Introduction

This committee has focused on the gathering and analysis of previously acquired data available from the Office of Management Information and Research, as well as the Office of Assessment and Planning. We are grateful to Michael Ben-Avie, Rick Riccardi, and their colleagues for conducting descriptive statistical analyses to help us identify solutions to issues addressed by the SSTF.

Based on a statistical regression performed by one of our members, the only factor included in our analyses that clearly predicts student persistence was overall GPA at SCSU. However, during our review of the available data, we became much more familiar with the correlates of SCSU student success. For example, we know that working off-campus is correlated negatively with retention. However, the available data does not provide clear proof that working off-campus has a negative causal effect on retention. Although this seems a likely conclusion, these data are correlational and the lack of experimental research on student success means that we cannot rule out the possibility that other characteristics, which happen to be shared by students who work off campus, are in fact responsible for lower rates of retention.

As a result of these limitations, we have frequently found ourselves attempting to make reasonable conjectures regarding the constellations of characteristics that predict the success of SCSU students. In essence, we find ourselves in a position to treat the symptoms of a relative shortfall in student retention and graduation, but not necessarily in a position to prescribe a definite cure for this shortfall. Precisely for this reason, we include among our recommendations an ongoing commitment to gathering fine-grained student data through surveys, internal data systems (such as Banner, or the proposed Student Success Collaborative tracking system) and, when possible, the tracking of students who have left SCSU.

We also recommend highly that various offices and departments on campus be supported so they may be able to better answer questions together, e.g., they lack the resources to answer questions such as how the budget of our PSE or Per Student Expenditure (e.g., proportion allocated to the Writing Center, Tutoring Center, and Academic Advising) similar to and different from peer institutions with similar student demographics but higher graduation rates, as well as how the budget of our PSE changes when the average level of preparation (e.g., SAT scores) in our entering students changes.

In order to place student success at SCSU in a larger institutional perspective, one of our members computed the “performance gap” at SCSU and a number of other universities. Based on the methods used in a report by the Educational Trust, this measure compares graduation rates of individual universities to the average graduation rate within all peer institutions nationwide (as measured by the SAT/ACT scores of entering first-year students).

For example, the graduation rate at the University of Northern Iowa, an extreme outlier, is 13.2% higher than that of its peers, which can be expressed as a +13.2 achievement gap. Elizabeth City State University held up by the Educational Trust as a leader in student success, has an achievement gap of +8.3. SCSU’s achievement gap of +4.6 is tied with ECSU’s for the highest in the CSU system. The achievement gap at CCSU is +1.7 and at WCSU is -1.7.
Short-Term Recommendations

1. Better planning and advising for pre-nursing and pre-education students

Every fall, a large number of students come to SCSU with the goal of entering our well-respected nursing or education programs. For nursing in particular, many of these students will not gain entrance to the program. In Fall 2006 (the most recent data available), 179 students expressed interest in nursing during their first year at SCSU. Only twenty-eight of these students were accepted into the program, with 151 not accepted. Out of this latter group of 151, a total of 113 did not graduate from SCSU. At least according to anecdotal evidence, a number of these students will leave SCSU in order to receive a nursing degree at another, less competitive institution.

This predicament raises the question of the feasibility and desirability of expanding the nursing program. Beyond this, however, it also draws attention to the clear desirability of providing additional guidance to students interested in a nursing career track. It would seem that many of these students would benefit from well-formulated backup to the nursing major.

Similar outcomes are evident for students interested in the educational career track. Analyzing students entering SCSU in the fall of 2010, there were 190 students interested in teacher preparation in the spring semester of 2012. Yet only sixty percent of these students were still enrolled at SCSU one year later. The retention rate of students who are not accepted into the nursing and education programs, as well as those who remain undeclared through their fourth semester, are lower than that of other students. This would seem to suggest that most students are not well prepared for the eventuality that their educational plans will or need change. We therefore recommend that the Office of Academic Advising take a proactive approach to working with these students and help them create a ‘Plan B’ guide to other majors.

2. Minimum admissions requirements

The data show that students who have average SAT Verbal scores of 475, SAT Verbal and Math scores of 947 and SAT Writing scores of 481 are significantly more likely to graduate from SCSU than students with lower scores. Based on this evidence, there is good reason to think that there is a “drop-off point” in our admissions standards. Students below a certain standard are significantly less likely to succeed at SCSU. We therefore suggest that admission standards be retained or even raised, with the scores listed above comprising one important metric of these standards.
3. **Student activity requirement**

The GPA of students who belong to a club is significantly higher than students who do not belong to a club. For male students in particular, reporting a high quality of relationships with other students is predictive of retention at SCSU. We therefore recommend requiring students to participate in certain number of campus events (with attendance to be checked via their student identification cards) each semester. Alternatively, early registration could be offered to students depending on the number of events they have participated in during the most recent semester.

4. **Encourage transfers**

The data show that transfer students are more likely to graduate than native SCSU students, and that within those who transfer, those who graduate are more likely to transfer in an average of forty-five credits. Although requiring transfer students to enter only once they have accrued approximately forty-five credits would perhaps decrease enrollment -- it would potentially also increase graduation rates. The type of institution from which students transfer to SCSU does not make a difference in students’ GPA or graduation rate once they are here. We recommend that SCSU actively recruit transfer students, as well as explore possible ways to lower barriers to entry for transfer students.

5. **Provide on-campus work and childcare**

The data show that the more students work off campus, the lower their GPA. We therefore recommend that more work-study positions be created for students immediately. One avenue for achieving this goal involves monitoring students’ attendance at campus events, especially if such attendance becomes required or rewarded. In addition, it would behoove SCSU to have a day care center. Doing so would create jobs, keep our students who are parents on campus and engaged in the SCSU community, and help SCSU create more liaisons with the New Haven community. In fact, one of the predictors of retention is whether or not the university provides help to students with respect to their non-academic responsibilities, such as work and family. We therefore also recommend that SCSU establish a campus day care center, for both children and elders. Such a facility would also provide students with internship positions.

**Long-Term Recommendations**

1. **Increase mathematics resources**

In a correalational analysis of on-track rates of students over five years, one of our members found that three of the top five predictors of student success involved math (placement exam scores, completion of Math 101, and Math SAT). There is good reason to think that success in math courses allows students to flourish at SCSU and, conversely, that the inability to succeed in math courses is a major stumbling block for many of our students. We
therefore recommend that a comprehensive improvement in mathematics education be undertaken at SCSU. Students should be encouraged to see math as an integral part of a liberal arts education, and as involving skills that cut across academic disciplines and domains of life. Although our expertise does not extend to specific methods of university-level mathematics pedagogy, we suggest expanded support from the university for mathematics education.

2. Increase resources directed towards African-American students

ECSU Connecticut State University has had substantial success closing the achievement gap between Latino and European-American students through a series of targeted programs. The demographics at SCSU and within the city of New Haven suggest that targeted programs of this type would be valuable for Latino/a students, and even more so for African-American students. And the data suggest that African-American male students are most likely to have difficulty making progress towards graduation. 43.5% of African-American males who entered as first-year students in the fall of 2010 had earned 120 credits at the end of five years. This compares with 65.8% of African-American female students, 70.4% of Hispanic female students and 73.8% of all enrolled students (statistical analysis of Hispanic males students was not possible).

Given this significant achievement gap, we recommend an increase in resources directed towards African-American students. Established programs such as ConnCAS and EOP might be expanded in order to foster higher rates of retention among African-American students. The experience at ECSU suggests that another important avenue for fostering student success might involve a dual enrollment program with Gateway Community College.

3. Improve the gathering, sharing and analysis of data

The Office of Management Information and Research, and the Office of Assessment and Planning collect a wealth of student data, both from surveys and from internal sources. The introduction of the Student Success Collaborative, a comprehensive student tracking and advising database, also promises to introduce an important new source of data. In the coming years, it is crucial not only that these data be collected, but also that they be put to good use. We therefore recommend that the university convene a faculty research group on student success every five years. This group will have the responsibility of examining data related to student success, with a special emphasis on integrating multiple data sources in order to identify key recommendations for the administration and the university at large.