>100.0%</b>	<b>Total Headcount</b>	<b>1,605,282</b>	<b>100.0%</b>

**Figure 2:**  
Mt. SAC Credit Student  
Headcount Fall 2004



**Figure 3:**  
Statewide Headcount Fall  
2004



# PERSPECTIVE I

## ACADEMIC PATHWAYS

### Academic Pathways Defined

One of the first tasks undertaken by the *Equity for All* Evidence Team was to define the cohort or group of students for the project. One thought was to use students' educational goals, as declared at the time of application to Mt. San Antonio College. However, it was discovered that educational goals collected at that time are mostly "uninformed" and there are limited opportunities for students to update goals as they become more informed about career and transfer opportunities. For the purposes of this project, the team chose to use students' academic histories or enrollment patterns to infer educational goals. For example, students completing 12 or more units and attempting either college-level English or college-level math are considered "transfer-intent."

The Academic Pathways perspective consists of two kinds of measures: (1) those that indicate students' attainment of educational and career goals based on academic patterns, and (2) those that indicate students' progress toward the attainment of educational and career goals. The measures selected for the Academic Pathways perspective should indicate how well students of different racial and ethnic backgrounds are progressing to meet their goals, such as completion of certificates, the Associate of Arts (AA) or Associate of Science (AS) degrees, or transfer to a four-year university.

### Academic Pathways Vital Signs

The purpose of the vital signs data is to provide a starting point for the team to begin a focused dialogue on a given perspective and a basis from which to ask additional questions.

The completed vital signs provided us with baseline data disaggregated into the following eight racial/ethnic categories:

1. African American/Black Non-Hispanic
2. Caucasian/White
3. Asian including Asian Indian, Chinese, Japanese, Korean and other Asian
4. International students on F-1 visas, regardless of race/ethnicity
5. Hispanic, Central American, South American and other Hispanic
6. Mexican, Mexican American/Chicano
7. Pacific Islander including Filipino, Guamanian, Hawaiian, Samoan and other Pacific Islanders
8. Southeast Asian including Laotian, Cambodian, and Vietnamese

Transfer data for the fall cohorts in 1997 to 2000 were extracted in fall 2005. Based on these data, the *Equity for All* team asked the following questions:

1. How many students enrolled as first-time freshmen (FTF) at Mt. San Antonio College in each fall semester of 1997-2000?
2. How many of these first-time

freshmen have academic patterns that reflect “transfer-intent” and/or a vocational pathway?

3. How many of these first-time freshmen have successfully completed transfer-level English and math courses as of 2005?
4. What percentage of vocational pathway students completed courses required to earn a vocational certificate as of 2005?
5. What percentage of transfer-intent students completed courses required to earn an Associate degree as of 2005? and what percentage transferred to a four-year institution as of 2005?

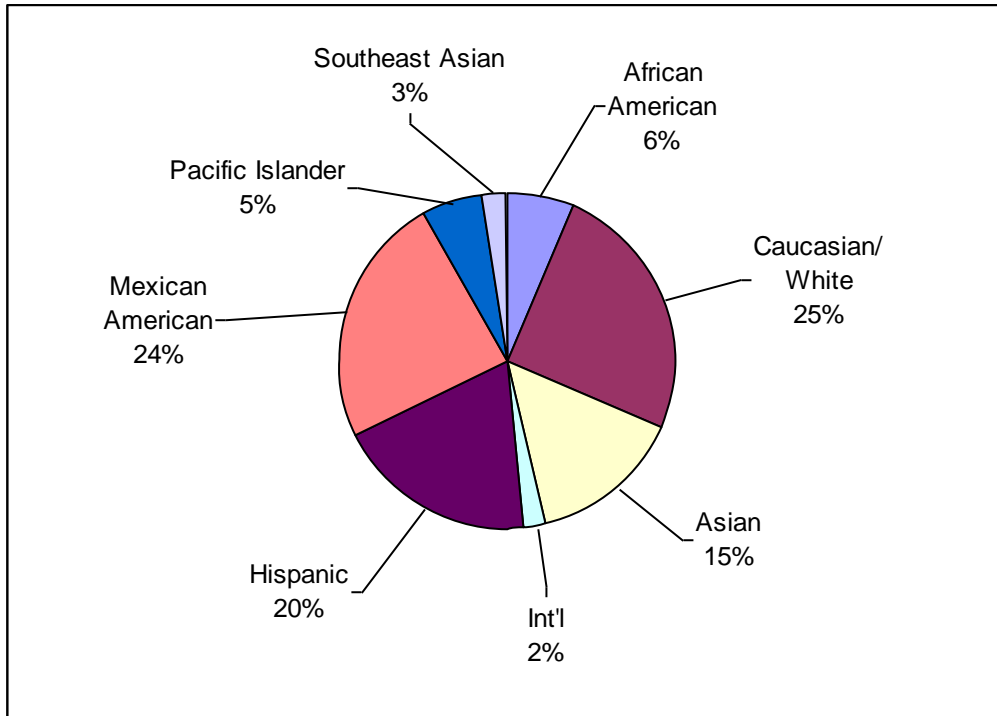
These questions are answered in the following sections of this report:

- Enrollment
- Academic Patterns (Educational Goals)
- The Equity Index
- Successful Completion of English and Math Requirements
- Vocational Certificate Completion
- Associate Degree Completion and Transfer

### Enrollment

The four cohorts of the study were based on the students who enrolled as first time freshmen at Mt. San Antonio College in each of four fall semesters: 1997, 1998, 1999, and 2000 and their subsequent status as of 2005. This yielded a cohort of 16,391 students, ages 16 to 24. (Figure 4 & Table 2)

**Figure 4: Fall 1997-2000 First-Time Freshmen by Race and Ethnicity (N = 16,391)**



**Table 2: Fall 1997-2000 First-Time Freshmen by Race and Ethnicity**

Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	4,161	262	1,100	603	89	726	1,032	228	121
1998	4,260	285	1,061	589	83	815	1,050	254	123
1999	3,712	215	902	605	63	777	849	207	94
2000	4,258	285	1,035	609	114	890	1,040	205	80
<b>Total</b>	<b>16,391</b>	<b>1,047</b>	<b>4,098</b>	<b>2,406</b>	<b>349</b>	<b>3,208</b>	<b>3,971</b>	<b>894</b>	<b>418</b>
<b>Percent</b>	<b>100%</b>	<b>6.4%</b>	<b>25.0%</b>	<b>14.7%</b>	<b>2.1%</b>	<b>19.6%</b>	<b>24.2%</b>	<b>5.5%</b>	<b>2.6%</b>

First-time freshmen (FTF) are age 16 to 64 with no prior college. The above cohorts include only known ethnicities.

### Academic Patterns (Educational Goals)

The Academic Pathways vital signs provided us with information about our first-time freshmen enrolled in fall semesters 1997-2000. Their inferred educational goals are based on academic (course-taking) patterns. By reviewing these data we were able to identify the following two cohorts: vocational pathway and transfer-intent students.

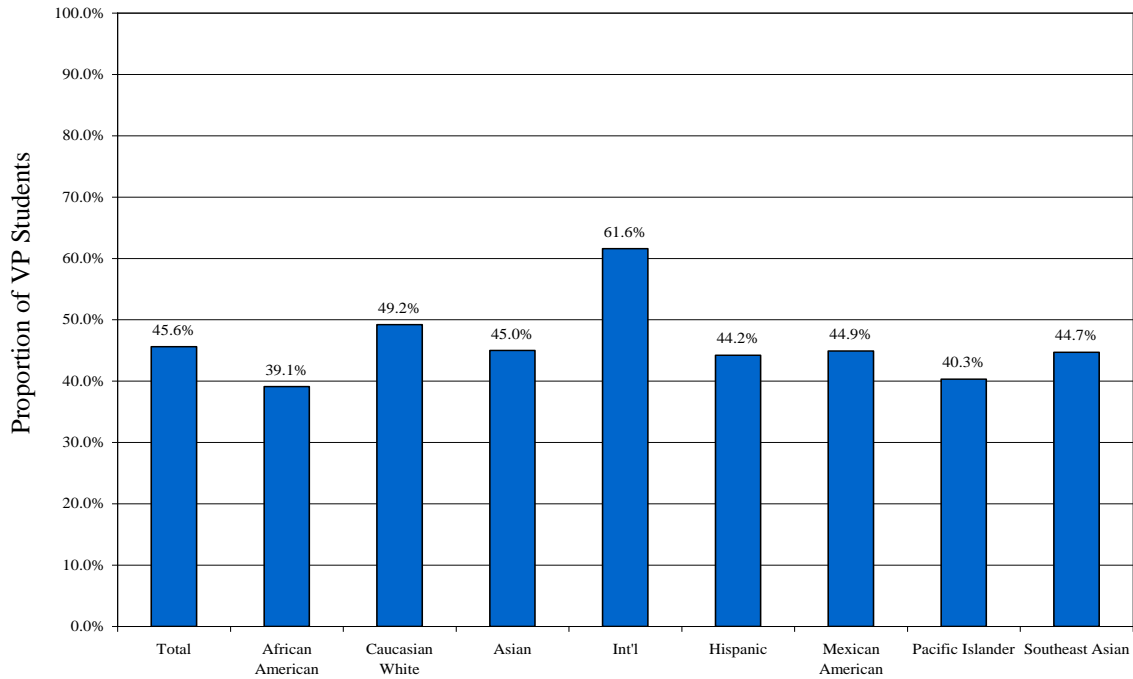
**Vocational Pathway (VP)** students have enrolled in at least one “clearly occupational” course<sup>3</sup> during their academic history at Mt. San Antonio College. Table 3 (below) shows 7,469 out of 16,391 (45.6%) FTF enrolled for fall 1997-2000 terms met the definition of vocational pathway. It could be argued that continuing enrollment in only one occupational course is inadequate in defining a vocational pathway student, however this was the model used. Later in this report certificate completion as the educational outcome for vocational pathway students is examined.

**Table 3: Vocational Pathway (VP) Students, Fall 1997-2000 by Race and Ethnicity**

Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	1,940	102	565	260	51	338	480	86	58
1998	1,900	112	498	280	56	340	447	111	56
1999	1,622	85	418	265	38	336	346	87	47
2000	2,007	110	536	277	70	403	509	76	26
<b>Total VP</b>	<b>7,469</b>	<b>409</b>	<b>2,017</b>	<b>1,082</b>	<b>215</b>	<b>1,417</b>	<b>1,782</b>	<b>360</b>	<b>187</b>
<b>Percent</b>	<b>100.0%</b>	<b>5.5%</b>	<b>27.0%</b>	<b>14.5%</b>	<b>2.9%</b>	<b>19.0%</b>	<b>23.9%</b>	<b>4.8%</b>	<b>2.5%</b>
Total VP	7,469	409	2,017	1,082	215	1,417	1,782	360	187
Total FTF	16,391	1,047	4,098	2,406	349	3,208	3,971	894	418
<b>% of FTF</b>	<b>45.6%</b>	<b>39.1%</b>	<b>49.2%</b>	<b>45.0%</b>	<b>61.6%</b>	<b>44.2%</b>	<b>44.9%</b>	<b>40.3%</b>	<b>44.7%</b>

<sup>3</sup> Mt. San Antonio College courses are identified with statewide vocational (SAM) codes for funding and other purposes. Clearly occupational courses have a SAM code of A, B, or C, although Mt. SAC has no A courses.

**Figure 5: Percent of FTF within Vocational Pathway (VP) Students by Race and Ethnicity, Fall 1997-2000**

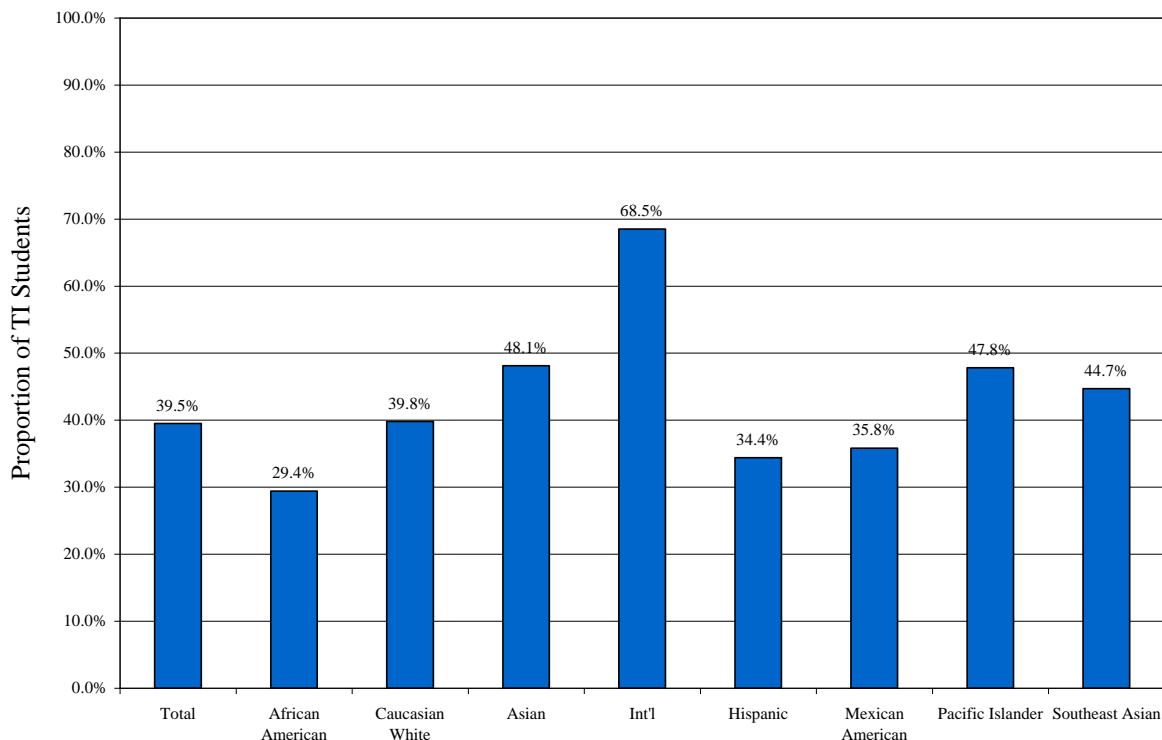


A higher percentage (61.6%) of international visa students were enrolled in at least one vocational course than all other subgroups of students. This is surprising as it was assumed that many international visa students' goals were to transfer. (Figure 5) Fewer African American (39.1%) and Pacific Islander (40.3%) students were enrolled in at least one vocational course.

**Transfer-Intent (TI)** students have earned 12 or more units and attempted either transfer-level English (English 1A) or transfer-level math (Math 110—Statistics) at Mt. San Antonio College. Table 4 shows 6,477 out of 16,391 (39.5%) FTF from 1997-2000 met the definition of transfer-intent. Later in this report the educational outcomes of Associate degree completion and transfer to four-year institution for transfer-intent students will be presented.

Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	1,304	60	341	226	41	184	307	98	47
1998	1,784	85	438	301	57	304	404	134	61
1999	1,524	71	372	299	48	280	319	96	39
2000	1,865	92	482	332	93	335	392	99	40
<b>Total TI</b>	<b>6,477</b>	<b>308</b>	<b>1,633</b>	<b>1,158</b>	<b>239</b>	<b>1,103</b>	<b>1,422</b>	<b>427</b>	<b>187</b>
Percent	100.0%	4.8%	25.2%	17.9%	3.7%	17.0%	22.0%	6.6%	2.9%
Total TI	6,477	308	1,633	1,158	239	1,103	1,422	427	187
Total FTF	16,391	1,047	4,098	2,406	349	3,208	3,971	894	418
<b>% of FTF</b>	<b>39.5%</b>	<b>29.4%</b>	<b>39.8%</b>	<b>48.1%</b>	<b>68.5%</b>	<b>34.4%</b>	<b>35.8%</b>	<b>47.8%</b>	<b>44.7%</b>

**Figure 6: Percent of FTF Transfer Intent (TI) Students by Race and Ethnicity, Fall 1997-2000**

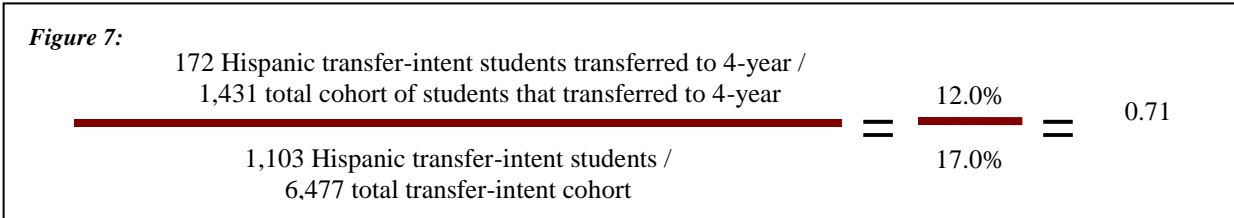


**Equity Index**

In Figure 6, the data shows that fewer African American (29.4%), Hispanic (34.4%) and Mexican American (35.8%) students have completed transfer-level English and transfer-level mathematics and can therefore be considered less prepared to transfer. Clearly, international students (68.5%) are the highest proportion of transfer-intent students.

Some students may value transfer as an educational goal but may have been placed into pre-collegiate math and English courses which has negatively impacted their ability to successfully complete English and mathematics courses.

Another way to look at these data is by calculating an **Equity Index**, which identifies, at a glance, whether ethnic groups are above or below equity. The Equity Index for almost any educational outcome can be calculated by using the proportion of all first-time freshmen by ethnicity (see Table 4) for the denominator; then by using the proportion of students by ethnicity that achieved the outcome for the numerator. If these two percents are equal, the index will be 1.00. The closer to 1.00, the higher the Equity Index is for each particular ethnic group. See the example below (figure 7), based on data from Table 12.



The Equity Index shown above is for the educational outcome of transfer to a four-year college or university for Hispanic students, based on data for the cohort of all transfer-intent students (1997-2000) measured in 2005. Please see Appendix A for a more detailed explanation of the Equity Index and how to calculate it. A score of 1.0 indicates that equity has been achieved in regards to particular indicators. A score of less than 1.0 represents outcomes that are below equity. A score above 1.0 signifies that outcomes are above equity. Three colors are used to provide a clearer picture of the state of equity:

- Green is used to represent above equity
- Yellow indicates when equity is almost attained
- Red represents below equity

In the next sections, summary tables with the number/percent of students achieving success, is disaggregated by race/ethnicity for each of the following educational outcomes:

1. Success in transfer-level English
2. Success in transfer-level math
3. Certificate completion
4. Associate degree completion
5. Transfer to four-year institutions

As can be seen in Table 5, many student groups have attained, or are close to attaining, equity in a majority of the indicators (i.e., green and yellow cells).

- Both African American and Hispanic students demonstrate scores below equity in certain indicators according to the Equity Index.
- African Americans are below equity in the successful completion of both transfer-level English and math by 2005.

- Hispanics are below equity in the successful completion of transfer level math in addition to the number of students who are transfer-intent and successfully transfer to four-year institutions.
- Mexican Americans demonstrate below-equity scores in the successful completion of transfer level math.
- Pacific Islander students are below equity in degrees earned by transfer intent students.

The use of color coding in the equity index makes it clear that while the green-colored cells depict that many groups are doing well in most indicators, there are nonetheless serious questions to be asked regarding why students are not successfully completing transfer level math. As can be seen by the index, half of the below equity scores fall within this particular indicator, warranting further inquiry.

Although African American students have lower equity in completing transfer-level English and mathematics courses, transfer-intent African American students show a high rate of earning Associate degrees and actually transferring, according to the Equity Index formula. Outperforming all other groups, international students are successfully completing transfer level math and transfer level English and actually completing transfer. National regulations pertaining to international student admission eligibility and full – time student status more than likely contribute to this high success rate.

Asian students (1.77) and Southeast Asian students (1.33) are successfully completing transfer level math.

These findings are further discussed in the Transfer section.



**Table 5: Equity Index for Mt. SAC, Fall FTF 1997 - 2000**

Measure	Category	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
Successful Completion of Transfer-Level English by 2005	FTF	0.69	1.18	1.17	1.72	0.80	0.85	1.19	1.01
Successful Completion of Transfer-Level Math by 2005	FTF	0.47	0.98	1.77	2.80	0.67	0.76	1.07	1.31
Certificates Earned by Vocational Pathway Students by 2005	VP	0.95	1.15	0.92	1.10	0.88	0.94	1.05	1.22
Degrees Earned (AA/AS) by Transfer-Intent Students by 2005	TI	0.96	1.18	0.82	0.92	0.99	1.02	0.79	1.13
Transfer Intent Students that Transfer to 4-Year Institution by 2005 (used the National Student Clearinghouse data)	TI	0.96	1.08	1.42	1.25	0.71	0.80	0.92	0.85

**Interpreting the Equity Index through Color (Hao, Bustillos & Bensimon, in press)**

Level of Equity	Numerical Representation	Color
Above Equity	Greater than or equal to (= or > 1.0)	Green
Almost At Equity	0.8 – 0.99	Yellow
Below Equity	Less than (< 1.0)	Red

## Successful Completion on First Attempt of Transfer-level English and Math Courses

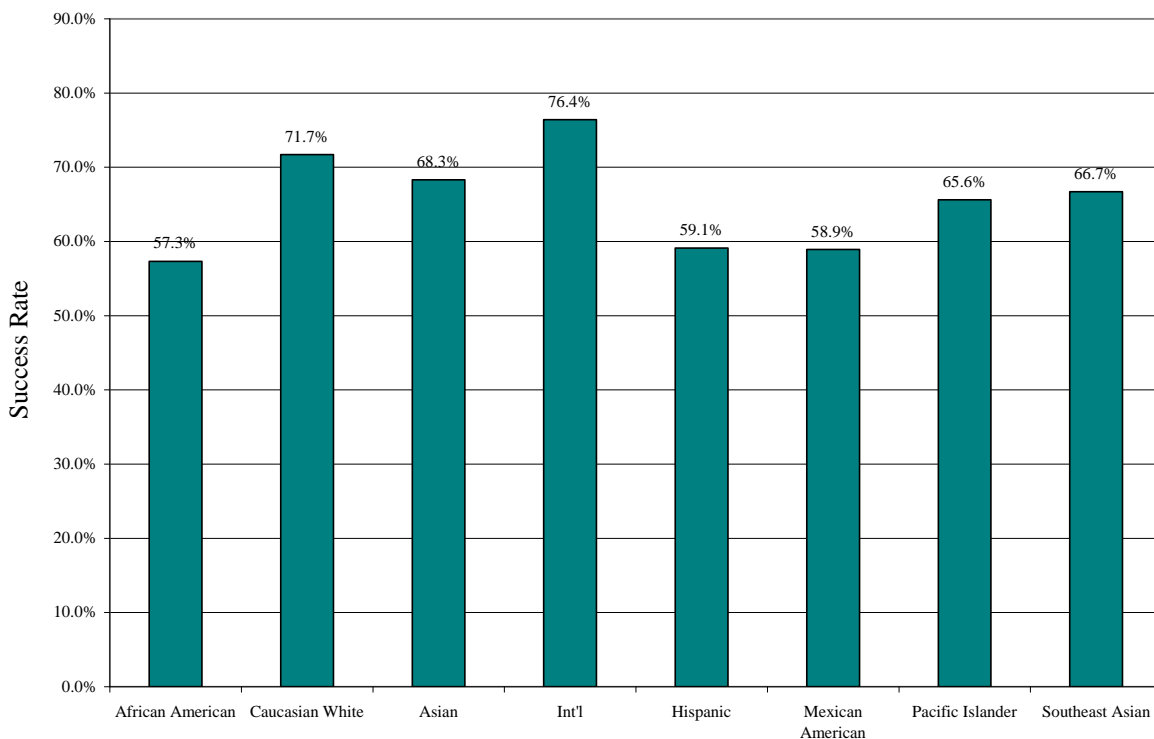
To measure transfer-intent, students' successful pass rates in transferable level English and math courses were calculated. Additionally, in order to capture a purer success rate, only students' successful pass rates (grades of A, B, C) after completing these courses on first attempt were included in this category.

Tables 6 and 7 (Figure 8 and 9) below demonstrate the number of first-time students in each ethnic group that attempted ENGL1A (Freshman Composition) or MATH110 (Statistics) at anytime during their academic history (1997-2005). The success rate is the percent of students earning a final grade of A, B, or C on their first attempt in the course.

- Among the 1047 African American first-time students who comprised the only 354 attempted transfer-level English and only 57.3% were successful.

<b>Table 6: Success Rate for Fall 1997-2000 of First Time Students who Attempted Transfer-Level English (ENGL 1A)</b>								
	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
# Students	354	1,888	1,153	220	1,223	1,600	456	177
Attempted Rate	57.3%	71.7%	68.3%	76.4%	59.1%	58.9%	65.6%	66.7%

**Figure 8: Success Rate for Transfer Level English (ENGL1A) for Fall 1997-2000 of First Time Freshman by Race and Ethnicity**



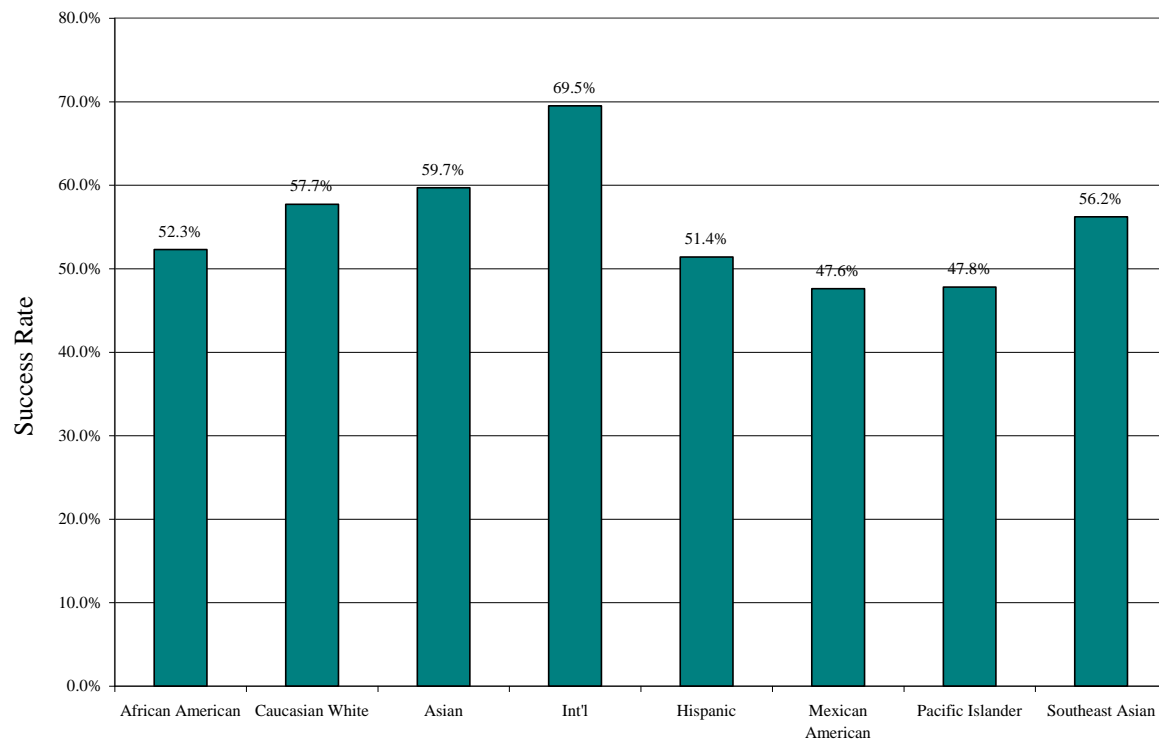
- Among the Mexican American cohort, 1,600 attempted transfer-level English and 58.9% were successful.
- Among the Hispanic cohort, 1,233 attempted transfer-level English and 59.1% were successful.
- Caucasian White students' success rate was the highest (71.7%)

As can be seen in Table 7 and Figure 9 below, among the African American cohort, only 86 students out of 1,047 attempted transfer-level math by 2005. This means that only 8% of African Americans attempted to enroll and complete a transfer level math course within a five to eight year period after initial enrollment and only 53.3% successfully passed.

**Table 7: Success Rate for Fall 1997-2000 of First Time Students who Attempted Transfer-Level Math (MATH 110)**

	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
Total Students	86	631	648	128	383	574	182	89
Success Rate	52.3%	57.7%	59.7%	69.5%	51.4%	47.6%	47.8%	56.2%

**Figure 9: Success Rate for Transfer Level Math (MATH110) for Fall 1997-2000 of First Time Freshman by Race and Ethnicity**



The following groups had even lower pass rates in transfer-level math:

- Mexican American (47.6%)
- Pacific Islander (47.8%)
- Hispanic (51.4%)

In raw numbers, only 45 out of 1,047 (4%) African American students enrolled in and passed transfer level math and only 383 out of 3,208 (12%) Hispanic students attempted transfer level math.

Tables 8 and 9 below demonstrate the Equity Indexes for first-time students (FTF) who succeed in transfer-level English and transfer-level math disaggregated by race and ethnicity. The two tables reveal a noticeable inequity for African American students in their success of transfer-level English (.69) and math (.47) and for Hispanic transfer-level math (.67) and Mexican American transfer-level math (.76) students in their respective, calculated equity indexes.

**Table 8: Equity Index for Fall 1997-2000 First-Time Students who Succeed in Transfer –Level English (ENGL 1A) by 2005**

Ethnic Group	FTF	% of Total FTF	Success in ENGL1A	% of Total Success in ENGL1A	Equity Index
African American	1,047	6.4%	203	4.4%	<b>0.69</b>
Caucasian	4,098	25.0%	1,353	29.4%	<b>1.18</b>
Asian	2,406	14.7%	788	17.1%	<b>1.17</b>
International	343	2.1%	168	3.7%	<b>1.72</b>
Hispanic	3,208	19.6%	723	15.7%	<b>0.80</b>
Mexican American	3,971	24.2%	943	20.5%	<b>0.85</b>
Pacific Islander	894	5.5%	299	6.5%	<b>1.19</b>
Southeast Asian	418	2.6%	118	2.6%	<b>1.01</b>
Total	16,391	100.0%	4,595	100.0%	1.00

**Table 9: Equity Index for Fall 1997-2000 First-Time Students who Succeed in Transfer –Level Math (MATH 110) by 2005**

Ethnic Group	FTF	% of Total FTF	Success in MATH110	% of Total Success in MATH110	Equity Index
African American	1,047	6.4%	45	3.0%	<b>0.47</b>
Caucasian	4,098	25.0%	364	24.4%	<b>0.98</b>
Asian	2,406	14.7%	387	25.9%	<b>1.77</b>
International	349	2.1%	89	6.0%	<b>2.80</b>
Hispanic	3,208	19.6%	197	13.2%	<b>0.67</b>
Mexican American	3,971	24.2%	273	18.3%	<b>0.76</b>
Pacific Islander	894	5.5%	87	5.8%	<b>1.07</b>
Southeast Asian	418	2.6%	50	3.4%	<b>1.31</b>
Total	16,391	100.0%	1,492	100.0%	1.00

## Vocational Certificate Completion

As a community college, it is essential to also track students seeking vocational/occupational certificates. A “Vocational Pathways Student” is one who enrolled in at least one state-coded vocational course.

- Of the 7,469 first-time students identified as “vocational pathway,” 1,960 (26.2%) earned one or more vocational certificates by December 2005 (see Table 10).
- Southeast Asian and Caucasian

vocational pathway students have the highest percentage (32.1% and 30.1%, respectively) earning vocational certificates.

- International (28.8%) and Pacific Islander (27.5%) students are above the mean for all vocational pathway students while African American (24.9%) and Mexican American (24.6%) students are below the overall average (26.2%).
- Asian and Hispanic vocational pathway students have the lowest percentage (24.2% and 23.1%, respectively) earning vocational certificates.

**Table 10: Percent of Vocational Pathway Students, Fall 1997-2000 Earning Certificates by 2005 by Race and Ethnicity**

Vocational Pathway Students Fall 1997-2000									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	1,940	102	565	260	51	338	480	86	58
1998	1,900	112	498	280	56	340	447	111	56
1999	1,622	85	418	265	38	336	346	87	47
2000	2,007	110	536	277	70	403	509	76	26
Total	7,469	409	2,017	1,082	215	1,417	1,782	360	187

Vocational Pathway Students that Earned Certificates between 1997 and 2005									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	537	22	181	57	19	82	132	21	23
1998	517	32	142	79	9	89	119	32	15
1999	421	25	124	61	11	78	88	23	11
2000	485	23	161	65	23	79	100	23	11
Total	1,960	102	608	262	62	328	439	99	60

Percent of Vocational Pathway Students by Ethnicity that Earned Certificates between 1997 and 2005									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	27.7%	21.6%	32.0%	21.9%	37.3%	24.3%	27.5%	24.4%	39.7%
1998	27.2%	28.6%	28.5%	28.2%	16.1%	26.2%	26.6%	28.8%	26.8%
1999	26.0%	29.4%	29.7%	23.0%	28.9%	23.2%	25.4%	26.4%	23.4%
2000	24.2%	20.9%	30.0%	23.5%	32.9%	19.6%	19.6%	30.3%	42.3%
Total	26.2%	24.9%	30.1%	24.2%	28.8%	23.1%	24.6%	27.5%	32.1%

Equity Index for Certificates Earned by Vocational Students									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	1.00	0.78	1.16	0.79	1.35	0.88	0.99	0.88	1.43
1998	1.00	1.05	1.05	1.04	0.59	0.96	0.98	1.06	0.98
1999	1.00	1.13	1.14	0.89	1.12	0.89	0.98	1.02	0.90
2000	1.00	0.87	1.24	0.97	1.36	0.81	0.81	1.25	1.75
Total	1.00	0.95	1.15	0.92	1.10	0.88	0.94	1.05	1.22

## Associate Degree Completion

By project design, the analysis of students who earn an Associate Degree is based on the percentage of the transfer-intent students who completed courses that are required to earn the Associate degree by the end of 2005. (Table 11) For Mt. SAC the degree completion requirement for English is the same as the transfer requirement. However, in 2005, the math requirement for Associate Degrees was only Elementary Algebra for an A.S. and Intermediate Algebra for an A.A.

- Of the 6,477 first-time students identified as transfer-intent, 1,471 (22.7%) have earned an Associate Degree by December 2005.

- Caucasian and Southeast Asian transfer-intent students have the highest percentage (26.8% and 25.7%, respectively) earning AA/AS degrees.
- Mexican American (23.2%) and Hispanic (22.4%) students are near the mean for all transfer-intent students (22.7%) while African American (21.8%) and International (20.9%) students are slightly below the overall average.
- Asian and Pacific Islander transfer-intent students have the lowest percentage (18.6% and 18.0%, respectively) earning AA/AS degrees.

Measuring degree completion against transfer may not be appropriate in Math. Additionally some students transfer without earning an Associate Degree.

**Table 11: Percent of Transfer-Intent Students, Fall 1997-2000 Earning Associate Degrees by 2005, by Race and Ethnicity**

Transfer Intent Students Fall 1997-2000									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	1,304	60	341	226	41	184	307	98	47
1998	1,784	85	438	301	57	304	404	134	61
1999	1,524	71	372	299	48	280	319	96	39
2000	1,865	92	482	332	93	335	392	99	40
<b>Total</b>	<b>6,477</b>	<b>308</b>	<b>1,633</b>	<b>1,158</b>	<b>239</b>	<b>1,103</b>	<b>1,422</b>	<b>427</b>	<b>187</b>
% across Groups		4.8%	25.2%	17.9%	3.7%	17.0%	22.0%	6.6%	2.9%

Transfer Students that Earned AA/AS between 1997 and 2005									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	349	13	112	41	11	54	87	15	16
1998	409	19	112	61	7	78	96	23	13
1999	332	18	94	54	10	57	71	20	8
2000	381	17	119	59	22	58	76	19	11
<b>Total</b>	<b>1,471</b>	<b>67</b>	<b>437</b>	<b>215</b>	<b>50</b>	<b>247</b>	<b>330</b>	<b>77</b>	<b>48</b>
% across Groups		4.6%	29.75%	14.6%	3.4%	16.8%	22.4%	5.2%	3.3%

Percent of Transfer Intent Students by Ethnicity that Earned AA/AS between 1997 and 2005									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	26.8%	21.7%	32.8%	18.1%	26.8%	29.3%	28.3%	15.3%	34.0%
1998	22.9%	22.4%	25.6%	20.3%	12.3%	25.7%	23.8%	17.2%	21.3%
1999	21.8%	25.4%	25.3%	18.1%	20.8%	20.4%	22.3%	20.8%	20.5%
2000	20.4%	18.5%	24.7%	17.8%	23.7%	17.3%	19.4%	19.2%	27.5%
<b>Total</b>	<b>22.7%</b>	<b>21.8%</b>	<b>26.8%</b>	<b>18.6%</b>	<b>20.9%</b>	<b>22.4%</b>	<b>23.2%</b>	<b>18.0%</b>	<b>25.7%</b>

Equity Index for Degrees Earned by Transfer Intent Students									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	1.00	0.81	1.23	0.68	1.00	1.10	1.06	0.57	1.27
1998	1.00	0.98	1.12	0.88	0.54	1.12	1.04	0.75	0.93
1999	1.00	1.16	1.16	0.83	0.96	0.93	1.02	0.96	0.94
2000	1.00	0.90	1.21	0.87	1.16	0.85	0.95	0.94	1.35
<b>Total</b>	<b>1.00</b>	<b>0.96</b>	<b>1.18</b>	<b>0.82</b>	<b>0.92</b>	<b>0.99</b>	<b>1.02</b>	<b>0.79</b>	<b>1.13</b>

Note: The course requirements to earn an AA/AS degree differ from the CSU/UC transfer requirements. It may be that students on a transfer pathway to CSU/UC do not complete Associate degrees at Mt. SAC. Further investigation is needed.

## Transfer

Measuring transfer rates is perhaps the most complex and illusive task for community colleges. For the purposes of this project, transfer was measured for students who were labeled as “transfer intent.” These are students who, by the end of 2005, had completed 12 or more units and attempted either a transfer level English or a transfer level math course at Mt. SAC.

The Office of Research and Institutional Effectiveness sent data on all 16,391 first-

time students to the National Student Clearinghouse (NSC) to identify students that transferred to any four-year college or university after attending Mt. San Antonio College. The NSC results matched 97% of the students submitted. The following, Table 12, show the number of transfer-intent students that transferred by ethnicity, followed by the Equity Index for each ethnic group within the four fall cohorts.

**Table 12: Number of Transfer-Intent Students that Transfer to Four-Year Institutions by 2005, by Race and Ethnicity**

<b>Transfer-Intent Students Fall 1997-2000</b>									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	1,304	60	341	226	41	184	307	98	47
1998	1,784	85	438	301	57	304	404	134	61
1999	1,524	71	372	299	48	280	319	96	39
2000	1,865	92	482	332	93	335	392	99	40
<b>Total</b>	<b>6,477</b>	<b>308</b>	<b>1,633</b>	<b>1,158</b>	<b>239</b>	<b>1,103</b>	<b>1,422</b>	<b>427</b>	<b>187</b>

<b>Transfer-Intent Students that Transferred to 4-year Institution between 1997 and 2005</b>									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	333	12	92	78	14	36	67	24	10
1998	403	17	103	94	25	50	75	25	14
1999	328	19	88	90	10	40	56	20	5
2000	367	17	108	101	17	46	54	18	6
<b>Total</b>	<b>1,431</b>	<b>65</b>	<b>391</b>	<b>363</b>	<b>66</b>	<b>172</b>	<b>252</b>	<b>87</b>	<b>35</b>

<b>Percent of Transfer Intent FTF that TRANSFERRED to a 4-year Institution as of Fall 2005</b>									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	25.5%	20.0%	27.0%	34.5%	34.1%	19.6%	21.8%	24.5%	21.3%
1998	22.6%	20.0%	23.5%	31.2%	43.9%	16.4%	18.6%	18.7%	23.0%
1999	21.5%	26.8%	23.7%	30.1%	20.8%	14.3%	17.6%	20.8%	12.8%
2000	19.7%	18.5%	22.4%	30.4%	18.3%	13.7%	13.8%	18.2%	15.0%
<b>Total</b>	<b>22.1%</b>	<b>21.1%</b>	<b>23.9%</b>	<b>31.3%</b>	<b>27.6%</b>	<b>15.6%</b>	<b>17.7%</b>	<b>20.4%</b>	<b>18.7%</b>

<b>Equity Index for Transfer Intent Students that Transfer to 4-year Institution by 2005</b>									
Fall Cohort	Total	African American	Caucasian White	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	1.00	0.78	1.06	1.36	1.34	0.77	0.85	0.96	0.83
1998	1.00	0.89	1.04	1.38	1.94	0.73	0.82	0.93	1.02
1999	1.00	1.24	1.10	1.40	0.97	0.66	0.82	0.97	0.60
2000	1.00	0.94	1.14	1.55	0.93	0.70	0.70	0.92	0.76
<b>Total</b>	<b>1.00</b>	<b>0.96</b>	<b>1.08</b>	<b>1.42</b>	<b>1.25</b>	<b>0.71</b>	<b>0.80</b>	<b>0.92</b>	<b>0.85</b>

Tables 11 and 12 show the numbers and percentages of transfer intent students who graduated with an AA/AS or transferred to four year institutions, for the four cohorts. The Equity Index, however, presents a picture that is troublesome: African American students in 1999 are shown as “above equity” (green), with an index of 1.16 for Associate Degrees earned and 1.24 for transfer. In reviewing all the data in this project, this calculation appears counter-intuitive.

In further reviewing the elements of the formula, however, the explanation is clear. The base number, transfer-intent, is the number of students who are attempting transfer level English or math. This number is relatively low for African American students. For 1999, the cohort of African American students was 215 (Table 2). By 2005, 71 of the 215 students in this cohort had attempted English 1A or Math 110 -- only 33 percent of the cohort! By then looking at this cohort of 71 (Table 4 and 12) transfer-intent students and discovering that 19 (Table 12) had actually transferred, the Equity Index formula calculated the 19 students as above equity. Surely, not all of the 215 students had goals to transfer, but 19 out of 215 (8%) can hardly be seen as “above equity.”

This is clearly a limitation of the Equity Index because it calculates transfer success based only on the percentage of transfer-intent students who actually transfer. Further work in this area is clearly warranted such that the college can more accurately assess and establish a transfer goal by which to measure transfer rates.





MT. SAN ANTONIO COLLEGE

Equity for All:  
Institutional Responsibility for Student Success

## Perspective 2 Persistence



June 24, 2009

## PERSPECTIVE 2

# ACADEMIC PERSISTENCE

This section examines the degree of equity related to persistence for the four FTF cohorts. Persistence is from two overall perspectives: term-to-term and certificate or degree attainment.

The students were also categorized into vocational or transfer-intent groups. Vocational students are those who enroll in at least one “clearly occupational” course during their academic history at Mt. San Antonio College (Mt. SAC). Transfer-intent (TI) focuses on students who have earned 12 or more units and attempted transfer-level English or transfer-level math.

This section provides the equity indices for each ethnic group by their grouping as well as their persistence. Overall, the percentage of students who were classified as vocational or transfer-intent was equitable, except for one group. African American students became transfer-intent at a lower rate than expected (Equity Index (EI) =0.744). See the appendices for more information on EI.

Term-to-term persistence of the groups and ethnicities within the groups was relatively equitable except for one group. Pacific Islanders who were transfer-intent, although a smaller group, tended to earn an Associate degree in science or arts at a lower rate than expected (EI=0.794).

### **Persistence Defined**

This perspective examines persistence for the four student cohorts by term, from fall to spring, and fall to fall. Also examined are how vocational students persist to certificate completion and how well transfer-intent students persist to graduation (AA/AS degrees).

This section compares both the proportion of students in each ethnic group that achieve educational outcomes with the Equity Index (EI), as well as comparing percentage rates of achievement within each ethnic group. In this report, the concept of persistence has been used to describe students’ continued enrollment. The concept of retention has not been introduced, but could be controlled as a measurement of the institution’s ability to retain students, thereby displacing the focus from students but rather onto the college itself.

### **Findings**

Table 13 below outlines the composition of the students who were classified into three groups: first-time freshmen, vocational, and transfer-intent. These data are derived from the major cohort of 16,391 students identified as first-time freshmen (FTF) from fall 1997 to fall 2000. Vocational students are those who enroll in at least one “clearly occupational” course during their academic history at Mt. San Antonio College. Transfer-intent students are those who earn 12 or more units and attempted either transfer-level English or transfer-level math at Mt. San Antonio College.

Only 409 African American students (39%) and 360 Pacific Islanders (40.3%) are classified as vocational. Somewhat surprising is the high percentage (61.6%) of international students who have taken at least one vocational class (EI of 1.352).

Although the Equity Indexes for Persistence are either “above equity” or “almost equity” for all groups, there are only 308 African American transfer-intent students. African American transfer-intent students are underrepresented (EI of 0.744). African American FTF meet the transfer-intent criteria at a much lower rate (29.4%) than other ethnic groups. Hispanic and Mexican American students, although not considered below equity, are nevertheless lower than all other ethnic groups, except African Americans.

**Table 13 – Composition of Student Cohorts (Fall 1997 to Fall 2000)**

Student Cohorts		African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian	All Students
First-Time Freshmen	#	1,047	4,098	2,406	349	3,208	3,971	894	418	16,391
	%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Vocational Students	#	409	2,017	1,082	215	1,417	1,782	360	187	7,469
	%	39.1%	49.2%	45.0%	61.6%	44.2%	44.9%	40.3%	44.7%	45.6%
	EI	0.857	1.080	0.987	1.352	0.969	0.985	0.884	0.982	1.000
Transfer-Intent Students	#	308	1,633	1,158	239	1,103	1,422	427	187	6,477
	%	29.4%	39.8%	48.1%	68.5%	34.4%	35.8%	47.8%	44.7%	39.5%
	EI	0.744	1.008	1.218	1.733	0.870	0.906	1.209	1.132	1.000

Methodology and definitions of student cohorts are provided in Appendix A. The Equity Index is explained in Appendix B.

2003 Enrollment data from California Postsecondary Education Commission (CPEC) was used to establish qualification.

**Table 14 – Term-to-Term Persistence of First-Time Freshmen (Fall 1997 to Fall 2000)**

Term to Term Persistence		African Am	Caucasian (White)	Asian	Int'l	Hispanic	Mexican Am	Pacific Islander	Southeast Asian	All Students
FTF students starting in fall	#	1,047	4,098	2,406	349	3,208	3,971	894	418	16,391
	%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Composition of students that returned in the following spring	#	698	3,049	1,847	302	2,373	2,923	678	328	12,198
	%	66.7%	74.4%	76.8%	86.5%	74.0%	73.6%	75.8%	78.5%	74.4%
	EI	1.116	1.000	0.969	0.860	1.006	1.011	0.981	0.948	1.000
Composition of students that returned in the following fall	#	527	2,357	1,480	258	1,861	2,337	565	252	9,637
	%	50.3%	57.5%	61.5%	73.9%	58.0%	58.9%	63.2%	60.3%	58.8%
	EI	0.856	0.978	1.046	1.257	0.987	1.001	1.075	1.025	1.000

Table 14 shows the number and percent of FTF that started in a fall term (1997 to 2000) then enrolled in classes the following spring, and/or the following fall. Percentages are the term persistence rates for each ethnic group, while the Equity Index (EI) compares the proportionality of students in each ethnic group that persist.

As you would expect, students leave the college over time. Some students leave after a term, others “stop out” and return in later terms. We do not know if these students did in fact achieve their academic goals, which could have been simply to take a course or two at Mt. SAC.

International students are required to maintain continuous enrollment at the college while they are in the country; therefore, it is not surprising to see that international students have the highest persistence rates: 86.5% enroll the next spring and 73.9% persist to the following fall term.

Southeast Asian (78.5%), Asian (76.8%), and Pacific Islander (75.8%) FTF have high spring persistence rates. Caucasian FTF has spring persistence rates similar to all FTF (74.4%). Hispanic FTF (74.0%) and Mexican American FTF (73.6%) are just below the total for spring persistence, while African American FTF (66.7%) have the lowest spring persistence rates – that is, they are quick to “disappear”.

Rankings of fall to fall persistence rates are similar, except for Caucasians (57.5%). Their fall-to-fall persistence is lower than Mexican American (58.9%) and Hispanic (58.0%) FTF, a loss of 1,741 students. African American FTF have the lowest fall-to-fall persistence rate – only half (50.3%) persist to their second academic year. In real numbers, this means that after one academic year, 520 African American students were no longer enrolled, and 1,346 Hispanic and 1,634 Mexican American students left the college – a total of almost 3,000 Hispanic/Mexican American students.

In addition to ethnicity, looking at students' socio-economic statuses may prove helpful in better understanding student persistence and may more fully inform the college of action steps to address institutional retention. This proved to be a difficult variable to assess during the Team's work. A recent College-sponsored marketing study (Clarus Report) found that other variables have an impact on persistence – including part-time work.

Generally speaking, the data show that White and Hispanic students have quite similar persistence rates, while African Americans have much lower persistence rates than other ethnic groups.

The Equity Index for each of the above outcomes shows the college is almost at or above equity for all ethnic groups on this measure, except, again, for African American Students.



**Table 15 – Persistence of Vocational Students to Certificate Completion**

Persistence to Certificate Completion		African Am	Caucasian (White)	Asian	Int'l	Hispanic	Mexican Am	Pacific Islander	Southeast Asian	All Students
Composition of vocational pathway students (Fall 1997 to Fall 2000)	#	409	2,017	1,082	215	1,417	1,782	360	187	7,469
	%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Composition of vocational students who earn a Certificate by 2005	#	102	608	262	62	328	439	99	60	1,960
	%	24.9%	30.1%	24.2%	28.8%	23.1%	24.6%	27.5%	32.1%	26.2%
	EI	<b>0.950</b>	<b>1.149</b>	<b>0.923</b>	<b>1.099</b>	<b>0.882</b>	<b>0.939</b>	<b>1.048</b>	<b>1.223</b>	<b>1.000</b>

Table 15 above shows the composition of FTF that started in a fall term (1997 to 2000) and enrolled in at least one “clearly vocational” course during their academic history at Mt. SAC. This is referred to as “vocational pathway.” The number and percent of vocational students that persisted until completing a certificate as of December 2005 is also shown. Percents shown are a certificate “completion rate” while the Equity Index compares the proportion of students in each ethnic group out of all vocational students that persist to complete a certificate.

Whites outdistanced all ethnic groups in the composition of vocational pathway students with 2,017 students. Mexican Americans, Asians and Hispanics followed closely with 1,782, 1,082 and 1,417 students respectively. There are 409 African American and 360 Pacific Islander vocational students, while International (215) and Southeast Asian (187) students are the smallest groups in the composition of vocational pathway students when disaggregated by ethnicity.

Overall, certificate completion rates range from 32.1% for Southeast Asian vocational students to 23.1% for Hispanic vocational students. Caucasian (30.1%), International (28.8%), and Pacific Islander (27.5%) vocational students are above the certificate completion rate for all students (26.2%); while African American (24.9%), Mexican American (24.6%), and Asian (24.2%) are below the completion rate for all vocational students.

Southeast Asians and White students are above the equity index with 1.223 and 1.149 respectively while International and Pacific Islander students follow with equity indices of 1.099 and 1.048 respectively.

African American and Mexican American students are underrepresented in the population even though they are almost at equity with equity indices of 0.950 and 0.939, respectively. Therefore, one must look at the total picture of ethnic subgroup achievement rather than rely solely on the EI. For example, out of the total Mexican American cohort of 1,782 in this study, only 439 are earned a vocational certificate by 2005 – a span of five to eight years after their initial enrollment at the college. Is that representative or not?

Asian and Hispanic students are lowest on the equity spectrum with an equity index of 0.923 and 0.882, respectively. The achievement of equity requires that each group’s equity index result in 1.00; therefore, the “persistence to certificate” results reveal a small gap in equity since Asian, Hispanic, African American and Mexican American students are shown as “almost at equity.” While the equity index reveals that no ethnic group is below equity, completion rates of students who actually earn certificates clearly necessitates additional attention.

**Table 16 – Persistence of Transfer-Intent Students to Graduation AA/AS Degree**

Persistence to Graduation		African Am	Caucasian (White)	Asian	Int'l	Hispanic	Mexican Am	Pacific Islander	Southeast Asian	Total
Composition of transfer-intent students (Fall 1997 to Fall 2000)	#	308	1,633	1,158	239	1,103	1,422	427	187	6,477
	%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Composition of transfer-intent students who earn an Associate Degree by 2005	#	67	437	215	50	247	330	77	48	1,471
	%	21.8%	26.8%	18.6%	20.9%	22.4%	23.2%	18.0%	25.7%	22.7%
	EI	0.958	1.178	0.818	0.921	0.986	1.022	0.794	1.130	1.000

Table 16 above shows the composition of FTF that are “transfer-intent.” These students started in fall 1997 to fall 2000 then earned 12 or more units and attempted transfer-level English or transfer-level math at any time during their academic history at Mt. SAC. The second row shows the number and percent of transfer-intent students that earned an Associate degree, or persisted to graduation. The percentages in the above table represent the graduation rate of these groups, while the Equity Index compares the proportion of transfer-intent students by ethnicity that earned AA/AS degrees.

White and Mexican American students overwhelmingly dominate the composition of transfer-intent students, 1,633 and 1,422 respectively while Southeast Asian, International and African American students remain relatively small at 187, 239 and 308 respectively. The report design utilizes the “transfer-intent” cohort as the basis for measuring persistence toward and attainment of an Associate Degree. This is somewhat out of alignment in that students desiring an Associate degree are not required to complete transfer-level math – yet completion of transfer-level math is a criteria of transfer-intent student. Further research should utilize a different baseline, other than “transfer-intent” by which to measure persistence and goal attainment of an Associate Degree (i.e., successful completion of milestone courses).

Equity requires that each group’s equity index result in 1.0; therefore, the “persistence to graduation” results reveal a small gap in equity. Term-to-term persistence of the groups and ethnicities within the groups was relatively equitable except for one group. The Equity Index reveals that Pacific Islanders are below equity at 0.794. In real numbers, this means that out of the entire cohort of 894 Pacific Islander students, only 77 earned an Associate Degree in five to eight years after initial enrollment. Pacific Islanders who were transfer intent, although a smaller group, tended to earn an Associate degree in science or arts at a lower limit than expected (EI=0.794). The cutoff for this lowest equity group is 0.80.

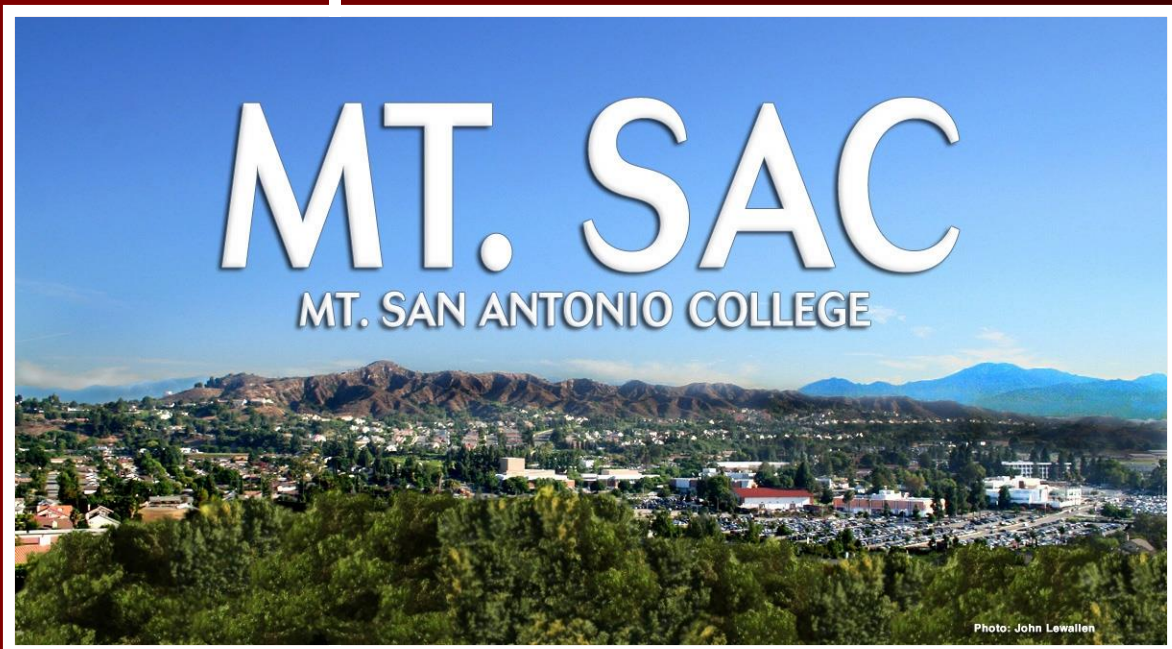
In comparison, though the African American cohort was much larger (1,047) only 67 students earned an Associate Degree. The fact that the Equity Index for African American students’ is .958 – “at equity” is deceiving. This is a limitation of the Equity Index formula. The low number of transfer-intent African American students created a small numerator in the Equity Index, thereby creating a high Equity Index, which is deceiving. Note that historically underrepresented groups African Americans and Hispanics are almost at equity at 0.958 and 0.986 respectively. However, the percentages of these students who obtain an Associate degree clearly necessitate additional attention.



MT. SAN ANTONIO COLLEGE

Equity for All:  
Institutional Responsibility for Student Success

## Perspective 3 Transfer



June 24, 2009

## PERSPECTIVE 3

# TRANSFER

The analysis of transfer is complex and will be studied via a stratified approach. Equity, with regards to transfer will be looked at in three distinct categories:

- transfer ready
- transfer to four-year institutions
- transfer degree attainment.

Within the “transfer ready” category, three additional definitions apply:

- transfer-intent (TI)
- transfer-preparedness (TP)
- transfer-readiness (TR)

Transfer-intent (TI) focuses on students who have earned 12 or more units and attempted transfer-level English or transfer-level math. Transfer-prepared (TP) students are those who have earned 56 transferable units with a minimum GPA of 2.0.

Transfer-ready (TR) students are those who have earned 56 transferable units with a minimum 2.0 GPA, and have successfully completed both transfer-level English and math.

In December 2005, Mt. San Antonio College (Mt. SAC) sent data to the National Student Clearinghouse (NSC) on all first-time freshmen (FTF) from fall 1997 to fall 2000. The results matched 97% of the students and showed that only 13.1% transferred to four-year institutions. The NSC data shows that less than 5% of all FTF earned a bachelor’s degree or higher within five to eight years. However, this is based on all first-time freshmen regardless of educational goal or course-taking patterns.

### Transfer Readiness Defined

This perspective consists of indicators that specify students’ completion of academic requirements for transfer.

The report examines equity in student

progress toward transfer from students’ first fall semester of attendance, through actual transfer to a baccalaureate-granting institution and the posting of a baccalaureate degree.

**Transfer-intent (TI)** students have earned 12 or more units and have attempted either transfer-level English (English 1A) or transfer-level math (Math 110—Elementary Statistics) at Mt. SAC. As of December 2005, approximately 46% of all first-time freshmen in this study met this definition.

Following transfer-intent, students are categorized as **transfer-prepared (TP)** if they continued to be enrolled, earn 56 transferable units with a minimum grade point average of 2.0. Even more critical are **transfer-ready (TR)** students who have not just attempted transfer-level English and math, but they have successfully passed these key courses, in addition to completing 56 transferable units with a 2.0 GPA.

Starting with 16,391 students, 7,580 became transfer-intent students (46.2%), approximately half (52.3%) became transfer-prepared and one-third (32.9%) became transfer-ready. The two larger cohorts of FTF and TI (see Table 17 and 18) are used to measure transfer and BA degree attainment rates.

Some FTF students transfer to other institutions before reaching any level of transfer preparedness at Mt. SAC. While some students start at Mt. San Antonio College and stay many semesters before transferring, others take a different path, sometimes via multiple institutions, before attending a four-year college and/or earning a BA/BS degree.



**Table 17: Student Cohorts for Transfer Readiness at Mt. SAC**

Students	N	Definition
First-Time Freshmen	16,391	All students starting in fall 1997 to fall 2000
Transfer-Intent	7,580	Students that earned 12 or more units and <u>attempted</u> college-level English or college-level math
Transfer-Prepared	3,963	Students that earned 56 transferable units with a minimum GPA of 2.0.
Transfer-Ready	2,491	Students that earned 56 transferable units, minimum 2.0 GPA, and successfully completed both transfer-level English and math.

**Table 18: Student Cohorts used for Transfer to Four-Year College or University**

Students	N	Definition
First-Time Freshmen (FTF) Cohort	16,391	All students starting in fall 1997 to fall 2000.
Transfer to Four-Year	2,150	FTF students that enrolled at a four-year college or university, as reported in National Student Clearinghouse match Dec 2005. (13%)
Earn BA/BS or Higher	804	FTF students that earned a baccalaureate by Dec 2005, as reported in National Student Clearinghouse degree verify. (37% of actual transfers)
Transfer-Intent Cohort	7,580	Students that earned 12 or more units and <u>attempted</u> transfer-level English or transfer-level math. (46% of the entire FTF transfer)
Transfer to Four-Year	1,644	TI students that enrolled at a four-year college or university, as reported in National Student Clearinghouse match Dec 2005. (21.7%)
Earn BA/BS or Higher	677	TI students that earned a baccalaureate by Dec 2005, as reported in National Student Clearinghouse degree verify. (41% of actual transfers)

## Findings

The data in Table 18 show that 2,150 of the 16,391 FTF transferred to four-year institutions for an overall FTF transfer rate of 13.1% (while a transfer rate of 21.7% is found for transfer-intent students). The National Student Clearinghouse reports all students that enrolled at four-year institutions at any time between their first fall semester at

Mt SAC (1997 to 2000) and December 2005. Although only 2,150 or 13% of FTF students have transferred five to eight years after enrolling at Mt. SAC, the baccalaureate graduation rate within that same time frame is noteworthy.

In other words, 804 students completed their BA/BS degrees within five to eight years after enrolling at Mt. SAC.

By analyzing transfer-intent students separately, a different picture emerges. Almost half of the FTF have attempted transfer-level English or math within five to eight years after starting at Mt. SAC.

The data are hard to explain as to why fewer students who are considered transfer-intent actually transfer (1,644) compared to the population of all FTF students who transfer (2,150).

A further look at the NSC data is warranted to ensure that the transfer rate is not confounded by students who “transfer to” another community college. The NSC report shows many Mt. SAC students attend neighboring two-year institutions including Chaffey, Pasadena, San Bernardino, Rio Hondo, Citrus, and Cerritos. Only a handful of students transfer out of the state. Table 19 below shows the most popular four-year institutions our FTF attended and the number that earned degrees at each institution<sup>4</sup>

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<sup>4</sup>Based on data from NSC and CSU-LA, (rev. April 2006). Note that some institutions report graduation only without supplemental degree information.

**Table 19: Popular Transfer Institutions for FTF (Fall 1997-Fall 2000)**

Four-Year Transfer Institutions	Mt SAC Transfers	Earned Degrees
CALIFORNIA STATE UNIVERSITY – FULLERTON	457	221
CALIFORNIA STATE POLYTECHNIC – POMONA	447	166
UNIVERSITY OF PHOENIX	138	9
UNIVERSITY OF CALIFORNIA -- LOS ANGELES	127	97
CALIFORNIA STATE UNIVERSITY – LOS ANGELES	112	43
DEVRY UNIVERSITY – POMONA	100	13
UNIVERSITY OF CALIFORNIA – IRVINE	84	20
CALIFORNIA STATE UNIVERSITY – LONG BEACH	73	21
UNIVERSITY OF CALIFORNIA -- RIVERSIDE	71	5
CALIFORNIA STATE UNIVERSITY -- SAN BERNARDINO	70	31
UNIVERSITY OF CALIFORNIA -- BERKELEY	65	22
AZUSA PACIFIC UNIVERSITY	53	20
UNIVERSITY OF SOUTHERN CALIFORNIA	50	25
UNIVERSITY OF CALIFORNIA -- SANTA BARBARA	25	14
SAN DIEGO STATE UNIVERSITY	25	10
CALIFORNIA STATE UNIVERSITY -- NORTHRIDGE	23	5
SAN FRANCISCO STATE UNIVERSITY	15	5
CALIFORNIA STATE UNIVERSITY -- DOMINGUEZ HILLS	13	8
LOYOLA MARYMOUNT UNIVERSITY	11	5
PEPPERDINE UNIVERSITY	10	7
CHAPMAN UNIVERSITY – ORANGE	8	5

Depending on which fall semester students started at Mt. SAC (1997 to 2000), each had five to eight years to earn a baccalaureate. Titles for degrees and majors varied, but the most popular majors for degrees earned by these students were in Business Administration (92), Liberal Studies (48), Psychology (39), and Sociology (23). Three students earned multiple BA/BS degrees and 24 also earned Master's degrees. The NSC data show that less than 5% of all FTF earned a Bachelor's degree or higher within five to eight years; however, that is based on all first-time freshmen regardless of educational goal or course-taking patterns.

Another comparison that would be more specific is to look only at students that are "transfer-intent."<sup>5</sup> As mentioned previously, about 46% of all FTF meet the definition of Transfer-Intent (TI), and of this grouping, 21.7% (1,644 of 7,580) students were found to actually transfer. Thus, comparisons can be made through various means – comparing to the FTF cohort, to students who are transfer-intent, transfer-prepared, or transfer-ready.

Tables showing the FTF transfer and degree attainment rates disaggregated by ethnic group can be found in Appendices C and D, respectively.

**Table 20: Transfer Prepared and Transfer Ready Rates for Students (Fall 1997 to Fall 2000)**

Student Cohorts		African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian	All Students
Transfer Intent	#	354	1,918	1,389	294	1,279	1,644	486	216	7,580
	%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Transfer Prepared	#	151	1,081	816	210	554	788	255	108	3,963
	%	42.7%	56.4%	58.7%	71.4%	43.3%	47.9%	52.5%	50.0%	52.3%
	EI	0.816	1.078	1.124	1.366	0.828	0.917	1.004	0.956	1.000
Transfer Ready	#	59	645	654	164	308	436	142	83	2,491
	%	16.7%	33.6%	47.1%	55.8%	24.1%	26.5%	29.2%	38.4%	32.9%
	EI	0.507	1.023	1.433	1.697	0.733	0.807	0.889	1.169	1.000

In Table 20 (above) findings show the institution is below equity for African American and Hispanic, achieving a transfer-ready status. Another way to understand these data are the percent of transfer-intent students within each ethnic group that achieves each level. For example, less than half (42.7%) of African American TI students achieve transfer-prepared status while only 16.7% achieved

transfer-ready status. Similarly, 43.3% of Hispanic TI students achieved transfer-prepared status and only 24.1% become transfer-ready at Mt. SAC. The most serious concern is the drop-off of students who become more and more likely to progress from transfer-intent, to transfer-prepared, to transfer-ready.

<sup>5</sup> Transfer-intent captures three-fourths of the FTF that transfer to four-year institutions. One-fourth of students that start at Mt. SAC and later transfer to four-year institutions, leave Mt. SAC before meeting the transfer-intent definition. The team recognizes the need to further investigate why some students leave and whether inequities exist.

It appears that all transfer-intent student groups are making some, measurable progress toward transfer by attaining 56 transferable units with a 2.00 GPA. These are the transfer-prepared students. The drop-off appears to be related to the transfer-prepared students who do not move to transfer-ready – in other words, they are not successfully completing the transfer-level English and/or transfer-level math courses. Further analysis needs to be completed to better understand the course enrollment patterns of transfer-intent and transfer-prepared students to determine

where the bottleneck and departure points are.

Additionally, further research should look at whether the low pass rate is with English 1A or with Math 110. Again, the limitation of only measuring transfer math through Math 110 confounds these findings and leads to further inquiry.

**Table 21: Transfer to four-year institutions and BA/BS Degree Attainment for Transfer-Intent Students(Fall 1997 to Fall 2000)**

Student Cohorts		African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian	All Students
Transfer Intent	#	354	1,918	1,389	294	1,279	1,644	486	216	7,580
	%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Transfer to four-year college or university	#	77	458	423	84	190	274	99	39	1,644
	%	21.8%	23.9%	30.5%	28.6%	14.9%	16.7%	20.4%	18.1%	21.7%
	EI	1.003	1.101	1.404	1.317	0.685	0.768	0.939	0.832	1.000
Earn four-year degree BA/BS or higher	#	24	207	176	46	78	90	40	16	677
	%	6.8%	10.8%	12.7%	15.6%	6.1%	5.5%	8.2%	7.4%	8.9%
	EI	0.759	1.208	1.419	1.752	0.683	0.613	0.922	0.829	1.000

Table 21 shows the number and percent of TI students, by ethnic category that transferred to a four-year college or university and earned BA/BS degrees by December 2005. The Equity Index for each outcome is also shown, as well as the overall transfer and graduation rates for each group.

The overall transfer rate for TI students is 21.7% compared to 13.1% for all FTF. The overall degree attainment rate for TI students is 8.9% compared to 4.9% for all FTF. African American, Hispanic, and Mexican American TI students are below equity for

earning BA/BS degrees. Hispanic and Mexican American students are also below equity in transfers to four-year institutions.<sup>6</sup>

Further work is necessary in order to more fully address the actual baccalaureate degree attainment rate juxtaposed to the current labels of transfer intent and transfer ready.

Table 22 below provides a quick comparison of transfer and graduation rates by ethnic group.

<sup>6</sup>For a full table of the Equity Index on all measures in this report, see Appendix G.

**Table 22: Transfer and BA/BS Graduation Rates for Transfer-Intent Students**

Ethnic Group	Transfer-Intent FTF	Transfer Students	Transfer Rate	BA/BS Grads (Not all schools report grad)	BA/BS Grad Rate based on TI-FTF	BA/BS Grad Rate based on Actual Transfer
African American	354	77	21.8%	24	6.8%	31.1%
Caucasian (White)	1,918	458	23.9%	207	10.8%	45.1%
Asian	1,389	423	30.5%	176	12.7%	41.6%
International	294	84	28.6%	46	15.6%	54.7%
Hispanic	1,279	190	14.9%	78	6.1%	41%
Mexican American	1,644	274	16.7%	90	5.5%	32.8%
Pacific Islander	486	99	20.4%	40	8.2%	40.4%
Southeast Asian	216	39	18.1%	16	7.4%	41%
All Students	7,580	1,644	21.7%	677	8.9%	41.1%

As a group, Asian students have the highest transfer rate (30.5%). International students also have a high transfer rate (28.6%), although they are small in number. White students (23.9%) are above the average for all transfer-intent students (21.7%). African American, Pacific Islander, and Southeast Asian students are also small in number. These students have lower transfer rates than the total for all students, yet are higher than Mexican American and Hispanic students, which have the lowest transfer rates, 16.7% and 14.9% respectively.

Ranking groups by graduation rates produce similar results. Fifteen (15.6%) percent of International students earned baccalaureate degrees within five to eight years, followed by Asians (12.7%) and Whites (10.8%). The other five ethnic groups have BA/BS graduation rates below the overall average with African American (6.8%), Hispanic (6.1%), and Mexican American (5.5%) students at least two points below the graduation rate for all transfer-intent FTF (8.9%). Approximately 22% of transfer-intent students transfer to four-year institutions and less than 9% of them have

earned a baccalaureate degree in the five to eight years since starting at Mt. SAC (1997 to 2000). However, an average of 41.1% of students who actually transfer have earned a baccalaureate degree within five to eight years after entering Mt. SAC as a first time freshman.



**Table 23: Comparison of Transfer Readiness with Actual Transfer and Baccalaureate Degree Completion by 2005 for FTF Cohorts of Fall 1997 to Fall 2000**

		African American	Caucasian (white)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian	All Students
FTF Cohorts	#	1,047	4,098	2,406	349	3,208	3,971	894	418	16,391
	%	6.4%	25.0%	14.7%	2.1%	19.6%	24.2%	5.5%	2.6%	100%
Transfer Intent	#	354	1,918	1,389	294	1,279	1,644	486	216	7,580
	%	33.8%	46.8%	57.7%	84.2%	39.8%	41.4%	54.3%	51.6%	46.2%
Transfer Prepared	#	151	1,081	816	210	554	788	255	108	3,963
	%	42.6%	56.3%	58.7%	71.4%	43.3%	47.9%	52.4%	50%	52.2%
Transfer Ready	#	59	645	654	164	308	436	142	83	2,491
	%	39.1%	59.6%	80.1%	78.1%	55.5%	55.3%	55.6%	76.8%	62.8%
Actual Transfer	#	77	458	423	84	190	274	99	39	1,644
	%	130%	71%	64.6%	51.2%	61.6%	62.8%	69.7%	46.9%	65.9%
Earned BA/BS	#	24	207	176	46	78	90	40	16	677
	%	31.1%	45.1%	41.6%	54.7%	41%	32.8%	40.4%	41%	41.1%
% of FTF Transfer	%	7%	11%	18%	24%	6%	7%	11%	9%	10%
% of FTF BA/BS	%	2%	5%	7%	13%	2%	2%	4%	4%	4%

Table 23 shows the progression from the total FTF cohort (combined for years 1997 to 2000) with regard to the three transfer readiness categories of transfer-intent, transfer-prepared and transfer-ready. Additionally, the actual transfer and baccalaureate degree attainment is shown. This total picture can be analyzed from several vantage points. Overall, as a college, here are the findings for Mt. SAC:

- Of the original cohort of 16,391 students, 1,644 (10%) had transferred to a four year college or university within five to eight years after entering Mt. SAC.
- Of the original cohort of 16,391 students, 677 students (4%) had earned a baccalaureate degree within five to eight years after entering Mt. SAC.
- Within the progression, 46.2% of the original cohort became classified as

transfer-intent, 52.2% of the transfer-intent population became classified as transfer-prepared, and 62.8% of the transfer-intent population became transfer-ready.

Although there are some anomalies in looking at the statistics by ethnic group comparison, African Americans were consistently lower compared to all other ethnic groups in all categories, except one: actual transfer. The data shows that 59 students were categorized as transfer-ready (having successfully completed 56 transferable units with a 2.0 and transfer-level English and/or math) but 77 actually transferred. Further analysis will need to be undertaken to explain this figure.



One remote possibility, given the size of this effort at Mt. SAC, is that a fair number of the actual transfer students might be athletes who were able to transfer without meeting all of the criteria included in the transfer-ready definition. For example, they could have successfully passed transfer-level English and math, but not have completed 56 transferable units. Another possibility is that although we coded students as “first time freshmen,” if they earned credits from other colleges either while a student at Mt. SAC or transferred their coursework in after they applied, they could meet transfer requirements that do not show on their Mt. SAC records.

Further findings, when comparing the results by ethnic categories reveal:

- Hispanic students (19.6%) and Mexican American students (24.2%) also lag behind other ethnic groups in almost every category. If these two groups were combined, their representation in this study would total just under 44%, making it by far the largest ethnic group.

- International students have the highest earned baccalaureate rate, more than likely based on the conditions of their enrollment as an international student within the United States.
- Only 2% of the original FTF cohorts of African American, Hispanic, and Mexican American students earned baccalaureate degrees within five to eight years after entering Mt. SAC.
- The transfer-ready percentages for all groups who actually transfer, are comparatively high for Hispanic (61.6%), Mexican American (62.8%), Pacific Islander (69.7%) and African Americans (130%), but lower for Southeast Asians (46.9%). This would indicate the importance of students fully completing transfer requirements in order to successfully complete transfer.



# Conclusions and Recommendations

The findings presented herein were arrived at through careful examination and discussion of institutional data, disaggregated by race/ethnicity. The new knowledge about the state of equity in educational outcomes at Mt. San Antonio College, borne out by the collaborative process engaged in by the *Equity for All* Evidence Team, is vitally important to the mission of the College. However, the work of the team does not stop at findings. Sharing these findings about the state of equity at Mt. San Antonio College with the wider campus community is equally important as is the process used to arrive at these findings.

To review, the goal of this Equity for All project was to reframe the discussion about student equity from merely student responsibility, to institutional accountability and to evaluate the effectiveness of the College in promoting equity, especially for historically underrepresented students.

As an Hispanic Serving Institution (HSI), and an Asian American Native American Pacific Islander Serving Institution (AANAPISI), Mt. SAC's Hispanic student population is 43%, with 26% Asian and Pacific Islanders and 6% African Americans. The College's white population has diminished to a little over 20%. Because of this diversity, it is imperative that Mt. San Antonio College commits time, energy, and resources to more fully develop an agenda that addresses any disproportionate impact on the success of its student populations.

In general, this study found that African American students are performing lower than almost all other ethnic subgroups in:

- Completion of transfer level English
- Completion of transfer level math
- Transfer intent rate
- Transfer readiness rate
- Earning a baccalaureate degree

Hispanic and Mexican American students are low performing in:

- Completion of transfer level math
- Transfer rates to four-year colleges
- Transfer readiness rate
- Earning a baccalaureate degree

Overall, there was a slight difference between students who identified themselves as Hispanics and Mexican Americans in that Hispanic students were more low performing than Mexican American students.

Pacific Islander students are below equity in:

- Earning associate degrees

Southeast Asian students are below equity in:

- Transfer rates for transfer intent students

Student success is really multifaceted and no student should be categorized as likely to succeed based solely on one measure – ethnicity. The purpose of this report is not to put students into one group but to create dialogue with students, faculty, staff, and administrators to bring about change, by reflecting the status of underrepresented students and promoting equity and excellence.

## **Limitations of the Study**

Although attaining an associate degree and vocational pathways were included in this study, the main focus of the baseline measurement of student success focused on definitions related to transfer. Most notably, the definition of “transfer intent” served as a basis for much of the measurements as well as the equity index.

Some of the limitations with the definition of “transfer intent” are:

- It tracks students who have “attempted” a transfer level English or math course – not “successfully passed” a transfer level English or math course.
- For the purposes of this project, the “transfer level math” course was defined narrowly as Math 110 – Elementary Statistics.
- In addition to Math 110, Math 130—College Algebra, Math 100—Survey of College Mathematics, Math 140—Calculus for Business, and Math 150—Trigonometry are considered transfer-level math classes, but enrollment in these courses was not counted in this study.
- If students do not ever become “transfer intent” they “disappear” from many of the calculations.

Transfer levels, transfer to a college or university, and transfer degree attainment rates vary among the ethnic groups reported in this study. Equity and inequities exist across the board for all ethnic groups but certain groups are consistently below equity while others are consistently above equity. African Americans are below equity in the transfer-prepared and transfer-ready categories. About 42.7% of African American transfer-intent students achieve transfer-prepared status but only 16.7% become transfer-ready. African American and Hispanic students are below equity in the transfer-ready category.

Hispanic students have a 14.9% transfer rate and a 6.1% degree attainment rate. The degree attainment rate for African American and Mexican American is similar at 6.8% and 5.5% respectively. Caucasian, Asian and International students are above equity on both the transfer category and earning a BA/BS degree or higher. Although the Southeast Asian population is above equity in the transfer-ready category, they fall just below equity in the transfer and transfer degree attainment categories.

There are many positive equity areas throughout this report; however, data from this report demonstrate the following areas for further action:

1. African American and Hispanic transfer-intent students become transfer ready at a lower rate than expected (EI=0.507 and 0.733)
2. Hispanic and Mexican American transfer intent students transfer to a four-year institution at a lower rate than expected (EI=0.685 and 0.768)
3. African American, Hispanic and Mexican American transfer intent students earn a four-year degree (BA or BS) at a lower rate than expected (EI=0.759, 0.683, 0.613).

### **Implications for Further Study and Interventions**

- **Pass Rates:** By analyzing pass rates on specific courses and by ethnic sub categories, the need to have clearer interventions to assist particular groups of students can be determined. This is particularly necessary with math. Until it is clear which students are enrolling in and succeeding in the various math course levels, a clearer picture of student success can not be determined.
- **Vocational Student Success:** Changes have been made to more clearly identify vocational students via a student survey as part of registration. This will enable the College to more accurately measure students’ successful completion of vocational programs. Additionally, beginning with the spring 2007 semester, students who have completed the requirements to earn an occupational certificate are automatically issued the certificate, with the achievement noted on the student’s academic transcript.

- **Transfer Prepared—Transfer Ready:** In calculating the difference between “transfer prepared” and “transfer ready” for all student groups, but especially for African American and Hispanic students, the drop off is clearly unacceptable. For example, the only difference between “transfer prepared” and “transfer ready” students is that transfer ready students have successfully completed transfer level English and math courses. Both groups of students have completed 56 transferable units with a 2.00 grade point average. In looking closer, if 42.7% of African American students who appear to be interested in/planning to transfer complete the required number of units to transfer, only 16.7% become actually “transfer ready” because they have completed transfer level English and transfer level math. It says that Mt. SAC was able to assist these students in completing the number of units, but not in passing the appropriate classes for transfer. By understanding this, more appropriate interventions can be instituted.

Questions that need to be asked are: “What level of success do we expect for our students?” “How many students do we believe should be successfully graduating and transferring?”

The benefits to Mt. San Antonio College’s participation in the Equity for All project have been immense. Institutionally, a strong team pulled together to take a very close look at the progress, or lack thereof, of specific student populations. Lively debates enabled the team to carefully study and pay attention to nuances in data collection, and to work together to present the data to the College.

The purpose of this report is not to put students into one group but to create dialogue with students, faculty, staff, and administrators to bring about change, by reflecting the status of underrepresented students and promoting equity and excellence. The new knowledge about the state of equity in educational outcomes at Mt. San Antonio College, borne

out by the collaborative process engaged in by the *Equity for All* Evidence Team, is vitally important. The work of the team does not stop at the findings presented in this report. Sharing these findings about the state of equity at Mt. San Antonio College with the wider campus community is equally important as the process that was used to arrive at these findings.

It is the recommendation of the *Equity for All* Evidence Team that this report be the catalyst from which to develop more purposeful and intentional efforts to improve the success rate for all students enrolled at Mt. San Antonio College. Acknowledging that not all groups are reaching the same equity levels of achievement is the first step. The challenge is to move forward with action items to address the disparities uncovered in this report.

Enabling more students to move to the transfer-intent, transfer-prepared and transfer-ready levels is critical if Mt. San Antonio College is going to address the equity of all ethnic groups enrolled at the college. Looking carefully at roadblocks in students’ pathways to success need to be addressed. For example, this study found that students are not sufficiently enrolling in and successfully completing transfer-level mathematics.

Collaborative interventions between Student Services and Instruction to meet the needs of under-served students are both needed and attainable. Any efforts to increase counseling services, learning communities, and other learning support programs are encouraged.

The work of the *Equity for All* Evidence Team was challenging and lengthy. It is hoped that those who read and study this work will come away with a renewed appreciation of the successes and the challenges we face at Mt. San Antonio College in ensuring access and equity for all of our students. Following this appreciation is “A Call to Action” -- which identifies specific recommendation for the next phase of this important work.

# A Call To Action

## *DIVERSITY*

*We respect and welcome all differences, and we foster equal participation throughout the campus community.*

Mt. San Antonio College has established a core value focusing on diversity.

It is against this backdrop that A Call to Action is affirmed.

A driving force behind the *Equity for All* report was to illuminate the college leadership as to the status and progress of students, disaggregated by ethnicity. A critical part of this effort was to develop a platform by which the College could look at its institutional accountability to student equity and diversity. In order to move to action, the following recommendations are put forward:

1. Work to establish a shared value for equity and diversity throughout the College. Develop a campus-wide agenda and plan to instill equity and diversity goals into the fabric of the College. Specifically, proactively incorporate equity and diversity into the development and assessment processes of Student Learning Outcomes and General Education Outcomes and define equity and diversity benchmarks in the College's Basic Skills plan.
2. Develop a **results-oriented research agenda** that consistently monitors and measures the progress of the College in addressing equity and diversity as a critical metric in the success of students from various ethnic, socio-economic and disability groups.
3. Encourage and engage in **difficult and challenging dialogues** related to the underlying reasons for inequities in educational outcomes.
4. Develop and institute a campus – wide approach to training for faculty, staff, and management – focusing on addressing disparities in meeting equity and diversity goals and outcomes.
5. Bring about **institutional ownership** of inequity in educational outcomes by embracing the recommendations of this report, the Student Equity Plan, and other initiatives and research findings related to student equity and diversity. Specifically, formulate a Leadership Summit to serve as a catalyst for institutional change and to serve as the cornerstone in the development of significant and strategic action.

The diversity of students' ethnic, cultural, linguistic, socio-economic conditions, levels of educational preparation, disabilities, needs and interests should dominate our discussions and should be pervasive across all of our evaluation and planning activities and documents. Mt. San Antonio College stepped into a leadership role to embark upon the *Equity for All* project. Simply putting this work “on a shelf” would be a tragedy. Rather, using it as a stepping off point, as an impetus for further study and as an imperative to address inequities is in order.

Mt. San Antonio College has always been proud of descriptors such as “access to quality” and being a “premier institution.” In order to live up to these standards, as well as to fulfill the College’s mission to “welcome all students and to support them in achieving their personal, educational and career goals in an environment of academic excellence,” equity and diversity must remain at the forefront of our discussions, planning, and decision-making.

# APPENDIX A

The **Equity Index** is a measure of proportionality based on the population for each racial and ethnic group under analysis. The Equity Index is a ratio of two shares or percentages as expressed by the formula below.

$$\text{Target Group's Equity Index for the educational outcome of interest} = \frac{\text{Target group with the educational outcome} / \text{Total students with the educational outcome}}{\text{Target group in the reference population} / \text{Total students in the reference population}}$$

The numerator of the ratio is the share or percentage of the students from the target group (e.g., Latino students) among all students with a given academic feature and the denominator is the corresponding reference measure. At its simplest level, it means that students who obtain post-secondary degrees should be representative of the college student body; students who successfully transfer from two-year community colleges to four-year colleges should be representative of the students in the community colleges.

To illustrate how the Equity Index is used to calculate equity, we will use a fictional college's transfer numbers. The graduating class of this college consists of 1,000 students and 400, or 40 percent, are Latino students. From this graduation cohort a total of 450 students transfer to a four-year institution, of which 45, or 10 percent, are Latinos. These data, once placed in the formula for the Equity Index, yield the following result:

$$\text{Latino students' Equity Index for attending the UC and CSU} = \frac{\frac{45 \text{ Latino students transfer to 4-year}}{450 \text{ total transfer cohort}}}{\frac{400 \text{ Latino graduates}}{1000 \text{ total graduates}}} = \frac{10\%}{40\%} = 0.25$$

## Interpreting the Academic Equity Index Score

The Equity Index scores are easy to interpret. A score of 1.0 represents equity, a score less than 1.0 indicates below equity, and a score higher than 1.0 signifies above equity. Scores that are below or above 1.0 represent an equity gap that is reflective of an under representation or overrepresentation in the specific indicator. In the fictional example provided above, the Equity Index for Latino students transferring to four-year institutions is 0.25. Since the achievement of equity requires that each group's Equity Index results in 1.0, these results reveal a major gap in equity in the transfer rates for Latinos.

# APPENDIX B

## Advantages of the Equity Index

For the purpose of this study, a comprehensive picture was obtained by using the Equity Scorecard with key performance indicators as the framework to guide data collection and using the Equity Index to conduct data analysis. It is acknowledged that in absolute numbers, the representation of Hispanic students in the postsecondary education system is growing. More Hispanics are enrolling in institutions of higher education, more are transferring successfully from community to four-year colleges, and more are attaining baccalaureate degrees. For example, from 1988 to 2002, the absolute numbers of Hispanic community college students who transferred to the UC system increased by a factor of 2.4, from 643 to 1,531.<sup>1</sup> However, increased headcounts can be deceptive because they do not reflect the context in which the “progress” is taking place – i.e., the increase in state population as well as in K-12 enrollment over the years.

Price and Wohlford (2003) give two reasons why typical longitudinal analyses of the college participation of underrepresented students are inadequate measures: (1) The statistics do not take into account changes in population growth over time and therefore overlook the possibility that a group’s larger percentage of degrees earned may be a function of declining populations rather than increasing educational attainment; and (2) from the perspective of equity, a more useful measure is one that makes it possible to compare educational outcomes between different racial and ethnic groups. The Equity Index takes into account both of these points by using multiple denominators and focusing specifically on a target population (i.e., Hispanics). Another very important advantage of the Index is that it provides a natural benchmark. Given that equity is always designated as 1.0, it is fairly simple and straightforward for policymakers to interpret the performance of Hispanic students on a particular measure. As the Equity Index takes the environment (the denominator) into consideration, it can be driven by either a change in the numerator or a change in the denominator. In other words, the overall performance in pursuing a policy goal *always* has two dimensions—one may fall behind on attainment for any population either because system performance really *is* getting worse (numerator) or because the problem itself is getting bigger (denominator).<sup>2</sup>

Generally speaking, the Equity Index used in the Equity Scorecard has the following merits:

1. The most important contribution of the Equity Index is that it quantifies the equity gap. It conveys the status of Hispanics clearly and alerts policymakers and higher education leaders to the need for action.

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<sup>1</sup> Data retrieved online from <http://www.cpec.ca.gov/OnLineData/OnLineData.asp>

<sup>2</sup> Email communication with Peter Ewell, 2003.

2. The Equity Index calculation is not simply a new way of manipulating numbers, but a pragmatic tool that can be of use to higher education researchers and policy analysts. It is applicable to multi-measures, macro as well as micro (e.g., state level, institutional level, etc.), as long as one is clear about the condition being studied and knows which baseline to use. The universe of analysis can be large or small. The Equity Index can be used to analyze the status of members of an ethnic group in a class, at a college, or during a certain year, as well as for a state or the nation as a whole.
3. Use of the Equity Index does not require the collection of new data. It provides a new lens with which to analyze data that have already been collected for general assessment purposes to ascertain the state of equity in educational outcomes.
4. The Equity Index does not require a benchmark. Using White or the best performing student group (Lee, 2002) as the norm reference sometimes creates controversy. With the Equity Index, one can consider the performance of a particular group of students as a stand-alone population. For example, if a department chairperson wishes to know Hispanic students' Equity Index of representation in a first-year calculus class, the only data elements needed are their share in the class and the corresponding share in the first-year enrollment. The department chairperson is not comparing Hispanic students with White or Asian American students. In a sense, the Equity Index creates an internal benchmark for improvement.
5. By repeating the analysis on an annual basis, it is possible to compare the values of the Equity Index in order to determine whether Hispanic students are moving toward equity or not. The Equity Index takes into consideration the change of baseline measures. The composition of a class, a department, or a college may vary from year to year, but the results of the Equity Index reflect the equity situation of a particular group at a certain time and are comparable from year to year.
6. The Equity Index can be used to measure the value added by a college education. It is more instructive to consider how the Equity Index of a group changes over the duration of college enrollment than to look at one point in time.

### **Limitations of the Equity Index**

According to Newmann, King, and Rigdon (1997), a complete accountability system should include at least four parts: (1) information on the performance being evaluated; (2) standards to judge the degree of success of the performance, or the sense-making of the results generated; (3) consequences attached to such evaluation; and (4) a "judge" who will receive the information and decide the extent to which standards have been met, and

distribute rewards or sanctions accordingly. The Equity Scorecard model provides the necessary information by utilizing an inherent standard of equity (1.0). However, what the model cannot do is attribute consequences when inequity is reported. As employed in the



model, performance measures provide information for the accountability system; however, they are not the system itself. Accountability occurs when a useful set of processes exist for interpretation, and action follows upon receipt of this information (Darling-Hammond & Ascher, 1991). Given that the examination of educational outcome data by race/ethnicity is rare in current accountability practices, the Equity Index model serves as a “thermostat” (Birnbaum, 1988) that (1) monitors the status of public higher education systems serving Hispanics, and (2) provides a platform for action to be taken and change to occur.

Other limitations are associated with the Equity Index as a tool. First, this research design is limited in that Hispanic students are viewed as a single group. “Ethnic lumping” (Jasinski, 2000), or using one group to represent the several sub-groups within the broader category of Hispanics, is a potentially misleading practice. Furthermore, taking data availability into consideration, I treat “Hispanic” and “Latino” as interchangeable terms in this study. In reality, the Hispanic/Latino population encompasses a diverse collection of national-origin groups. Nevertheless, this model is intended to reveal a general picture of the equity status of Hispanic students, as this is lacking in the current accountability mechanism. Policymakers need to have a better and more holistic understanding of how Hispanics, the largest minority group in the nation, are faring in the higher education pipeline, and how state higher education systems are responding to demographic changes.

Admittedly, the instrument and indicators used are preliminary measures to some extent. For example, in the excellence perspective, the Equity Index contrasts the Hispanics who have earned a baccalaureate or higher degree with the general Hispanic population in California and Texas in 2001. Furthermore, the issue of population mobility is not considered in the design of the measures. Hispanics who live in California or Texas may choose to go to college elsewhere and may not return to their home state to work after graduating. The increased opportunities that come with a college degree include a wider geographic range in potential places of employment (Ewell, Jones, & Kelly, 2003). The operating assumption in my analysis is that the Hispanic population under study remains constant in terms of high school and college attendance and work opportunities in California or Texas. Arguably, the numbers of in-migration and out-migration may be negligible, considering the size of the Hispanic populations in these states. However, as a result of the unavailability of data, factors of population mobility are not used in this study.

Another limitation to this method is that various types of institutions are not differentiated in the study. As an example, for the access indicator, competitive and non-competitive schools are lumped together. As Fry (2004) indicated, the type of institutions that Hispanics attend makes a great difference in graduation rates. Carnevale and Rose (2003) also contend that the selectiveness of institutions matters in term of graduation

rates, postgraduate access, and wage premium when the graduate enters the job market. In spite of the limitations of the methodology, this study has value in examining Hispanic student outcomes from the perspective of state-level higher education accountability.

When the NCPPHE (2000) published *Measuring Up 2000*, the report card made it possible for the first time to evaluate and compare the condition of higher education in all 50 states.

The Equity Scorecard is similar to *Measuring Up*, but differs in several ways. First, the model focuses on one specific group – Hispanics. This approach is in keeping with the axiom that accountability is always particular and never general.

Currently, there are no state-level accountability studies that focus on one minority group. Second, this model is not about comparison between states; rather, it is intended as a self-examination for states to identify areas in need of improvement. My aim is to show the situation of Hispanic students along the lines of all the indicators. Third, my methodology is not as complex as that of *Measuring Up*. It is simple and straightforward, and the data it generates can easily be interpreted for policy purposes. The Equity Index is an approximation or quantification of equity gaps in educational outcomes for Hispanic students on the state level. It is by no means intended to replace other performance measure; rather, it provides an important supplementary tool for examining the issue of equity.

The purpose of accountability is not simply to provide better information about institutional and student performance; its real value comes from being used to bring about change. This study provides a point of departure for the collection and analysis of information on equity. The ultimate goal, however, is to improve the performance of state public higher education systems in serving Hispanics and enabling them to achieve equal educational outcomes.

**Source:** Hao, L. (2006). *Assessing postsecondary educational outcomes for Hispanics in California and Texas*. Unpublished doctoral dissertation, University of Southern California.

# APPENDIX C

Mt. San Antonio College students complete an application for admission to the college and may select one ethnic identity from a list of 24 categories. The Equity for All Evidence Team chose to group students into the following eight categories:

1. African American/Black Non-Hispanic
2. Caucasian/White
3. Asian including Asian Indian, Chinese, Japanese, Korean and other Asian
4. International students on F-1 visas, regardless of race/ethnicity
5. Hispanic, Central American, South American and other Hispanic
6. Mexican, Mexican American/Chicano
7. Pacific Islander including Filipino, Guamanian, Hawaiian, Samoan and other Pacific Islanders
8. Southeast Asian including Laotian, Cambodian, and Vietnamese

In regards to the Hispanic population, the group was separated between Hispanic (which includes Central American, South American, and other Hispanic) and Mexican and Mexican American/Chicano. The group felt that (1) each distinct population comprised a significant population of the Mt. San Antonio community, and (2) the differences between groups was significant enough to warrant a different category.

*Note: Middle Eastern, Native Americans, and Other Non-White students are very small populations on campus and, therefore, were not included in the Academic Pathways.*

**First-Time Freshmen (FTF)** -- The cohort of 16,391 first-time students, age 16 to 64 with the above known ethnicities, who entered Mt. San Antonio College in fall 1997, 1998, 1999, and 2000. (FTF are identified using state MIS data including student headcount status (STD7 = A, B, C, or F) and student type (SB15 = 1). Other data elements are used to refine the cohort, such as student's age at term, known gender and ethnicity, and first term attended. Finally, the researcher excluded duplicate or invalid student identifications.

**Vocational Pathway (VP)** – The cohort of 7,469 students that have enrolled in at least one “clearly occupational” course during their academic history at Mt. San Antonio College. The educational outcome used with vocational students is completion of certificates.

**SAM Code** – These codes are used to indicate the degree to which a course is occupational and to assist in identifying course sequence patterns in occupational programs. Courses with a code A, B, or C are considered “clearly occupational.”

## **Transfer**

**a: Transfer-Intent (TI)** – The cohort of 6,477 students that have earned 12 or more units and attempted either college-level English or college-level math at Mt. San Antonio College. The educational outcomes used with transfer-intent students are Associate degree completion and transfer to four-year institutions.

**b:** Transfer Prepared (TP) – students who have earned 56 transferable units with a minimum GPA of 2.0.

**c:** Transfer Ready (TR) – students who have 56 transferable units with a minimum 2.0 GPA, and have successfully completed both transfer-level English and math.

*Note: The above cohorts are NOT mutually exclusive. Students can be both TI and VP.*

**Works cited:**

Hao, L. (2002). *Glossary of frequently used equity for all: Institutional responsibility for student success terms.* at [www.usc.edu/dept/education/CUE/projects/equity4all/glossary.htm](http://www.usc.edu/dept/education/CUE/projects/equity4all/glossary.htm).

Harris Watkins, P.G. (2005). *Mentoring in the scientific disciplines: Presidential awards for excellence in science, mathematics, engineering and technology.* Claremont Graduate University: California.

# APPENDIX D

The **Equity Index** identifies at a glance whether ethnic groups are above or below equity. We can calculate the Equity Index for almost any educational outcome by using the proportion of each ethnic group within the total for all students for the denominator; then use the proportion of students by ethnicity that achieved the outcome for the numerator. If these two percents are equal, the index will be 1.00.

An example calculation is below and uses data from this report on African American transfer students. The numerator is the proportion of African American transfer-intent students that achieved the outcome (earning an Associate degree). The denominator is the proportion of African American transfer-intent students out of all transfer-intent students.

$$\frac{67 \text{ African American students were transfer-intent and achieved an AA degree} / 1471 \text{ TOTAL students were transfer-intent and achieved an AA degree}}{308 \text{ African American students were transfer-intent} / 6477 \text{ TOTAL students were transfer-intent}} = \frac{4.6\%}{4.8\%} = 0.95$$

In this report, the Equity Index is calculated for each educational outcome without showing the actual proportions. To assist your interpretation, please examine the following table. Any indices which are equal to 1.0 or higher are given a green highlight indicating that equity has been attained. A yellow color indicates scores which are almost at equity, between 0.80 and 1.00; yellow serves as a cautionary color. A red score is given for indices which are below equity or less than 0.80.

Interpreting the Equity Index through Color		
Level of Equity	Numerical Representation	Color
Above Equity	Greater than or equal to 1.00	Green
Almost At Equity	Between 0.80 and 0.99	Yellow
Below	Less than 0.80	Red

The Equity Index is a measure of proportionality based on the population for each racial and ethnic group under analysis (Hao, 2005). Based upon this analysis, a ratio is calculated to determine whether there is an over-representation, underrepresentation or equal representation for each specific indicator. Scores that are above or below 1.0 are reflective of an equity gap that signifies an overrepresentation or underrepresentation in the specific indicator. Overrepresentation is indicated by a score greater than 1.0 while a score below 1.0 signifies underrepresentation. A score of 1.0 represents equity.

**Source:** Hao, L. (2006). *Assessing postsecondary educational outcomes for Hispanics in California and Texas*. Unpublished doctoral dissertation, University of Southern California.

# APPENDIX E

Transfer Rates for All FTF (Fall 1997 to Fall 2000) N = 16,391

All FTF in *Equity for All* Project (1997 to 2000 cohorts)

Fall	Total FTF	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	4,161	262	1,100	603	89	726	1,032	228	121
1998	4,260	285	1,061	589	83	815	1,050	254	123
1999	3,712	215	902	605	63	777	849	207	94
2000	4,258	285	1,035	609	114	890	1,040	205	80
<b>Total</b>	<b>16,391</b>	<b>1,047</b>	<b>4,098</b>	<b>2,406</b>	<b>349</b>	<b>3,208</b>	<b>3,971</b>	<b>894</b>	<b>418</b>

Number of FTF that **transfer** to a 4-year institution (NSC match Dec 2005)

Fall	Total Transfers	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	628	36	169	160	30	64	109	44	16
1998	603	41	164	139	29	71	101	40	18
1999	453	28	119	125	13	56	78	27	7
2000	466	27	136	118	18	65	68	27	7
<b>Total</b>	<b>2,150</b>	<b>132</b>	<b>588</b>	<b>542</b>	<b>90</b>	<b>256</b>	<b>356</b>	<b>138</b>	<b>48</b>

Percent of FTF that **transfer** to a 4-year institution (NSC match Dec 2005)

Fall	Transfer Rate	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	15.1%	13.7%	15.4%	26.5%	33.7%	8.8%	10.6%	19.3%	13.2%
1998	14.2%	14.4%	15.5%	23.6%	34.9%	8.7%	9.6%	15.7%	14.6%
1999	12.2%	13.0%	13.2%	20.7%	20.6%	7.2%	9.2%	13.0%	7.4%
2000	10.9%	9.5%	13.1%	19.4%	15.8%	7.3%	6.5%	13.2%	8.8%
<b>Total</b>	<b>13.1%</b>	<b>12.6%</b>	<b>14.3%</b>	<b>22.5%</b>	<b>25.8%</b>	<b>8.0%</b>	<b>9.0%</b>	<b>15.4%</b>	<b>11.5%</b>

# APPENDIX F

## Transfer Rates for Transfer-Intent FTF (Fall 1997 to Fall 2000) N = 7,580

Transfer-Intent FTF (Fall 1997 to Fall 2000)

Fall	Total FTF	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	2,044	90	545	356	71	312	465	137	68
1998	2,047	101	515	358	70	335	456	149	63
1999	1,567	71	375	322	54	289	315	99	42
2000	1,922	92	483	353	99	343	408	101	43
<b>Total</b>	<b>7,580</b>	<b>354</b>	<b>1,918</b>	<b>1,389</b>	<b>294</b>	<b>1,279</b>	<b>1,644</b>	<b>486</b>	<b>216</b>

Transfer-intent students have earned 12 or more units at Mt SAC and attempted either transfer level English or transfer level Math at Mt SAC during their academic history.

Number of transfer-intent FTF that transfer to a 4-year institution (NSC match Dec 2005)

Fall	Total Transfers	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	491	19	145	121	27	52	81	32	14
1998	447	22	116	107	27	52	80	29	14
1999	337	19	90	93	12	40	58	20	5
2000	369	17	107	102	18	46	55	18	6
<b>Total</b>	<b>1,644</b>	<b>77</b>	<b>458</b>	<b>423</b>	<b>84</b>	<b>190</b>	<b>274</b>	<b>99</b>	<b>39</b>

Percent of transfer-intent FTF that transfer to a 4-year institution (NSC match Dec 2005)

Fall	Transfer Rate	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	24.0%	21.1%	26.6%	34.0%	38.0%	16.7%	17.4%	23.4%	20.6%
1998	21.8%	21.8%	22.5%	29.9%	38.6%	15.5%	17.5%	19.5%	22.2%
1999	21.5%	26.8%	24.0%	28.9%	22.2%	13.8%	18.4%	20.2%	11.9%
2000	19.2%	18.5%	22.2%	28.9%	18.2%	13.4%	13.5%	17.8%	14.0%
<b>Total</b>	<b>21.7%</b>	<b>21.8%</b>	<b>23.9%</b>	<b>30.5%</b>	<b>28.6%</b>	<b>14.9%</b>	<b>16.7%</b>	<b>20.4%</b>	<b>18.1%</b>

# APPENDIX G

## BA/BS Degree Attainment Rates for All FTF (Fall 1997 to Fall 2000) N = 16,391

All FTF in Equity for All Project (Fall 1997 to Fall 2000)

Fall	Total FTF	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	4,161	262	1,100	603	89	726	1,032	228	121
1998	4,260	285	1,061	589	83	815	1,050	254	123
1999	3,712	215	902	605	63	777	849	207	94
2000	4,258	285	1,035	609	114	890	1,040	205	80
<b>Total</b>	<b>16,391</b>	<b>1,047</b>	<b>4,098</b>	<b>2,406</b>	<b>349</b>	<b>3,208</b>	<b>3,971</b>	<b>894</b>	<b>418</b>

Number of FTF earning BA/BS degrees at 4-year institutions (NSC match Dec 2005)

Fall	Total Grads	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	299	11	86	84	20	29	42	16	11
1998	243	7	83	59	16	25	31	18	4
1999	149	11	39	42	8	18	20	10	1
2000	113	4	30	34	7	17	15	6	0
<b>Total</b>	<b>804</b>	<b>33</b>	<b>238</b>	<b>219</b>	<b>51</b>	<b>89</b>	<b>108</b>	<b>50</b>	<b>16</b>

Percent of FTF earning BA/BS degrees at 4-year institutions (NSC match Dec 2005)

Fall	Grad Rate	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	7.2%	4.2%	7.8%	13.9%	22.5%	4.0%	4.1%	7.0%	9.1%
1998	5.7%	2.5%	7.8%	10.0%	19.3%	3.1%	3.0%	7.1%	3.3%
1999	4.0%	5.1%	4.3%	6.9%	12.7%	2.3%	2.4%	4.8%	1.1%
2000	2.7%	1.4%	2.9%	5.6%	6.1%	1.9%	1.4%	2.9%	0.0%
<b>Total</b>	<b>4.9%</b>	<b>3.2%</b>	<b>5.8%</b>	<b>9.1%</b>	<b>14.6%</b>	<b>2.8%</b>	<b>2.7%</b>	<b>5.6%</b>	<b>3.8%</b>



# APPENDIX H

## BA/BS Degree Attainment Rates for Transfer-Intent FTF (Fall 1997 to Fall 2000) N = 7,580

Transfer-Intent FTF (Fall 1997 to Fall 2000 cohorts)

Fall	Total FTF	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	2,044	90	545	356	71	312	465	137	68
1998	2,047	101	515	358	70	335	456	149	63
1999	1,567	71	375	322	54	289	315	99	42
2000	1,922	92	483	353	99	343	408	101	43
<b>Total</b>	<b>7,580</b>	<b>354</b>	<b>1,918</b>	<b>1,389</b>	<b>294</b>	<b>1,279</b>	<b>1,644</b>	<b>486</b>	<b>216</b>

Transfer-intent students have earned 12 or more units at Mt SAC and attempted either transfer level English or transfer level math at Mt SAC during their academic history.

Number of transfer-intent FTF earning BA/BS degrees (NSC match Dec '05)

Fall	Total Grads	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	260	8	82	67	18	26	36	12	11
1998	197	4	67	46	14	20	26	16	4
1999	121	9	31	32	7	16	17	8	1
2000	99	3	27	31	7	16	11	4	0
<b>Total</b>	<b>677</b>	<b>24</b>	<b>207</b>	<b>176</b>	<b>46</b>	<b>78</b>	<b>90</b>	<b>40</b>	<b>16</b>

Percent of transfer-intent FTF earning BA/BS degrees (NSC match Dec '05)

Fall	Grad Rate	African American	Caucasian (White)	Asian	Int'l	Hispanic	Mexican American	Pacific Islander	Southeast Asian
1997	12.7%	8.9%	15.0%	18.8%	25.4%	8.3%	7.7%	8.8%	16.2%
1998	9.6%	4.0%	13.0%	12.8%	20.0%	6.0%	5.7%	10.7%	6.3%
1999	7.7%	12.7%	8.3%	9.9%	13.0%	5.5%	5.4%	8.1%	2.4%
2000	5.2%	3.3%	5.6%	8.8%	7.1%	4.7%	2.7%	4.0%	0.0%
<b>Total</b>	<b>8.9%</b>	<b>6.8%</b>	<b>10.8%</b>	<b>12.7%</b>	<b>15.6%</b>	<b>6.1%</b>	<b>5.5%</b>	<b>8.2%</b>	<b>7.4%</b>

# APPENDIX I

Transfer Readiness	Vital Sign	Current Performance									
			African Am	Caucasian (White)	Asian	Int'l F-1 Visa	Hispanic	Mexican Am	Pacific Islander	Southeast Asian	Total
Transfer-intent	Composition of transfer-intent students (1997-2000)	#	354	1,918	1,389	294	1,279	1,644	486	216	7,580
		%	4.7%	25.3%	18.3%	3.9%	16.9%	21.7%	6.4%	2.8%	100%
Transfer-prepared	Composition of transfer-intent students who are transfer-prepared <sup>1</sup>	#	151	1,081	816	210	554	788	255	108	3,963
		%	3.8%	27.3%	20.6%	5.3%	14.0%	19.9%	6.4%	2.7%	100%
	<b>Equity Index</b>		<b>0.816</b>	<b>1.078</b>	<b>1.124</b>	<b>1.366</b>	<b>0.828</b>	<b>0.917</b>	<b>1.004</b>	<b>0.956</b>	<b>1.000</b>
Transfer-ready	Composition of transfer-intent students who are transfer-ready <sup>2</sup>	#	59	645	654	164	308	436	142	83	2,491
		%	2.4%	25.9%	26.3%	6.6%	12.4%	17.5%	5.7%	3.3%	100%
	<b>Equity Index</b>		<b>0.507</b>	<b>1.023</b>	<b>1.433</b>	<b>1.697</b>	<b>0.733</b>	<b>0.807</b>	<b>0.889</b>	<b>1.169</b>	<b>1.000</b>
Transfer to four-year college or university	Composition of transfer-intent students who transfer to four-year institutions <sup>3</sup>	#	77	458	423	84	190	274	99	39	1,644
		%	4.7%	27.9%	25.7%	5.1%	11.6%	16.7%	6.0%	2.4%	100%
	<b>Equity Index</b>		<b>1.003</b>	<b>1.101</b>	<b>1.404</b>	<b>1.317</b>	<b>0.685</b>	<b>0.768</b>	<b>0.939</b>	<b>0.832</b>	<b>1.000</b>
Earn four-year degree BA/BS or higher	Composition of transfer-intent students who earn BA/BS degrees <sup>4</sup>	#	24	207	176	46	78	90	40	16	677
		%	3.5%	30.6%	26.0%	6.8%	11.5%	13.3%	5.9%	2.4%	100%
	<b>Equity Index</b>		<b>0.759</b>	<b>1.208</b>	<b>1.419</b>	<b>1.752</b>	<b>0.683</b>	<b>0.613</b>	<b>0.922</b>	<b>0.8294</b>	<b>1.000</b>

1 Transfer-prepared student has earned 56 or more transferable units at Mt. SAC with a minimum GPA of 2.0.

2 Transfer-ready students have earned 56 or more transferable units at Mt. SAC with a minimum GPA of 2.0 AND successfully completed both transfer-level English and transfer-level math.

3 Based on NSC enrollment search data (97% matches).

4 Based on NSC degree verify and supplemental data from CSU-Los Angeles.