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The Newsletter for the Office of Institutional Research at San José State University Spring 2008

Student Retention and Graduation
by Sutee Sujitparapitaya

The purpose of this article is to provide a summary of relevant information focusing on a single issue – improving student retention and graduation. This article provides a number of facts, studies, (a few) theories, and comments on how to improve student progress toward graduation. As a note of caution, it is important to be wary of generalizing the results of the studies presented in this article. Most scholarly studies tend to use a limited student population within a given institution. Consequently, these limited studies on retention may or may not be sufficient for a comprehensive evaluation of persistence in our institution.

What is known about San José State’s Student Attrition?

Since the educational system in California, and the rest of the country, is currently facing budget difficulties, the economic implications of alarmingly high rates of attrition are of immediate concern. The emphasis has shifted from recruitment to student retention because far too many students who enter our higher education system fail to get a degree. The negative impact of this low completion rate has been largely masked in recent years, because the number of students entering the system has been rising. According to the U.S. Census Bureau (2002), the percentage of students going on to two- or four-year colleges and universities increased from less than half in 1975 to almost two-thirds in 2001, with the biggest gains among female and low-income students. When the timeframe is extended to the first eight years out of high school, we find that by the 1990s, four out of five on-time high school graduates had enrolled in some form of higher education (Adelman, 2004).

Unfortunately, once they get there, a great number of students don’t succeed. Many higher education institutions routinely lose more than one out of every four students they enroll in the freshman year alone. The completion numbers overall are bad enough, but they are even worse for traditionally under-represented students. There is a large graduation rate gap between low-income and high-income students, and the majority of African American and Latino students don’t complete their degree within six years.

Research has identified various contributing factors, such as previous academic performance, intervening employment opportunity, financial difficulties, traumatic changes in circumstances of student life, mismatches between student expectations and experiences, student disorientation/socialization, as well as a variety of other factors as being key predictors of attrition. In many cases, students may be required to leave for reasons such as poor academic performance, or they may leave voluntarily despite adequate academic progress.

The hallmark of higher education since the passage of the GI Bill has been access and opportunity. The nation has much to be proud of as, every fall, hundreds of thousands of young people land on our campus doorsteps full of anticipation and excitement. Sadly, many will wash out by winter break, and many more will never graduate. Four-year college graduation rate is 34 percent nationwide, and the six-year rate is just 56 percent — deplorable marks that could be improved if K-12 education officials and higher-education institutions came together and got serious about raising student expectations.

With an overall six-year graduation rate for first-time full-time freshmen exceeding 40 percent for the last graduating classes, we know that CSU’s success in graduating students is comparable to and sometimes even better than its peer institutions. Nevertheless, we also know that almost all undergraduates enter the CSU system intending to get a bachelor’s degree; yet 30 percent never earn a degree at a CSU and about a third never earn a bachelor’s degree from any college during the six-year period. The numbers are worse when one considers the graduation rates for students from underrepresented minority groups, first-generation backgrounds, and lower socioeconomic backgrounds. This issue represents an unfulfilled commitment of substantial time and money made by tens of thousands of students, as well as by California’s taxpaying citizens. As higher education becomes increasingly important for success in a society that has become knowledge and technology-oriented, retention and persistence are more important than ever.
First-year (Freshman-to-Sophomore) Retention

The first year retention rates treat all students not enrolled at the institution to which they initially matriculated in the fall of their second year as being dropouts and hence “failures” from the education system. Nationally about half of the students who leave an institution before receiving the baccalaureate do so before the fall of the second, or sophomore, year (McClanahan, 2004). A report by American College Testing (ACT, 2001) indicates that nationwide 25.9 percent of freshmen at four-year institutions do not return to school the following year.

Although the results from the Student Mobility Study indicate that many of the first year leavers either return to that institution or transfer to another institution, the first year of college continues to be the most critical stage both because of student vulnerability at the beginning of college and because institutions can react quickly with interventions (Tinto, 1993, 1999). Among the factors that influence first-year retention are the information and activities that campuses provide to admitted applicants to help them and their parents make decisions about the match between student needs, priorities, preferences, and institutional offerings. In addition, activities to orient, involve, engage, and integrate first-time freshmen to the academic and extracurricular life of the campus community make sense and affect first-year retention (McClanahan, 2004). Mismatches between the student and institution are not uncommon. High school seniors often think that they want to move away from home and decide in their freshman year that they miss home. Students sometimes select an institution for its particular excellence in a discipline that fails to hold their interest in the freshman year.

Not surprisingly, academic preparation of first-time freshmen also enters into first-year retention. Extremely selective universities, like Harvard, retain virtually their entire entering freshman classes to the sophomore year in contrast with open-admission institutions with first-year retention rates around 55 percent (ACT, 2001). For students who are not academically well-prepared or inclined, the first year in college can be difficult or even a confirmation that college isn’t the right thing for them at this time.

Figure 1: 1st Year Retention (CSU Average vs. San José State) *

<table>
<thead>
<tr>
<th>Year</th>
<th>CSU 1st Year</th>
<th>SJSU 1st Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>78.9%</td>
<td>78.6%</td>
</tr>
<tr>
<td>1997</td>
<td>79.4%</td>
<td>80.7%</td>
</tr>
<tr>
<td>1998</td>
<td>79.0%</td>
<td>77.6%</td>
</tr>
<tr>
<td>1999</td>
<td>77.3%</td>
<td>75.9%</td>
</tr>
<tr>
<td>2000</td>
<td>78.8%</td>
<td>77.7%</td>
</tr>
<tr>
<td>2001</td>
<td>78.7%</td>
<td>78.9%</td>
</tr>
<tr>
<td>2002</td>
<td>81.1%</td>
<td>81.6%</td>
</tr>
<tr>
<td>2003</td>
<td>81.6%</td>
<td>81.9%</td>
</tr>
<tr>
<td>2004</td>
<td>80.4%</td>
<td>80.1%</td>
</tr>
<tr>
<td>2005</td>
<td>81.5%</td>
<td>81.6%</td>
</tr>
</tbody>
</table>

* Included cohorts of first-time full-time freshmen (www.asd.calstate.edu/csrde)

Table 1: 1st vs. 6th Yr San José State Retention **

<table>
<thead>
<tr>
<th></th>
<th>1st Year (1)</th>
<th>6th Year (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All FTF</td>
<td>78.4%</td>
<td>53.8%</td>
</tr>
<tr>
<td>Admission Basis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular</td>
<td>85.3%</td>
<td>78.9%</td>
</tr>
<tr>
<td>Exceptional</td>
<td>10.8%</td>
<td>71.5%</td>
</tr>
<tr>
<td>Alternate/Other</td>
<td>4.0%</td>
<td>61.6%</td>
</tr>
<tr>
<td>Enrollment Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>93.3%</td>
<td>79.6%</td>
</tr>
<tr>
<td>Part-time</td>
<td>6.7%</td>
<td>58.3%</td>
</tr>
<tr>
<td>San José State GPA at the end of first-year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.00 and Higher</td>
<td>35.2%</td>
<td>80.6%</td>
</tr>
<tr>
<td>2.00 to 2.99</td>
<td>52.3%</td>
<td>66.2%</td>
</tr>
<tr>
<td>Less than 2.00</td>
<td>12.5%</td>
<td>38.8%</td>
</tr>
<tr>
<td>High School GPA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.00 and Higher</td>
<td>63.3%</td>
<td>81.4%</td>
</tr>
<tr>
<td>2.00 to 2.99</td>
<td>36.4%</td>
<td>72.6%</td>
</tr>
<tr>
<td>Less than 2.00</td>
<td>0.3%</td>
<td>64.5%</td>
</tr>
<tr>
<td>Remediation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exempt/Passed</td>
<td>30.8%</td>
<td>81.1%</td>
</tr>
<tr>
<td>Math Only</td>
<td>13.9%</td>
<td>77.5%</td>
</tr>
<tr>
<td>English Only</td>
<td>20.5%</td>
<td>79.7%</td>
</tr>
<tr>
<td>Math and English</td>
<td>34.8%</td>
<td>74.1%</td>
</tr>
</tbody>
</table>

** Included multiple cohorts of first-time freshmen

(1) Average proportion within each category
(2) Median 1st year retention rate of multiple first-time freshman cohorts (from fall 1997 to fall 2006)
(3) Median 6th year retention rate of multiple first-time freshman cohorts (from fall 1997 to fall 2001)
The following points seek to summarize the analysis provided in Figure 1 and Table 1:

- Approximately 20 percent of SJSU’s first-time freshmen left and did not return by the beginning of their second year. This rate has remained steady over the past six years despite the fact that enrollment has been increasing (more than 53 percent for all first-time freshmen and 97 percent for regularly admitted). In comparison to the system-wide rate, as shown in Figure 1, the retention rate for SJSU first-time freshmen has followed a similar trend since fall of 1996.

- The NCES study (1997,1998) suggested that full-time enrollment is associated with a higher rate of retention. As indicated in Table 1, almost all SJSU first-time freshmen (93 percent) enrolled full time during the first semester. Our data showed the first year and sixth retention rates of our full-time students have consistently been much higher than those of part-time students.

- Research on college student retention has revealed that how a student performs academically (as measured by a college GPA) will impact his or her academic and social experiences, his or her commitment to attaining a degree, and ultimately his or her decision to withdraw from college (Cabrera, Nora and Castañeda, 1993; Nora and Cabrera, 1996). About six of every 10 students (61.2 percent) with cumulative GPAs under 2.00 at the end of their first year have left our institution without degrees after 6 years.

- High school GPA and high school class rank are also one of the best predictors of persistence and attrition (Fetter, 1987; Pantages and Creedon, 1978; Astin, 1975). Our data suggest that students’ academic performance in high school is relevant to their decision to remain enrolled in SJSU. Nearly 4 of every 10 students (35.5 percent of entering students) with high school GPAs lower than 2.00 have left San José State after their first year. More than half (56.6 percent) of those have left without degrees after six years.

- Differences among students identified as high ability or low ability, as measured by standardized test scores, have been shown to influence the withdrawal decisions (Ishihani and DesJardins, 2002; DuBrock, 1999). Placement in remedial classes is based on CSU system-wide tests; the English Placement Test (EPT) and Entry Level Math Test (ELM) unless students are exempt by means of scores earned on appropriate tests such as the CSU’s Early Assessment Program tests in English and Mathematics, the SAT or the ACT. Of those who must take these exams, 13.9 percent need remediation in mathematics alone; 20.5 percent need remediation in English alone; 34.8 percent need both. Of the first-time freshmen who were proficient at entry, 59.8% either received the baccalaureate degree or still were enrolled in SJSU six years later. Of those who scored on placement tests, the highest rate belongs to those needing only remediation in English.

### Six-year Graduation

The most common public indicator used to measure a university’s success in graduating its students is called the “graduation rate,” and it comes in various forms. The best known and the one that is annually required of all postsecondary educational institutions is a number that characterizes the percentage of students who graduate in six years. The rate is calculated by including only first-time full-time freshmen who remain at the same institution for the entire length of their academic careers. It goes without saying that this indicator is predicated upon a type of student who frequented college campuses in the 1950s: someone who enters college at age 18, lives on campus, takes a full load of courses every term, is enrolled continuously, works fewer than 20 hours (if at all), and has no family responsibilities. This is a far cry from the typical SJSU student at the beginning of the third millennium.

Hence there is no point in comparing SJSU graduation rates to those at Harvard or Stanford or to any university that is highly selective, targets a traditional student body, is residential, or charges high tuition. Although the most common calculations of graduation rates are not entirely appropriate to SJSU, reasonable benchmarks can be helpful in allowing similar types of institutions to gauge their relative success, and thus numerous methodologies have been developed to allow for more meaningful comparisons.

According to a report from ACT (2001), the percentage of first-year college students who return for their second year has increased for the fourth consecutive year. This trend suggests that new college students may be better prepared either academically or financially, better able to cope with campus life, or are enrolling in more courses at their level of readiness. However, at the other end of college experience, the percentage of undergraduates completing bachelor's degrees within six years has fallen to a new low. The NCES study (1997) suggests that students seeking a bachelor’s degree who initially enroll at a two-year institution (with the intent to transfer to a four-year institution) are far less likely than individuals who start out at a four-year institution to obtain a bachelor's degree. For students who do complete a bachelor's degree, those who start at a two-year institution are twice as likely to take more than six years to complete their degree. Further discussion regarding such a concern is beyond the scope of this article. However, the next issue of the OIRblog will provide more inside information about retention, graduation and the characteristics of our undergraduate transfers.
The following points seek to summarize the analysis provided in Figure 2 and Table 2:

- Almost all first-time freshmen who graduate from San José State do so within eight years. About 8.4 percent graduates between six and eight years. In comparison to the CSU state-wide rate, six-year graduation rate for our first-time “full-time” freshmen has declined, from 39.4 percent in 1996 to 38.1 percent in 1998 and then increased for the next two years.

- The average time to degree for first-time freshmen who graduate is five and a half years (data not shown). More than half (51.4 percent) of all first-time freshmen who have not yet graduated after eight years have either left school or have enrolled somewhere else.

- Students who enter on a basis of regular admission graduate much faster than ones with exceptional admission basis. After eight years, half of those who were regularly admitted graduate.

- Students who initially enroll full-time are more likely to graduate than part-time students during an eight year period.

- Studies point to a lingering effect of poor first-year performance for first-time-in-college students (Maack, 2002; Ishitani and DesJardins, 2002; Bradburn, 2002). Specially, students are at very high risk of dropping out of college in year two if their first-year GPA is below 2.0 (Ishitani and DesJardins, 2002). Our evidence suggests that only 33 percent of those who earn a high first-year GPA below 2.0 have graduated within eight years. In contrast, approximately 76 percent of students with the first year GPA of 3.00 or higher graduate within eight years from San José State.

- The chances of completing college within six to eight years varies widely according to the student’s level of academic preparation. Those who earn a high grade point average (3.00 or higher) in high school have six- and eight-year completion rates of 47.4 percent and 57.4 percent, respectively, compared to rates of only 22.6 percent (six year) and 24.7 percent (eight year) for those with low grade point averages (less than 2.00) in high school.

- CSU Trustee policy is that new students must demonstrate proficiency in math and English before they can enroll in college-level math and English courses. About 30 percent of first-time freshman classes were proficient at entry. Of those, more than half (53.8 percent) received the baccalaureate degree within eight years. To ensure our new
students had the skills needed to succeed in college courses, most students (82 percent) complete their remedial requirements by the end of their first year. As shown in Table 2, the highest eight-year graduation rate belongs to those needing remediation in English alone. This means that, those students who are successful in remedial English during their first year of study succeed and graduate at a higher rate than those who enter the CSU fully proficient (53.8 percent for exempt and passed; 55.8 percent for English alone).

More about Student Attrition

Attrition comes in many forms. Some students, having registered for classes, fail to appear for those classes once the course actually begins; others withdraw during the first week or two of classes. Some students register for courses in one semester and then withdraw in another. Others may be continuously enrolled for two or more semesters or years of study, and then "disappear" from the student body. In a few extreme cases, students who are a single course short of their degree withdraw from their studies.

More than half of entering students (about 51 percent) discontinue during our 10-year study.

Note: The term “discontinue” is used for students who transferred out or disconnected from post-secondary education.

In order to fully understand graduation patterns, Figure 3 shows the following groups of students: a) those who graduate, b) those who are still in the "pipeline," and c) those who "discontinue."

- Historically, less than one percent of an entering class graduates after eight years.
- Over the past decade, approximately seven percent of entering class students were still enrolled after seven years, three percent after the eighth year, and less than one percent thereafter.
- More than half of entering students (about 51 percent) discontinue during our 10-year study.
English & Mathematics Proficiency and Degree Conferrals to First-Time Freshmen

Research literature (Adelman, 1996) shows that “the extent of a student’s need for remediation is inversely related to his or her eventual completion of a degree.” There are notable gaps in mathematics and English proficiency by racial and ethnic subgroup. In addition, a new U.S. Department of Education study, "The Toolbox Revisited: Paths to Degree Completion From High School Through College" — based on a longitudinal study of a representative group of students from the 1992 high-school class — shows that a rigorous high-school curriculum is the best ticket to success in college (Adelman, 2006).

A vast majority of SJSU first-time time freshmen completed a college preparatory curriculum. But nearly 50 percent of the fall 2001 first-time freshmen were not adequately prepared to enroll in college-level mathematics and 60 percent were not adequately prepared to enroll in college-level English.

The following points seek to summarize the analysis provided in Table 3 below:

- Among students who entered the CSU as first-time freshmen in fall 2001, White and Asian students were more represented among baccalaureate degree recipients than were Hispanics and African Americans.
- Asian and White students have lower need of mathematics remediation than Hispanics and African Americans. 37% of Asians and 43% of Whites required some remediation, in contrast with 72% of Hispanics and 76% of African Americans.
- Whites and American Indians have lower need of English remediation than Asians, Hispanics and African Americans. 34% of Whites and 38% of American Indians required some remediation, in contrast with 67% of Asians, 71% of Hispanics, and 65% of African Americans.
- Thus, differentials in mathematics and English proficiency by racial and ethnic subgroup interplay with the differentials in baccalaureate degrees awarded.

<table>
<thead>
<tr>
<th></th>
<th>Enrollment (n=2,768)</th>
<th>Degree Awarded (n=1,121)</th>
<th>Diff</th>
<th>ELM % Failed</th>
<th>EPT % Failed</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.0%</td>
<td>63%</td>
<td>38%</td>
</tr>
<tr>
<td>Black</td>
<td>6.0%</td>
<td>3.7%</td>
<td>-2.3%</td>
<td>76%</td>
<td>65%</td>
</tr>
<tr>
<td>Asian</td>
<td>33.6%</td>
<td>39.3%</td>
<td>5.6%</td>
<td>37%</td>
<td>67%</td>
</tr>
<tr>
<td>Filipino</td>
<td>11.5%</td>
<td>9.7%</td>
<td>-1.8%</td>
<td>52%</td>
<td>62%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>0.6%</td>
<td>0.3%</td>
<td>-0.3%</td>
<td>47%</td>
<td>59%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>16.3%</td>
<td>13.8%</td>
<td>-2.5%</td>
<td>72%</td>
<td>71%</td>
</tr>
<tr>
<td>White</td>
<td>18.0%</td>
<td>18.7%</td>
<td>0.7%</td>
<td>43%</td>
<td>34%</td>
</tr>
<tr>
<td>Foreign Nat'l</td>
<td>1.6%</td>
<td>1.5%</td>
<td>0.0%</td>
<td>30%</td>
<td>72%</td>
</tr>
<tr>
<td>Others</td>
<td>12.1%</td>
<td>12.8%</td>
<td>0.7%</td>
<td>49%</td>
<td>53%</td>
</tr>
</tbody>
</table>
Problems Understanding Attrition

Recognition that persistence and retention are distinct concepts began to fully emerge in the late 1990s. While retention is important, today’s students attend more than one institution to earn a degree. Students transferring from one four-year institution to another four-year institution can get lost in the statistical shuffle of reporting retention (Mallette and Cabrera, 1991). The NCES Study (1998) suggested that of the students who left a four-year school during their first year, two-thirds would return to either a two-year or four-year school, and one-third would fail to return to any school within five years.

In fall 2007, the Office of Institutional Research conducted a special study using the National Student Clearinghouse’s database (1) to track the SJSU first-time freshmen class of 2001. This study found that about 20 percent of first-time freshmen leave before the beginning of their second year. During the six year period, slightly over half of the entire first-time freshman class was retained or graduated. Forty one percent of those earned a degree from SJSU and 14 percent were still enrolled without a degree. Thirty percent decided to transfer (stopped out) either to a California community college or four-year institution (4.2 percent to other CSU campuses; 0.3 percent to UC campuses). About 15 percent had failed to return to any school within six years (stayed out).

The following points seek to summarize the analysis provided in Figure 5:

- Among students who left SJSU before the beginning of their second year, a majority (81 percent) returned to postsecondary education within 5 years (stopped out), and 19 percent did not return (stayed out).

- Within a six year period, a total of 2,347 students were either retained at SJSU or transferred to other institutions. Forty eight percent of those received a degree from SJSU, 17 percent were still enrolled, and 35 percent transferred elsewhere.

- Among transfer-outs, 23 percent transferred to the four-year sector and 77 percent to the two-year sector. A majority of those transferred to either CSU campuses (62 percent) or California community colleges (97 percent).

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Figure 5: Student Mobility: Six-Year Student Persistence for Fall 2001 First-time Freshmen

- **Fall 2001** First-time Freshmen (n=2,768)
  - 80% retained
  - 20% left

- **Fall 2002**
  - 86% (n=1,897) Retained/Stopped out
  - 14% (n=315) stayed out
  - 19% (n=106) stayed out
  - 81% (n=450) Stopped out

- **Fall 2007**
  - 48% (n=1,121) Graduated
  - 17% (n=398) Still enrolled, no degree
  - 35% (n=828) Transferred out
  - 23% (n=188) 4-year
  - 77% (n=640) Community College

- **% of Entire 1st Freshmen Cohort**
  - 41% Graduated
  - 30% Transferred out
    - 0.3% UC Campuses
    - 4.2% CSU Campuses
    - 22.4% CCC
  - 14% Still enrolled, no degree
  - 15% Stayed out

- 25% Retumed to SJSU (n = 108)
  - * Still enrolled, no degree (n = 33)
  - * Graduated (n = 18)

- 5% UC Campuses
- 62% CSU Campuses
- 33% Out of State, Others
- 97% CCC
- 3% Out of State, Others

Source: CSU Official Census and Nat’l Student Clearinghouse
Attrition is not necessarily a bad thing. It is no longer reasonable to assume that all students enter college intending to complete a bachelor's degree in four years at the same institution. Today's literature is filled with stereotypical portraits of student dropouts. We have been presented with the mistaken view that student dropouts are somehow different or deviant from the rest of our student population. Such stereotypes label dropouts as failures for not having completed their course of study in an institution of higher education. The term "dropout" should be used to describe the actions of all leavers, regardless of the reasons or conditions which influence their leaving. Leavers often do not think of themselves as failures. Many see their actions as positive steps toward goal fulfillment.

Measures that relate institutional quality to attrition rates may push institutions toward attrition interventions that are inconsistent with student goals. Different colleges have different images and therefore attract different types of students. The "college fit" theory states that the greater the congruence between the student's background, values, goals, attitudes, and interests, and those of the majority of the students at the college, the more likely the student will persist (Swail, 2004; Pantages and Creedon, 1978; Hackman and Dysinger, 1970). In other words, although a great deal of evidence has been presented associating student and college characteristics with regard to retention and attrition, there are substantial differences among institutions.

We know that graduation rates can improve, because some institutions are already rising quickly and performing at a much higher level than others. And we know that graduation rates must improve, because the consequences of not doing better, both for individual students and for society as a whole, are becoming ever more severe. On a related note, most national rankings, such as the U.S. News & World Report and others, use retention and graduation numbers to help rank institutions. These ranking are increasingly serving as a source of information to guide families in choosing colleges for their children, creating a consumer-driven form of accountability. These trends appear to be here to stay and they make paying attention to retention more important than ever.

This issue of OIRblog was prepared to provide useful information to stimulate open discussions on issues related to our student success and find ways to help our students to become intentional learners. It is not an attempt to promote the idea that graduation rates measure student success. Due to student mobility, point-in-time and institution-specific measures are not perfect. If the goal is to have individuals successfully complete a postsecondary degree, then longitudinal, cross-institutional data are critical to the proper evaluation of retention/attrition rates.

Successful retention efforts are difficult to mount, mainly because of our continuing inability to make sense of the variable character of student departure. Despite an extensive body of literature which confronts the issue, there is still much that we do not know. We need to recognize "student retention" as a fundamental student outcome. It should serve as a prerequisite for the meaningful assessment of other outcomes. Joe Cuseo (2002) suggests that other methods commonly used to assess student learning outcomes, such as knowledge acquisition, critical thinking and attitude change, cannot be used to accurately measure the final outcomes of learning experience unless students have persisted to the completion of college experience. As such, centralized strategies for retention programs may be necessary. The concepts of "training, accountability, evaluation, and recognition/reward" are fundamental toward overcoming these issues. Watson Scott Swail (2004) suggests that only when sufficient institutional attention and resources are devoted to securing each of these foundational features of program development will the quest for a quality retention program be successful; it is only then that its potential to promote student success can be fulfilled.

Note: For more information about the retention and graduation information at the college and program level, please contact the Office of Institutional Research. In our next issue we will discuss the student characteristics and success of our undergraduate transfers.
References


Glossary of Terms

- **First-time Freshmen** – Entering undergraduates who have not earned any college academic credits since graduating from high school.

- **Full-time Equivalent Student (FTES)** – Conversion of student headcount by dividing total student credit units attempted by 15 for undergraduates and 12 for graduates. Thus, undergraduate FTES is calculated by taking all credits for which undergraduates are registered and dividing that total by 15. Graduate FTES is calculated by taking all credits for which graduates are registered and dividing that total by 12. The sum of these is total FTES. No distinction is made between students registered for graduate or undergraduate courses in calculating student FTE. Note: Prior to fall 2006, FTES were calculated by dividing student credits by 15 for both undergraduates and graduates.

- **Full-time Undergraduates** – Undergraduate students who have enrolled in 12 or more units during a semester.

- **Part-time Undergraduates** – Undergraduate students who have enrolled in less than 12 units during a semester.

- **Regular Admission** – Admission basis for first-time freshmen who meet all the CSU regular admission criteria.

- **Exceptional Admission** – Admission basis that is based upon the judgment as to whether or not the applicant is as likely to succeed as a regularly admitted freshman or transfer. This judgment will include an assessment of basic skills in English and mathematical computation including, but not limited to, completion of English composition and a transferable college-level math course.

- **Alternate/Other Admission** – Admission basis for first-time freshmen under the following conditions:
  1. Applicants who are adult students (Section 40756) and full-time permanent or probationary employees - Section 41804e.
  2. Veterans as defined in Section 1652, Title 38, U.S. Code - Section 40756.1.
  3. Applicants to curricula of less than four years - Section 40757.
  4. Students admitted in pilot programs under Section 41250. (Between fall 1995 and spring 1999, the code represented regular admits who met the UC eligibility requirement.)

- **Attrition Rate** – Percent of students in the initial cohort who fail to re-enroll in consecutive semesters.

- **Continuation Rate** – Percent of students in the initial cohort who re-enroll after having enrolled during the prior regular session term.

- **Graduation Rate** – Percent of students in the initial cohort who retain from admission to the institution through graduation.

- **Retention Rate** – Percent of students in the initial cohort who earn a degree or are still enrolled at the original institution.

- **Persistence Rate** – Percent of students in the initial cohort who earn a degree or are still enrolled in any institution within the postsecondary education system.

- **Disappear or Stay Out** – Students whose initial educational goal was to complete a degree but fail to return to any postsecondary institutions regardless of the reasons or conditions.

- **Stop Out** – Students who temporarily withdraw from an institution or postsecondary education system.

- **Remedial Math** – Percent of students who are not exempt from and failed to pass the Entry Level Mathematics (ELM) Exam prior to their first semester enrollment.

- **Remedial English** – Percent of students who are not exempt from and failed to pass the English Placement Test (EPT) prior to their first semester enrollment.
The purpose of OIR 101 is to provide an overview of the Institutional Research web site and available information about San José State’s students, enrollment history, courses and instructional activities, and the results of various surveys.

To better support decision making, a wide array of interactive analytical reports, interpretive analyses, and graphical illustrations on this web site are dynamically generated using Cognos Business Intelligence (BI) and Performance Management Application. It was designed with users in mind to provide both historical and current views of our official census data that has been gathered into the series of departmental data marts and occasionally working from operational data. If you have any questions or comments, please contact us at institutional.research@sjsu.edu.
Students: Student information is outlined along the enrollment funnel: application received, new and continuing enrollments, degree awarded, retention, and graduation analyses. It also provides long-term trends of both undergraduate and graduate profiles, quick facts, and special session (self support) enrollment.

Faculty: This section displays profiles of our instructional faculty and their teaching load at the university, college, and department levels. It also includes information about student-to-faculty ratios, instructional activities, full-time equivalent, tenure status, and more!

Courses: Course information in this section was prepared to benefit academic planning and curriculum reviews. Information includes grade distribution, number of sections offered, average course size, and interrelations among student majors and their course preferences – Induced Course Load Matrix (ICLM).

Assessment: Assessment at San José State is an ongoing process aimed at understanding and improving student learning at both institutional and academic program planning. Information in this section serves important internal and external assessment needs, including university re-accreditation by WASC, program planning, and other institutional level assessment projects (e.g., Campus Climate, Collegiate Learning Assessment – CLA, National Survey of Student Engagement – NSSE, Student Evaluation of Teaching Program - SOTE/SOLATE, etc.)

Reports: This section includes important statistical reports and SJSU eDashboard - a graphical illustration of key performance indicators. It also contains Common Data Sets - a standard format of commonly requested information and a link to CSU system-wide statistical abstracts.

Others: This section contains various items not easily categorized in one of the other sections on the OIR site. It includes OIR Quiz, newsletters, definition of terms, how to read our online reports, and the home site for Institutional Data Management Council – IDMC.

About OIR: This section provides readers about the Office of Institutional Research, including its mission and contact information.

What’s New?: This section provides Institutional Research updates on our new projects, research and expository papers, survey findings, online reports, and other useful CSU system-wide topics.
SUTEE: Throughout the week (at bookstores, gyms, restaurants and any other place that requires that you present them with your ID) people ask the same strange questions about his last name. “How do you say that?” “Is that the longest last name or what?” “How many letters is that?” “Do you think any woman will want to use your last name when you get married?” After several years of facing these questions, his goal is to find a bride with a simpler and shorter last name...maybe something like “Smith”.

Having joined SJSU in 2006, Sutee has provide a leadership for the office of Institutional Research and plays the lead role in the analytic studies that support academic program planning, policy formation, institutional accountability, enrollment management, and WASC re-accreditation process. Also, he enjoys a healthy lifestyle and participates in many outdoor activities, especially tennis, golf, bike riding, basketball and swimming. Sutee claims to be at a disadvantage while playing basketball, however, because he only goes one way, to his left, when he dribbles. Good luck trying to outshoot him on the golf course, though – he has an 11 handicap.

STEVE: Steve joined the Institutional Research management team in January 2007, but has been with San José State since 1999. Prior to OIR, he had been with Human Resources as the Lead Data Analyst working closely with HR PeopleSoft module.

His responsibilities include anything and everything to do with the Academic Planning Database – APDB (aka: the reporting of faculty workload and course-related data). He is also responsible for handling data requests related to enrollment and faculty workload for the Chancellor’s Office, government agencies, departments and reporters. He has worked on various external survey requests such as IPEDS, Common Data Set, U.S. News and World Report, Peterson’s Survey of Graduate and Professional Institutions and Cal-PASS. In his spare time he enjoys coaching sports for his children and being outdoors.
BERKELEY: Berkeley is a San José native. He graduated from Del Mar High School and attended San José State for two semesters before transferring to, and graduating from, UC Santa Cruz with a degree in anthropology. He earned his master’s and doctoral degrees in sociology from Brown University.

Berkeley joined the Institutional Research management team in May 2007. He provides assistance to faculty and administrators in survey design, administration and analysis, assists with the development of assessment plans, and provides support for academic program reviews. He also collects and analyzes data, writes reports and presents research findings to various campus groups.

He is married to Claudia Lawrence, who he’s known since kindergarten, and has two grown sons. Benjamin is an electrical engineer working in New York City, while Nathaniel is a Petty Officer in the Navy stationed in San Diego.

JOHN: John is the most recent addition to the OIR staff. Like a big bag of mixed fruit, he has enjoyed a variety of experiences throughout his career. He has served as a Marine Corps Captain, a sandwich maker at Arby’s restaurant, a night manager at Holiday Inn, a manual laborer at a nursery, a Director of Finance, a salesman at Macy’s, and a college professor. All of this has prepared him for his present position in Institutional Research. He is responsible for online reporting and survey design. He also prepares and coordinates online surveys, data analysis and reporting to support program planning and assessment.

John’s other passion is the study of humor, which believe it or not, is serious business. In fact, he wrote his dissertation on ‘The Effect of Humor on Test Anxiety in Distance Learning Students’. Upon completion of this dissertation he was awarded the title of ‘Doctor’, although his wife still says “Hey you, take out the garbage”. His other interest is volunteer work at the National Alliance for the Mentally Ill (NAMI) and the Silicon Valley Humane Society. John lives in San José with his wife Susan, and her two dogs: Sparky and Arrow.

GABY: As the Administrative Support Coordinator for Institutional Research, Gaby has many duties from office management to survey administration. She also assists in managing the department’s finances. What is probably most important to know is that she is the point of contact for general questions or inquiries related to Institutional Research data and projects.

Her second full-time job is her family. On several occasions, she had been assigned the role of family coordinator. She always enjoys getting the family members together for various activities including dancing, road trips, visiting theme parks and museums, dinning out, and their annual trip to Disneyland!

STUART: When Stuart takes his time off from searching for his front tooth, his day work is to oversee the student opinion of teaching effectiveness (SOTE/SOLATE). Especially, at the end of the semester, he often has great eye strain dealing with mountain-high piles of incoming evaluation forms. He is also involved in survey research and satisfaction questionnaires for academic departments and other administrative units across the university.

His hobbies include collecting state quarters, watching old TV shows, and going to the concerts. This summer he plans to be in front of his TV set during the upcoming Beijing 2008 Olympic Games and root for the U.S. track and field and Archery. You can bet that his favorite Ethiopian and Mexican foods will be nearby.
CATHY: Cathy is responsible for preparing analytical and statistical reports to support internal management needs as well as Federal and State reporting requirements. She also provides consultation regarding enrollment and student demographic data, and helps maintain the multi-dimensional student database to support the on-going changes in enrollment and retention requirements. Prior to joining Institutional Research, Cathy worked as a Financial Data Analyst in the Department of Accounting and Financial Systems at SJSU, and she also held several positions as a Software Engineer in the private sector earlier in her career.

Recently, Cathy became a full-time mom. She enjoys spending time playing peek-a-boo with her 13-month old son, Nathan. On the weekends, she likes to go hiking with her family. With several hours of good walking, it guarantees everyone, including the baby, a good night’s sleep – which is desperately needed for a family with an active little boy.

CHAO: Chao is the database/systems administrator who handles the various back-end configurations, including server and desktop support. He also designs and implements dynamic reports using Cognos and online survey applications using SNAPS. Also included in his duties is the management and care of the OIR web site. Having obtained a Graphic Design degree from Sacramento State and with a strong background in the field, he has a great eye for detail and visuals. Prior to coming to SJSU he worked for Sacramento State as the Information Technology Consultant for the division of Academic Affairs, where he honed his IT Skills in Database/Web development and maintenance, server admin and desktop support.

When Chao is not in the office, all his time is occupied by his three children. What he really wants to do during his off time is to catch up on his sleep. But he would also like to pick up on some of his old hobbies that he has left behind like drawing and painting.

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