



*Educating minds and hearts to change the world*

## **Student Persistence at the University of San Francisco**

**Office of Institutional Research  
June 2009**

## Executive Summary <sup>1</sup>

Enhancing student persistence poses a significant challenge to the University of San Francisco. In this report, we will: (1) provide the most recent data on student persistence at USF, including one-year attrition, two-year attrition, and six-year graduation rates; (2) outline the financial implications of current attrition rates at USF; (3) compare USF's attrition and graduation rates to selected benchmarks; (4) summarize USF's current research on factors that are associated with student attrition and graduation; and (5) review selected national research on factors associated with student persistence.

USF's Office of Institutional Research conducted multiple analyses of continuing and non-continuing USF students enrolled in the fall 2004 through fall 2007 cohorts as first-time freshman. Data were drawn from reports generated by the offices of Information Services and Financial Aid in Academic Enrollment Services, from the Student Information System, from the Office of Institutional Assessment, from a national student clearinghouse data base of college and university transfer students, and from phone interviews with students from the Fall 2004 freshman cohort who did not continue at USF after their freshman year, and from phone interviews of university scholars and honors students from the first-time freshman cohort of the fall of 2006 who did not return in the fall of 2007. In 2008, we also conducted interviews with select groups of students who were continuing at USF or who had chosen to leave. The student population for the study consisted of all 3,998 students who enrolled at USF as first-time freshmen during the fall semesters from 2004 through 2007, including the 646 students (16.2%) who did not continue into their second year at USF.

The resulting analyses are consistent with the large body of national research that indicates that first-year attrition of undergraduate students is a complex phenomenon that cannot be explained by a single factor. Nevertheless, the national research and the research at USF indicate that academic performance during students' first year of college, financial factors, and social integration and student engagement all play important roles in first-year attrition. In summary, USF institutional research to date has found:

- Academic performance while at USF is related to retention.
  - Non-continuing students generally obtain a significantly lower mean GPA in their first and second semesters than continuing students.
  - A grade of D or lower during the first semester or during both semesters of the freshman year is associated with attrition.
  - Withdrawing from a class after Census Date during the first semester is associated with attrition.
  - Non-continuing students are more likely than continuing students to earn 20 or less units of academic credit during the two semesters of their freshman year.
  - Nevertheless, high levels of one-year attrition also are found among those students who are well prepared for college and who do well academically.
- One-year attrition occurs at USF among the less prepared freshmen as well as among those who are better prepared.

---

<sup>1</sup> Portions of this report were presented at the WASC Annual Meeting, April 2009 and at the meeting of the Association for Institutional Research, May 2009.

- Possible high school-related predictor variables, such as GPA and SAT Scores, did not adequately differentiate between those who continued and those who failed to return.
- Participation in special high engagement academic activities are associated with retention.
  - Enrollment in a freshman seminar is positively associated with student retention.
  - Participation in a linked course (written and oral communication) is positively associated with student retention.
  - Participation in a living learning community is positively associated with student retention. Furthermore, living-learning communities make a large contribution to active and collaborative learning and provide enriching experiences to students. Additionally, they seem to have a positive effect on student-faculty interaction.
- Financial aid factors have a relationship to retention, particularly for students who have a high need or relatively high unmet need.
- Student engagement and satisfaction are related to retention.
  - Students' evaluation of their entire educational experience during the first year, are positively associated with retention. Non-continuing *and* continuing students who said that their entire educational experience was poor were more likely to say that they were not academically challenged; that the campus environment was poor; that faculty were more likely to be unavailable, unhelpful, or unsympathetic; that academic advising was poor; and that they were less likely to talk to an advisor or faculty member about career plans. Non-continuing students were also less likely to participate in a community-based project (e.g., service-learning) during their first year than were continuing students.
  - Student satisfaction with receiving a quality education, are positively associated with retention.
  - In comparison to continuing students, non-continuing students were less likely to feel a sense of belonging at USF, had a less enjoyable experience on the campus, had less of a sense of pride about the campus, felt they experienced less intellectual growth, were made to feel less welcome on campus, were more dissatisfied with their overall experience, and were more likely to feel that the school did not meet their expectations.
- Logistic regression analyses were consistent with the individual analyses outlined above for specific groups of USF first-time freshman students.
  - Three variables were associated with attrition in more than one ethnic group: (a) units earned; (b) a low first semester college GPA (for students with a GPA at or below 3.25 for the first year); and, (c) unmet need above \$20,000.
  - For White students, social engagement played an important role as reflected in the increased likelihood of attrition for students who were from out of state and/or were not engaged in a living-learning community, a freshman seminar, or a linked course.
  - For Asian American students, an unmet need above \$20,000 and a low number of units earned were additional variables associated with attrition.

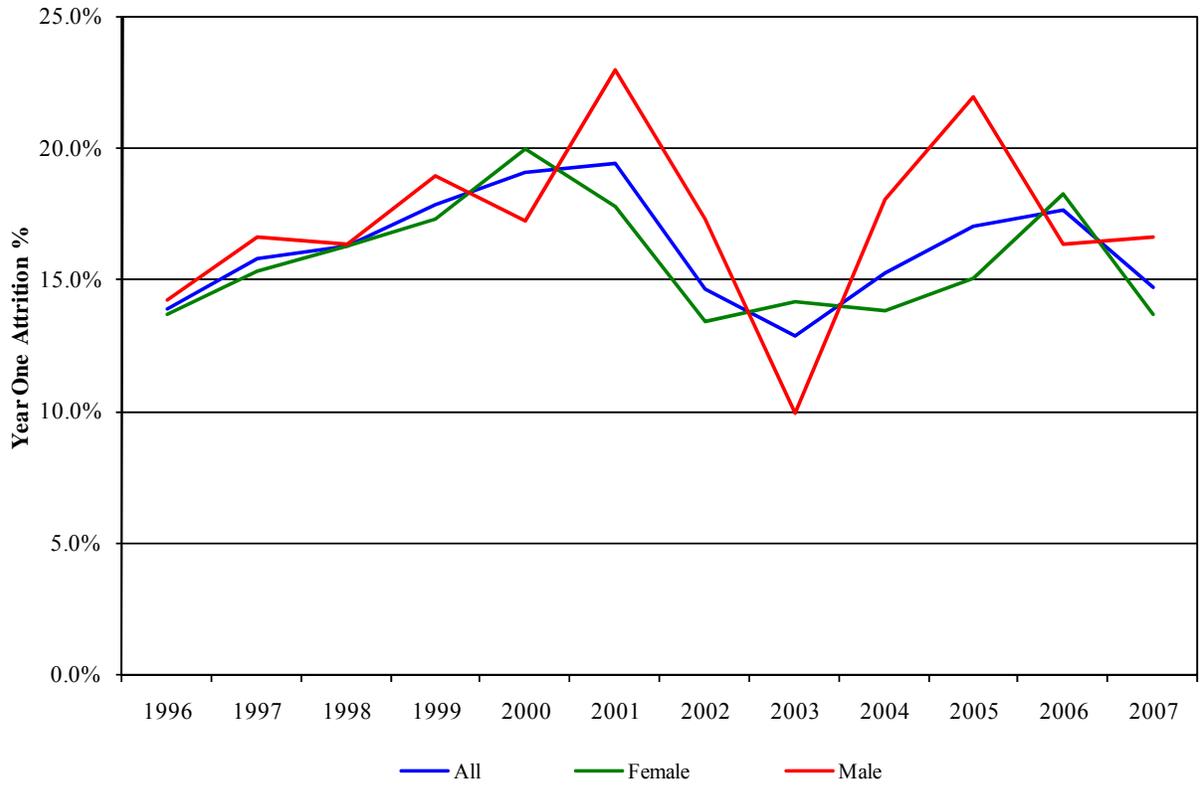
## TWELVE-YEAR TRENDS IN ATTRITION AND GRADUATION RATES

For eleven years, beginning with the 1996 cohort, first-year attrition rates for first-time freshmen at USF had gradually worsened. Although there had been annual fluctuations, first-year attrition rates among all first-time freshmen had gone from 13.9% for the cohort beginning in 1996, to 17.6% for the cohort beginning in 2006. The first-time freshman cohort of 2007, however, began to reverse that decline and had an overall attrition rate of 14.7%, almost three percentage points lower than the previous cohort (Table 1).

In nine of the past twelve years, first-time freshmen males had higher attrition rates than females. In the 2007 cohort, the first-year attrition rate for females declined to 13.7%, while the attrition rate for males was 16.6%, approximately the same as for males in the 2006 cohort (Table 1). First-year attrition rates, disaggregated by ethnicity, have also shown considerable annual variation over the past twelve years (Table 2). The trend for all groups, however, except international students, had been toward greater first-year attrition until the 2007 cohort. The 2007 cohort witnessed decreasing attrition rates for African American, Asia/Pacific Islander, International, and White students, while the attrition rate for Hispanic students remained approximately the same as the prior year. In six of the past twelve years, including 2006 and 2007, White students had the highest first-year attrition rates. For example, 22.7% of White first-time freshmen who entered USF in the fall semester of 2006 left USF by the fall of 2007, and 17.3% of the White first-time freshmen that entered in the fall of 2007 left within one year. African American students had the second-highest first year attrition rates in five of the past twelve years. In one cohort (1998), African-American first-time freshman students had the highest attrition rate of any ethnic group, but in three cohorts (1996, 2000, and 2003) African-American students had the lowest attrition rate.

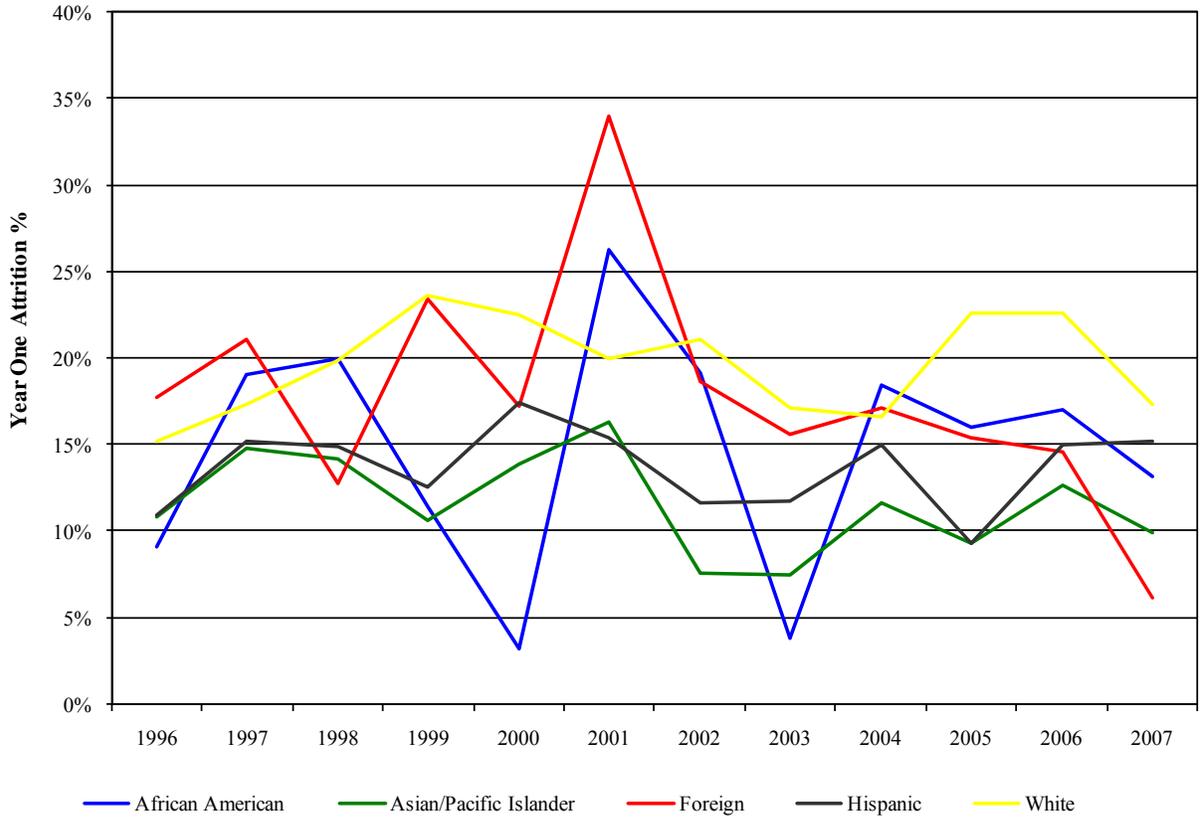
Disaggregating by admission status, the largest increase in attrition rates had been among USF's first-time freshman honors students and university scholars, a group that went from a 5.6% attrition rate in 1996 to 17.9% in 2006. The attrition rate for honors students and university scholars who entered in 2007, however, reversed this trend and fell to 14.8%. Similarly, the attrition rate for regularly admitted students went from 18.0% in 2006 to 14.8% in 2007. The attrition rate for conditional/transitional students remained about the same from 2006 to 2007 (16.5 to 16.4%), but has declined from its high point of 25.0% in 2004 (Table 3).

**Table 1. USF First-Time Freshmen-to-Sophomore Attrition Rates, All Students, and by Gender, Fall 1996 to Fall 2007 Beginning Cohorts**



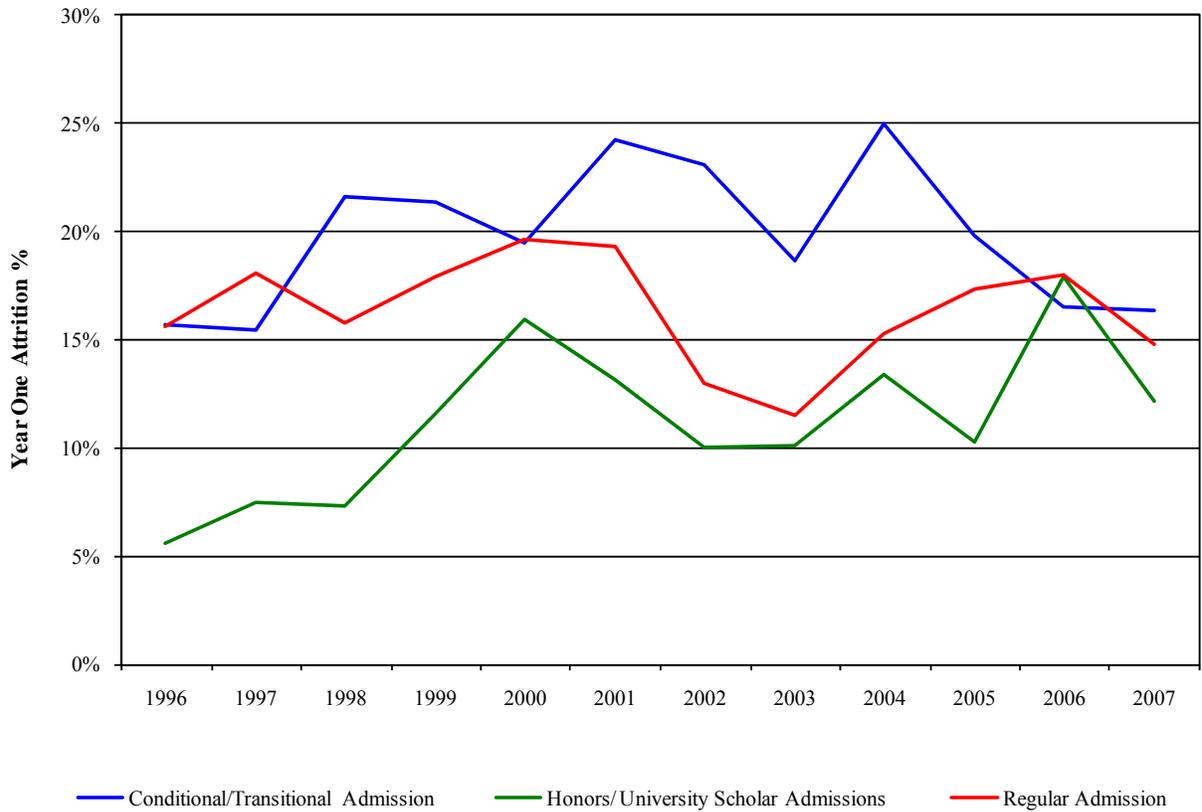
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>All</b>	13.9%	15.8%	16.3%	17.8%	19.1%	19.4%	14.6%	12.8%	15.2%	17.0%	17.6%	14.7%
<b>Female</b>	13.7%	15.3%	16.3%	17.3%	19.9%	17.7%	13.4%	14.1%	13.8%	15.0%	18.2%	13.7%
<b>Male</b>	14.2%	16.6%	16.3%	18.9%	17.2%	23.0%	17.3%	9.9%	18.0%	21.9%	16.3%	16.6%

**Table 2. USF First-Time Freshmen-to-Sophomore Attrition Rates, by Ethnicity, Fall 1996 to Fall 2007 Beginning Cohorts**



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
African American	9.1%	19.0%	20.0%	11.4%	3.2%	26.3%	19.1%	3.8%	18.5%	16.0%	17.1%	13.2%
Asian/Pacific Islander	10.8%	14.8%	14.1%	10.6%	13.9%	16.3%	7.6%	7.5%	11.6%	9.3%	12.6%	9.9%
Foreign	17.7%	21.1%	12.8%	23.4%	17.2%	34.0%	18.6%	15.6%	17.1%	15.4%	14.5%	6.2%
Hispanic	10.9%	15.2%	14.9%	12.5%	17.4%	15.4%	11.7%	11.7%	15.0%	9.3%	15.0%	15.1%
White	15.2%	17.3%	19.9%	23.6%	22.5%	19.9%	21.1%	17.1%	16.6%	22.6%	22.6%	17.3%

**Table 3. USF First-Time Freshmen-to-Sophomore Attrition Rates, by Admission Status, Fall 1996 to Fall 2007 Beginning Cohorts**



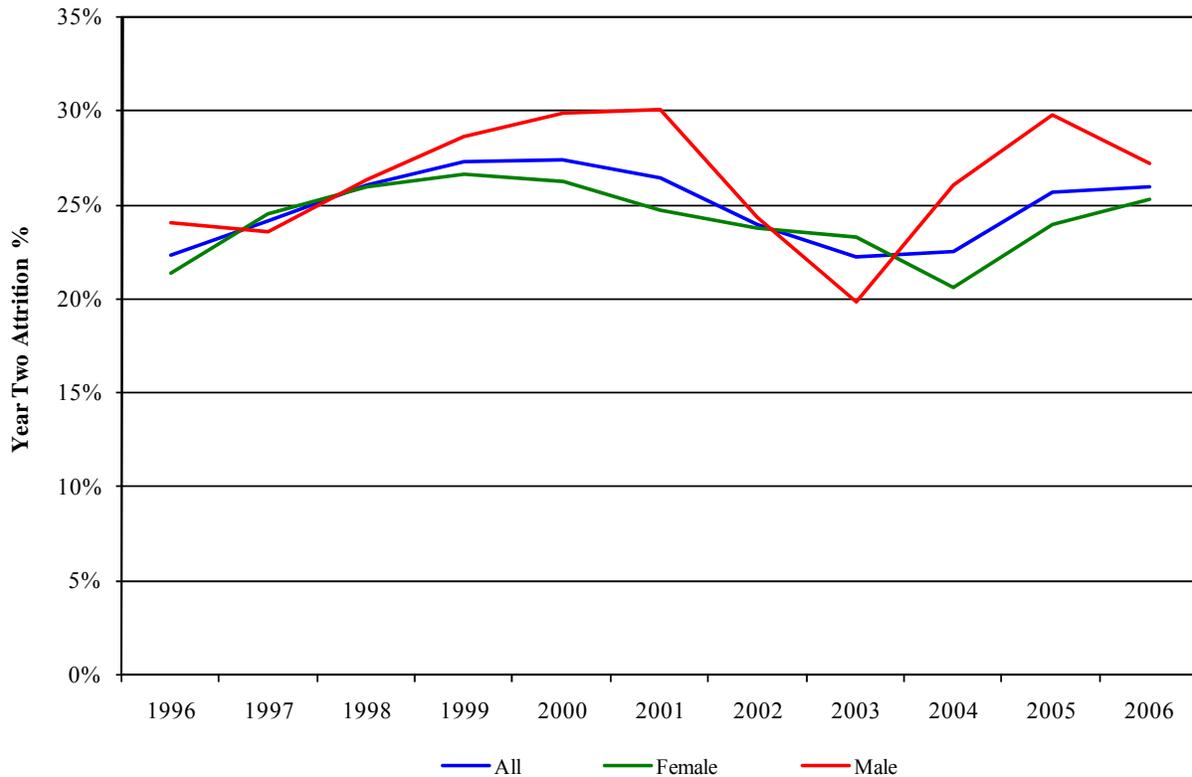
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Conditional/Transitional Admission*</b>	15.6%	15.4%	21.6%	21.3%	19.5%	24.3%	23.1%	18.7%	25.0%	19.8%	16.5%	16.4%
<b>Honors/ University Scholar Admissions</b>	5.6%	7.4%	7.3%	11.6%	15.9%	13.2%	10.0%	10.1%	13.4%	10.3%	17.9%	12.2%
<b>Regular Admission</b>	15.6%	18.1%	15.8%	18.0%	19.7%	19.3%	13.0%	11.5%	15.3%	17.4%	18.0%	14.8%

\* Conditional admits were students who did not meet the overall admission criteria because of a low SAT score and/or a low GPA. The last conditional admits were in 2005. Transitional admits began in 2003, and are freshmen students who meet the overall admission criteria, but who have some type of identifiable issue in their files (e.g., English is not their first language, either their math or verbal SAT is disproportionately low, or they come from lower SES communities/high schools.)

## Two-Year Attrition Rates

Two-year attrition rates for first-time freshmen show a pattern similar to one-year attrition rates through the fall of 2006. The cumulative two-year attrition rate for all first-time freshmen increased from 22.3% for the 1996 cohort to 25.9% for the 2006 cohort (Table 4). Hispanic students had the largest increase in attrition, from a cumulative two-year attrition rate of 20.3% for the 1996 cohort to a 27.2% attrition rate for the 2006 cohort (Table 5). White students had the highest two-year attrition rates in eight of the past eleven years, including the last five years (ranging from 26.1% to 31.9%). The two-year attrition rate for honors students and university scholars went from 13.0% for the 1996 entering cohort to 19.9% for the 2006 cohort, the two-year attrition rates for regularly admitted students increased from 24.1% to 26.4%, and for conditional/transitional students, it went from 24.5% to 28.2% (Table 6).

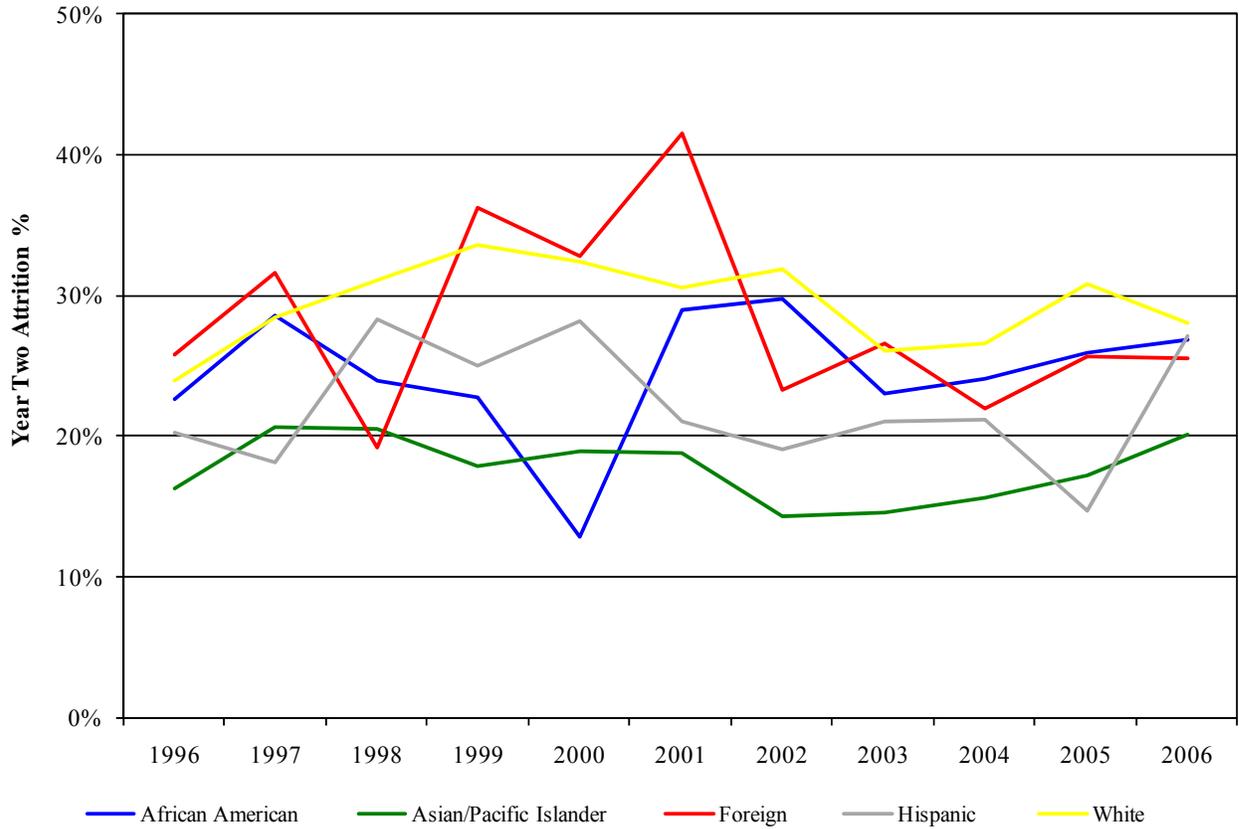
**Table 4. USF First-Time Freshmen-to-Junior Attrition Rates, All Students, and by Gender, Fall 1996 to Fall 2006 Beginning Cohorts\***



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>All</b>	22.3%	24.1%	26.0%	27.3%	27.4%	26.4%	23.9%	22.2%	22.4%	25.6%	25.9%
<b>Female</b>	21.4%	24.5%	26.0%	26.6%	26.2%	24.7%	23.7%	23.2%	20.6%	23.9%	25.3%
<b>Male</b>	24.0%	23.5%	26.2%	28.6%	29.8%	30.0%	24.2%	19.8%	25.9%	29.7%	27.1%

\* Gross attrition, including disqualified, withdrawn, stop-out, and graduated students.

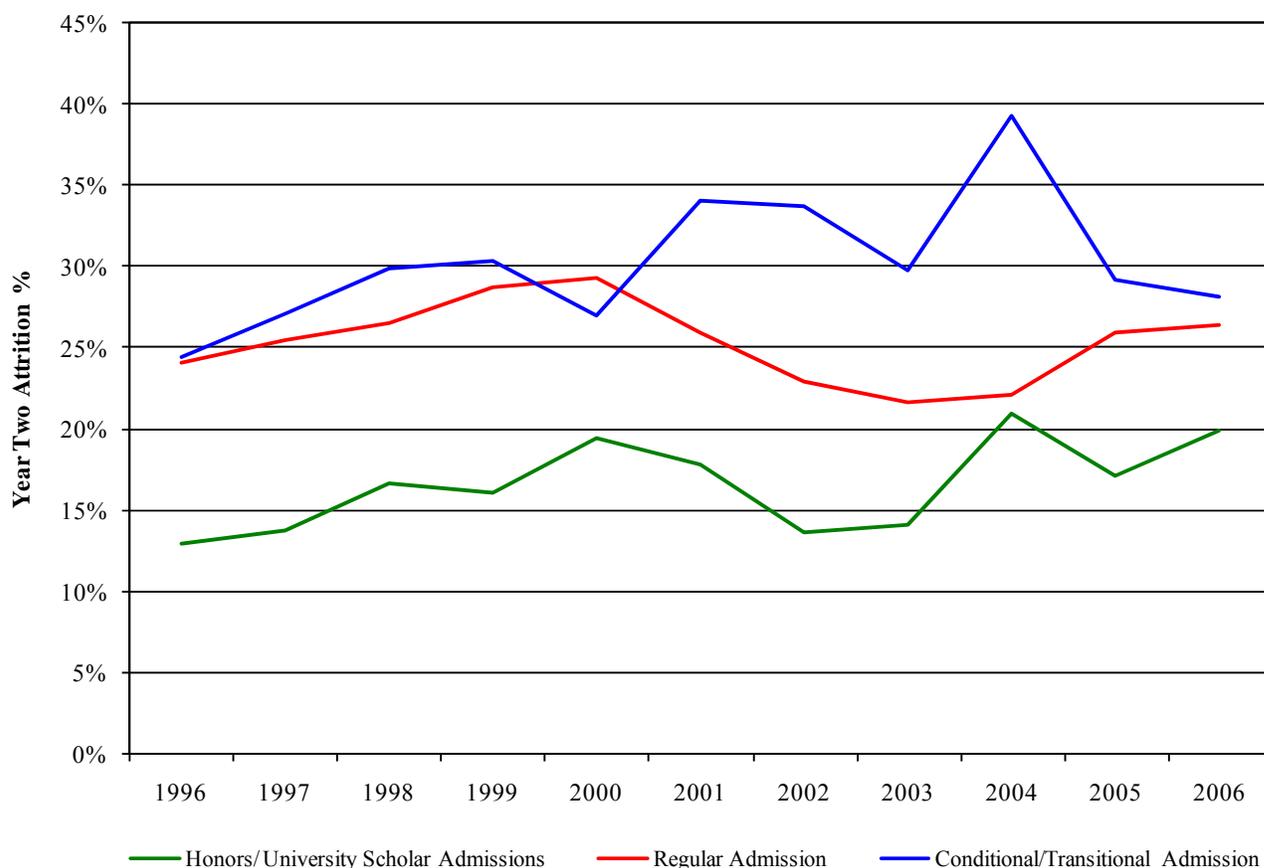
**Table 5. USF First-Time Freshmen-to-Junior Attrition Rates, by Ethnicity, Fall 1996 to Fall 2006 Beginning Cohorts\***



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>African American</b>	22.7%	28.6%	24.0%	22.9%	12.9%	28.9%	29.8%	23.1%	24.1%	26.0%	26.8%
<b>Asian/Pacific Islander</b>	16.2%	20.6%	20.5%	17.9%	18.9%	18.8%	14.3%	14.6%	15.7%	17.2%	20.2%
<b>Foreign</b>	25.8%	31.6%	19.1%	36.2%	32.8%	41.5%	23.3%	26.6%	22.0%	25.6%	25.5%
<b>Hispanic</b>	20.3%	18.2%	28.4%	25.0%	28.3%	21.2%	19.2%	21.1%	21.3%	14.7%	27.2%
<b>White</b>	24.0%	28.5%	31.1%	33.6%	32.5%	30.6%	31.9%	26.1%	26.6%	30.8%	28.1%

\* Gross attrition, including disqualified, withdrawn, stop-out, and graduated students.

**Table 6. USF First-Time Freshmen-to-Junior Attrition Rates, by Admission Status, Fall 1996 to Fall 2006 Beginning Cohorts\***



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>Conditional/Transitional Admission**</b>	24.5%	27.2%	29.9%	30.3%	27.0%	34.1%	33.7%	29.8%	39.3%	29.2%	28.2%
<b>Honors/ University Scholar Admissions</b>	13.0%	13.8%	16.7%	16.1%	19.5%	17.8%	13.6%	14.1%	21.0%	17.1%	19.9%
<b>Regular Admission</b>	24.1%	25.5%	26.5%	28.8%	29.3%	26.0%	22.9%	21.6%	22.1%	26.0%	26.4%

\* Gross attrition, including disqualified, withdrawn, stop-out, and graduated students.

\*\* Conditional admits were students who did not meet the overall admission criteria because of a low SAT score and/or a low GPA. The last conditional admits were in 2005. Transitional admits began in 2003, and are freshmen students who meet the overall admission criteria, but who have some type of identifiable issue in their files (e.g., English is not their first language, either their math or verbal SAT is disproportionately low, or they come from lower SES communities/high schools.)

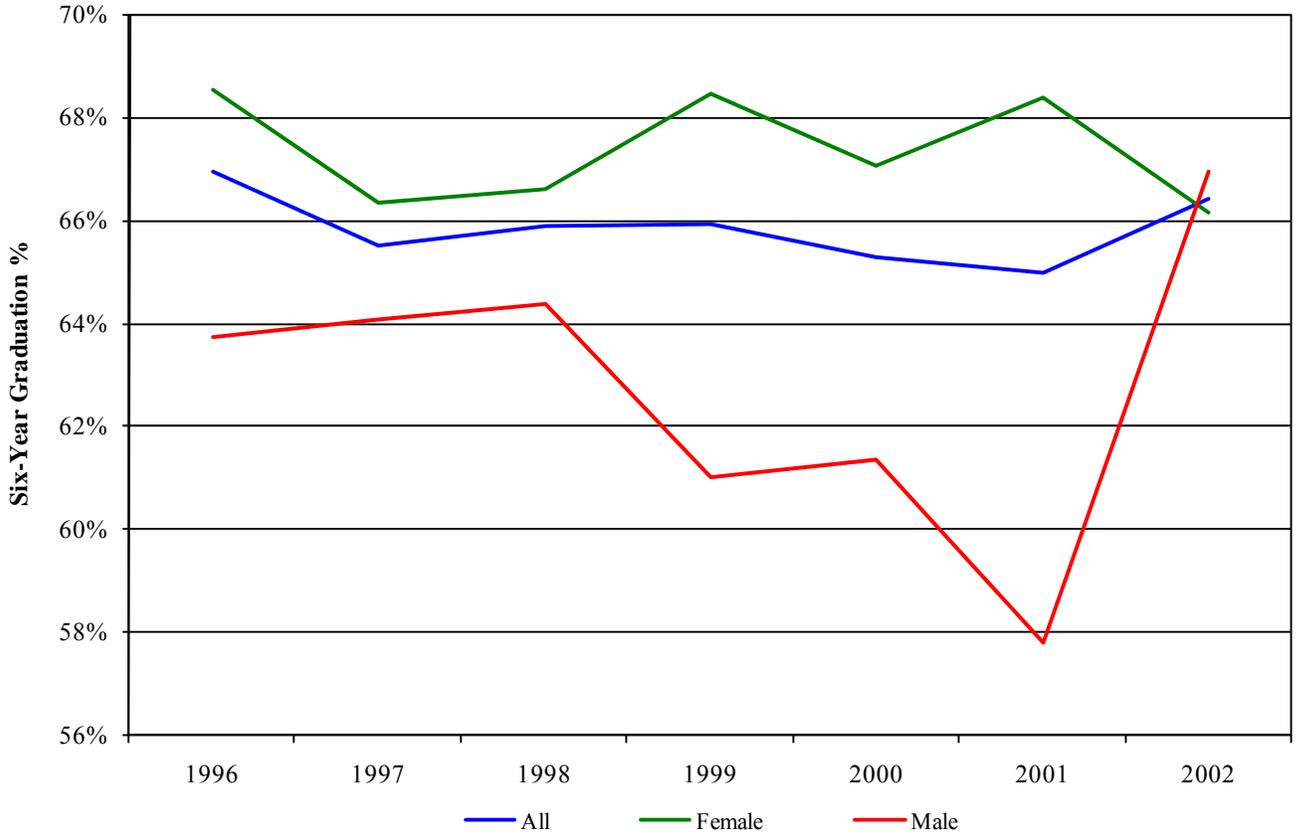
## **Six-Year Graduation Rates**

USF's overall six-year graduation rate for first-time freshmen (the nationally accepted comparative standard) declined slightly from the 1996 cohort to the 2002 cohort, from 66.9% to 66.4% (Table 7). Female graduation rates declined about two percentage points from 1996 to 2002, but male six-year graduation rates increased from 63.7% for the 1996 cohort to 66.9% for the 2002 cohort.

By ethnicity, African American students showed the steepest decline in graduation rates from the 1996 to the 2002 cohorts, from 63.6% to 51.1% (Table 8). White students were second in the decline in six-year graduation rates, from 64.1% among 1996 entering freshmen to 61.2% among freshmen entering in 2002. Hispanic students went from a six-year graduation rate of 68.8% in the 1996 cohort to a 73.3% rate in the 2002 cohort, the largest increase of any ethnic group. Asian/Pacific Islanders had the highest six-year graduation rate of any ethnic group in four of the last seven cohorts.

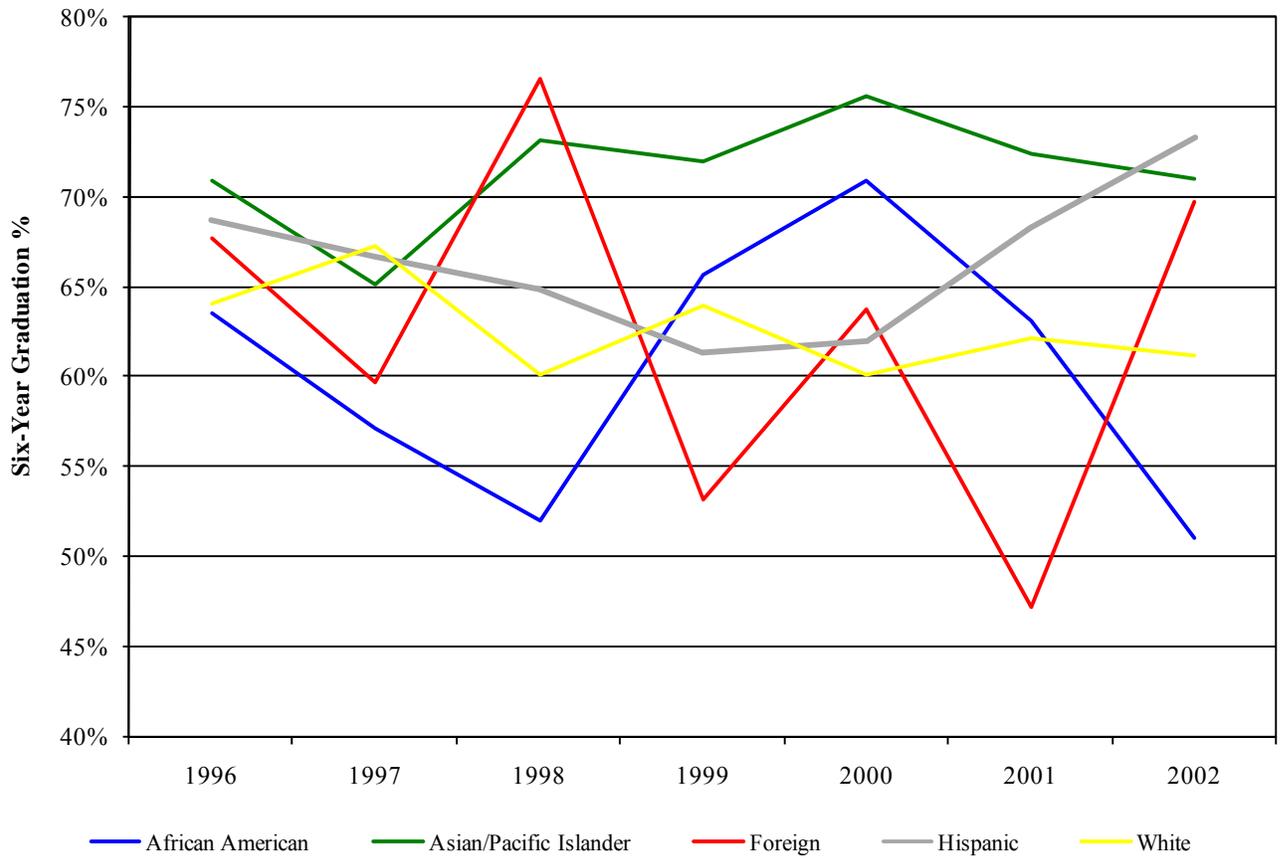
Six-year graduation rates also differ by admission status (Table 9). Among regularly admitted students, graduation rates increased by three percentage points from the cohort that entered in 1996 (64.9%) to the cohort that entered in 2002 (67.9%). Students who entered as honors students or university scholars in 1996 saw 80.6% of their group graduate within the next six years, while for honors students or university scholars who entered in 2002, 82.7% graduated six years later. Only conditional/transitional students suffered a decline in six-year graduation rates, from 61.9% for the 1996 cohort to 50.9% for the 2002 cohort.

**Table 7. USF Six-Year Graduation Rates for First-Time Freshmen, All Students, and by Gender, Fall 1996 to Fall 2002, Beginning Cohorts**



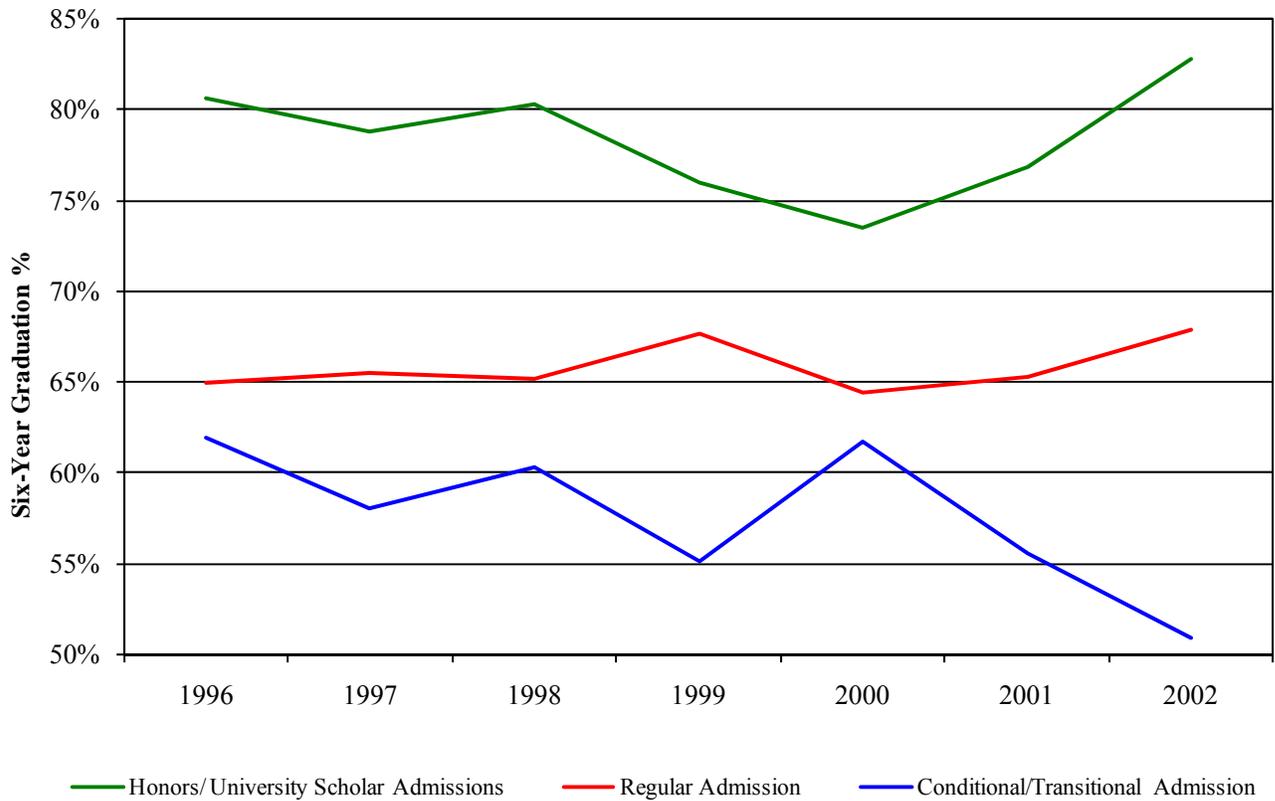
	1996	1997	1998	1999	2000	2001	2002
All	66.9%	65.5%	65.9%	65.9%	65.3%	65.0%	66.4%
Female	68.5%	66.3%	66.6%	68.5%	67.0%	68.3%	66.2%
Male	63.7%	64.1%	64.4%	61.0%	61.3%	57.8%	66.9%

**Table 8. USF Six-Year Graduation Rates for First-Time Freshmen, by Ethnicity, Fall 1996 to Fall 2002, Beginning Cohorts**



	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
African American	63.6%	57.1%	52.0%	65.7%	71.0%	63.2%	51.1%
Asian/Pacific Islander	70.9%	65.2%	73.2%	72.0%	75.6%	72.4%	71.0%
Foreign	67.7%	59.6%	76.6%	53.2%	63.8%	47.2%	69.8%
Hispanic	68.8%	66.7%	64.9%	61.4%	62.0%	68.3%	73.3%
White	64.1%	67.3%	60.2%	63.9%	60.1%	62.1%	61.2%

**Table 9. USF Six-Year Graduation Rates for First-Time Freshmen, by Admission Status, Fall 1996 to Fall 2002, Beginning Cohorts**



	1996	1997	1998	1999	2000	2001	2002
Conditional/Transitional Admission*	61.9%	58.0%	60.3%	55.1%	61.6%	55.5%	50.9%
Honors/ University Scholar Admissions	80.6%	78.7%	80.2%	75.9%	73.5%	76.7%	82.7%
Regular Admission	64.9%	65.4%	65.1%	67.7%	64.5%	65.2%	67.9%

\* Conditional admits were students who did not meet the overall admission criteria because of a low SAT score and/or a low GPA. The last conditional admits were in 2005. Transitional admits began in 2003, and are freshmen students who meet the overall admission criteria, but who have some type of identifiable issue in their files (e.g., English is not their first language, either their math or verbal SAT is disproportionately low, or they come from lower SES communities/high schools.)

### FINANCIAL IMPLICATIONS FOR USF

The financial implications of student attrition are significant. Using a formula developed by the independent research firm of Noel-Levitz, we calculated the unrealized revenue from various hypothetical retention rates among USF’s first-year freshmen. For example, a reduction in first-year attrition from 17.6% to 10.0% among the 1,078 students who entered USF as first-time freshmen in the fall of 2006, would translate into approximately \$4.8 million in unrealized revenue over three years. Even a reduction in first-year attrition rates from 17.6% to 16.0%

would translate into \$1 million in unrealized revenue from the first-time freshman cohort of 2006 (Table 10). These figures do not include other budget considerations, such as travel costs associated with student recruitment, costs of mailings to prospective students, and staff hours devoted to recruitment. It also does not include the loss of future contributions from potential alumni who never become alumni.

**Table 10: First-Year Attrition Rates and Hypothetical Revenue Values, Fall 2006 Cohort\***

First-to-Second Year Retention Rate	Number of Additional Students Retained by Changing Rates			Value of Increasing Retention***			Total
	Year 2	Year 3	Year 4	Year 2	Year 3	Year 4	
82.4%** (actual)	—	—	—	—	—	—	—
84%	17	15	13	\$376,455	\$327,390	\$283,738	\$987,583
85%	28	25	22	\$611,739	\$545,650	\$480,172	\$1,637,561
86%	39	35	31	\$847,023	\$763,910	\$676,606	\$2,287,539
87%	50	45	41	\$1,082,308	\$982,170	\$894,866	\$2,959,344
88%	60	55	50	\$1,317,592	\$1,200,430	\$1,091,300	\$3,609,322
89%	71	64	58	\$1,552,876	\$1,396,864	\$1,265,908	\$4,215,648
90%	82	74	67	\$1,788,161	\$1,615,124	\$1,462,342	\$4,865,627

\* Based on a Fall 2006 first-time freshmen cohort of 1,078

\*\* 190 students lost from cohort

\*\*\* 2006-2007 gross undergraduate tuition revenue = \$140,081,035

2006-2007 institutional financial aid = \$35,226,175

2006-2007 net undergraduate tuition revenue = \$104,854,860

$\bar{X}$  Net tuition per students per year = \$21,826

Source: Noel-Levitz Calculator

### COMPARATIVE BENCHMARKS

A number of benchmarks can be used to compare USF's first-year attrition rates and six-year graduation rates to those of other institutions. For comparative six-year graduation rates, the most recent available data from other institutions are from first-time freshman cohorts that began in the fall of 2001. For first-year retention rates, the most recent available data from other institutions are from freshman cohorts that began in the fall of 2006. First-year retention rates are the converse of first-year attrition rates.

Among the 28 Jesuit colleges and universities, USF was in 19<sup>th</sup> place in one-year retention rates among the first-time fall cohorts beginning in 2006, and was in 21<sup>st</sup> place in six-year graduation rates among the cohorts that began in 2001. USF is more than two percentage points below the one-year retention rate average for all the Jesuit schools, and is more than seven percentage points below the six-year graduation rate average for all the Jesuit schools. Among the West Coast Jesuit Schools (Gonzaga University, Loyola Marymount University, Santa Clara University, and Seattle University), USF has the lowest one-year retention rate, and the lowest six-year graduation rate among the five schools (Table 11).

**Table 11: First-Year Retention Rates\* and Six-Year Graduation Rates\*\* Among First-Time Freshmen at AJCU Schools**

<b>Institution</b>	<b>First Year Retention Rate</b>	<b>6-Year Graduation Rate</b>
<b>Boston College</b>	96.0%	91.0%
<b>Canisius College</b>	80.6%	65.4%
<b>College Holy Cross</b>	94.0%	92.0%
<b>Creighton University</b>	86.0%	75.0%
<b>Fairfield University</b>	88.0%	81.0%
<b>Fordham University</b>	90.0%	80.0%
<b>Georgetown University</b>	96.0%	93.0%
<b>Gonzaga University</b>	91.0%	80.0%
<b>John Carroll University</b>	84.0%	74.0%
<b>Le Moyne College</b>	84.0%	68.0%
<b>Loyola College MD</b>	91.0%	83.0%
<b>Loyola Marymount University</b>	87.0%	74.0%
<b>Loyola University Chicago</b>	84.0%	65.0%
<b>Loyola University New Orleans</b>	78.0%	67.7%
<b>Marquette University</b>	89.0%	75.0%
<b>Regis University</b>	78.1%	56.2%
<b>Rockhurst University</b>	80.0%	65.1%
<b>Saint Joseph's University</b>	88.1%	75.0%
<b>Saint Louis University</b>	82.0%	75.0%
<b>Saint Peter's College</b>	70.1%	46.0%
<b>Santa Clara University</b>	92.1%	84.2%
<b>Seattle University</b>	90.0%	71.0%
<b>Spring Hill College</b>	79.1%	66.0%
<b>University of Detroit Mercy</b>	78.0%	55.8%
<b>University of San Francisco</b>	83.0%	65.2%
<b>University of Scranton</b>	90.0%	77.0%
<b>Wheeling Jesuit University</b>	76.0%	58.0%
<b>Xavier University</b>	88.0%	79.0%
<b>Averages:</b>	<b>85.47%</b>	<b>72.77%</b>

\* For First-time Freshman Beginning in Fall 2006

\*\* For First-time Freshman Beginning in Fall 2001

Source: AJCU Fact File, 2007-2008

A second comparative benchmark is derived from the Carnegie Foundation for the Advancement of Teaching classification scheme for colleges and universities. The original Carnegie classification framework was first released in 1970, has gone through two major revisions, and is now the leading typology of all accredited colleges and universities in the United States, using data derived from the U.S. Department of Education, the National Science Foundation, and the College Board. In the 2005 classification scheme, USF can be compared to other schools that are classified as *private not-for-profit, four-year or above, and doctoral/research universities*. Nationwide, there are 38 institutions that are in this same classification as USF, 37 of which have posted their six-year graduation rates from the 2001 first-time freshman cohort. Among those 37 schools, USF is tied for 12<sup>th</sup> place in overall six-year graduation rates (Table 12). USF was 5<sup>th</sup> in six-year graduation rates among African American and Hispanic students, however, and 9<sup>th</sup> among Asian American students. For White students, USF placed 19<sup>th</sup> among comparable schools (Table 12A).

As a third benchmark at the national level, the federal government reports that among all first-time freshman entering 4-year institutions of higher education in the fall of 2000 (the most recent available data), the six-year graduation rate was 56.4%. Among all of the nation's 1,533 private nonprofit 4-year institutions, the six-year graduation rate among first-time freshman entering in the fall of 2000 was 63.8%. At USF, the six-year graduation rate for first-time freshmen entering in the fall of 2000 was 65.0%.

**Table 12. Six-Year Graduation Rates\* Among First-Time Freshmen at Schools in the same Carnegie Classification as USF, Overall and by Gender**

Institution Name	6 Year Overall Graduation Rate		6 Year Graduation Rate by Gender			
		Rank	Male	Rank	Female	Rank
Pepperdine University	79%	1	76%	2	82%	2
Worcester Polytechnic Institute	76%	2	74%	3	84%	1
University of San Diego	74%	3	77%	1	72%	7
Duquesne University	73%	4	65%	8	77%	3
American University	73%	4	73%	4	73%	6
University of St Thomas	72%	6	71%	5	72%	7
Southern Methodist University	71%	7	66%	7	75%	4
Biola University	71%	7	65%	8	74%	5
Texas Christian University	69%	9	65%	8	72%	7
Immaculata University	68%	10	-	-	67%	13
Samford University	67%	11	64%	11	68%	10
University of San Francisco	65%	12	58%	15	68%	10
Azusa Pacific University	65%	12	63%	12	66%	15
Pacific University	63%	14	54%	19	67%	13
Adelphi University	63%	14	56%	17	65%	16
George Fox University	62%	16	59%	14	65%	16
DePaul University	62%	16	61%	13	63%	20
The New School	61%	18	58%	15	63%	20
University of the Pacific	60%	19	67%	6	68%	10
St. John's University-New York	60%	19	55%	18	65%	16
University of La Verne	59%	21	49%	22	64%	19
Seton Hall University	57%	22	54%	19	60%	25
University of Hartford	54%	23	51%	21	58%	27
Saint Mary's University of Minnesota	53%	24	42%	30	63%	20
Hofstra University	53%	24	48%	24	59%	26
Pace University-New York	53%	24	48%	24	57%	28
Andrews University	52%	27	44%	28	63%	20
Widener University-Main Campus	52%	27	43%	29	63%	20
Oral Roberts University	52%	27	48%	24	55%	29
Trevecca Nazarene University	49%	30	46%	27	51%	30
Trinity International University	47%	31	41%	31	50%	31
Nova Southeastern University	47%	31	49%	22	45%	34
Union Institute & University	47%	31	-	-	38%	36
University of Bridgeport	43%	34	35%	33	47%	32
Long Island University-C W Post Campus	42%	35	34%	34	47%	32
Barry University	39%	36	39%	32	41%	35
Wilmington University	35%	37	30%	36	38%	37
Spalding University	24%	38	31%	35	21%	38
<b>Average:</b>	<b>58%</b>		<b>54%</b>		<b>61%</b>	
Total: 38						

\*Data for freshman beginning in Fall 2001

Source: IPEDS/College Navigator

**Table 12A. Six-Year Graduation Rates\* Among First-Time Freshmen at Schools in the same Carnegie Classification as USF, by Ethnicity**

Institution Name	6 Year Graduation Rate by Ethnicity											
	White/ Non Hispanic	Rank	Black/ Non Hispanic	Rank	Hispanic	Rank	Asian/ Pacific Islander	Rank	Other	Rank	Non- Resident, Alien	Rank
Pepperdine University	80%	1	81%	2	76%	2	86%	2	83%	1	67%	6
University of San Diego	76%	3	43%	23	66%	5	77%	6	83%	1	76%	1
Worcester Polytechnic Institute	76%	2	-	-	59%	9	82%	3	53%	15	71%	4
American University	75%	4	71%	4	79%	1	74%	7	68%	5	63%	10
Duquesne University	73%	4	60%	9	58%	10	67%	13	64%	7	76%	1
University of St Thomas	73%	6	83%	1	57%	12	66%	16	60%	9	30%	24
Biola University	72%	7	61%	7	72%	3	68%	11	-	-	67%	6
Southern Methodist University	72%	7	55%	10	71%	4	81%	4	-	-	61%	12
University of the Pacific	71%	9	53%	11	62%	8	65%	17	70%	4	52%	19
Texas Christian University	70%	10	61%	7	63%	7	81%	4	62%	8	66%	8
St. John's University-New York	69%	11	53%	11	56%	17	62%	18	53%	15	42%	21
Immaculata University	68%	12	-	-	-	-	-	-	-	-	-	-
Adelphi University	68%	12	52%	14	54%	18	50%	23	60%	9	63%	10
Samford University	67%	14	77%	3	-	-	-	-	53%	15	-	-
Azusa Pacific University	66%	15	53%	11	57%	12	59%	19	71%	3	65%	9
Long Island University-C W Post Campus	65%	16	-	-	-	-	-	-	42%	22	-	-
DePaul University	65%	16	48%	17	57%	12	67%	13	57%	12	71%	4
George Fox University	63%	18	-	-	-	-	-	-	-	-	-	-
University of San Francisco	62%	19	66%	5	66%	5	73%	9	66%	6	48%	20
Seton Hall University	62%	19	50%	16	52%	19	58%	20	49%	21	40%	22
The New School	61%	21	52%	14	57%	12	70%	10	52%	18	72%	3
Pacific University	60%	22	-	-	-	-	74%	7	-	-	-	-
University of La Verne	57%	23	63%	6	57%	12	67%	13	59%	11	-	-
University of Hartford	56%	24	47%	19	50%	21	50%	23	50%	20	55%	16
Pace University-New York	56%	24	46%	21	44%	24	68%	11	57%	12	15%	26
Saint Mary's University of Minnesota	55%	26	-	-	-	-	-	-	38%	23	-	-
Widener University-Main Campus	54%	27	33%	26	-	-	50%	23	51%	19	-	-
Hofstra University	54%	27	46%	21	49%	22	56%	22	56%	14	58%	13
Andrews University	53%	29	48%	17	45%	23	88%	1	-	-	56%	14
Oral Roberts University	53%	29	47%	19	58%	10	40%	26	-	-	36%	23
Trevecca Nazarene University	49%	31	-	-	-	-	-	-	-	-	-	-
Trinity International University	48%	32	-	-	-	-	-	-	-	-	-	-
University of Bridgeport	45%	33	31%	27	20%	26	-	-	-	-	55%	16
Nova Southeastern University	43%	34	39%	24	51%	20	57%	21	-	-	56%	14
Wilmington University	41%	36	20%	28	-	-	-	-	33%	24	-	-
Barry University	41%	35	37%	25	40%	25	-	-	21%	26	53%	18
Spalding University	22%	37	9%	29	-	-	-	-	28%	25	27%	25
<b>Average:</b>	<b>61%</b>		<b>51%</b>		<b>57%</b>		<b>67%</b>		<b>55%</b>		<b>55%</b>	

Total: 37

\*Data for freshman beginning in Fall 2001

Source: IPEDS/College Navigator

## USF RESEARCH ON FACTORS ASSOCIATED WITH ATTRITION

### Academic Performance

Decades of national research indicates that academic performance during students' first-year of college is strongly associated with persistence to graduation. For example, a study by the National Center for Education Statistics (2006) followed a large national sample of students, from 1988 to 2000, beginning when the students were in the 8th grade. The study examined selected variables that correlated with success in completing a bachelor's degree. Among the students who enrolled in college, the study found that earning grades that placed the student in the top 40% of first-year GPA for the whole freshman cohort was positively correlated with degree completion; excessive withdrawals from courses without penalty significantly reduced the probability of degree completion; completing less than 20 units of credit by the end of the first calendar year of enrollment negatively correlated with degree completion; earning credits during summer sessions had a consistently positive relationship to degree completion; and continuous enrollment in college, even on a part-time basis, with no stop-out periods, significantly increased the probability of degree completion. The federal study also found that formal transfer from one four-year college to another was positively associated with degree completion, but that frequent wandering from one school to another, or "swirling" was not.

In a study of 11,000 students at 18 colleges and universities, researchers at Indiana University (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007) found that first-year college GPA had a positive but diminishing effect on the probability of returning for the second year for students whose GPA was no greater than 3.25. The first-year average GPA of the students in the study was 3.04. The researchers found that for students who attain grades above 3.25, the probability of returning for the second year decreased exponentially. The effect of first year grades on retention was curvilinear and statistically significant.

To date, USF institutional research has found:

- ***Continuing and non-continuing students differ significantly in their average GPA obtained at USF.*** The average GPA of 2,469 continuing students from the first-time freshman cohorts of 2004, 2005, and 2006 at the end of their freshman year was 3.07. The average GPA of the 453 non-continuing students was 2.73. This difference was statistically significant ( $p < .001$ ).
- ***A grade of D or below during the fall semester of the freshman year or during the fall and spring semesters of the freshman year was associated with one-year attrition.*** Among the non-continuing students who earned a D or below during their first fall semester or during their first fall and spring semesters, 23.3% did not return to USF for their second year, whereas 12.2% of the continuing student earned a D or below during their first fall or during their first fall and spring semesters (Table 13).

**Table 13. Grade of D or Below During First Year among Continuing and Non-Continuing First-Time Freshmen, Cohorts 2004–2006**

	Non-continuing		Continuing	
	N	%	N	%
No D or below	362	76.7%	2,169	87.8%
D or below during 1st Year	110	23.3%	302	12.2%
Total	472	100%	2,471	100.0%

p<.001, Mann-Whitney U test

- ***Withdrawing from one or more classes during the freshman year was associated with one-year attrition.*** Among the non-continuing students from the fall 2004, 2005, and 2006 cohorts, 29.9% withdrew from one or more classes after census date during their first year, whereas 19.8% of the continuing students withdrew from classes after census date (p<.001, Mann-Whitney U test).
- ***Earning 20 units or less of academic credit during the freshman year was associated with one-year attrition.*** Among the non-continuing students from the fall 2004, 2005, and 2006 cohorts, 19.2% earned 20 units or less of academic credit during their first year, whereas 3.4% of the continuing students earned 20 units or less during their first year (Table 14).

**Table 14. Comparison of Continuing and Non-Continuing Students who Earned 20 Units of Academic Credit or Less During the First Year, First-Time Freshmen, Cohorts 2004-2006**

	20 Units or less		More than 20 Units		Total	
	N	%	N	%	N	%
Continuing	83	3.4%	2368	96.6%	2451	100.0%
Non-continuing	60	19.2%	252	80.8%	312	100.0%
Total	143		2620		2763	

p<.001, Mann-Whitney U test

As potential variables affecting first-year attrition rates, consideration was also given to the High School GPA and SAT scores of entering freshman. The results were:

- ***High School GPA is an insufficient explanation for attrition during the freshman year.*** For the 2004, 2005, and 2006 first-time freshman cohorts, students on both ends of the High School GPA continuum left USF by the end of the first year by a larger percentage than those in the middle range. On the higher end of the GPA range, 40.1% of USF’s non-continuing first-year students had a High School GPA greater than 3.50. On the lower end of the GPA range, 34.6% of USF’s non-continuing students had a High School GPA less than 3.25. In the middle range, 25.3% of non-continuing students from the 2004, 2005, and 2006 entering cohort had high school GPAs of 3.25 to 3.50. Among the continuing students, 46.9% had a High School GPA above 3.50, 29.0% had a High School GPA below 3.25, and 24.1% were in the middle range of 3.25 to 3.50 (Table 15).

**Table 15. High School GPA Ranges Among USF Continuing and Non-Continuing Students in the First-Time Freshmen Cohorts 2004–2006**

HS GPA Range	Non-continuing		Continuing		Total
	N	%	N	%	N
<3.25	163	34.6%	716	29.0%	879
3.25-3.5	119	25.3%	594	24.1%	713
>3.5	189	40.1%	1,156	46.9%	1345
Total	471	100.0%	2,466	100.0%	2937

- SAT scores are an insufficient explanation for attrition rates during the freshman year.* For the 2004, 2005, and 2006 first-time freshman cohorts, SAT scores at the 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentile in math were the same for continuing and non-continuing students. The verbal SAT scores were actually 10 points higher for the non-continuing students than the continuing students at the 25<sup>th</sup> and 75<sup>th</sup> percentiles (Tables 16 and 17).

**Table 16. Comparison of Math SAT score at the 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentile for Non-Continuing and Continuing Students, Cohort 2004-2006**

	Non-Continuing Students	Continuing Students
25th percentile	510	510
50th percentile	560	560
75th percentile	610	610

**Table 17. Comparison of Verbal SAT score at the 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentile for Non-Continuing and Continuing Students, Cohort 2004-2006**

	Non-Continuing Students	Continuing Students
25th percentile	510	500
50th percentile	560	560
75th percentile	610	600

- Among non-continuing students in the Fall 2004 cohort with a first-year cumulative USF GPA of 3.5 or higher, more than 48% transferred to schools rated higher than USF by U.S. News & World Report, whereas more than 55% of the non-continuing students with a cumulative USF GPA of 2.5 or lower transferred to a community college.* Schools rated higher than USF to which USF students from the fall 2004 cohort transferred included the University of Southern California, Washington University in St. Louis, University of Minnesota-Twin Cities, Fordham University, and Marquette University.

### **Financial Aid Factors**

Financial aid and other finance-related factors have been researched in recent years as a variable associated with persistence among college students. One review on financial aid and college

persistence concluded that finance-related factors such as amount of financial aid received, tuition, living expenses, and other costs, explained about half of the variance in student persistence (St. John et al, 2000). At the same time, researchers have found that the type of student financial aid makes a difference: students who received a financial aid package made up of grants or with a high ratio of grants to loans demonstrated a higher level of persistence than students who received no grants or who had a low ratio of grants to loans (St. John, 1989, 1990; Somers, 1996). Other studies have also found that students with inadequate financial aid, or who attend schools they cannot afford, are more likely to drop out (St. John, 2003, Choy, 2002).

Research also shows that unmet financial need and students' perceptions and fears about financial difficulties may have a negative influence on retention. For example, a study of 11,000 students attending 18 colleges and universities found a statistically significant relationship between students who had an unmet need that was 10% or more of the total cost of college attendance and attrition rates at the end of the first year (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007). A study by the National Center for Education Statistics (2006), however, found that the effect of grants and federal work-study were inconclusive as to their impact on student persistence. The federal researchers found that for a large 1982 national cohort that was followed through college, grants and work-study were modestly significant contributors to student persistence. By contrast, the data on financial support for an equally large 1992 cohort failed to show a significant relationship. Other single institution studies have found no relationship between student financial aid and persistence (Braunstein, McGrath & Pescastrice, 2000; Somers, 1995).

To date, USF institutional research has found the following relationships between financial aid and persistence:

- ***In phone interviews, the most frequent reasons students gave for leaving USF were financial, followed closely by academic reasons.*** Among 56 non-continuing students from the fall 2004 cohort who were interviewed, 18 cited financial reasons for leaving USF, and 17 mentioned academic reasons. Several students said they had a good experience at USF, but could not afford to stay. Some students reported that academic difficulties were the reason they left, but several students said that they were not sufficiently challenged academically. Three students cited both financial and academic reasons for their departure. Phone interviews were also conducted among 19 of the 26 honors students and university scholars from the fall 2006 cohort who did not return to USF in the fall of 2007. Ten of those students said that tuition was too high for what they could afford (the most frequent response), and three of those ten also said there was inadequate financial aid.
- ***The average unmet financial need for non-continuing freshman in the 2004 through 2006 cohorts was \$12,211, whereas the average unmet need for continuing students was \$8,320.*** In an analysis of 854 freshmen from the 2004 through 2006 entering cohorts who had an unmet financial need, we found that the median unmet need for those that left was \$4,323 greater than those who continued, and that 25% of those that left before the beginning of their sophomore year had an unmet need greater than \$18,186 (Table 18).

**Table 18. Descriptive Statistics of Unmet Need for Continuing and Non-Continuing Students, Fall Cohorts 2004, 2005, 2006**

	N	Mean	Standard Deviation	25 <sup>th</sup> percentile	50 <sup>th</sup> percentile	75 <sup>th</sup> percentile
Non-Continuing students	145	\$12,210.85	\$9,815.76	\$4,078.00	\$10,918.00	\$18,186.50
Continuing students	709	\$8,320.41	\$7,226.15	\$3,464.15	\$6,595.00	\$10,550.00

- *Within the populations of continuing and non-continuing freshman who had unmet financial need, there were marked differences in the amount of that unmet need, by range, associated with retention or attrition.* For example, among those freshmen who left USF and had an unmet financial need, almost 30% had an unmet need between \$20,000 and \$35,000. Among those freshmen that continued at USF, only 9.4% had an unmet need between \$20,000 and \$35,000 (Table 19).

**Table 19. Within-Population Comparison of Continuing and Non-Continuing Students' Unmet Need, Fall 2004, 2005, 2006 Cohorts**

Amount of Unmet Need*	Non-Continuing Students		Continuing Students	
	N	%	N	%
<=\$5,000	60	26.3%	433	32.7%
\$10,000 to \$15,000	43	18.9%	515	38.9%
\$15,000 to \$20,000	38	16.7%	218	16.5%
\$20,000 to \$25,000	28	12.3%	64	4.8%
\$25,000 to \$30,000	24	10.5%	38	2.9%
\$30,000 to \$35,000	16	7.0%	22	1.7%
\$35,000 to \$40,000	10	4.4%	24	1.8%
>=\$40,000	9	3.9%	11	0.8%
Total	228	100%	1,325	100%

- *Among non-continuing students, an unmet need of \$15,000 or greater (more than 35% of the average total cost per year of a USF education from 2004 to 2007) was associated with a sharp increase in the percentage of students who did not continue past their freshman year.* Among all 558 freshmen in the 2004 through 2006 cohorts who had an unmet need of \$5,000 to \$10,000, 7.7% did not continue at USF into their sophomore year, whereas 92.3% did continue. Among all 256 freshmen in the 2004 through 2006 cohorts who had an unmet need of \$10,000 to \$15,000, 14.8% did not continue at USF into their sophomore year, whereas 85.2% did continue. Once \$20,000 of unmet need was reached, the percentage of non-continuing students rose dramatically, with a 30.4% first-year attrition rate among those freshmen whose unmet need was between \$20,000 and \$25,000 (Table 20).

**Table 20. Across-Population Comparison of Continuing and Non-Continuing Students Unmet Need, Fall 2004, 2005, 2006 Cohorts**

Amount of Unmet Need	Non-Continuing Students	Continuing Students	Total number of students	Non-continuing Students	Continuing students	Total
	N	N	N	%	%	%
<=\$5,000	60	433	493	12.2%	87.8%	100.0%
\$10,000 to \$15,000	43	515	558	7.7%	92.3%	100.0%
\$15,000 to \$20,000	38	218	256	14.8%	85.2%	100.0%
\$20,000 to \$25,000	28	64	92	30.4%	69.6%	100.0%
\$25,000 to \$30,000	24	38	62	38.7%	61.3%	100.0%
\$30,000 to \$35,000	16	22	38	42.1%	57.9%	100.0%
\$35,000 to \$40,000	10	24	34	29.4%	70.6%	100.0%
> \$40,000	9	11	20	45.0%	55.0%	100.0%
Total	228	1,325	1,553	15%	85%	100.0%

- *Freshmen who received certain types of grants (Pell grants, Cal grants, University Merit Scholarships) were more likely to continue at USF into their sophomore year than freshmen who did not receive grants.* In an analysis of 2,943 first time-freshmen from the 2004 through 2006 cohorts, it was found that 88.4% of those freshmen who received Pell Grants, Cal Grants, or University Merit Scholarships continued into their sophomore year, whereas 82.2% of the freshmen who did not receive those grants continued into their sophomore year (Table 21).

**Table 21. Comparison of students who did or did not receive select grants<sup>1</sup> and first year attrition, Fall 2004, 2005, 2006 cohorts**

	Received grants		Did not receive grants	
	N	%	N	%
Non-Continuing students	95	11.6	377	17.8
Continuing students	726	88.4	1745	82.2
Total	821	100.0	2122	100.0

- *Freshmen who received certain types of grants (Pell grants, Cal grants, University Merit Scholarships) and enough additional financial aid to cover their university determined financial need were slightly more likely to continue into their sophomore year than freshmen who received grants but not enough additional financial aid to cover their university-determined financial need.* In an analysis of 820 first time-freshmen from the

<sup>1</sup> Pell, Cal, or Merit

2004 through 2006 cohorts, it was found that 90.1% of those freshmen who received grants and enough additional financial aid to cover their university-determined financial need continued into their sophomore year, whereas 88.1% of the freshmen who received grants but not enough additional financial aid to cover their university-determined financial need continued into their sophomore year (Table 22).

**Table 22. Freshmen who received grants<sup>1</sup> but did receive sufficient financial aid to cover their need, compared to freshmen who did receive grants and did not receive sufficient financial aid to cover their need, Fall 2004, 2005, 2006 cohorts**

	Did receive grants <sup>1</sup> and enough financial aid to cover need		Did receive grants <sup>1</sup> but did not receive enough financial aid to cover need	
	N	%	N	%
Non-Continuing students	12	9.9%	83	11.9%
Continuing students	109	90.1%	616	88.1%
Total	121	100.0%	699	100.0%

- *Within several unmet financial need ranges, freshmen who received select grants were more likely to continue into their sophomore than those who did not receive a grant.* Among all non-continuing students in the 2004 through 2006 cohorts, those with unmet needs of less than \$5,000, \$15,000 to \$20,000, and \$20,000 to \$25,000, who received select grants (Pell, Cal, or University Merit Scholarships) were less likely to leave USF by their sophomore year than those who did not receive grants ( Table 23)

**Table 23: Comparison of Non-Continuing students who received grants<sup>1</sup> but did not receive sufficient financial aid to cover their need, Fall 2004, 2005, 2006 cohorts**

Amount	Non-Continuing Students with Select Grants		Non-Continuing Students without Select Grants	
	N	%	N	%
<=\$5,000	15	18.1%	45	31.0%
\$10,000 to \$15,000	20	24.1%	23	15.9%
\$15,000 to \$20,000	11	13.3%	27	18.6%
\$20,000 to \$25,000	5	6.0%	23	15.9%
\$25,000 to \$30,000	14	16.9%	10	6.9%
\$30,000 to \$35,000	7	8.4%	9	6.2%
\$35,000 to \$40,000	8	9.6%	2	1.4%
> \$40,000	3	3.6%	6	4.1%
Total	83	100.0%	145	100%

Overall, we conclude that financial aid factors have a relationship to retention particularly for those students who have high need or relatively high unmet need. We especially note that the

receipt of a select grant, somewhat irrespective of the amount of financial need, may have a positive impact on student retention.

### **The Role of Social and Academic Integration: Freshman Seminars, Linked Courses, and Living-Learning Communities**

The term *social integration* is derived from the work of Vincent Tinto (1993,1996) who developed a widely used model on student attrition. Students who face identical intellectual and financial obstacles, according to Tinto, can vary enormously in their likelihood to depart based on how well they feel they fit into a particular college environment. Based on this model, there is research to suggest that good peer networks and close friendships have a positive influence on student retention, as do involvement in student activities, clubs, and social events, especially during the students' first year of college. Indeed, research (Gardner, 2008; Barefoot, 2008; Tinto, 1996; Kuh et. al., 2007) shows that the first year experience is crucial in retaining students. Based on Tinto's model, learning communities, as a stimulus to social integration, have been the focus of research on student retention and graduation. This research demonstrated that students who participated in learning communities were more engaged overall, had higher persistence rates, and evidenced greater intellectual development and social development compared with peers who did not participate in learning communities. A study (Zhao & Kuh, 2004) of 365 four-year institutions found that participating in a learning community was positively linked to student engagement as well as to students' reported achievement of learning outcomes and overall satisfaction with college.

#### **Freshman Seminars**

For the past 20 years, a growing body of research has generally shown a significant difference in retention rates among college students from the freshman to sophomore year associated with enrollment in freshman seminars. In several studies, using different methodologies, and holding possible intervening variables constant, retention rates during the first year of college have often been shown to be higher among students enrolled in freshman seminars than among students not enrolled in freshman seminars (Fidler and Hunter, 1989, Barefoot, 1993, Miller and Janz, 2007). These outcomes have not, however, been universal in the research literature. Some studies have shown no relationship between participation in a freshman seminar and second-year retention (Handel, 2001), while other studies have found no relationship between retention and participation in a freshman seminar unless the seminar was linked to a special cluster course program (Barefoot, 1998). Other studies have examined possible interactive effects, such as pre-college academic preparation. For example, Miller and Janz (2007) found that students of all entering academic ability levels generally benefited from participation in a first-year seminar, and no significant interaction effects were found based on entering academic ability level.

During AY2008-09 the Office of Institutional Research at USF conducted a study of the role of enrollment in freshman seminars on retention rates from the freshman to the sophomore year among all first-time freshmen in the Fall 2004, 2005, and 2006 cohorts. The major finding in the freshman seminar analysis was that among all first-time freshmen in the combined Fall 2004 through Fall 2006 cohorts who enrolled in a freshman seminar, 87.3% continued at USF into their

second year, whereas among those first-time freshmen that did not enroll in a freshman seminar, 83.4% continued at USF into their second year (Table 24). The difference in attrition rates between the two groups was statistically significant ( $\chi^2=3.913$ ,  $p<.05$ ).

**Table 24. One-Year Retention and Participation in a Freshman Seminar, Combined Fall Cohorts 2004-2006**

First-Time Freshmen	Participated in Freshman Seminar		Did not participate in Freshman Seminar	
	N	%	N	%
Non-continuing	53	12.7%	419	16.6%
Continuing	363	87.3%	2108	83.4%
Total	416	100%	2527	100%

$p<.05$

Overall, we conclude that successful completion of a freshman seminar has a modest relationship to retention, and may serve as one of many contributing factors in helping to explain which freshmen are most likely to continue at USF into a second year. As one student who took a freshman seminar stated in a focus group interview: “I took one my first semester ... and I think that really actually helped with my socialization, especially being a commuter student. It was a very small class. There were 16, and I still talk to most if not all the students from that class.”

### **Linked Courses and Student Persistence**

In the fall of 2008, we considered several additional variables to the analysis of freshman retention in the 2004-2006 cohorts, including persistence among students who did or did not participate in linked written/oral communication courses (0102-130/131). Written and Oral Communication (130/131) is an accelerated two-semester course, with 4 credit hours per semester. When completed with a grade of C- or better, the linked courses meet the university requirement for rhetoric and composition and for public speaking (Core Curriculum areas A1 and A2).

The major finding of our study was that among all first-time freshmen in the combined Fall 2004 through Fall 2006 cohorts who successfully completed the linked written and oral communication courses with a C- or better, 93% continued at USF into their second year, whereas among those first-time freshmen that did not enroll in a these linked courses, 82.0% continued at USF into their second year (Table 25). The difference in attrition rates between the two groups was statistically significant ( $\chi^2=38.04$ ,  $p<.001$ ).

**Table 25. One-Year Persistence and Participation in Linked Written/ Oral Communication Courses (0102-130/131)\*, Fall Cohorts 2004-2006**

	Successfully completed linked written and oral communication courses		Did not participate in linked written and oral communication courses	
	N	%	N	%
Non-continuing	36	7.0%	434	18.0%
Continuing	479	93.0%	1980	82.0%
Total	515	100%	2414	100%

p<.001

\*0102-230/231 (2004, 2005)

In addition to enhancing students' writing and speaking abilities, two critical skills in college success, we believe that the linked courses over the course of two semesters fosters a sense of community among the students and greater mentoring possibilities for the instructor. As such, this linked course sequence may fall approximately midway on the continuum between living learning communities and freshman seminars in promoting community among students, fostering instructor mentoring, and enhancing other qualities, which our prior research has shown to be associated with student persistence.

### **Student Engagement and Student Satisfaction**

In recent years, the National Survey of Student Engagement (NSSE) has become a major tool throughout higher education to measure the degree to which students participate in educational practices that are linked to valued outcomes at college, including persistence to graduation. Researchers at the University of Indiana who developed the NSSE have found statistically significant positive correlations between graduation rates and the following NSSE benchmarks: academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and a supportive campus environment. In a study of 11,000 students attending 18 baccalaureate-granting institutions (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007), researchers found that student engagement, as measured by the NSSE, had a positive, statistically significant effect on grades and persistence between the first and second years of study for students from different racial and ethnic backgrounds.

USF has used the NSSE with its entering freshmen and graduating seniors for the past five years. To date, we have found the following links between student engagement and attrition:

- ***Non-continuing student are more likely to evaluate their entire educational experience as poor or fair than continuing students.*** Among the non-continuing students from the freshman cohorts of 2004, 2005, and 2006 who completed the NSSE, 33.9% said their entire educational experience at USF was poor or fair. By contrast, among the continuing students, 12.3% rated the entire educational experience as poor or fair (Table 26). This difference was statistically significant by the Mann-Whitney U Test (p<.05), using the

median of the students' ranked responses to that NSSE item. It should be noted that non-continuing *and* continuing students who said that their entire educational experience was poor were more likely to say that they were not academically challenged; that the campus environment was poor; that faculty were more likely to be unavailable, unhelpful, or unsympathetic; that academic advising was poor; and that they were less likely to talk to an advisor or faculty member about career plans. Non-continuing students were also less likely to participate in a community-based project (e.g., service-learning) during their first year than were continuing students, though the difference just missed statistical significance at the .05 level. The significant differences between the continuing and non-continuing students in the median of their ranked responses to various NSSE items using the Mann-Whitney U Test are presented in tables 26 to 31, along with some of the findings that reveal patterns but missed statistical significance.

**Table 26. Responses by Continuing and Non-Continuing Students, Cohorts 2004-2006, to the NSSE Item: *How would you evaluate your entire educational experience at this institution?\****

	Non-continuing		Continuing	
	N	%	N	%
Poor / Fair	19	33.9%	61	12.3%
Good/ Excellent	37	66.1%	434	87.7%
<b>Total</b>	<b>56</b>	<b>100%</b>	<b>495</b>	<b>100%</b>

\* p<.05, Mann-Whitney U test

**Table 27. Responses by Continuing and Non-Continuing Students, Cohorts 2004-2006, to the NSSE Item: *Participated in a community-based project (e.g., service learning) as part of a regular course.***

	Non-continuing		Continuing	
	N	%	N	%
Never/ Sometimes	62	93.9%	543	84.6%
Often/ Very Often	4	6.1%	99	15.4%
<b>Total</b>	<b>66</b>	<b>100%</b>	<b>642</b>	<b>100%</b>

**Table 28. Responses by Continuing and Non-Continuing Students, Cohorts 2004-2006, to the NSSE Item: *[USF provides] the support you need to help you succeed academically.***

	Non-continuing		Continuing	
	N	%	N	%
Never/ Sometimes	17	28.3%	98	16.3%
Often/ Very Often	43	71.7%	502	83.7%
<b>Total</b>	<b>60</b>	<b>100%</b>	<b>600</b>	<b>100%</b>

**Table 29. Responses by Continuing and Non-Continuing Students, Cohorts 2004-2006, to the NSSE Item: *Worked harder than you thought you could to meet an instructor's standards or expectations.***

	Non-continuing		Continuing	
	N	%	N	%
Never/ Sometimes	36	56.3%	283	44.8%
Often/ Very Often	28	43.8%	349	55.2%
<b>Total</b>	<b>64</b>	<b>100%</b>	<b>632</b>	<b>100%</b>

**Table 30. Responses by Continuing and Non-Continuing Students, Cohorts 2004-2006, to the NSSE Item: *Overall, how would you evaluate the quality of academic advising you have received at your institution?***

	Non-continuing		Continuing	
	N	%	N	%
Poor / Fair	22	37.9%	169	28.7%
Good/ Excellent	36	62.1%	419	71.3%
<b>Total</b>	<b>58</b>	<b>100%</b>	<b>588</b>	<b>100%</b>

**Table 31. Responses by Continuing and Non-Continuing Students, Cohorts 2004-2006, to the NSSE Item: *Talked about career plans with a faculty member or advisor.***

	Non-continuing		Continuing	
	N	%	N	%
Never/ Sometimes	55	82.1%	498	77.6%
Often/ Very Often	12	17.9%	144	22.4%
<b>Total</b>	<b>67</b>	<b>100%</b>	<b>642</b>	<b>100%</b>

- *Non-continuing students and continuing students responded differently to specific measures of student satisfaction on the Student Satisfaction Inventory (SSI).* The Student Satisfaction Inventory (SSI), developed by the independent firm of Noel-Levitz, seeks to assess what is important to students and how satisfied they are with various aspects of the college or university they attend. A random sample of first-time freshmen from the AY2006-2007 cohort were administered the SSI, and several significant differences were found between the responses of the continuing and non-continuing students (based on their fall 2008 enrollment). In comparison to continuing students, non-continuing students were less likely to feel a sense of belonging at USF, had a less enjoyable experience on the campus, had less of a sense of pride about the campus, felt they experienced less intellectual growth, were made to feel less welcome on campus, were more dissatisfied with their overall experience, and were more likely to feel that the school did not meet their expectations. These significant differences, using the Mann-Whitney U Test, are portrayed in tables 32 through 40.

**Table 32. Responses by Continuing and Non-Continuing Students, Fall 2006 Cohort, to the SSI Item: *Most students feel a sense of belonging here.***

	Dissatisfied		Adequate		Satisfied		Total	
	N	%	N	%	N	%	N	%
Continuing	33	16.7%	31	15.7%	134	67.7%	198	100.0%
Non-continuing	9	45.0%	5	25.0%	6	30.0%	20	100.0%

p<.01, Mann-Whitney U test

**Table 33. Responses by Continuing and Non-Continuing Students, Fall 2006 Cohort, to the SSI Item: *It is an enjoyable experience to be a student on this campus.***

	Dissatisfied		Adequate		Satisfied		Total	
	N	%	N	%	N	%	N	%
Continuing	21	10.7%	23	11.7%	153	77.7%	197	100.0%
Non-continuing	9	45.0%	5	25.0%	6	30.0%	20	100.0%

p<.001, Mann-Whitney U test

**Table 34. Responses by Continuing and Non-Continuing Students, Fall 2006 Cohort, to the SSI Item: *I feel a sense of pride about my campus.***

	Dissatisfied		Adequate		Satisfied		Total	
	N	%	N	%	N	%	N	%
Continuing	24	12.5%	34	17.7%	134	69.8%	192	100.0%
Non-continuing	8	36.4%	8	36.4%	6	27.3%	22	100.0%

p<.001, Mann-Whitney U test

**Table 35. Responses by Continuing and Non-Continuing Students, Fall 2006 Cohort, to the SSI Item: *I am able to experience intellectual growth here.***

	Dissatisfied		Adequate		Satisfied		Total	
	N	%	N	%	N	%	N	%
Continuing	16	8.2%	18	9.2%	162	82.7%	196	100.0%
Non-continuing	4	20.0%	7	35.0%	9	45.0%	20	100.0%

p<.001, Mann-Whitney U test

**Table 36. Responses by Continuing and Non-Continuing Students, Fall 2006 Cohort, to the SSI Item: *Students are made to feel welcome on this campus.***

	Dissatisfied		Adequate		Satisfied		Total	
	N	%	N	%	N	%	N	%
Continuing	14	8.9%	37	23.4%	107	67.7%	158	100.0%
Non-continuing	6	30.0%	6	30.0%	8	40.0%	20	100.0%

p<.001, Mann-Whitney U test

**Table 37. Responses by Continuing and Non-Continuing Students, Fall 2006 Cohort, to the SSI Item: *I seldom get the 'run-around' when seeking information on this Campus.***

	Dissatisfied		Adequate		Satisfied		Total	
	N	%	N	%	N	%	N	%
Continuing	55	30.6%	22	12.2%	103	57.2%	180	100.0%
Non-continuing	11	57.9%	6	31.6%	2	10.5%	19	100.0%

p<.01, Mann-Whitney U test

**Table 38. Responses by Continuing and Non-Continuing Students, Fall 2006 Cohort, to the SSI Item: *USF meets my expectations for a quality education.***

	Dissatisfied		Adequate		Satisfied		Total	
	N	%	N	%	N	%	N	%
Continuing	18	9.3%	14	7.2%	162	83.5%	194	100.0%
Non-continuing	8	40.0%	3	15.0%	9	45.0%	20	100.0%

p<.001, Mann-Whitney U test

**Table 39. Responses by Continuing and Non-Continuing Students, Fall 2006 Cohort, to the SSI Item: *So far, how has your college experience met your expectation?***

	Worse than I expected		About what I expected		Better than I expected		Total	
	N	%	N	%	N	%	N	%
Continuing	38	19.1%	80	40.2%	81	40.7%	199	100.0%
Non-continuing	12	60.0%	7	35.0%	1	5.0%	20	100.0%

p<.001, Mann-Whitney U test

**Table 40. Responses by Continuing and Non-Continuing Students, Fall 2006 Cohort, to the SSI Item: *Rate your overall satisfaction with your experience here thus far?***

	Dissatisfied		Adequate		Satisfied		Total	
	N	%	N	%	N	%	N	%
Continuing	29	14.6%	24	12.1%	146	73.4%	199	100.0%
Non-continuing	11	55.0%	1	5.0%	8	40.0%	20	100.0%

p<.001, Mann-Whitney U test

The importance of a sense of belonging as well as other aspects of engagement and satisfaction also emerged in focus group interviews conducted by the Office of Institutional Research in 2008. For example, among a group of 15 students who left USF during the first semester in 2007, one third cited their dissatisfaction with the social climate as one of the reasons for leaving. Another two students stated that distance from home was a reason for leaving.

Focus group responses to the question “can you briefly state the primary reason why you left USF?” one non-continuing student answered: *“First of all, I don’t believe that there are enough clubs and organization that promote social interaction.”* A continuing student responded to the question “What could USF have done to provide a better learning opportunity for you?” *“More on-campus activities and/or outings, to give more opportunity for social meeting between students.”* This lack of opportunities for social engagement on campus can be seen in the comments of one continuing commuter student as he described his first semester at USF: *“I am the commuter student in this group. I scheduled it so I would spend only so many hours on campus. Like the least amount I could. I had all my classes back to back on Monday and Wednesday, and then a Friday class. I never went to that class. I just turned in the homework because I knew the subject matter... So my first semester I didn’t really meet many people on campus, other than people I had to work with on group projects or in class. But in my second semester, when I was pledging for Delta Sigma Phi<sup>2</sup>, I met more people and I started to hang out on campus more. I met the current group of friends I have when I was in the lounge and in the library because I needed to be on campus to do different things. I started to stay on campus more, socializing and extending my network.”*

After a lengthy description of her socialization process in the residence hall, another student stated: *“... that is why I stayed because I have so many different friends and am part of so many different organization, that I would not want to start over again.”* One student in a focus group described her first year at USF the following way: *“My freshman year I didn’t immerse myself in anything. I didn’t know what major I was going to be, so I became lazy, and I was really close to transferring out. After a long talk with parents and friends, I decided to just stick it out and see how it could change if I actually did join organizations, groups, things like that, and it really helps, because if you leave you have to make it all up somewhere else. I think the groups do really help keep you at the school you are at.”*

Additional insight on the importance of a sense of belonging comes through focus group questions that explore opportunities to work together academically while simultaneously providing opportunities for socialization. Some of these opportunities at USF are freshman seminars, linked courses (combined one year rhetoric and composition courses) and living-learning communities. As noted above, these program opportunities are associated with enhanced student retention. One student, for example, described her experience in a linked rhetoric and composition course: *“I am not a big fan of public speaking, and I think if I spent a whole year of a class of just doing public speaking I wouldn’t have done very well. But having a paper due first and then making a speech, I think having a break in between helped. And it was all freshmen, so it was nice to get to know people outside of my group of friends. It worked. I mean it was nice to be together with the same people for the whole year instead of just a semester and writing and speaking back and forth.”*

Advising also emerged in focus groups conducted among students who left USF during the first semester. Advising, as students perceive it, goes beyond helping students to enroll in the correct courses, although that is also a concern. Some students want a better understanding of the options they have and how their class choices affect them, as reflected in this student’s comments:

---

<sup>2</sup> Delta Sigma Phi is a business fraternity that differs from many other fraternities in that their focus is to provide career development and networking opportunities for their members as well as social events.

*“Coming in as an undeclared student, it’s really hard. You have to take core classes, because you don’t want to take random classes that don’t knock anything out. But I couldn’t figure out what major classes to take because I didn’t have a major, so I wish I had saved core courses, so I could do it when I studied abroad. I didn’t get that option, because I didn’t know where I was going the first year of college. I don’t know how you would fix that, but it’s difficult and I didn’t get very good advising because I didn’t have an actual advisor. It was just whoever would take me at that moment.”*

Another area of student concern is a perceived “run-around,” unnecessary time spent trying to get permissions and approval for different things such as changing majors, withdrawing from a class, or related administrative tasks. As one non-continuing student stated: *“I kept trying to understand what I should do for my next semester classes, and I wanted to switch my major, but I got little help, and my advisor seemed as though he knew nothing and no one seemed available to help me at all.”*

### **Living-Learning Communities**

Research conducted at USF found that students who participated in living-learning communities were more likely than students who did not participate in living-learning communities to:

- Maintain a higher grade point average and receive fewer Ds or Fs during their freshman year
- Complete all courses without a withdrawal during their freshman year
- Complete more units by the end of their freshman year
- Show lower attrition rates from their freshman to their sophomore year
- Report greater engagement with USF as measured by the National Survey of Student Engagement (NSSE), especially on benchmark items related to enriching educational experiences, active and collaborative learning, and positive student-faculty interaction
- Report more time working on campus, engaging in community service, and participating in political and social activities

The results of the study speak to the important role of living-learning communities at USF in enhancing students’ academic success, institutional engagement, and persistence. The data was drawn from three freshman cohorts (2004, 2005, and 2006), totaling 2,943 students. Of these, eighty-nine students participated in freshman living-learning communities (LLCs). Detailed reports on our analysis of LLCs can be found at: [www.usfca.edu/oir](http://www.usfca.edu/oir)

While students who select a living-learning community enter with a higher average high school GPA than students who do not select a living-learning community (3.61 vs. 3.45, Table 45) this does not account for the higher end-of-first-year GPA of the living-learning community students (3.35 vs. 3.01, Table 45). This can be seen by comparing effect sizes.<sup>3</sup> The difference in High

---

<sup>3</sup> Effect size measures are used to show the magnitude of the difference between groups. In contrast to measures of statistical significance, effect size calculations are not affected by population size. Although there are different measures of effect size, when comparing treatments, Cohen’s  $\Delta$  is one of the most frequently used effect size measures. According to Cohen, .20 is considered a small effect size, .50 is considered a medium effect size, and .80 is a considered a large effect size.

School GPA between LLC and Non-LLC students as measured by Cohen's  $\Delta$  was .39. The difference between LLC and Non-LLC students by the end of the freshman year was Cohen's  $\Delta$ = .60.

**Table 45. Comparison of High School and College GPA of Students by Participation as Freshmen in a Living-Learning Community**

	Students in a Living-Learning Community			Students not in a Living-Learning Community			Effect Size	Statistic Sig.
	N	Mean	SD	N	Mean	SD		
HS GPA	89	3.61	.40	2,814	3.45	.42	.39	p < .001
1 <sup>st</sup> Year USF GPA	89	3.35	.44	2,799	3.01	.67	.60	p < .001

Ethnic difference emerged in our study in terms of GPA. White, Asian American, and multi-ethnic students entered with small effect size differences, however, after one year these effect size differences had increased to moderate to large effect sizes ( $\Delta$ =.75,  $\Delta$ =.74,  $\Delta$ =.52 Table 46). Whereas Latino/Latina students who chose to participate in the living-learning community had a higher entering high school GPA than Latino/Latina students who did not choose to participate in a living-learning community ( $\Delta$ =.43), by the end of the freshman year, the gap between these two groups had not widened. In contrast, African American students who participated in the living-learning communities had the same entering GPA as African American students who did not participate in living-learning communities. At the end of the freshman year, however, a gap appeared between African American students who did or did not participate in living-learning communities. African American students who participated in LLCs had a higher GPA than those who did not, and Cohen's  $\Delta$  showed a small to medium effect size  $\Delta$ =.45.

**Table 46. Comparison of High School and College GPA of Students who Participated as Freshmen in a Living-Learning Community to those who did not by Ethnicity**

Ethnicity		Students in a Living-Learning Community			Students not in a Living-Learning Community			Effect Size
		N	Mean	SD	N	Mean	SD	
White	HS GPA	36	3.60	.43	1,119	3.49	.40	.26
	1 <sup>st</sup> Year GPA	36	3.51	.27	1,110	3.13	.64	.75
African American	HS GPA	4	3.36	.36	138	3.35	.46	.02
	1 <sup>st</sup> Year GPA	4	3.06	.65	138	2.74	.76	.45
Latino/a	HS GPA	18	3.58	.27	377	3.44	.37	.43
	1 <sup>st</sup> Year GPA	18	3.11	.48	376	2.88	.64	.44
Asian American	HS GPA	13	3.67	.42	622	3.48	.39	.47
	1 <sup>st</sup> Year GPA	13	3.36	.42	618	2.95	.66	.74
Multiethnic	HS GPA	6	3.50	.31	113	3.39	.57	.24
	1 <sup>st</sup> Year GPA	6	3.28	.40	112	3.02	.58	.52

Students who participated in the living-learning communities were less likely to make Ds (5.6% vs. 22.6%, Table 47) or withdraw from classes (16.9% vs. 21.6%, Table 48) during the first year

than students who did not participate in the living-learning communities. In addition, students in the LLCs on average took more units during their freshman year than students who did not participate in the LLC's (31.4 vs. 30.03). These factors have been shown to influence attrition rates in previous studies at USF.

**Table 47. Comparison of the Percentage of Students in a Living-Learning Community who Received a Grade of D or Below during their First Year to those who did not Participate**

	Students in a Living-Learning Community		Students not in a Living-Learning Community	
	N	%	N	%
D or below	5	5.6%	637	22.6%
No D or below	84	94.4%	2,183	77.4%
Total	89	100.0%	2,820	100.0%

**Table 48. Comparison of Students in Living-Learning Communities who Withdrew from a Class during the First Year by to Participate in a Living-Learning Community**

	Students in a Living-Learning Community		Students not in a Living-Learning Community	
	N	%	N	%
Withdrew from class during the first semester	15	16.9%	608	21.6%
Did not withdraw from class during the first semester	74	83.1%	2,212	78.4%
Total	89	100.0%	2,820	100.0%

The first-year attrition rate of the living-learning community students was lower (9% vs. 16.5%, Table 49) than for the non-LLC students.

**Table 49. Comparison between Non-Continuing and Continuing Students by Participation in a Living-Learning community**

	Students in a Living-Learning Community		Students not in a Living-Learning Community	
	N	%	N	%
Non-continuing students	8	9.0%	464	16.5%
Continuing students	81	91.0%	2,356	83.5%
Total	89	100.0%	2,820	100.0%

### ***Focus Groups and Living-Learning Communities***

During 2009, the Office of Institutional Research conducted focus group meetings among students in the Martín-Baró Scholars living-learning community to gain insights as to the reasons for that program's success in retaining students. One theme that emerged was the importance of camaraderie and friendships. As one student put it: *"I think that we are all support for one another, to share what we know and what we don't know, who it is we are, and who we want to be*

*in college. I am really hopeful for this ...this is the first year and we all support each other ....we are friends.” Another student said: “I know a lot of my friends that went to different universities, and they are pretty jealous of me. Whenever you are in a new social situation, it's really hard to make friends and try to make yourself approachable or to approach new people. Yet my friends at other universities are trying to do the whole situation on their own, so I don't know, it's just a lot more comfortable, because you can have friends outside the group and yet you always can go back to your dorm, and on your floor, and knock on anyone's door and just chat with them, do homework. It's so much better than running around [to find friends].”*

### **Select Longitudinal Findings for Academic Variables**

As noted earlier, academic variables are associated with attrition: first-year college GPA, a grade of D or lower, units completed, and withdrawing from class all significantly relate to students' decisions to leave USF. In this section, we will describe some of the longitudinal changes in these academic variables, and suggest how various intervention strategies by the schools and colleges at USF may have affected first-year attrition rates.

Over the past two years, several of the schools and colleges at USF have strengthened their efforts to enhance freshman retention. These strategies have included direct intervention with first-time freshmen to identify and secure assistance for students who are having academic problems; expansion of proactive academic and career advising; development of faculty mentoring programs and other types of student support; and the implementation of engagement programs for select groups of entering freshmen, such as university scholars and honors students. As noted in Tables 1, 2, and 3, attrition rates began to show signs of improvement for the fall cohort of 2007 in comparison to the 2004, 2005, and 2006 cohorts. The one-year improvement in first-year attrition rates from 17.6% for the first-time freshman cohort of 2006 to 14.7% for the first-time cohort of 2007, for example, suggests that various retention strategies at USF are beginning to have an impact. Especially encouraging is the decline in attrition rates among honors students and university scholars, from 17.9% for the 2006 cohort to 12.2% for the 2007 cohort. The one-year decline in attrition rates among regularly admitted students, which went from 18.0% in 2006 to 14.8% in 2007, also reversed a four-year increase in attrition rates for that population. African American, Asian American, International, and White Students also exhibited reduced attrition rates of three to eight percentage points from the 2006 cohort to the 2007 cohorts, while attrition rates among Hispanic students remained about the same from 2006 to 2007.

The improvement in first-year attrition rates occurred after the implementation of various retention strategies and is associated with academic variables. Specifically, the mean GPA of both continuing and non-continuing students at the end of the freshman year increased for the fall 2007 first-time freshman cohort in comparison to prior cohorts (Table 50). In 2007, for example, the mean GPA of non-continuing students at the end of the first year exceeded 3.00 for the first time in the four years investigated.

**Table 50. Comparison of Mean First Year College GPA Distribution of Non-Continuing and Continuing Students for the Freshman Fall Cohorts 2004-2007**

	2004		2005		2006		2007	
	Continuing	Non-Continuing	Continuing	Non-Continuing	Continuing	Non-Continuing	Continuing	Non-Continuing
Mean GPA	3.12	2.77	3.03	2.78	3.07	2.68	3.15	3.14
Standard Deviation	0.54	0.84	0.59	0.88	0.61	1.09	0.56	0.68

As seen in Tables 51 and 52 below, changes in GPA appears to be especially salient during the second semester of the freshman year. These second-semester changes may indicate the effectiveness of USF’s targeted efforts to identify students who earn low grades during the first semester, and to actively implement strategies to help these students. These strategies include workshops that make students aware of available resources, targeted advising students with required check-in and progress reports, and planning strategies for future success. As one staff member said: *“The main idea is to actively involve them in assessing what went wrong in the previous semester; setting goals or an action plan on how to improve upon that; meeting individually with an advisor to discuss the plan and how it’s going; to utilize resources, academic support resources on campus, to support them in their efforts to turn things around; and more recently, to actually gain progress reports from teachers to see where they stand mid-semester.”*

**Table 51. Comparison of Mean First Semester College GPA of Non-Continuing and Continuing Students for the Fall Cohorts 2004-2007**

	2004		2005		2006		2007	
	Continuing	Non-Continuing	Continuing	Non-Continuing	Continuing	Non-Continuing	Continuing	Non-Continuing
Mean	3.13	2.83	3.01	2.82	3.05	2.72	3.12	2.96
Standard Deviation	0.57	0.85	0.64	0.86	0.64	1.05	0.63	0.85

**Table 52. Comparison of Mean Second Semester College GPA of Non-Continuing and Continuing Students for the Freshman Fall Cohorts 2004-2007**

	2004		2005		2006		2007	
	Continuing	Non-Continuing	Continuing	Non-Continuing	Continuing	Non-Continuing	Continuing	Non-Continuing
Mean	3.13	2.80	3.08	2.88	3.08	2.56	3.16	3.14
Standard Deviation	0.59	0.87	0.63	0.86	0.71	1.31	0.62	0.79

The trend toward academic improvement can also be seen when comparing the attrition rates of students who earned a D or below during the first year. Both the number and the percent of non-continuing students who made a D or below decreased substantially in 2007. In the Fall 2006 cohort, 57 non-continuing students (30.0% of that population) earned a D or below. In the Fall

2007 cohort, only 27 non-continuing students (17.5% of that population) earned a D or below (Table 53).

**Table 53. Comparison of Non-Continuing and Continuing Students Who Did or Did Not Make a D or below during their Freshman Year, Freshman Fall Cohorts 2004-2007**

	2004				2005				2006				2007			
	Continuing		Non-Continuing		Continuing		Non-Continuing		Continuing		Non-Continuing		Continuing		Non-Continuing	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
D or below	137	17.1%	43	33.1%	170	21.7%	48	31.6%	192	21.6%	57	30.0%	190	21.1%	27	17.5%
No D or below	665	82.9%	87	66.9%	612	76.3%	104	68.4%	695	78.4%	133	70.0%	711	78.9%	127	82.5%
Total	802	100%	130	100%	782	98%	152	100%	887	100%	190	100%	901	100%	154	100%

### Results from Logistic Regression

In 2009, the Office of Institutional Research conducted a logistic regression analysis of those variables related to first-time freshman attrition for which sufficient data were available from the 2004, 2005, and 2006 cohorts. The following continuous variables were used in the regression equation: first semester college GPA, high school GPA, verbal and math SAT, and units earned during the first semester. The dichotomous variables used were: in-state or out-of-state residence, first generation status or not, unmet need below or above \$20,000, and a combined variable indicating that students did or did not participate in a freshman seminar, a linked course, or a living-learning community. The last variable stood as a proxy variable for student academic engagement.

Based on prior analyses of USF attrition data and on the available group sizes, the combined 2004-2006 freshman cohorts were split into the following groups: (a) Whites, (b) Latino and African Americans, and (C) Asian Americans. Each ethnic group was in turn split into those having obtained a GPA of greater or lower than 3.25 in their first year of college. The predictive variables are displayed in Tables 54, 55, and 56 below.

The following combination of predictive variables was found for White students with a first-year GPA below or equal to 3.25:

- A lower first-semester college GPA was predictive of attrition; however, this finding was mediated by high school GPA. Students who had a higher school GPA were more affected by a decline in their college GPA.
- Home residence outside of California increased the likelihood of not continuing for the second year.
- A lower number of units earned during the first semester, increased the likelihood of not continuing for the second year.

- Not enrolling in a living learning community, a freshman seminar, or a linked course during the freshman year increased the likelihood of leaving by the second year.
- An unmet financial need greater than \$20,000 increased the likelihood of not continuing for the second year.

For White students with a first-year college GPA above 3.25, no predictive variables were found.

**Table 54. Predictive Variables for Attrition for White Students with a First Year Freshman GPA Below or Equal to 3.25**

Predictive Variables for Attrition	Beta	Statistical Significance
1 <sup>st</sup> semester GPA	-.531	.021
Out of state home residence	1.058	.001
Number of units earned during the first semester	-1.32	.004
Not enrolled in a living learning community, freshman seminar, or linked* course	.679	.008
Unmet need above \$20,000	.801	.052
High School GPA	.776	.021
Constant	-1.640	.389

\*Special one-year rhetoric and composition cohort course

Cox & Snell  $R^2 = .122$  and Nagelkerke  $R^2 = .187$

Note: 16.1% of the non-continuing students in this sub-population were correctly predicted

Within the first-year freshman student population who were Asian American, the predictive variables were the same, irrespective of a GPA above or below 3.25 at the end of the first year of college. Therefore, the Asian American first-time freshman population was treated as an intact group, whose combined predictive variables were:

- An unmet financial need greater than \$20,000 increased the likelihood of not continuing at USF for the second year.
- A lower number of units earned during the first semester increased the likelihood of not continuing for the second year.

**Table 55. Predictive Variables for Attrition for Asian American Students with a First Year Freshman GPA Below or Equal to 3.25**

Predictive Variables for Attrition	Beta	Statistical Significance
Unmet need above \$20,000	1.818	.001
Number of units earned during the first semester	-.262	.001
Constant	1.418	.001

Cox & Snell  $R^2 = .115$  and Nagelkerke  $R^2 = .237$

Note: 20% of the non-continuing students in this sub-population were correctly predicted

The predictive variables for Latino and African American first-time freshmen students with a first year college GPA below or equal to 3.25 were:

- Latino and African American students, who were also the first generation in their families to go to college, had a greater likelihood of not leaving college before the second year.
- The higher the first semester college GPA, the greater the likelihood of not leaving college before the second year.

For Latino and African American students with a first year college GPA above 3.25, no predictive variables were found.

**Table 56. Predictive Variables for Attrition for Latino and African American Students with a First Year Freshman GPA Below or Equal to 3.25**

Predictive Variables for Attrition	Beta	Statistical Significance
First generation	-.936	.023
1 <sup>st</sup> semester college GPA	-1.166	.001
Constant	1.227	.001

Cox & Snell  $R^2 = .085$  and Nagelkerke  $R^2 = .150$

Note: 10.9% of the non-continuing students in this sub-population were correctly predicted

Logistic regression analysis is consistent with the factors outlined earlier in this report regarding attrition among USF first-time freshman students. It demonstrated that three variables were associated with attrition in more than one group: units earned, a low first semester college GPA (for students with a GPA at or below 3.25 for the first year), and unmet need above \$20,000. For White students, social engagement seemed to play an important role as reflected in the increased likelihood of attrition for students who were from out of state and/or were not engaged in a living-learning community, a freshman seminar, or a linked course. For Asian American students, an unmet need above \$20,000, and a low number of units earned were variables associated with attrition.

## CONCLUSIONS, DISCUSSION, AND IMPLICATIONS

The *Vision, Mission, and Values Statement* of the University of San Francisco holds that for the school to be recognized “as a premier Jesuit Catholic urban university” it should “enroll, support and graduate a diverse student body, which demonstrates high academic achievement, strong leadership capability, concern for others and a sense of responsibility for the weak and vulnerable.” Attrition among USF’s freshmen affects graduation rates four to six years later and decreases the number of students who have a full opportunity to inculcate the university’s mission to “educate minds and hearts to change the world.”

The one-year improvement in first-year attrition rates from the first-time freshman cohort of 2006 to the first-time cohort of 2007, suggests that various retention strategies at USF are beginning to have an impact. In 2009, therefore, there is cause for optimism that two-year attrition rates for the freshman cohort that began in 2007 will show improvement over that of the 2006 cohort, and that higher graduation rates will follow two, three, and four years later. The uncertainties of the national economy, however, and the impact of the current economic downturn on USF’s students, make predictions regarding student persistence especially difficult.

The implementation of various retention strategies, coupled with the ongoing assessment of those strategies, is congruent with the research described above. Many of these strategies are increasingly being implemented in USF’s schools and colleges, and include intervention with first-time freshmen to identify and secure assistance for students who are having academic problems; expansion of proactive academic and career advising; development of faculty mentoring programs; and the implementation of special experiences and programs for select groups of entering freshmen. These strategies, as well as an increase in the number of freshmen seminars offered, increased opportunities for participation in linked courses, and the development of additional learning communities, offer great promise to increase the percentage of USF students who will persist to graduation and carry USF’s unique mission to the wider world.

## REFERENCES

- Barefoot, B. (1993). *Exploring the Evidence: Reporting the Outcomes of Freshman Seminars*. National Resource Center for the Freshman Year Experience: University of South Carolina.
- Barefoot, B. (1998). *Exploring the Evidence: Reporting Outcomes of First-Year Seminars, Volume II*. National Resource Center for the First-Year Experience: University of South Carolina.
- Braunstein, A., McGrath, M., & Pescatrice, D. (2000–2001). Measuring the impact of financial factors on college persistence. *Journal of College Student Retention*, 2(3), 191–203.
- Choy, S.P. (2002). *Access and persistence: Findings from ten years of longitudinal research on students*. Washington, DC: American Council on Education
- Fidler, P. (1991). *National Survey on Freshman Seminar Programs: Findings, Conclusions, and Recommendations*. National Resource Center for the Freshman Year Experience. University of South Carolina.
- Fidler, P. & Hunter, M. (1989). How seminars enhance student success. In M. Upcraft, J. Gardner, & Associates (Eds.) *The Freshman Year Experience* (pp. 216-237). San Francisco: Josey Bass.
- Gardner, J., Barefoot, B., & Swing, R. (2001) Guidelines for evaluating the first-year experience (four-year college version) (2<sup>nd</sup> ed.). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience and Students in Transition.
- Handel, D. (2001). The relative contribution of participating in a first-year seminar on student satisfaction and retention into the sophomore year. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA. (ERIC Document Reproduction Service No. ED453724).
- Miller, W. & Janz, J. (2007). The retention impact of a first-year seminar on students with varying pre-college academic performance. *The Journal of The First-Year Experience & Students in Transition*, Vol. 19, No.1., pp 47-62.
- Herzog, S. (2008). Estimating the Influence of Financial Aid on Student Retention. *Chronicle of Higher Education*, January 21, 2008.
- Kuh, G.D., Cruce, T., Shoup, R., Kinzie, J., & Gouyea, R.M. (2007). *Unmasking the Effects of Student Engagement on College Grades and Persistence*. Paper presented at the annual meeting of the Educational Research Association, Chicago, April 2007.
- National Center for Education Statistics (2006). *The Toolbox Revisited: Paths to Degree Completion from High School Through College*. Washington, DC: U.S. Department of

Education, Office of Educational Research and Improvement. Available at:  
<http://www.ed.gov/rschstat/research/pubs/toolboxrevisit/index.html>

- Tinto, V. (1993). *Leaving College: Rethinking the Causes and Cures of Student Attrition* (2<sup>nd</sup> ed.). Chicago: University of Chicago Press.
- St. John, E.P. (1989). The influence of student financial on persistence. *Journal of Student Financial Aid*, 19, 3, 52–67.
- St. John, E. P. (1990), Price response in persistence decision: An analysis of the high school and beyond cohort. *Research in Higher Education*, 31, 387–403.
- St. John, E. P. (2003). *Refinancing the college dream*. Baltimore, MD: John Hopkins University Press.
- St. John, E.P., Cabrera, A.F., Nora, A., & Asker, E.H. (2000). Economic influences on persistence reconsidered. In J.M. Braxton, (Ed.), *Reworking the students departure puzzle* (pp. 29–47). Nashville, TN: Vanderbilt University Press
- Somers, P. (1995). First to second semester persistence: A case study. *Journal of The Freshman Year Experience*, 7(2), 43–62.
- Somers, P. (1996). The freshmen year: How financial aid influences enrollment and persistence at a regional comprehensive university. *College of Student Affairs Journal*, 16, Fall, 27–38.
- Tinto, V. (1996). Reconstructing the First Year of College. *Planning for Higher Education*, 25 (1), 1-6
- Zhao, C-M., & Kuh, G.D. (2004). Adding Value: Learning Communities and Student Engagement. *Research in Higher Education* 45, 115-138.