What Community College Management Practices Are Effective in Promoting Student Success? A Study of High- and Low-Impact Institutions

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Study Overview

This study identifies community college management practices that promote student success. It was conducted by the Community College Resource Center (CCRC) through a partnership with the Florida Department of Education's Division of Community Colleges and Workforce Education, and funded by the Lumina Foundation for Education as part of the Achieving the Dream: Community College Count initiative. Achieving the Dream is a national effort to increase the success of community college students, particularly those from groups that have been underserved in higher education. The initiative works on multiple fronts – including technical assistance to individual community colleges, research, public engagement, and public policy – and emphasizes the use of data to drive change.

This study builds on earlier CCRC research using national survey data. We used transcript-level data on 150,000 students in three cohorts of first-time Florida community college students and a regression methodology to estimate the effect that each of Florida's 28 community colleges had on the probability that its students would achieve a successful outcome, after controlling for characteristics of the individual students. This effect can be seen as a measure of value added – the impact that a college has on its students' educational success independent of the characteristics of individual students. We then ranked the colleges according to their estimated effects on student success.

Given the interest of Achieving the Dream in underserved students, we selected colleges for field research using rankings of the magnitude of the effect of each institution on the probability that its African American and Latino students would attain successful outcomes. In Florida, as in other states, African American and Latino community college students are less likely than other students to complete a degree or to transfer to a baccalaureate program. At the same time, because we are interested in what colleges are doing to retain students generally, we also examined each institution's impact on outcomes for all first-time students.

We used these rankings along with an analysis of descriptive statistics on each institution to select six colleges for field research: three with higher impacts on the chance that their minority students would succeed and three with lower impacts. The purpose of the fieldwork was to compare the institutional policies, practices, and cultural characteristics of the high- and low-impact colleges during the period in which the student cohorts were tracked (from academic year 1998-1999 through 2002-2003) to determine why some colleges had a greater net effect on their minority students' educational success than did others.

Research to Date

There has been surprisingly little rigorous research on institutional effectiveness in community colleges. Even the much larger body of research on institutional effectiveness among four-year institutions tells us more about the student characteristics and general institutional features (e.g.,

selectivity, size, resources) associated with positive student outcomes than about the policies and practices affecting student success that are under a college's control. A key problem in this research is the difficulty in comparing the performance of different institutions serving different mixes of students.

Recent studies have sought to examine the policies and practices of undergraduate institutions that perform better than would be expected given their students' characteristics. While these studies offer important insights into the elements of institutional effectiveness, they focus on four-year institutions, so the applicability of their findings to community colleges is questionable. They also suffer from a number of data and methodological limitations.

The study of institutional effectiveness in community colleges summarized here addresses the limitations of previous research on the effectiveness of undergraduate institutions in several ways. It takes advantage of a rich set of longitudinal student unit record data to control for the individual characteristics of the students that the colleges serve. Because our study is based on the outcomes of both full-time and part-time students, its measure of institutional effectiveness is better suited to community colleges and their students than is the National Center for Education Statistics' (NCES) "student-right-to-know" measure commonly used by other studies. We also measured student persistence in addition to completion and transfer, which is appropriate given that community college students often take a long time to complete their programs or to transfer. Our sample is confined to all community colleges in a single state, thus eliminating the effects on institutional performance of variations in public policy and institutional mission, practice, and resources across states.

While some previous studies examined only institutions considered to be high performers, we directly compared colleges found to have a relatively high impact on the educational success of their students with colleges that have a low impact. In studying the policies and practices of the high- and low-impact colleges, we focused on their organization, activities, and environments during the period covering our data (1998-2003). Other studies have not addressed the fact that a college's policies and practices can change over time.

As noted, most of the earlier research on the effectiveness of undergraduate institutions relied on conceptual frameworks drawn from the model and experience of four-year colleges, particularly residential colleges. For this study, we developed a conceptual framework that reflects the distinctive challenges and characteristics of community colleges.

Research Hypotheses

To frame this study of community college effectiveness, we drew on previous research to develop a set of seven hypotheses about the ways that we expected that those community colleges more effective in promoting their students' education success would differ from those with a less positive impact on student success. Specifically, we hypothesized that community colleges would be more effective if they do the following:

Have an institutional focus on student retention and outcomes, not just on enrollment. We expected that effective community colleges would be actively focused on student retention and outcomes, while less effective colleges would be primarily concerned about enrollment. Funding for community colleges (and for public higher education institutions generally) is largely based on enrollments rather than on completions or other outcomes, so it is not surprising that community colleges often pay more attention to the former than the latter.

Offer targeted support for underperforming students. Where there are systemic gaps between the outcomes of different student groups, as is typically the case between minority and White students, we expected that effective colleges would undertake targeted efforts to address these gaps.

Have well-designed, well-aligned, and proactive student support services. We hypothesized that effective community colleges would offer student services that are well designed and aligned to guide and support students from the time they enter the college until they leave. Effective colleges use technology and other means *proactively* to identify and reach out to students who are struggling or are at risk of dropping out to ensure that they stay on track.

Provide support for faculty development focused on improving teaching. We expected that effective colleges would devote more attention and resources to helping faculty become better teachers, with a particular focus on instructors of students who are academically unprepared or from minority populations. Given that the majority of faculty in most community colleges are part time, we hypothesized that effective colleges would take steps to orient and prepare adjunct instructors and monitor the quality of their teaching.

Experiment with ways to improve the effectiveness of instruction and support services. We expected that effective community colleges would be more likely than less effective colleges to experiment with better ways to teach and support students, particularly those who have academic deficiencies. Because so many community college students are required to take remedial or developmental courses, and many students who take such courses fail to advance to and succeed in degree credit coursework, we expected that effective colleges would to try to find ways to improve the outcomes of developmental programs. We also expected that effective colleges would be more likely to evaluate the impact of efforts to improve student learning and success and to use the findings to inform further improvements in practice.

Use institutional research to track student outcomes and improve program impact. We hypothesized that effective community colleges would collect data on student outcomes and use this information to evaluate and manage programs and services in ways that improve student success. This hypothesis is based on the premise of organizational management that "you measure what you value," and its corollary, "you don't value what you don't measure." A recent survey by the Community College Research Center on community college institutional research found that relatively few colleges collect data on student outcomes, other than what is required for compliance and accountability. Even fewer colleges use data on student outcomes to inform decisions about how to organize and deliver programs and services.

Manage the institution in ways that promote systemic improvement in student success. Our final hypothesis was that the more effective community colleges would approach institutional management with a strategic focus on improving student outcomes. Specifically, we expected effective colleges to have in place systems, policies, and procedures for program review, strategic planning, and budgeting that are guided by evidence of what works to promote student success and that are designed to foster systemic improvements in the impact on students of the college's academic programs and student services.

Taken together, the elements of institutional policy, practice, and culture defined by these hypotheses form a model of community college institutional effectiveness that we tested through this study. What connects our hypotheses is the idea that effective community colleges deliberately and systematically manage programs and support services in ways that optimize the impact of the college's limited resources on student success. Making effective use of resources is especially important to community colleges because a high proportion of community college students are poorly prepared for college and therefore more costly to serve than well-prepared students, and yet community colleges have relatively few resources to serve their students (compared with four-year institutions). From this perspective, a college's effectiveness in serving students results less from whether it adopts particular policies or practices than from how well it aligns and manages all its programs and services to support student success.

Research Design

We used longitudinal, transcript-level data on 150,000 students in three cohorts of Florida community college students to estimate the effect that each of the 28 community colleges in the state has on the probability of its students' completing a certificate or degree, transferring to one of the state universities, or persisting at the college. The cohorts consisted of first-time college students who enrolled in a degree program at a Florida community college in the fall of 1998, 1999, or 2000.

We ranked all 28 Florida community colleges according to the size of their respective estimated effect on the probability that entering *minority* students would complete, transfer, or persist within three years. The college with the highest average effect was ranked first; the one with the lowest effect was ranked last. For the field research, we selected three "high-impact" colleges from the top-ranked institutions and three "low-impact" colleges from the low-ranking institutions.

Table 1 compares the three high-impact colleges selected with the three low-impact colleges according to their quartile ranking among all 28 Florida community colleges on selected institutional characteristics. The high-impact and low-impact colleges are roughly comparable on characteristics that other studies have found to affect student outcomes and institutional performance and for which we do not control in our selection methodology. They include such factors as instructional expenditures, proportion of faculty who are part time, and the ratio of certificates to associate degrees. In fact, the low-impact colleges rank higher in instructional expenditures and are somewhat more oriented toward awarding occupational certificates over degrees, which might give them an advantage over the high-impact colleges in student

completion rates. Two of the high-impact colleges have higher proportions of part-time students, which might put them at a disadvantage. The low-impact colleges include no urban institutions or any very large colleges, although the high-impact colleges include a small institution. Therefore, even though we were unable to control statistically for the effects on performance of institutional characteristics, there do not seem to be substantial differences between the sets of high- and low-impact colleges that might explain their relative performances.

We conducted interviews and reviewed documents at the six sample colleges. The goal of this field research was to identify differences in the policies and practices of the high-impact and low-impact colleges that would explain why, controlling for individual student characteristics, minority students at the former were more likely to graduate, transfer, or persist than were minority students at the latter. Since the data used to select the two sets of institutions covered the period 1998 to 2003, our field research focused on the colleges' policies and practices during that period.

Findings and Conclusions

Table 2 summarizes the state of development of the seven elements of the hypothesized model of institutional effectiveness at the six colleges we visited, indicating for each college whether the given element was well developed, developing, or weak or non-existent during the study period.

Our findings indicate that the dimensions of our model of community college effectiveness where there is the clearest difference between the high- and low-impact colleges fit into the category, "Targeted support for minority students," and specifically into "Minority-inclusive campus environment" and "Specialized retention services for minority students." Thus, minority community college students are more likely to succeed at colleges where they are made to feel welcome and where there are support services and programs specifically designed for them.

At the three low-impact colleges (identified as L-I A, L-I B, and L-I C), and at one of the high-impact colleges (H-I C), some respondents argued that community colleges should not give preferential treatment to any one group because many if not most community college students face barriers to success in college. Others at these four colleges, and particularly some (but not all) of the minority staff and faculty we interviewed, maintained, conversely, that special efforts are needed precisely because there are persistent gaps in achievement between minority and White students. The findings from this study support this latter position.

Most of the other dimensions of the model beyond those related to a focus on minority student achievement were better developed at two of the high-impact colleges (H-I A and H-I B) than at the three low-impact colleges. This finding supports our hypothesis that policies and practices that affect students generally can benefit minority students as well as others. These practices include a focus on student retention and graduation, rather than just on enrollment; well-aligned and proactive student support services; experimentation with ways to improve student success; and use of data on students to improve programs and services.

H-I C seems to be a conflicting case. However, further analysis shows that, while H-I C ranks high among Florida community colleges in its impact on minority student success (adjusted for student characteristics), it ranks low in its effect on success of students generally. The other two high-impact colleges (H-I A and H-I B) rank high in their impact on the adjusted success rates of all students, while the three low-impact colleges have relatively low impacts on overall student success.

The three small colleges in the our sample (H-I C, L-I B, and L-I C) generally lacked formal student support services. They relied instead on the commitment of faculty and staff, and the personal attention made possible by their smaller size, to create a supportive environment for students. Respondents at each of these colleges argued that these college qualities were more important to student success than formal systems, procedures, and programs. The findings here do not support this contention, however.

Because it was categorized as a high-impact institution, but lacked formal systems, procedures, and programs for student support, H-I C once again seems to present a conflicting case. Yet, further investigation shows that most of the minority students at the college during the study period were likely to have benefited from the more organized and intensive support services provided through a federal Student Support Services grant for disadvantaged students.

Our findings suggest that, to promote student success, not only do particular student support services – such as in-depth orientations, proactive advising, early warning systems, and well-organized academic support services – need to be in place, but they must be well aligned and coordinated across the campus. While administrators may see different functional areas of the college as providing discrete services, students do not see, nor should they experience, such divisions. Seamless integration of services from the student's perspective and collaboration among faculty, staff, and administration in providing these services are the college characteristics that seem to contribute most to student success.

The findings also support our overarching hypothesis that the key to a college's effectiveness is not whether it adopts particular policies or practices, but how well it aligns and manages all of its programs and services to support student success. Small-scale "boutique" programs or pilots may represent important sources of innovation for a college in the long term, but they are unlikely by themselves to have much of a direct impact on overall institutional effectiveness.

Of the six colleges, only H-I A had well developed systems and procedures for managing college-wide improvements in practice based on research and data on student achievement. They included a standing committee responsible for monitoring and evaluating the college's efforts to promote student success, a process for regularly and systematically reviewing the performance of all programs down to the course level, and a strategic online planning tool that tracks budget requests from each unit to ensure that they are connected with the unit objectives. Each unit's objectives are tied to the college's goals, which in turn are aligned with state accountability goals and measures. Arguably, such an approach is needed to bring about improvements in practice over time, although it may not be necessary to create the conditions for student success.

In the three years since the end of the study period, all of the six colleges we visited have adopted a fuller set of the elements of our model of institutional effectiveness. The shaded cells in Table 3 show particular features of the model that are now more strongly developed at each college than at the end of the study period. All have sought to strengthen and better align student services. As part of these efforts, the colleges have put more information for students on the Internet, allowing students to seek answers to their routine questions and freeing up staff to help students with more complex issues. All but one of the colleges have strengthened their systems for evaluating and improving practices based on student performance data. With one exception, all have implemented or are in the process of putting in place management systems to support ongoing improvements in programs and services. With these changes since the study period, we would expect to see improvements in student success at all six colleges, although data are not yet available to allow us to test this prediction.

In two cases, the impetus for these changes came from new leadership that brought a greater focus on improving student outcomes and putting in place systems, policies, and procedures to accomplish this goal. In at least two others, it was a response to accreditation reviews indicating the need for a more systematic and systemic approach to ensuring institutional effectiveness. In the other case, the changes resulted from the implementation of a system for institutional planning and improvement that grew out of a 1998 planning retreat, spurred by a president who has for nearly ten years been pushing the college to become more student-focused. In making these changes, the colleges may also have been responding to the increased attention that higher education policy makers in Florida and elsewhere are paying to student outcomes.

These developments show that colleges can and do change the way they operate, but they also suggest that bringing about such changes may require some internal or external catalyst and that change generally takes a long time. In every case, the groundwork for the recent changes was laid during the study period. In one case, it took nearly a decade for the college's leadership to change the mindset of faculty and staff from a primary focus on access and enrollments to a concern for student retention and degree completion as well.

The fact that the colleges are operating in some substantially different ways three years after our study period ended supports our approach of focusing the field research on what the colleges were doing during the study period, not what they are doing now. We acknowledge that it is not easy to reconstruct, through interviews and document reviews, a college's policies and practice during a period that started eight years prior. Still, to have focused our field research on the colleges' current practices while using data from an earlier period to select the colleges would have produced misleading findings.

This study shows that comparing the performance of different institutions is complicated and should be approached with caution. Straightforward comparisons of institutional performance are misleading because each college serves a different mix of students and has different characteristics, such as size, level of resources, and program mix, that bear on performance. In this study, we used a rich set of longitudinal data on cohorts of first-time students to control for the effect of individual student characteristics and behaviors on student outcomes. Our purpose in examining the relative performance of institutions was to set up fieldwork designed to identify the policies and practices that distinguish community colleges that have a higher impact on the

success of students (in this case of minority students) from those that have a lower impact. Nevertheless, a better benchmark for a college seeking to gauge whether it is doing well or needs to improve is probably its own historical performance, rather than the performance of other institutions.

Limitations of the Study

We believe that the methodology used to select institutions for fieldwork is generally robust, but a major limitation is the lack of a direct measure of student socioeconomic status (SES), such as family income or parental education, which other studies have shown to be a key determinant in college success. SES is correlated with test scores, which we do measure. Also, we selected and ranked the colleges using the sub-sample of African American and Hispanic students. We know from studies of national survey data on community colleges that students from both populations graduate and transfer at lower rates than do Whites, even after controlling for income. Still, without data to control for student SES, it could be the case that our methodology ranks some colleges higher (or lower) than others because they are serving more (or less) well-off students.

In addition, while we did find through the field research that the high-impact colleges tended to follow more of the policies and practices we hypothesized to be associated with greater institutional effectiveness than did the low-impact colleges, these findings should be considered suggestive given the small sample size for our qualitative fieldwork. We hope that future studies will follow a similar methodology, but with a larger sample of colleges.

INTRODUCTION

This study identifies community college management practices that promote student success. The study was conducted through a partnership with the Florida Department of Education's Division of Community Colleges and Workforce Education and funded by Lumina Foundation for Education as part of the Achieving the Dream initiative. Achieving the Dream is a national effort to increase the success of community college students, particularly those from groups that have been underserved in higher education. The initiative works on multiple fronts – including technical assistance to community colleges, research, public engagement, and public policy – and emphasizes the use of data to guide change.[1]

This study builds on earlier research that the Community College Research Center (CCRC) has conducted using national survey data. We used transcript-level data on 150,000 students in three cohorts of first-time Florida community college students and a regression methodology to estimate the effect that each of Florida's 28 community colleges had on the probability that its students would achieve a successful outcome, after controlling for characteristics of the individual students. This effect can be seen as a measure of value added – the impact that a college has on its students' educational success independent of the characteristics of individual students. We then ranked the colleges according to their estimated effects on student success.

Given the interest of Achieving the Dream in underserved students, we selected colleges for field research using rankings of the magnitude of the effect of each institution on the probability that its African American and Latino students would attain successful outcomes. In Florida, as in other states, African American and Latino community college students are less likely than other students to complete degrees or to transfer to baccalaureate programs.[2] At the same time, because we are interested in what colleges are doing to retain students generally, we also examined each institution's impact on outcomes for all first-time students.

We used these rankings along with an analysis of descriptive statistics on each institution to select six colleges for field research: three that have higher impacts on the chances that their minority students succeed and three that have lower impacts. The purpose of the fieldwork was to compare the institutional policies, practices, and cultural characteristics of the high- and low-impact colleges during the period in which the student cohorts were tracked (1998-1999 through 2002-2003) to determine why some colleges had a greater net effect on the educational success of their minority students than did others.

The report is organized as follows. The next section reviews existing research on community colleges and institutional effectiveness. The third section presents a set of hypotheses as a framework for the study. The fourth section describes the methods, data, and operational model used to test the research hypotheses. Section five presents our findings. The sixth and concluding

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[1] For more information, see www.achievingthedream.org.

[2] A recent unpublished analysis by the Florida Department of Education's Division for Community Colleges and Workforce Education showed that, of first-time entering students in fall 1999, 27 percent of White students completed a certificate or associate degree within five years, compared with 15 percent of African American students and 21 percent of Hispanics. Seventeen percent of White students transferred to one of the Florida state universities, compared with nine percent of the African American students and 15 percent of Hispanics.

section explores the implications of those findings for community college practice and further research. The tables discussed in the paper can be found after the references.

EXISTING RESEARCH ON INSTITUTIONAL EFFECTIVENESS

Previous Research

There has been surprisingly little rigorous research on institutional effectiveness in community colleges.[3] Even the much larger body of research on institutional effectiveness among baccalaureate-granting institutions tells us more about the student characteristics and general institutional features (e.g., selectivity, size, resources) associated with positive student outcomes than about the policies and practices affecting student success that are under a college's control. A key problem in this research is how to compare the performance of different institutions serving different mixes of students. Numerous studies have shown , not surprisingly, that institutions that enroll better prepared students tend to have better outcomes (see, e.g., Astin, Tsui, & Avalos, 1996; Bailey, Calcagno, Jenkins, Kienzl, & Leinbach,, in press; Mortenson, 1997; Pascarella & Terenzini, 1991; Porter, 2000; Ryan, 2004; Scott, Bailey, & Kienzl, in press; Titus, 2004).

Several recent studies have sought to examine the policies and practices of undergraduate institutions that perform better than would be expected given their mix of students. In a 2004 study (Muraskin & Lee, 2004), researchers from the Pell Institute sought to identify the institutional characteristics, policies, and practices that might account for differences in graduation rates among four-year colleges and universities that serve high concentrations of low-income students. From the institutions with high proportions of students receiving a Pell grant, the researchers identified a group with higher than average graduation rates (HGRs) and another group with lower than average graduation rates (LGRs).[4] Then, they chose ten institutions from each group to achieve a balanced representation by geographic location, enrollment size, and mix of students by race and ethnicity. They further divided the ten HGRs and ten LGRs into public and private institutions.

The Pell researchers conducted site visits at 19 of the 20 colleges, interviewing faculty, staff, and students about the factors contributing to their institution's effectiveness in retaining and graduating students. Based on these site visits and additional descriptive information collected, the researchers identified common elements among the HGR institutions that might explain their superior performance. They include the following (Muraskin & Lee, 2004, p. 3):

- Intentional academic planning for students through "intrusive" advising, freshman orientation courses, and academic reviews for students in trouble.

- Small class sizes, even in classes for freshmen.

- Special programs that provide advising and academic support to students, especially those at academic risk.

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[3] For a recent review of the research on community college program and institutional effectiveness, see Bailey and Alfonso (2005).

[4] The graduation rates were taken from the National Collegiate Athletic Association's *Graduation Rates Report* for 1999.

- A dedicated faculty, most of whom teach full time and are easily accessible to students.

- Educational innovations, including courses to help students adjust to college life, and academic support through tutoring, group study, supplemental instruction, and mastery courses.

- Geographic isolation and a residential orientation, "making life and work on campus the center of the student's lives."

- Shared values, in that students share rural and small-town backgrounds or a religious orientation at many of the colleges.

- Modest selectivity, with admissions requirements, such as a minimum C average in high school or "decent SAT/ACT scores," that screen out students less likely to graduate.

- Financial aid for high achievers.

- Focus on retention and graduation rates, with several colleges setting ambitious goals well beyond current performance.

Notably, the Pell researchers did not directly compare the practices of the HGR and LGR institutions, but rather identified "commonalities" in the policies and practices of the high graduation-rate group.

The researchers did identify systematic differences in the characteristics of the HGR and LGR institutions that they acknowledge were "likely play a major role in explaining their graduation rates" (Muraskin & Lee, 2004, p. 2). Using institution-level data, they observed that the HGRs were more likely than LGRs to draw on students of traditional college age and those with better academic preparation for college. HGR institutions also had more full-time faculty, lower student-faculty ratios and "far greater resources for their education than LGR institutions" (p. 2). The researchers conceded that:

> Given their resources and student bodies, it is quite possible that the LGR institutions are performing relatively well in retaining and graduating students, even at the low absolute levels that led to their inclusion in the study. Unfortunately, we are unable to address this issue – performance relative to student body and resources – with the data at hand. (p. 2)

The lack of controls for student characteristics and institutional resources is a serious weakness of the Pell Institute study. There is no way to know with confidence whether HGR institutions outperform LGRs because of the policies and practices over which they have control or because of the make-up of their student bodies and the educational resources that they bring to their students.

In a 2005 study for the Education Trust, Carey (2005) examined baccalaureate-granting institutions with higher graduation rates than similar institutions grouped statistically, based on Carnegie Classification, admissions selectivity, size, financial resources and other characteristics.

The study also identified institutions where the gap in graduation rates between minority and White students is small or non-existent. Administrators from colleges with superior graduation rates compared to their peers were interviewed about what they think accounts for their superior performance. Among the common themes that that emerged from these interviews about the practices of high-performing institutions were the following (p. 20):

- Investment of resources into data analysis to better understand patterns of student progression and identify barriers to completion.

- Emphasis on engaging students, particularly in the first year.

- Emphasis on innovation in teaching and alignment of rewards and other incentives for faculty with academic needs of students.

- Constant evaluation and reform with a focus on student success.

These themes make intuitive sense. Still, because they are based on the opinions of administrators, rather than on field research on the actual practices of high-performing institutions, Carey's findings cannot be considered definitive. They do, however, suggest hypotheses for testing in studies that conduct field research on institutional policies and practices.

In another recent study of effective practice in baccalaureate-granting institutions, Kuh, Kinzie, Schuh, Whitt, and Associates (2005) did conduct in-depth field research at four-year institutions that had both higher than predicted graduation rates (compared with the actual six-year rates reported to the U.S. Department of Education as part of the IPEDS Graduation Rate Survey) and higher than predicted scores on the National Survey of Student Engagement (NSSE).

Kuh et al. (2005) used regressions and IPEDS data to predict graduation rates for baccalaureate-granting institutions, controlling for the following institutional characteristics: public or private, admissions selectivity (from *Barrons'* taxonomy), Carnegie Classification, undergraduate enrollment, urbanicity, proportion of students who are full time, percent of students by race and ethnicity, and proportion of students living on campus. A similar list of controls was included in the regression predicting NSSE scores. From the list of schools ranking higher than expected on both measures, the researchers selected 20 that represent a diversity of size, geographic location, and institutional type.

Based on field research at each school, Kuh et al. identified conditions and practices common to these 20 educationally effective institutions. A clear and clearly enacted mission focused on student success was essential. High standards were also central to how these institutions conceptualized and carried out student success activities. Leadership was key – institutional leaders need to make student success a priority – and the financial and "moral" support for sustaining effective practices needed to exist. In addition, student success appeared to be the result of these colleges' cumulative efforts. Effective colleges had multiple "complementary" academic and social policies and programs taken advantage of by a large proportion of students. The colleges reached out to students and encouraged them to utilize programs. Lastly, the authors emphasized the crucial role that a strong institutional culture plays. Much of what they

observed stemmed from this orientation in part or entirely. In particular, they mentioned the institution's ability to "stay the course" – to see a change through when it takes some time before positive results are evident.

Kuh et al. (2005) used both the NSSE scores and graduation rates as measures of institutional performance. We question the use of the former measure as a dependent variable since, as the researchers themselves pointed out, higher student engagement is associated with better student outcomes.[5] Student engagement is not seen as an end in itself, but as a means of promoting student success. Measures of student engagement should be used therefore as explanatory variables rather than as outcome measures. Kuh et al. did not indicate whether their student engagement measures were correlated with the graduation rates they used.

More problematic is the fact that Kuh et al. (2005) examined the practices of effective institutions, but did not study the practices of institutions judged to be less effective. Without a comparison group, it is unclear how they can suggest that the practices they identify are more prevalent among more effective institutions than among less effective ones. The Pell study (Muraskin & Lee, 2004) did not directly compare the policies and practices of the two groups, but instead compared only their institutional characteristics; it did, however, distinguish between higher and lower graduation rate colleges, as we pointed out.

While Kuh et al. (2005) did control for institutional characteristics that might affect graduation rates (in addition to using NSSE scores), their measures are all institution-level aggregates.[6] It would have been better to control for the effect on institutional performance of the individual characteristics and behaviors of each institution's students. This is especially relevant for studies, such as this one, that seek to identify practices effective in promoting success among particular groups of students.[7] If only institution-level aggregate measures are used, it is impossible to know whether particular groups of students are being well served, since even institutions identified as high performing may be measured as such on the basis of the success of students other than the student populations of interest.

Despite their limitations, the Muraskin and Lee (2004), Carey (2005), and Kuh et al. (2005) studies offer insight into institutional effectiveness in baccalaureate-granting institutions. However, how applicable their findings are to community colleges is an open question. The graduation rate measures these studies used to select effective institutions for study, which are based on the outcomes of cohorts of first-time, full-time students, are ill-suited for measuring the performance of community colleges, where a majority of students attends part time.[8] Moreover, many of the policies and practices identified by these and other studies as conducive to student success in baccalaureate-granting institutions may not be feasible in community colleges, with their open door admissions policies, predominantly commuter and part-time student populations, and comparatively limited resources per student.

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[5] This finding has been found to apply to baccalaureate institutions, but not necessarily to community colleges (Bailey & Alfonso, 2005).

[6] While Kuh et al. (2005) did control for admissions selectivity, they did not have a direct measure of student ability or income, both of which are strongly correlated with student success.

[7] The study by Kuh et al. (2005) is focused on success by students generally, not on particular groups of students.

[8] For a discussion of the problems in using the IPEDS student right-to-know measure to gauge community college performance, see Bailey, Jenkins, & Leinbach, (2005b).

In a 2004 study, researchers at ACT (Habley & McClanahan, 2004) surveyed both two- and four-year institutions about their retention practices. The survey asked respondents to rate the importance of factors they believe to be associated with attrition and other factors they think promote retention.[9] Using data on retention and degree completion rates from ACT's 2003 Institutional Data Questionnaire, the ACT researchers identified a set of "high-performing" colleges that perform above the median in both retention and degree completion and a set of "low-performing" colleges that perform below the median on both sets of measures. Among the 386 two-year public colleges that responded to the sample, 55 were identified as high performing and 66 as low performing.

Comparing the practices of these two groups of colleges, the ACT researchers identified the following as distinguishing the high-performing community colleges from the low-performing ones (Habley & McClanahan, 2004, p. 6):

- mathematics, writing, and reading centers or labs,

- advising interventions with selected student populations,

- learning communities,

- foreign language centers or labs, and

- programs for racial/ethnic minorities.

When asked to identify four campus retention practices that had the greatest impact on student retention, community college respondents identified (p. 6):

- mandated course placement testing (20.7 percent),

- tutoring program (19.3 percent),

- required remedial/developmental coursework (19.2 percent), and

- comprehensive learning assistance center/lab (19.2 percent).

Despite the many retention-oriented programs and services on community college campuses, only 27 percent of colleges that responded to the survey had established an improvement goal for retention of students from the first to the second year, and only 20 percent had established a goal for improved degree completion.

The ACT study (Habley & McClanahan, 2004) is a laudable effort to examine retention practices associated with institutional effectiveness in a large sample of community colleges. Still, in attempting to distinguish high-performing community colleges from low-performing institutions,

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[9] The survey received a response rate of 35 percent overall and 39 percent, or 386 out of 991 surveys mailed, from public two-year colleges.

the study failed to control for institutional characteristics that affect institutional performance. For example, Bailey, Calcagno, et al. (2005) found that, controlling for both individual student and institutional characteristics, students at larger community colleges as well as those with higher proportions of part-time faculty[10] or more minority students were less like to complete a certificate or associate degree or to transfer to a baccalaureate institution. In a similar analysis using only data on institutional characteristics, Bailey, Calcagno, et al. (2006) found that the most important factor in determining graduation rates was the state where a college is located. None of the studies reviewed here take into account the effect that public policies might have on the performance of institutions, particularly those that are publicly funded.

Like the Muraskin and Lee (2004), Carey (2005), and Kuh et al. (2005) studies, the ACT research (Habley & McClanahan, 2004) relied on institution-level data on student outcomes, although ACT used year-to-year retention in addition to three-year graduation rates as measures of institutional effectiveness, which is better suited for studies of community college performance than would be graduation rates alone. Unlike those other studies, particularly the research by Kuh et al., the ACT study focused on the presence or absence of discrete practices, rather than on the interplay among groups or systems of strategies, and even less so on institutional management.[11] Yet, research on organizational effectiveness supports the common sense notion that no one practice or set of practices makes for effective organizations; rather it is the interaction of systems of complementary policies and practices that determines whether or not an organization is effective (Hannon & Freeman, 1989; Ichniowski, Shaw, & Prennushi., 1997).

Contributions of this Study

The study of institutional effectiveness in community colleges presented in this paper addresses the limitations of previous studies on the effectiveness of undergraduate institutions in several ways. While previous studies have had to rely on institutional aggregates, this one takes advantage of a rich set of longitudinal student *unit record* data to control for the individual characteristics of the students that the colleges serve. Our measure of institutional effectiveness is better suited to community colleges and their students than the National Center for Education Statistics' (NCES) "student-right-to-know" measure commonly used by other studies, since ours is based on the outcomes of both full-time and part-time students. We also measured student persistence in addition to completion and transfer, which is appropriate given that community college students often take a long time to complete their programs or to transfer. Our sample is confined to all community colleges in a single state, thus eliminating the effects on institutional performance of variations in public policy and institutional mission, practice, and resources across states.

While some previous studies only examined institutions considered to be high performers, we directly compared colleges found to have a relatively high impact on the educational success of

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[10] Using IPEDS data, Jacoby (in press) also found that community colleges with a higher percentage of part-time faculty members had lower graduation rates, even after controlling for other factors.
[11] The focus of the ACT study on discrete practices rather than on the interplay among practices, policies, and institutional culture is perhaps a limitation stemming from the study's reliance on surveys rather than site visits and interviews.

their students with colleges that have a low impact. In examining the policies and practices of the high- and low-impact colleges, we focused on their organization, activities, and environments *during the period from which the data used to select the colleges were drawn*. The earlier studies reviewed above did not address the fact that a college's policies and practices can change over time.

Of the recent studies of institutional effectiveness described here, only the research by Kuh et al. (2005) approaches empirical research with hypotheses about what would distinguish institutions that have a strong impact on student success from those that have a weaker effect. In that study, the framework is based on the concept of student engagement. According to Kuh et al., student engagement has two components that contribute to student success:

> The first is the amount of time and effort students put into their studies and other activities that lead to the experiences and outcomes that constitute student success. The second is the ways the institution allocates resources and organizes learning opportunities and encourages students to participate in and benefit from such activities (p. 9).

The role of student engagement in student success has a solid empirical foundation in the literature on the effectiveness of four-year institutions (Kuh et al., 2005). However, research on the impact of student engagement on success of community college students has produced much more mixed results. In a recent review of the literature on student persistence in undergraduate education, Bailey and Alfonso (2005) concluded that:

> [T]he concept of social engagement is probably most relevant for a college experience typified by the resident liberal arts college with multifaceted interactions inside *and* outside the classroom among students and between students and professors. Given the nature of their students and the large number of part-time faculty, trying to reproduce the liberal arts/residential ideal may not be the best strategy for community colleges or their students. The empirical record is certainly consistent with this conclusion (pp. 13-14).

Clearly, most of the research on the effectiveness of undergraduate institutions has relied on conceptual frameworks drawn from the model and experience of four-year colleges, particularly residential colleges (Bailey & Alfonso, 2005). For this study, we developed a conceptual framework that reflects the distinctive challenges and characteristics of community colleges. This framework is described in the next section.

RESEARCH HYPOTHESES

To frame this study of community college effectiveness, we drew on previous research to develop a set of seven hypotheses about the ways that we expected that those community colleges more effective in promoting their students' education success would differ from those with a less positive impact on student success.

Our hypotheses about the expected differences between more effective and less effective community colleges are presented below. We hypothesized that community colleges would be more effective if they:

Have an institutional focus on student retention and outcomes, not just on enrollment. We expected that effective community colleges would be actively focused on student retention and outcomes, while less effective colleges would be primarily concerned about enrollment. Funding for community colleges (and for public higher education institutions generally) is largely based on enrollments rather than on completions or other outcomes,[12] so it is not surprising that community colleges often pay more attention to the former than to the latter. We expected that an outcome focus would be evident in the rhetoric and actions at all levels of effective colleges, from the college's president to the faculty and front-line student support staff, and that the college's leadership would raise and be willing to invest resources to support changes needed to improve student outcomes.

Offer targeted support for underperforming students. Where there are systemic gaps between the access and outcomes of different groups of students, as is typically the case between minority and White students, we expected that effective colleges would undertake targeted efforts to address these gaps. We expected leadership in effective colleges to be actively committed to addressing achievement gaps. This commitment would be demonstrated by efforts to reach out to minority youth in the schools and adults in the community or workplace and prepare and motivate them for college. It would also be evidenced by the extent to which a college provides supports customized to the needs of minority students. We expected that the campus environment on effective colleges would be welcoming to minority students. In addition, since community colleges professionals argue that a key to attracting and retaining minority students is a diverse faculty and staff,[13] we expected high-impact colleges to be more aggressive in their efforts to hire minorities.

Have well-designed, well-aligned, and proactive student support services. We hypothesized that effective community colleges would offer student services that are well designed and aligned to guide and support students from the time they enter the college until they leave. Effective

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[12] See, e.g., Burke and Associates (2005). Dougherty and Hong (in press) examined the impact of state accountability systems on the performance of community colleges in six states. They found some evidence that strong performance accountability systems lead to improved performance, although the effect is small. One reason is that the amount of money attached to performance is quite small, even in states with strong accountability systems. In Florida, for example, the performance funding system established in 1997 has never accounted for more than five percent of total education and general revenues for the state's community colleges.

[13] A recent study by Hagedorn, Chi, Cepeda, & McLain (in press) found a positive relationship between the level of representation of Latino faculty on campus and academic success of Latino students.

colleges use technology and other means *proactively* to identify and reach out to students who are struggling or are at risk of dropping out to ensure that they stay on track.

Provide support for faculty development focused on improving teaching. In addition to support services for students, we expected that the effective colleges would devote more attention and resources to helping faculty become better teachers, with a particular focus on instructors of students who are academically unprepared and/or from minority populations. Given that the majority of faculty in most community colleges are part time, we hypothesized that effective colleges would take steps to orient and prepare adjunct instructors and monitor the quality of their teaching.

Experiment with ways to improve the effectiveness of instruction and support services. We expected that effective community colleges would be much more likely than less effective institutions to experiment with better ways to teach and support students, particularly those who are academically unprepared. Because so many community college students are required to take college remedial or developmental courses,[14] and many students who take such courses fail to advance to and succeed in degree-credit coursework (Bailey, Jenkins, & Leinbach 2005a; Parsad & Lewis, 2003), we expected that effective colleges would try to find ways to improve the outcomes of developmental programs. We also expected that effective colleges would be more likely to evaluate the impact of efforts to improve student learning and success and to use the findings to inform further improvements in practice.

Use institutional research to track student outcomes and improve program impact. We hypothesized that effective community colleges would collect data on student outcomes and use this information to evaluate and manage programs and services in ways that improve student success. This hypothesis is based on the premise of organizational management that "you measure what you value," and its corollary, "you don't value what you don't measure." A recent survey of community college institutional research indicates that relatively few colleges collect data on student outcomes, other than what is required for compliance and accountability (Morest, Soonachan, Reid, Crosta, & Leinbach, in press). Even fewer colleges use data on student outcomes to inform decisions about how to organize and deliver programs and services.

Manage the institution in ways that promote systemic improvement in student success. Our final hypothesis was that the more effective community colleges would approach institutional management with a strategic focus on improving student outcomes. Specifically, we expected effective colleges to have in place systems, policies, and procedures for program review, strategic planning, and budgeting that are guided by evidence of what works to promote student success and that are designed to foster systemic improvements in the impact on students of the college's academic programs and student services.

Taken together, the elements of institutional policy, practice, and culture defined by these hypotheses form a model of community college institutional effectiveness that we tested through this study, and described in the next section. What connects our hypotheses is the idea that effective community colleges deliberately and systematically manage programs and support

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[14] In the sample analyzed here of first-time Florida community college students who enrolled in a postsecondary program leading to a credential, 62 percent of all students and 73 percent of minority students took at least one developmental course. (In Florida developmental courses are called "college prep.")

services in ways that optimize the impact of the college's limited resources on student success. Making effective use of resources is especially important to community colleges because a high proportion of community college students are poorly prepared for college and therefore more costly to serve than well-prepared students, and yet community colleges have relatively few resources to serve their students (compared with four-year institutions). From this perspective, a college's effectiveness in serving students results less from whether it adopts particular policies or practices than from how well it aligns and manages all its programs and services to support student success.

RESEARCH DESIGN: METHODS, DATA, AND MODEL

Data and Sample

For this and a series of other studies on community college effectiveness and student success, the Florida Department of Education shared with CCCR researchers unit record data on nearly 150,000 first-time Florida community college freshmen who enrolled in a college-credit course (including remedial) at one of Florida's community colleges in the fall of 1998, 1999, or 2000.[15]

For this study, we used a sub-sample of these first-time students that included only those whose college indicated were enrolled in one of the following types of programs:

- associate in arts (AA), associate in science (AS), or associate in applied science (AAS);

- associate in science certificate (postsecondary vocational certificate – PSVC) or applied technology diploma (ATD);

- vocational certificate (postsecondary adult vocational certificate – PSAVC);

- advanced technical certificate (ATC);

- general freshmen (degree-seeking but not assigned to a specific program); or

- students in a "linkage" program (a program housed at one community college, but with significant components at another college).

We considered defining the sample instead by using a variable defined in terms of the reasons that students gave at enrollment for coming to college. However, we ultimately chose to use the Florida colleges' program classifications for students because measures of student intent are often unreliable and because we wanted to examine the outcomes of students whom community colleges would consider to be enrolled in programs that lead toward a credential.

Analytical Model and Variables

To rank the relative impact of each Florida community college's policies and practices on the probability that its students would achieve a successful educational outcome, we used ordinary least squares regression and focused on a group of dichotomous variables indicating whether or not the student attended a particular institution. (A detailed description of our methodology for measuring institutional impact on student success and ranking colleges on that basis is presented in Appendix A.) In the model, we analyzed individual student characteristics affecting the probabilities that individual students in an entering cohort at a particular institution would *complete* a certificate or associate degree, *transfer* to a public university in Florida, or *persist* at the starting institution within three years (or nine terms, including summers). We defined a

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[15] This definition excludes students who participated in dual high school-college enrollment programs.

student as "persisting" if he or she was enrolled in at least four of the first nine terms and enrolled in at least one credit course in one of the last three terms in a three-year period.

In the regression, we controlled for the following individual student characteristics that research indicates might have an effect on the educational outcomes of community college students (Adelman, 1999, 2003, 2004, 2005; Alfonso, Bailey, & Scott, 2005; Cabrera, Burkum, & La Nasa, 2005; Rouse, 1995):

- age,

- gender,

- race / ethnicity,

- math and verbal college placement test scores,

- enrollment status (full or part time) during the first semester,

- whether the student had interrupted enrollment during the period,

- whether the student received financial aid in the first semester, and

- whether the student began in one college and transferred to another Florida community college before graduation or transfer.

We also controlled for the year of the entering cohort to capture any temporal differences among these groups of first-time students. We did not control for students' socioeconomic status because we did not have the data.

The regression allowed us to estimate for each college an institutional effect that captures all unobserved institutional characteristics factoring into the probability of a student's completion, transfer, or persistence. A larger value of this effect indicates that the college has a relatively high impact on a student's probability of graduating, transferring, or persisting; a smaller effect indicates a low institutional impact on the probability of success.

We ran the regressions separately for the full sample and the sample of minority students (African Americans and Hispanics) only.

Site Ranking and Selection

We selected colleges for field research using the results from the regressions on the minority student sample. In Florida, as in other states, African American and Latino community college students are less likely than other students to complete degrees or to transfer to baccalaureate programs. At the same time, because we are interested in what colleges are doing to retain students generally, we also examined the impact of each institution on outcomes for all first-time students.

We ranked all 28 Florida community colleges according to the coefficients on the dummy variables for the colleges. These coefficients are estimates of the size of each college's effect on the probability that entering minority students would complete, transfer, or persist within three years. The college with the highest average effect was ranked first; the college with the lowest effect was ranked last.

We selected three "high-impact" colleges from the four top-ranked institutions and three "low-impact" colleges from the five lowest ranked institutions. We did not select the three top- and three bottom-ranked colleges because we wanted to have a balance between the high-impact and low-impact colleges in terms of institutional characteristics.

Note that our ranking is based on the *overall* effect of each college on the probability of minority students' persisting, graduating, or transferring. This overall effect includes institutional characteristics such as size, location, student body mix, and other factors mostly outside a college's control, as well as policies and practices over which colleges have more control, such the ratio of full-time to part-time instructors, expenditures, and student support services.

In an analysis not reported here, we tried to control for the effect of institutional characteristics on the ranking of colleges through a second-stage analysis in which we used the overall institutional effects of the regressions described in the previous section as the outcome variables and controlled for institutional characteristics that previous research indicates can affect institutional performance.[16] The results from this second-stage regression were indeterminate, however, indicating that the model was not well specified.

Thus, in selecting the high- and low-impact colleges we sought to ensure a balance between the two groups in institutional characteristics that we could not control for in our regression using individual student characteristics, but that may have an affect on institutional performance. These include location (urban, suburban, or rural), size, student body characteristics, proportion of part-time faculty, instructional expenditures, and program mix (occupational certificate vs. academic transfer).

Table 1 compares the three high-impact colleges selected with the three low-impact colleges according to their quartile ranking among all 28 Florida community colleges on selected institutional characteristics.

The high-impact and low-impact colleges are roughly comparable on characteristics that other studies have found to affect student outcomes and institutional performance and for which we do not control in our selection methodology. They include such factors as instructional expenditures, proportion of faculty who are part time, and the ratio of certificates to associate degrees. In fact, the low-impact colleges rank higher in average instructional expenditures and are somewhat more oriented to awarding occupational certificates over degrees, which might give them an advantage over the high-impact colleges in student completion rates. Two of the high-impact colleges have higher proportions of part-time students, which might put them at a

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[16] For analyses of institutional characteristics that affect community college institutional performance, see Bailey, Alfonso, et al. (2004); Bailey, Calcagno, et al. (2005); and Bailey, Calcagno, et al. (in press).

disadvantage. Note that the low-impact colleges include no urban institutions and no very large colleges, although the high-impact colleges include a small institution. Therefore, even though we were unable to control statistically for the effects on performance of institutional characteristics, there do not seem to be substantial differences between the sets of high- and low-impact colleges that might explain their relative performance.

Limitations of the Selection Methodology

The data used here allowed a fairly robust measure of community college student success that includes persistence as well as completion and transfer over three years. The model estimates the effects on student success for each college using three consecutive three-year cohorts, which reduces the distortions that can result from year-to-year variation in college performance.[17]

Unfortunately, the data only identify students who transfer to institutions in the Florida State University System (FSUS), thereby excluding students who transfer to private baccalaureate-granting institutions or to institutions outside Florida. Such students are considered non-completers in this analysis, unless they completed a credential before they transferred. This limitation puts at a disadvantage community colleges in our sample whose students can more readily transfer to private or out-of-state universities. In general, with common course numbering and statewide articulation agreements, Florida makes it relatively easy for students at any of its community colleges to transfer to the FSUS institutions. For this reason, we do not think that our inability to measure transfers to institutions other than public universities adversely affects our selection methodology.

The other data limitation we faced is the lack of a direct measure of student socioeconomic status, such as family income or parental education, which other studies have shown to be a key determinant in college success (Adelman, 1999; Cabrera et al., 2005; Rouse, 1995). SES is correlated with test scores, which we did measure. Also, we ranked and selected the colleges using the sub-sample of African American and Hispanic students. We know from analysis of data from national surveys of community college students that students from both populations graduate and transfer at lower rates than do Whites, even after controlling for income (Alfonso et al., 2005; Bailey et al., 2005a).

Field Research Methodology

In July 2005, the chancellor of the Florida community college system sent a letter to the six colleges that we selected for field research, inviting them to participate in the study. All six agreed to take part. The colleges were informed about the study objectives and methods, but were not told their ranking or whether they were a high- or low-impact institution.

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[17] The three-year outcomes measured here are designed to compare the relative performance of colleges over the same, set time period and should not be interpreted as these colleges' absolute rates of student success, which would require a much longer period of time to measure accurately.

CCRC contacted the colleges directly to set up a two-day site visit to each. Teams of two or three CCRC researchers visited the six colleges during fall 2005. One researcher participated in all six site visits.

The goal of the field research was to identify differences in the policies and practices of the high-impact and low-impact colleges that would explain why, controlling for other factors, minority students at the former were more likely to graduate, transfer, or persist than were minority students at the latter. Since the data used to select the two sets of institutions covered 1998 to 2003, our field research focused on the colleges' policies and practices during that period.

During the visits, CCRC researchers conducted interviews using a structured interview protocol that was designed using the model of institutional effectiveness described in the next subsection. The protocol included questions about the organizational structure and staff of the college from 1998-2003 as well as about the external economic and political environment in which each college operated during that period. There were also questions about each college's policies and practices during the period that may have had a bearing on the educational success of community college students generally and minority students in particular.[18] Finally, the protocol asked about key aspects of the college's institutional management practices in such areas as program review, strategic planning, and budgeting.

We used the field research protocol to interview persons (individually and in groups) in the following roles on each campus, asking questions appropriate to each individual:

- president, vice president for academic affairs, and other senior administrators;

- other administrators and staff involved with programs and services relevant to student retention and success, including those in admissions, financial aid, advising and counseling, career services, student life, and programs for disadvantaged students, such as TRIO, Title III, or Title IV;

- faculty members, particularly those in developmental education and "gatekeeper"[19] degree-credit courses, which often are difficult for students to move beyond;

- staff and faculty involved in minority student recruitment or retention initiatives;

- institutional research staff; and

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[18] The main focus of our field research was on efforts by the colleges to retain and graduate students once they had enrolled. However, we also asked colleges about their efforts to recruit and prepare for college minority high school students and educationally disadvantaged adults, such as those in adult literacy programs. To the extent that such efforts increase the number of students who come to the college better prepared and motivated to succeed, they can lead to improved retention and completion. As noted, our sample of first-time students did not include students who had taken college courses in high school, so we tried to discount the effect of dual enrollment programs in analyzing the causes of differences in student success between the high- and low-impact colleges. Even so, such efforts can be an indication of a college's commitment to improving student success.

[19] Gatekeeper courses are introductory college level courses, such as English composition, calculus, and other prerequisites for advanced level work in degree programs.

- African American and Hispanic students.

From respondents who were not at a college during 1998-2003, we sought to find out what had changed in the period since each such person had been at the college to get a sense of what the college did or did not do before. We interviewed between 18 and 35 individuals at each of the six colleges.

We also examined documents from 1998 to 2003 to substantiate claims by interviewees about the nature and timing of particular developments. They included each college's annual reports from the period; and also the reports submitted annually to the state by each college under the Florida Educational Equity Act, which included data on access and attainment by minority students and athletes as well as the diversity of the college's faculty and staff. The Equity Act reports also detailed specific actions that the college was undertaking to address gaps in access and attainment between minority and White students. In addition, we reviewed the self study visiting committee's report and other documents from each college's most recent accreditation reaffirmation process. Finally, we reviewed the results for each college from the Community College Survey of Student Engagement (CCSSE), which was conducted at all Florida community colleges in 2004.[20]

Operational Model of Community College Effectiveness

As a framework for the field research and analysis of the results from it, we used the model of community college institutional effectiveness defined by the seven research hypotheses presented above in the Research Hypotheses section. Through the field research, we sought to test this model by determining whether the institutional policies, practices, and cultural characteristics reflected in each of its elements were more developed in the high-impact colleges than in the low-impact colleges during the study period. The following outlines the sorts of evidence or indicators we looked for in gauging the level of development (or lack thereof) during the study period of each of the model elements at the six colleges we visited.

Institutional Focus on Student Retention and Outcomes, Not Just on Enrollment

Sample expected indicators:

- College's annual reports and other literature reflecting an emphasis on student outcomes rather than just on enrollment.

- College-wide initiatives focused on improving student retention and completion.

- Standing committee or other administrative structure responsible for promoting and monitoring efforts to improve student retention and graduation rates.

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[20] We recognize that the CCSSE surveys were administered at the Florida colleges after our study period. We examined the CCSSE results to get a general sense of the level of student engagement at the college and the areas of engagement in which each college was strong (significantly above average compared to community colleges of similar size and location) or weak (below the average of comparable institutions).

Targeted Support for Minority Students

Clear Commitment by College's Leadership

Sample expected indicators:

- College's annual reports and other literature reflecting an emphasis on minority student success.

- Acknowledgement by administrators and faculty of gaps (if any) in retention and completion by minority students compared to White students.

- Administrative position or structure (e.g., standing committee) responsible for minority student success.

Minority-Inclusive Campus Environment

Sample expected indicators:

- Availability of and active participation in minority cultural activities and clubs.

- Surveys such as Noel-Levitz and CCSSE indicating that the African American and Latino students are similarly satisfied with college services and engaged in the life of the college as are Whites.

Outreach to Improve College Access by Minority Students

Sample expected indicators:

- Programs or initiatives designed to prepare and motivate minority middle and high school students for college.

- Efforts made to work with minority schools to improve postsecondary preparedness of students.

- Public education activities aimed at increasing the awareness of minority families or communities about the importance of college and on how to best prepare their children for postsecondary success.

Specialized Retention Services for Minority Students

Sample expected indicator:

- Minority student retention programs such as TRIO Student Support Services.

Active Recruitment of Minority Faculty and Staff

Sample expected indicators:

- Special policies on minority hiring.

- Special efforts made to recruit minority faculty and staff.

- Support for professional development of minority faculty and staff.

Well-Designed, Well-Aligned, and Proactive Student Support Services

Sample expected indicators:

- Well-integrated systems and procedures for new student intake, orientation, and advising.

- Advising and counseling support for the development of education and career plans (not just course selection).

- Developmental education curriculum tied to requirements of success in degree credit coursework.

- Instruction in college success skills for students in developmental courses and others at risk of dropping out.

- Established and widely used procedures for identifying students who are struggling and directing them to appropriate supports.

- Well-organized tutoring and other academic support services available for students in developmental and gatekeeper courses.

Support for Faculty Development Focused on Improving Teaching

Sample expected indicators:

- Opportunities and encouragement for faculty to become more effective teachers, with particular attention to instructors of academically unprepared and/or culturally diverse students.

- Training and support for adjunct instructors on effective teaching methods.

Experimentation with Ways to Improve the Effectiveness of Instruction and Support Services

- Sample expected indicators:

- Efforts made to experiment with different ways to teach and support students organized at the department level or higher.

- Evaluation of the impact of pilot or experimental efforts on student outcomes.

- Mechanisms for replicating or otherwise disseminating practices found to be effective.

Use of Institutional Research to Track Student Outcomes and Improve Program Impact

Sample expected indicators:

- Collection and analysis by the college of longitudinal data on student progression and graduation rates, not just cross sectional data on enrollments and credentials awarded.

- Data on student outcomes disaggregated by student age, gender, race/ethnicity, Pell grant receipt, and other factors to identify and diagnose gaps in achievement among different groups of students.

- Wide availability of data on student outcomes (not just enrollments) to administrators, faculty, and student services staff and used in decisions about the design or improvement of programs and services.

Institutional Management Processes Designed to Promote Systemic Improvement in Student Success

Sample expected indicators:

- Regular and systematic review of programs based on impact on student learning and outcomes.

- Strategic planning system that ties objectives of individual planning units to overall institutional goals for improving student success.

- Budgeting system that directs resources to programs and services with demonstrated impact on student outcomes.

In our fieldwork, we examined how well developed each of these model elements was at the six colleges. At the same time, we also explored the interrelations of the elements. This was based on our overriding hypothesis that a college's effectiveness in serving students results less from which particular policies or practices it adopts than from how well it aligns and manages all of its programs and services to support student success.

FINDINGS

In this section, we present findings from field research at the three high-impact and three low-impact colleges. The first subsection examines differences between the high- and low-impact colleges in their adoption during the study period (1998-2003) of the policies, practices, and cultural characteristics that we hypothesized would be associated with a greater institutional impact on minority student success measured in terms of completion, transfer, or persistence. The next subsection assesses the explanatory power of our model of community college institutional effectiveness by examining whether the classification of particular colleges as high- or low-impact institutions makes sense in light of the field research findings. The last subsection describes changes in the policies and practices of the six colleges during the three years since the study period. These sections draw on case summaries of each of the six colleges presented in Appendix B.

Adoption of Hypothesized Policies and Practices

Below we analyze the adoption by high- and low-impact colleges of policies, practices, or cultural characteristics associated with each element of our hypothesized institutional effectiveness model.

Table 2 summarizes the state of development of the seven elements of the hypothesized model of institutional effectiveness at each of the six colleges, indicating for each college whether the given element was well developed, developing or weak or non-existent during the study period.

Institutional Focus on Student Retention and Outcomes, Not Just Enrollments

The institutional focus on student retention and outcomes was most advanced in High-Impact (H-I) College A. Early in the study period, the college established a standing retention committee, increased its research on student outcomes, and launched its own student success services program that uses the college's student information system to identify students who are struggling academically and then direct them to services that will help them stay in school. According to the college's president, the college took these steps because it foresaw that policy makers would be increasingly focused on outcomes, not just enrollments.

Both High-Impact (H-I) College B and Low-Impact (L-I) College A experienced rapid enrollment growth during the study period. Not surprisingly, much of their attention was therefore focused on trying to keep up with their expanding student bodies. Even so, at both colleges, developments during the study period led to increased attention to student outcomes. At H-I B, it was the self study process that the college initiated in 2000 in preparation for a Southern Association of Colleges and Schools (SACS) reaffirmation visit. As part of this process, forums were held with a broad cross section of the college's personnel to find out what the college was doing well and what needed to be improved. The college's institutional research department provided extensive data and analysis to inform these discussions. Three issues of concern were consistently raised: student success, cultural diversity, and faculty development. At L-I A, the

development in question was a spring 1998 planning retreat that set forth a vision and ambitious goals for improving student achievement. The college's president aggressively promoted these goals, particularly the goal to become a more "student-centered" college, where "everyone's goal is to help students complete their programs." Those we interviewed agreed that the president has succeeded in communicating the message that student retention needs to be a college-wide effort. Still, it has taken time for this new mindset to take hold. At both this college and at H-I B, implementation of college-wide efforts to improve student retention, while beginning during the study period, has taken place mostly since that period.

None of the other three colleges (H-I C, L-I B, and L-I C) had formal student retention policies or initiatives during the study period. The prevailing focus at these colleges was on maintaining or increasing FTE enrollment. For example, L-I C sought to reverse the enrollment decline it experienced in the time leading up to the study period. All three colleges, which are relatively small institutions, downplayed the importance of formal student success policies and practices, arguing instead that students benefit most when colleges are able to provide personal attention. As one administrator told us, "the individualized approach is more effective than the organized approach." This view was echoed in our interviews at the other two colleges.

Targeted Support for Minority Students

Leadership Commitment

During the study period, the leadership at two of the colleges (H-I A and L-I A) demonstrated a clear commitment to taking steps to ameliorate the gaps in the educational achievement of African American and Hispanic students. The president of H-I A engaged African American leaders in the college's community in dialogues on the problem of the low postsecondary access and attainment by African American males and sought to "keep the issue of diversity on the front burner at the college" through various efforts, including setting numerical goals for minority hiring and requiring that applicant pools for faculty jobs include a sufficient number of qualified minority applicants. The president of L-I A supported the establishment of a diversity council during the study period to, in that person's words, "support and foster a campus environment where our differences are recognized, appreciated, and celebrated."

During the study period, H-I B went from being a majority White institution to a majority African American and Hispanic institution. The college's SACS 2000-02 self study drew attention to the gap in achievement between minority and White students. Even before the study period and continuing to the present, the college has provided targeted support for minority students.

In contrast, the leadership and others at the other three colleges expressed a reluctance to give preferential treatment to any one group of students, insisting that colleges should be "color blind" in serving students. At each of these colleges, we heard the argument that most community college students are disadvantaged in at least some respects, so it would be unfair to target services to any one group. At one college, we were told that there was concern among the leadership that the college not be perceived as providing "affirmative action." A similar view seemed to be shared among many at L-I A, despite the president's outspoken views on the

importance of actively seeking to redress disparities in access and achievement among racial and ethnic groups.

Notably, at each of the three colleges where the administration espoused a "color blind" philosophy, there were student services staff members, in most cases themselves persons of color, who argued that "a one size fits all approach" is not effective to serving minority students. They argued that, precisely because there are persistent gaps in minority student achievement, colleges should be proactive in reaching out to minority students and customize supports to meet their needs.

Minority-Inclusive Campus Community

We found evidence that the three high-impact colleges were more minority inclusive during the study period than were the low-impact colleges. H-I A had a dean of minority affairs who served as an internal advocate at the college for minority students and the outside minority community. According to the president, this person was not shy about bringing minority constituent concerns to the administration and ensuring that these concerns were addressed. Even before H-I B became a majority minority college, the college had a large minority student population, so fitting in does not seem to have been a problem for minority students there. Minority students were and continue to be a small share of students at H-I C, but both students and minority faculty members indicated that the college community is friendly to minority students.

In contrast, we heard from several persons we interviewed at L-I C that minority students have not always felt comfortable on campus. This perception was supported by the results of the Community College Survey of Student Engagement (CCSSE) administered at the college in 2004, which indicated a lack of social and cultural integration of students on campus. L-I C shut down its men's basketball team during the study period. One person we interviewed said that the African American community in the area was upset by that decision and speculated that it might have contributed to the decline in minority student enrollment in that timeframe.

The results of the Noel-Levitz survey of students at L-I A in 1998, 2001, and 2003 indicate that minority students were significantly less satisfied than were White students with several aspects of their experience at the college, including: "faculty being fair and unbiased in treatment of students," "faculty taking into consideration student differences as they teach a course," and "faculty being understanding of students' unique life circumstances."

An interviewee at L-I B said that the three intercollegiate sports teams the college sponsors (men's baseball and women's volleyball and softball) tend to appeal to "middle-class White kids" more than minority students. A minority staff person at the college noted that low participation by minority students in the college's sports teams, clubs, and activities on campus makes them feel that "they don't want us out there."

Efforts to Improve College Access by Minority Students

During the study period, all six colleges offered a College Reach-Out Program, or CROP, which is funded by the State of Florida to provide academic preparation, college exposure, and other supports to disadvantaged youth starting in middle school. Most of the colleges offered other programs designed to prepare and motivate disadvantaged middle- and high- school students for college. Most of the participants in these programs at each college were African American or Latino. The programs are designed primarily to encourage students to enroll in any postsecondary institution, not necessarily the particular college that offers the program. The programs generally offer no formal services to help students stay in college once they enroll.

Specialized Minority Retention Supports

While all the colleges offered programs to improve access by minority students during the study period, only the three high-impact colleges provided specialized retention supports for such students once they entered the college. In 1997, H-I A started its own student support services program to improve student retention. Although open to all students, the majority of students served were students of color. In 2001, the college was awarded a TRIO Student Support Services grant from the U.S. Department of Education. The program provides intensive counseling and support to 160 students per year. Another 300-400 students who are on a waiting list receive some but not all of the program's services. The college reports that 95 percent of students who receive the full set of services complete a two-year degree at the college. Again, most of the students in this program are African American or Latino.

During the early 1990s, H-I B had a Title III grant that sought to improve outcomes for minority and other disadvantaged students by strengthening tutoring, enhancing faculty development, and creating "student success services." The latter included student success workshops, an early warning system, and a mentor program that paired students with faculty and staff. In 2001, the college reorganized these services under a college-wide "student success department," with coordinators on every campus. According to several interviewees, the student success coordinators were the college's lead "retention staff." They ran the student success workshops, which were designed for college prep students, and the early warning and mentor programs. They also worked with athletes (and their coaches) to help them stay in school. While the student success services were made available to all students, most students who got assistance from the student success staff were African American or Latino. To accommodate the growing numbers of immigrant students, H-I B during the study period hired multilingual staff in all student services departments, including financial aid. According to staff members we interviewed, in 1997, none of the college's materials were printed in Spanish; now substantial portions of the college's website are in Spanish.

H-I C has had a TRIO, Student Support Services (SSS) grant program, serving 200 students per year, since 1987. In 1999-2000, fewer than 100 African Americans were enrolled in all associate in arts or associate in science programs at the college. Since most of the college's African American students qualified for the SSS program, it is likely that the SSS program served most of the college's African American students during the study period. (The college has few Hispanic students.) During our study period, the program provided two counselors for 200

students. That is more than double the counselor-to-student ratio for students not involved in the program.

L-I B also had a TRIO Student Support Services program. It ended during the study period, however, because the college' was not successful in securing a continuation grant. Neither L-I A nor L-I C had formal retention programs that would have benefited minority students during the study period.

Recruitment of Minority Faculty and Staff

During the study period, H-I A and L-I A were most aggressive in their efforts to recruit minority faculty members in particular. With its president's backing, H-I A had numerical targets for minority hiring. If there were not enough minority candidates in the pool for a faculty job, the president demanded that more qualified minority applicants be recruited. The college used a variety of strategies to recruit minority applicants. These efforts led to modest increases in the proportion of minority faculty members during the study period. A minority staff person at L-I A said that that the college has sought to ensure that minority candidates are well represented in job applicant pools, but argued that the college could do more to create an environment where minority faculty not only want to come to the college, but, once at the college, stay there.

According to faculty members at H-I B, the college did seek to recruit minority faculty and staff during the study period. The college's 2003 strategic plan includes a goal to increase diversity of faculty and staff. As a result, the college has since stepped up its minority hiring efforts.

None of the three other colleges (H-I C, L-I B, and L-I C) actively sought to increase minority hiring during the study period. Respondents at all three colleges, which serve predominantly rural areas, argued that it is difficult to recruit minority candidates to areas with few cultural amenities and limited social networks for minority professionals. All six colleges reported that it is challenging to find minority candidates with a master's degree in fields such as health care, information technology, and others where minorities are underrepresented.

Design and Alignment of Student Support Services

Table 3 summarizes our analysis, elaborated in the college profiles in Appendix B, of the extent to which each college's various retention-related programs and services were well designed and implemented during the study period.

Of the six colleges, H-I A had the most well-developed array of programs and services. Among them, several were especially well designed to support student success. For example, during our study period, the college believed that students who were clearer about their goals for education and careers were more likely to complete. All first-time students were therefore required to meet with an advisor who worked with them to develop an academic and career plan and to select coursework accordingly.

Beginning in the mid-1990s, the college developed an early alert electronic system using funds from a Title III grant. With this system, instructors could view a list of all students in a class and generate a form letter to students who seemed to have problems. The letter, to be sent via regular or e-mail, allowed the faculty member to indicate the particular issue of concern (e.g., absences, poor performance on an exam) and what the student might do to correct the problem, and to make additional comments. The letter also asked the student to contact the instructor. Student support staff we interviewed said that students appreciated getting personal attention from faculty members. The college encouraged instructors to get in touch with struggling students as early as possible. The college used to distribute mid-term grade reports, but discontinued this practice after it found that the likelihood of "rescuing" a student with only eight weeks remaining in the semester was low. The college found that about half its instructors were consistent users of the early alert system, about 25-30 percent were occasional users, and about 20-25 percent used it infrequently or never at all. Three of the other colleges (H-I B, L-I B, and L-I C) also had "early warning" policies during the study period, but they were less formal and fewer faculty participated.

H-I A also did more than the other colleges to continuously improve its developmental education programs during our study period. Since before the study period, the college's developmental education faculty has worked with the college's institutional research office at the end of every semester to analyze the success rates of students in developmental education courses and determine how well they were doing in degree-credit courses and the rates at which they completed degree programs. The faculty uses this information to guide changes in curricula and teaching methods.

H-I A seemed to be more oriented than the other colleges toward serving older students, who are likely balancing school with work and families – the so-called "non-traditional students." The college offered about 40 percent of its classes in the evenings or on weekends. It started offering online courses in 1993 and now provides an extensive array of courses over the Internet, including the second level of college prep math (but not the first), introduction to algebra, and the college's student success course.

In addition to being generally well designed, H-I A's services seemed to be well aligned, in that student services staff collaborated with one another and with faculty to help students make progress toward their goals. For example, the college's assessment staff worked closely with counselors and advisors and the college prep faculty to ensure that students were placed accurately. Management of these services was and remains centralized at the college, which may account for the high level of alignment and standardization of practice in most service areas, even though this is a medium-sized college with multiple campuses.

In contrast, H-I B also offered an extensive array of student supports during the study period, but the management of these programs and services was mostly left up to the individual campuses. As a result, there was considerable variation in the intensity and quality of services across its campuses, according to those we interviewed. They also said that these services were generally not very well marketed to students. Since our study period, the college has sought to better coordinate student services across campuses and better connect student services with academics.

Retention related services at the other four colleges were similarly not very well aligned and generally not proactive in identifying and reaching out to students who were having difficulties or at-risk of having difficulties. Two of the colleges (L-I B and L-I C) received recommendations from SACS visiting committees about the need to better align student orientation, assessment, and advising services. At four of the colleges (H-I C, L-I A, L-I B, and L-I C) students in occupational certificate programs received advising only from the faculty and staff in those programs. This arrangement may benefit occupational students in that faculty members were likely to be familiar with their field of study, but it also may have created barriers to their advancing on to degree programs.

During our study period, all of the colleges except L-I B had learning centers offering tutoring and other academic supports. (L-I B has recently opened a tutoring center that it had been planning for several years.) Four of the colleges (H-I A, H-B, H-I C, and L-I C) required students in college prep courses to spend time each week in tutoring at a learning laboratory. In 2001, L-I A began offering supplemental instruction (SI) for students in gatekeeper courses through its learning center. H-I B offered SI to students in courses with a high failure rate through a Title III grant in the early 1990s. An evaluation by the college showed that students who participated in SI were more likely to pass these courses. SI was offered college-wide for the three years of the grant, but, because of resource constraints, it has since only been available on one of the college's campuses.

Two of the colleges (H-I C and L-I C), both in rural areas, had arrangements with universities to offer bachelor's degrees on campus during the study period. Interviewees at these institutions were unanimous in saying that these "university center" arrangements increased baccalaureate opportunities for their students. Two of the other colleges (H-I A and L-I B) opened university centers on campus near the end of the study period, although this was probably too late to benefit students in the cohorts we used to select colleges for participation in this study.

Support for Faculty Development

Although all six colleges supported faculty members who took the initiative to pursue professional development, two of the high-impact colleges seemed to place more emphasis on faculty development than did the three low-impact colleges during our study period. H-I A required seminars for new faculty on effective classroom practice. Using funds from a Title III grant the college received in the early 1990s, H-I B developed training manuals for faculty to improve the consistency of information provided to new faculty members. However, during the study period at least, none of the colleges actively sought to help faculty become better teachers of academically unprepared and culturally diversity students. This finding might suggest that faculty development that addresses general faculty practices, rather than the faculty's relationship or instruction of particular student populations, is the most important factor for improving faculty effectiveness.

Finally, none had professional development programs specifically for adjunct faculty, although all relied heavily on part-time instructors.

Experimentation with Ways to Improve the Effectiveness of Instruction and Support Services

We saw evidence that there was at least some experimentation with ways to improve student success at all six colleges during our study period. In most cases, this innovative activity was in pockets on campus and did not produce changes across the institution.

H-I B is a case in point. By all accounts, the college's strong institutional research office has long been open to working with those who wanted to evaluate the effectiveness of particular programs or services. During our study period, for example, the research office collaborated with the Title III project staff to evaluate the supplemental instruction, mentoring, and other services developed through that grant. Even so, experimentation with ways to improve student success seemed not to have been well coordinated across the college. Even where studies showed particular practices to be effective, the finding did not necessarily lead to adoption of the practice throughout the institution. Faculty and staff indicated that the availability of grant money or other funding was the key determinant of whether a practice was adopted.

Similarly, at L-I A, faculty in the math department have tried a variety of methods over the past ten years to improve outcomes for students in college prep math (although they admit that none has produced impressive results). Only since the study period, however, has the college begun to implement college-wide strategies for enhancing student retention and success. Faculty members at L-I C have also actively experimented with different approaches to improving the success of students in college prep. Until recently, however, the college lacked a mechanism for evaluating the impact of efforts to improve student success.

Only at H-I A was innovation around teaching and learning coordinated across campus. The college's president created a culture at the college where staff and faculty are expected to work together across divisions to figure out ways to improve services to students. (For examples, see the case profile of H-I A in Appendix B.) Interviewees who were at the college during the study period said that the culture of evidence was present at the college then.

Use of Data and Institutional Research to Evaluate Student Outcomes and Improve Program Impact

H-I A was clearly the most advanced of the six colleges on this dimension of the model. In the early 1990s, the college began developing a decision support system (DSS) that today provides timely data on the college's students and operations. Rather than rely on the institutional research office to generate reports, this system lets decision makers analyze the data themselves to address the questions they face at any given time. When the DSS was first created, it was designed for top-level access only – the president and the president's cabinet. Over time, access to the system was expanded. It started out with five to six users. Within two years, it was open to all administrators. By 2000, all department heads were using the system.

Since the DSS system was established, the college has used it in two main ways. First, the college uses it to identify college-wide problems or needs. For example, the college saw that course pass rates in math and science were unacceptably low. It responded by securing a Title III

grant to revamp math and science curricula. Now math and science courses at the college include collaborative assignments, embedded assessment, and computer-aided learning. Indications thus far show significant improvements in rates of student success. Second, the college uses the system to conduct regular reviews of programs, courses, and faculty. Department heads meet with faculty, both full time and part time, after every semester to review pass rates, grades and student evaluations from their courses. The DSS has a trigger that notifies administrators if there is a substantial drop in pass rates for particular courses or instructors.

H-1 B actually preceded H-1 A in the development of a system for analyzing the progress of students over time. In the late 1980s, the college's director of institutional research created a longitudinal dataset that allowed tracking of student cohorts over multiple years. The research office began to use this information to conduct studies of student persistence, with a special focus on those who were not completing their programs. By the study period, the college could track some cohorts over ten years or more. The institutional research office produced numerous analyses of student retention, often disaggregating the results by student race and ethnicity. Yet, despite the presence of this rich dataset and a strong institutional research capacity, the college's leadership during the study period was selective about who within the college had access to information. As a result, according to those we interviewed, data on student success were not always shared with faculty and staff. Through the self study initiated in 2000, the college began to make much more widely available data on student success and the performance of specific programs and services. For example, the student services staff, working closely with the institutional research office, did a series of analyses, including usage studies and student satisfaction surveys, in order to measure the cost effectiveness of its services as part of the self study process.

The institutional research capacity at L-I A also evolved since the beginning of our study period. Before that time, the institutional research office spent most of its time producing reports required by the state. In 1997-98, a new vice president of educational programs promoted the idea of using the state data for research. As a result, the academic deans and then, increasingly, department chairs and even faculty began asking for access to data for use in program review and planning. The college moved to a new student information system in 2003, which has allowed administrators, staff and faculty to run their own queries.

The other three colleges (H-I C, L-I B, and L-I C) did little data analysis other than what was required by the state during the study period. None used data on students to design and manage programs and services and the leadership at these colleges based their decisions more on experience and intuition than on evidence, according to those we interviewed.

Institutional Management of Improvements in Programs and Services

Perhaps not surprising given the findings in the previous two subsections, H-I A was alone among the six colleges in having in place during the study period the organization, systems, and procedures for managing college-wide improvements in teaching and learning based on research and data on student achievement.

Since before the study period, the college has had standing "workgroups" or committees on retention, learning environment, and technology. These committees are responsible for monitoring and evaluating the college's programs and services on these various fronts. During the study period, only faculty participated in these groups. Starting in 2002, student services staff were represented as well.

The college has also had in place procedures for regularly and systematically reviewing all programs down to the course level. Department chairs are responsible for working with the faculty to examine and compare performance across instructors and classes using data from the college's decision support system. Academic administrators said that they have emphasized with faculty that the process is designed to help faculty members improve the impact of their teaching on students, not to punish those who are not performing as well as others. This program review process was in place during our study period, although enhancements to the college's student information and decision support systems have since substantially enriched the data available for it.

In 1997, the college started using an online strategic planning tool. The system tracks budget requests from each unit to ensure that they are connected with the unit objectives and that these are tied in turn to the college's goals. According to the current director of planning, department objectives must reflect a concern for improving students' progress and outcomes. Department chairs are responsible for bringing faculty and staff together to regularly assess whether or not unit goals are being attained.

None of the other five colleges had institutional management systems or processes for promoting systemic improvements in programs and services. At four of them, however, the groundwork for such processes was laid during the study period. At H-I B, the seeds for the college's current master educational plan for improving student outcomes were sown through the self study process leading up to a visit by the SACS reaffirmation team in 2002 in which the college identified gaps in student achievement and areas of practice the college could improve to help close the gap. L-I A now has a college-wide planning system that is designed to help the college achieve the vision and goals for improving student success that grew out of a 1998 retreat of the college's leadership, faculty and staff. H-I C and L-I C began the process of putting in place systems for improving institutional effectiveness in response to recommendations from SACS reaffirmation reports during the study period.

Assessment of the Predictive Power of the Model

Our model is most strongly supported by High Impact (H-I) College A. Nearly all of the policies, practices, and cultural characteristics we expected to be associated with a high-impact college were well developed at the college during the study period. They include:

- Sustained focus on and commitment to improving outcomes of students generally and minority students in particular.

- Well-aligned, proactive services for students generally and customized supports for minority students.

- A culture of innovation whereby faculty and staff are expected to work together across departments and divisions to find ways to improve student success.

- Extensive use of data on student outcomes to identify barriers to student achievement, devise ways to overcome those barriers, and evaluate the effectiveness of the solutions.

- Institutional management processes for promoting systemic improvements in instruction and support services.

Most of the features of the model were also evident at H-I B, although many of them were still developing during our study period. The college offered an array of support services designed to promote student retention. They included student success workshops, an early warning system, and a mentor program the college developed to enhance success by disadvantaged students through a Title III grant it received in the early 1990s. During our study period, the services were reorganized under a college-wide "student success department" with coordinators on every campus. Although these services were open to all students, most of those served were students of color. These well-coordinated retention supports seem to be a key reason minority students were so successful at the college during the study period.

There was also a considerable amount of experimentation at H-I B with different approaches to improving success by student generally during our study period. These efforts were supported by the college's sophisticated institutional research office. In the early part of the period, however, the college lacked a mechanism for disseminating practices found to be effective across the institution. Moreover, data on student outcomes were not consistently made available to faculty and staff.

Through the self study process initiated in 2000 in preparation for the SACS reaffirmation committee visit in 2002, the college began to make data on student success and on the performance of specific programs and services more widely available, and to engage faculty and staff in figuring out how to address the growing number of students coming to the college unprepared to succeed in college.

In contrast, college H-I C and the three low-impact colleges had few of the features of our hypothesized model. During the study period, these four colleges were focused primarily on increasing enrollment rather than on retaining students once enrolled. At the same time, while each of them had particular services that were well designed and implemented, in none of them were student services well aligned among themselves or aligned with academic programs in ways that supported students from the time they entered the institution until they reached a successful outcome. In the case of the smaller colleges (H-I C, L-I B, and L-I C), much of the support was provided without formal systems or procedures. At each of the small colleges, we heard the argument that formal systems are not as important to student success as personalized attention and a culture of commitment to students. As one president said, "It isn't anything formal, just caring about students." The findings from this study do not support this contention, however.

None of these four colleges (H-I C and the three low-impact colleges) were accustomed to analyzing data on student progress and outcomes (as opposed to enrollments) and to using this information to guide decisions about program design and improvements. On the face of it, these findings make it hard to explain why H-I C is classified as a high-impact institution. Those we interviewed at the college touted its culture of caring and support for students by faculty and staff. This and the college's small size combined to make what staff and students described as a "caring atmosphere" on campus. At the same time, the college's approach to serving students was generally informal and not well aligned in a way that would enable the college's small student services staff to support students efficiently. The main exception was the TRIO-funded Student Support Services (SSS) program, which the college has run since 1987 and which is funded to serve 200 students annually. SSS supports two advisors for these 200 students. In 1999-2000, there were a total of 96 African American students enrolled in associate in arts or associate in science programs at the college. Most of the college's African American students qualified for the SSS program. Therefore, during the study period, the SSS program served a substantial portion of the college's minority students. The intensive supports provided to a large share of the college's minority students through the SSS program is the most likely reason that the college ranked high compared to other Florida community colleges in its impact on the success of minority students.

However, while H-I C ranked second out of 28 Florida community colleges in its estimated impact on minority student success during the study period, the college's rank dropped to 21 when all first-time students were considered. Thus, the college's impact on minority student success seems to have been considerably greater than its impact on students generally. The fact that minority students likely received a much higher level of support than did others during the period seems to explain this discrepancy. The other two high-impact colleges (H-I A and H-I B) ranked high in their impact on success of all students, while the three low-impact colleges ranked low.

Hence, we did find through the field research that the high-impact colleges tended to follow more of the policies and practices we hypothesized to be associated with greater institutional effectiveness than did the low-impact colleges. However, given the small sample size for our qualitative fieldwork, these findings should be considered suggestive. Hopefully, future studies will follow a similar methodology, but with a larger sample of colleges.

Developments Since the Study Period

In the three years since the end of the study period, all of the six colleges we visited have adopted a fuller set of the elements of our model of institutional effectiveness. The shaded cells in Table 4 show particular features of the model that are now more strongly developed at each college than at the end of the study period.

Specific Changes

Institutional Focus on Student Retention

All the colleges we visited are now more focused on student retention and completion than they were during the study period. In 2004, L-I A created the position of vice president for student success charged with overseeing efforts to improve student outcomes. The college also established a student success committee made up of administrators, faculty, and staff to propose strategies for increasing student retention and monitoring the impact of those efforts. This past year, L-I C created a retention plan.

Targeted Support for Minority Students

L-I A and L-I C now offer more targeted supports for minority students. In 2003, L-I A was awarded a Title III grant designed in part to improve success among college prep students by providing peer mentors and other supports. Most of the students served are students of color. In 2003, L-I C hired a new admissions director. This person, who is African American, has made a concerted effort to recruit from minority high schools and communities in the college's service area. L-I C has also taken steps to make the campus more welcoming to minority students, including expanding intramural sports and emphasizing cultural diversity in the college's annual fall and spring social events. The college's minority student enrollment increased in the past two years, after declining during the study period.

Well-Aligned Student Services

All of the colleges have sought to strengthen and better connect student services. H-I C reorganized its student support services using a "one-stop model" to make the services more accessible. The college also sought to be more proactive in reaching out to struggling students. Over the past two years, L-I C has expanded new student orientation, offering longer sessions more frequently over the semester and at different times of day. The college also created a formal "early warning" system by requiring faculty to contact students after only one absence from class.

L-I B revamped and expanded orientation, advising, and counseling services to be more responsive to student needs. In 2005, the college opened a comprehensive tutoring and learning center that serves all students, including those in occupational programs. The college also opened a university center offering bachelor's and master's degrees in a variety of fields linked to the college's associate degree programs. We heard from administrators, faculty, and students that this center has helped expand access to baccalaureate education for students from the college's rural service area.

Since our study period, H-I B has sought to better coordinate student services across campus and to align student services more closely with academics. According to several persons we interviewed, faculty and staff now work much more closely together and, in the words of one

staff member, "there are many positive, honest conversations about how student services can complement academics."

All six colleges have put more information for students on the Internet. L-I A is also moving components of particular services to the web, including student orientation, counseling, and advising and "co-curricular" services such as cyber cafes on every campus. A student services administrator at the college said that this move reflected a shift in the college's approach to student services from "hand-holding" to one that "empowers students to navigate themselves." This shift was also the result of pressure to "do more with less" in the face of rising enrollments and tight budgets.

Support for Faculty Development

L-I A is using funds from its Title III grant to create a faculty institute through which faculty can improve their teaching skills and stay abreast of changes in their field.

Use of Data to Improve Program Impact

In 2003, L-I A implemented a new student information system that has made it easier to track students over time. The college is using the new system to make data widely available and thus enable the college's departments or planning units to establish and track performance measures as part of the college's planning process. The research office has also developed a method for evaluating efforts to improve student success, which it uses to evaluate intervention strategies proposed by the student success committee.

In 2004, L-I B hired a new vice president for educational and student services, who has promoted the concepts of "culture of evidence" and "data-driven decision making." The college's institutional research office has responded by trying to make information more widely available both to senior administrators and to the various departments and divisions. At H-I C, under a new president, administrators, faculty, and staff are beginning to use data in decision making where they had not before.

H-I B, H-I C, and L-I C have restructured their institutional research offices, in each case seeking to tie institutional research more closely to efforts to improve institutional effectiveness. H-I B, for example, combined its institutional research and information technology departments to create a "business intelligence" unit that is responsible for providing the data and analysis needed to implement its new education master plan. The college is now installing software that will enable department chairs, faculty, staff, and other end users to conduct their own analyses. The business intelligence staff has organized user groups to identify the sorts of data and analyses that will be useful to decision making in particular functional areas of the college. These groups are also responsible for training personnel in their respective areas on how to use data in planning and decision making. The business intelligence staff indicated that the demand for data and research seems to be increasing. As one staff member said, "People are more aware that there are data out there that can inform practice." Previously, requests for data were typically *ad*

hoc. Now many more departments are requesting data to measure progress toward goals and objectives set forth in the education master plan.

Institutional Management of Improvements in Programs and Services

All but one of the colleges have strengthened systems for evaluating and improving practices based on data on student performance. In 2004, under the direction of the college's new president, H-I B developed an "education master plan" through a process involving a broad cross section of the college community. The master plan has set in motion an array of activities intended to improve outcomes for students, particularly the growing number who arrive unprepared for college. A key aspect is that the president requires that all budget requests be tied to the goals and strategies of the master plan and be justified with data on how students will be better served as a result.

In 2004, H-I C formed an instructional quality committee to establish procedures for rigorous program review. The college also created a new position, director of institutional research and effectiveness. The director is working with the deans and department heads to create an institutional effectiveness plan, with objectives tied to college goals and clear outcome measures that can be documented using data supplied by the institutional research office.

In 2003, L-I C reorganized its institutional research function, hiring a new director of research, planning, and institutional effectiveness and establishing a strategic planning committee. The new director worked with the planning committee to develop a three-year strategic plan to address recommendations from the college's 2000 SACS accreditation review.

Since our study period, and particularly following its 2002-03 SACS accreditation review, L-I A has been instituting a planning process that the college's leadership believes is the key to improving student success. According to one administrator, "[The college's leaders] are trying to focus the institution to get us all working to common goals, which is a culture change. Every person in the college would belong to a planning unit. We don't want to compete for resources; we want to allocate the best way to achieve our vision."

Only L-I B has not adopted a more strategic approach to managing improvements in practice. However, the college's administration seems open to doing so and the efforts by the new vice president to promote the use of data for decision making suggest that the college is poised to move in that direction.

Culture of Innovation

Even though most of the elements of our model of institutional effectiveness were in place at H-I A during the study period, since then, the college has actually brought each element to a further stage of development. The impetus was an initiative launched by the college's president in 2002 to prevent the college from becoming complacent and to involve a broader segment of the staff and faculty in finding better ways to serve students. As one administrator explained: "[The college] was very solid on its indicators. We were doing fine, but the [president], who is never

one to rest on his laurels, said, 'We are good, but what is it going to take to get to the next level?'"

The process started with numerous interviews, surveys, and town hall meetings with persons from all parts of the college as well as with outside community members. The college's leadership studied the issues and concerns that surfaced through the initial gathering of input and identified five areas for further examination by workgroups composed of faculty and staff: purpose, learning environment, future students, strong and viable organization, and communication. The core principles that grew out of the deliberations of the working groups were codified as the "In Dedication to Students" declaration, which is included as the preface to the college's student handbook and catalog.

In the three years since this initiative was launched, the college's leadership has continued to promote the values of continual self-improvement, collaboration across divisions, and engagement of employees at all levels. This has led to numerous innovations in the college's programs and services. The following are some of major ones:

- *New Enrollment Management Department.* In 2003, the college created an enrollment management department to improve student recruitment and retention. The enrollment management staff works with academic and student services departments to develop plans for improving recruitment and retention. These plans, which must be tied to the college's strategic plan and annual operational plan, are reviewed by the college's standing retention committee.

- *Learning Styles Initiative.* This initiative grew out of a recognition that established ways of teaching were not working with a substantial number of the college's students. The goal was to make faculty aware of different learning styles and adapt their teaching methods accordingly.

- *Reorganization of Student Services to a One-Stop Model.* Since the study period, the college has taken steps to improve all its student services, including new student orientation. More importantly, it has sought to better align these services using a student information system that integrates data from the various service and program areas and provides timely information on student progress to staff and faculty.

- *Accountability Measures for Student Services.* These measures include availability, quality, and student satisfaction with services, communication, professional development, and integration of technology.

- *Unified, Web-Based, Student Information System.* This new system integrates data from all academic and student services areas, including financial aid. Academic departments use it to schedule classes and faculty can do grading with a web-based interface. The system automatically checks to ensure that students are being properly placed according to their test scores and that they have met the necessary prerequisites for any given course or program. The college integrated its early alert system into the grading system to encourage more faculty members to use it to get in touch with students who are struggling.

Motivations for the Changes

At two colleges (H-I B and H-I C) the impetus for the developments since our study period came from new leadership that brought a greater focus on improving student outcomes and that supported the development of the systems, policies, and procedures to do this. At two others (L-I B and L-I C) the motive for change was a response to accreditation reviews indicating the need for more systematic and systemic approaches to measuring and improving institutional effectiveness. In the case of L-I A, the changes resulted from the implementation of a system for institutional planning and improvement that is the college's main strategy for realizing the vision and goals for student improvement set through a 1998 planning retreat. Also, for nearly ten years the college's president has been pushing the college to become more student-focused. This case in particular shows how long it can take to bring about fundamental changes in modes of operation necessary to implement the various elements of our model of institutional effectiveness. L-I A is by no means unique. In all cases, the groundwork for the development evident in these colleges over the past three years was laid during the study period.

In making these changes, the colleges may also have been responding to the greater attention by policy makers to student outcomes. The Florida community college system has been notably aggressive in recent years in setting performance measures for colleges and taking other steps to improve outcomes for students generally and address gaps in performance by disadvantaged students in particular.

Implications for Practice and Further Research

This study has sought to identify management practices of community colleges that enable their students to succeed in postsecondary education. We used unit record data on cohorts of first-time community college students in Florida to estimate the impact that each of the 28 community colleges in the state had on the completion, transfer, and persistence within three years of first-time African American and Hispanic students, controlling for test scores and other individual characteristics that might affect students' outcomes. We conducted interviews and reviewed documents at six of the colleges – three that had a high impact on the probability their minority students would succeed and three that had low impact. The goal of the field research was to identify differences in the policies and practices of the high-impact and low-impact colleges that would explain why, controlling for individual student characteristics, minority students in the former were more likely to graduate, transfer, or persist than were minority students at the latter. Since the data used to select the two groups were from 1998 to 2003, our field research focused on the colleges' policies and practices during that period.

We approached the field research using a model, based on previous research on institutional effectiveness from the education and organizations literatures, of the policies, practices, and cultural characteristics we expected to distinguish high-impact community colleges from the low-impact colleges. Our findings (summarized in Table 2) indicate that the dimensions of the model where there is the clearest difference between the high- and low-impact colleges are under "targeted support for minority students," specifically "minority-inclusive campus environment" and "specialized retention services for minority students." Thus, minority community college students are more likely to succeed at colleges where they are made to feel welcome and where there are support services and programs specifically designed for them.

At the three low-impact colleges (L-I A, L-I B, L-I C) and at one of the high-impact colleges (H-I C) some respondents argued that community colleges should not give preferential treatment to any one group of students because many, if not most, students face barriers to success in college. Others at these four colleges, and particularly some (but not all) of the minority staff and faculty we interviewed, maintained that, because there are persistent gaps in achievement between minority and White students, special efforts are needed to address these divides. The findings from this study support this position.

Most of the other dimensions of the model beyond those related to a focus on minority student achievement were more developed at two of the high-impact colleges (H-I A and H-I B) than at the three low-impact colleges. This finding supports our hypothesis that policies and practices that affect students generally can benefit minority students as well as other students. These practices include a focus on student retention and graduation, rather than just on enrollments; well aligned and proactive student support services; experimentation with ways to improve student success; and use of data on students to improve programs and services.

H-I C seems to provide a conflicting case. However, further analysis shows that, while H-I C ranks high among Florida community colleges in its impact on minority student success (adjusted for student characteristics), it ranks low in its effect on success by students generally. The other two high-impact colleges (H-I A and H-I B) rank high in their impact on the adjusted

success rates of all students, while the three low-impact colleges have relatively low impacts on overall student success.

The three small colleges in the our sample (H-I C, L-I B, and L-I C) generally lacked formal student support services. Instead they relied on the commitment of faculty and staff and the personal attention made possible by their smaller size to create a supportive environment for students. Respondents at each of these colleges argued that this approach was more important to student success than formal systems, procedures, and programs. The findings here do not support this contention, however.

Because it lacked formal systems, procedures, and programs for student support, but was categorized as a high-impact institution, H-I C once again seems to present a conflicting case. Yet, further investigation shows that most of the minority students at the college during the study period were likely to have benefited from the more organized and intensive support services provided through a federal Student Support Services grant.

Our findings suggest that, to promote student success, particular student support services – such as in-depth orientations, proactive advising, early warning systems, and well-organized academic support services – not only need to be in place, but must be well aligned and coordinated across the campus. While administrators may see different functional areas of the college as providing discrete services, students do not see, nor should they experience, such divisions. Seamless integration of services from the student's perspective and collaboration among faculty, staff, and administration in providing these services are what seem to contribute most to student success.

The findings also support our overriding hypothesis that the key to a college's effectiveness is not whether it adopts particular policies or practices, but how well it aligns and manages all of its programs and services to support student success. Small-scale, "boutique" programs or pilots, while perhaps representing important sources of innovation for a college in the long term, are unlikely by themselves to have much of a direct impact on overall institutional effectiveness.

Of the six colleges, only H-I A had well-developed systems and procedures for managing college-wide improvements in practice based on research and data on student achievement. They included a standing committee responsible for monitoring and evaluating the college's efforts to promote student success, a process for regularly and systematically reviewing the performance of all programs down to the course level, and a strategic online planning tool that tracks budget requests from each unit to ensure that they are connected with the unit objectives. Each unit's objectives are tied to the college's goals, which in turn are set to meet state accountability goals and measures. Arguably, such a system is needed to systematically bring about improvements in practice, although it may not be necessary to create the conditions for student success.

In the three years since the end of the study period, all of the six colleges we visited have adopted a fuller set of the elements of our model of institutional effectiveness. The shaded cells in Table 4 show particular features of the model that are now more strongly developed at each college than at the end of our study period. All of the colleges are more focused on student retention and completion rather than just on FTE enrollment. All have sought to strengthen and better connect student services. As part of this effort, the colleges have put more information for students on the Internet, allowing students to seek answers to their routine questions and freeing

up staff to help students with more complex issues. All but one of the colleges have strengthened systems for evaluating and improving practices based on student performance data. With one exception, all have implemented or are in the process of putting in place management systems to support ongoing improvements in programs and services. With these changes since the study period, we would expect to see improvements in student success at all six colleges, although data are not yet available to allow us to test this prediction.

In two cases, the impetus for these changes came from new leadership that brought a greater focus on improving student outcomes and establishing the systems, policies, and procedures to do this. In at least two others, it was a response to accreditation reviews indicating the need for a more systematic approach to improving institutional effectiveness. In the other case, the changes resulted from the implementation of a system for institutional planning and improvement that is the college's main strategy for realizing the vision and goals for student improvement that came out of a 1998 planning retreat, spurred by a president who, for nearly ten years, has been pushing the college to become more student focused. In making these changes, these colleges may also have been responding to the increased attention that higher education policy makers in Florida and elsewhere are paying to student outcomes.

These developments show that colleges can and do change the way they operate, but that bringing about such changes requires some internal or external catalyst and that change generally takes a long time. In every case, the groundwork for the recent changes was laid during the study period. In one case it took nearly a decade for the college's leadership to change the mindset of faculty and staff from a primary focus on access and enrollments to a concern for student retention and degree completion as well.

The fact that the colleges are operating in some substantially different ways three years after our study period supports our approach of focusing the field research on what the colleges were doing during the study period, not what they are doing now. We acknowledge that it is not easy to reconstruct, through interviews and document reviews, a college's policies and practice during a period that started eight years prior. Still, to have focused our field research on the colleges' current practice while the data we used to select the colleges were from an earlier period would have produced misleading findings.

This study shows that comparing the performance of different institutions is complicated and should be approached with caution. Straightforward comparisons of institutional performance are misleading because each college serves a different mix of students and has different characteristics such as size, level of resources, and program mix that bear on performance. In this study, we used a rich set of longitudinal data on cohorts of first-time students to control for the effect of individual student characteristics and behaviors on student outcomes. Our purpose in examining the relative performance of institutions was to set up fieldwork designed to identify the policies and practices that distinguish community colleges that have a higher impact on the success of students (in this case of minority students) from those that have a lower impact. For a college seeking to gauge whether it doing well or needs to improve, a better benchmark is probably its own historical performance, rather than the performance of other institutions.

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Table 1.
Quartile Rankings of High-Impact and Low-Impact Colleges Among 28 Florida
Community Colleges on Selected Institutional Characteristics
During the Study Period (1998-2003)[a]

Characteristic	High-Impact Colleges			Low-Impact Colleges		
	A	**B**	**C**	**A**	**B**	**C**
Location	Suburban	Urban	Rural	Suburban	Rural	Rural
FTE Students	2	1	4	3	4	4
% Female	1	2	2	4	4	4
% Black	2	1	1	3	2	3
% Hispanic	2	1	4	1	1	4
% P-T Students	1	1	4	3	3	4
Avg. Student Test Scores[b]	3	4	4	1	1	2
Pell grants per FTE	4	1	2	3	1	2
% P-T Faculty	1	2	3	2	2	2
Tuition	3	3	4	4	2	4
Instructional Expenditures per FTE	1	3	3	1	1	1
Student Service Expenditures per FTE	2	4	1	3	1	1
Ratio of Certificates to Associate Degrees Granted	1	3	1	2	1	1

[a] Quartile 1 includes the seven colleges with the highest values for the given characteristic, quartile 2 includes the seven colleges with the next highest values, and so on. The values on which these quartile rankings are based were calculated from IPEDS data for all measures except "location," "avg. student test scores," and "ratio of certificates to associate degrees," which were calculated from the sample data. All numeric values were averaged over the three years for which we have starting student cohort data: 1998-99, 1999-00, 2000-01.

[b] Some students in the sample submitted SAT or ACT test scores upon enrollment. Those who did not were required to take the College Placement Test used by all community colleges in Florida. We converted all test scores to an SAT scale (200-800) using the test makers' formula.

Table 2.
Development of Community College Institutional Effectiveness Model Elements During the Study Period:
High- and Low-Impact Colleges Compared

Model Element	High-Impact Colleges			Low-Impact Colleges		
	A	B	C	A	B	C
1. Institutional focus on student retention and outcomes, not just enrollment	+	~	0	~	0	0
2. Targeted support for minority students: a. Clear commitment by college's leadership	+	~	0	+	0	0
b. Minority-inclusive campus environment	+	+	+	0	0	0
c. Outreach to improve college access by minority students	+	+	+	+	+	~
d. Specialized retention services for minority students	+	+	+	0	~	0
e. Active recruitment of minority faculty and staff	+	~	0	+	0	0
3. Well-designed, -aligned, and proactive student support services	+	~	0	0	0	0
4. Support for faculty development focused on improving teaching	~	~	0	0	0	0
5. Experimentation with ways to improve the effectiveness of instruction and support services	+	~	0	~	0	~
6. Use of institutional research to track student outcomes and improve program impact	+	~	0	~	0	0
7. Institutional management processes designed to promote systemic improvement in student success	+	0	0	0	0	0

KEY:
+ = policy, practice, or cultural characteristic well developed during the study period.
~ = policy, practice, or cultural characteristic was developing during the study period.
0 = policy, practice, or cultural characteristic weakly developed or nonexistent during the study period.

Student Service	High-Impact Colleges			Low-Impact Colleges		
	A	B	C	A	B	C
New student orientation	0	0	0	0	0	0
Advising and counseling	+	0	0	0	0	+
Financial aid	+	0	0	0	+	~
College success instruction	~	~	~	0	~	0
Developmental education	+	~	~	0	~	0
Student tracking	+	~	0	0	~	~
Academic support (tutoring, learning centers, etc.)	+	~	+	+	0	~
Transfer opportunities and support	~	~	+	0	0	+
Career services	+	~	0	~	0	0
Extracurricular activities and campus life	+	~	+	+	0	~
Responsiveness to non-traditional students	+	~	0	0	0	0
Childcare, healthcare and other social services	+	~	0	0	+	0

KEY:

+ = service well designed and implemented to support student success during the study period.

~ = design or implementation of service improved during the study period.

0 = service not well designed or implemented to support student success or nonexistent during the study period.

Table 4.
Development of Community College Institutional Effectiveness Model Elements Since the Study Period:
High- and Low-Impact Colleges Compared

Model Element	High-Impact Colleges			Low-Impact Colleges		
	A	B	C	A	B	C
1. Institutional focus on student retention and outcomes, not just enrollment	+	+	+	+	~	~
2. Targeted support for minority students a. Clear commitment by college's leadership	+	+	0	+	0	0
b. Minority-inclusive campus environment	+	+	+	~	0	~
c. Outreach to improve college access by minority students	+	+	+	+	+	+
d. Specialized retention services for minority students	+	+	+	+	0	0
e. Active recruitment of minority faculty and staff	+	+	0	+	0	0
3. Well-designed, -aligned, and proactive student support services	+	+	+	~	~	~
4. Support for faculty development focused on improving teaching	+	+	~	+	0	0
5. Experimentation with ways to improve effectiveness of instruction and support services	+	+	+	~	~	~
6. Use of institutional research to track student outcomes and improve program impact	+	+	~	+	~	~
7. Institutional management processes designed to promote systemic improvement in student success	+	+	~	~	0	~

KEY
+ = policy, practice, or cultural characteristic well developed by fall 2005.
~ = policy, practice, or cultural characteristic developing in fall 2005.
0 = policy, practice, or cultural characteristic weakly developed or nonexistent in fall 2005.

Shaded cells indicate a change in policies, practices or cultural characteristics since the study period.

Appendix A:

METHODOLOGY FOR MEASURING INSTITUTIONAL IMPACT ON STUDENT SUCCESS USING STUDENT COHORT DATA FROM THE FLORIDA COMMUNITY COLLEGES

Data

To conduct this study, we used data on three cohorts of degree-seeking individuals who enrolled for the first time in one of the 28 Florida community colleges in the fall of the academic year of 1998-99, 1999-2000, or 2000-01. Whether a student was degree-seeking or not was determined by a variable containing a code determined by the institution that describes the student's program of study. "Degree seeking" includes students enrolled in the following programs: associate in arts (AA), associate in science (AS), associate in applied science (AAS), associate in science certificate (postsecondary vocational certificate – PSVC), applied technology diploma (ATD), advanced technical certificate (ATC), students awaiting a limited access program (such as nursing), general freshman (degree seeking but not assigned to a specific program), and students in "linkage" programs (programs through more than one community college).

The data also were filtered to include students who were first-time in college (FTIC). The sample contains students who had not previously earned college credits and who were still enrolled in the Florida Community College System (FCCS) at the end of the fall term during their first semester in college. This FTIC definition excludes individuals who are former dual enrollment students. The data are not restricted to students who enrolled full time, though we controlled for first semester full-time status in the regressions.

Some descriptive statistics for the model based on the 110,277 observations described above are presented in Table A-1 below. [21]

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[21] Regression sample sizes will be smaller than the 110,277 presented here due to missing values.

Table A-1:

Descriptive Statistics for Model Variables

Outcomes	Minority Sample	Full Sample
Transferred, Completed, or Persisted	0.49	0.50
Transferred or Completed	0.11	0.16
Completed in 3 years	0.11	0.16
Transferred in 3 years	0.03	0.04
Persisted	0.45	0.44
Individual-Level Explanatory Variables		
Age	20.7	20.8
Female	0.56	0.53
Asian	0	0.027
Black	0.48	0.17
Hispanic	0.52	0.18
American Indian	0	0.02
No Race	0	0.02
White	0	0.62
Math Score	381.8	401.3
Verbal Score	417.1	453.9
Full-Time in Term 1	0.53	0.55
Interrupted	0.88	0.83
Received Financial Aid in Term 1	0.55	0.44
Enrolled in More Than 1 Cc Before Outcome	0.01	0.01

Model

Our data are structured as a three-level panel, since we have: (**1**) three cohorts ($t = 1,2,3$); (**2**) 28 community colleges ($c = 1\dots28$); and (**3**) n students in each college ($i = 1\dots n_c$). Considering this panel structure, the most comprehensive model to estimate the institutional effect is a process that has with the following specification:

$$y_{ict} = X_{ict}\beta + I_c\delta + Q_t\gamma + \varepsilon_{ict} \tag{1}$$

where y_{ict} is a dummy variable indicating whether or not student i who started in time period cohort t in college c was able to obtain some educational outcome[22]; X_{ict} is a vector of individual-level characteristics for student i in college c entering college in time t that includes the student's age, sex, race, math and verbal college placement test scores,[23] first semester full-time status, and whether the student interrupted her college career; I_{ct} is a set of dummy variables indicating whether a student began in community college c; Q_t is a set of dummy variables indicating whether or not student i began college with cohort t; and ε_{ict} is an error term distributed evenly across students, colleges, and time. $\beta, \delta,$ and γ are parameters (or vectors of parameters) to be estimated.

Under this specification δ is defined as the overall average institutional effect on student success after controlling for individual characteristics. Below we describe the educational outcome measures and the control variables.

Outcomes

Two rankings were computed using the full sample and a sample of only minority students (African American and Hispanic). The outcome measure is *completion, transfer* to the Florida State University System, or *persistence* in nine terms (three years) from first college enrollment. Receipt of a certificate (vocational certificate, advanced technical certificate), advanced certificate (postsecondary vocational certificate (PSVC), applied technology diploma), or associate degree (AA, AS, AAS) indicates a student's completion. A student has transferred if the Florida community college system has acknowledged the transfer with a transfer date and a destination university. A student has persisted if she is enrolled in at least four of the first nine

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[22] The three cohorts were aggregated such that all students begin in term 1 (rather than the first cohort beginning in term 1 and the second in term 4, etc.) The subscript *t* indexes cohorts; so the 98-99 cohort *(t=1)*, the 99-00 cohort *(t=2)*, and the 00-01 cohort *(t=3)*.
[23] Test scores were entered nonlinearly to capture diminishing marginal effects.

terms and enrolled in one of the last three terms in the three year period.[24] Unadjusted means and rankings for this outcome are located on the table below.

Independent Variables

Control variables in the model come from the raw individual-level data from Florida. The variable describing age was calculated from the student's birth date and references the student's age on September 1st of her cohort year. Although it seems that passing a placement test is required before entering the credit portion of a program, we did not have full information on student test scores. Florida allows students to submit test scores such as SAT or ACT or take Florida's College Placement Test for reading, writing, and mathematics skills. Scores that were submitted in SAT format were left alone, and scores submitted from other tests were converted to an SAT scale using conversion scales acquired from the College Board and ACT. In our regressions, we included controls for verbal and mathematics ability measures, as well as the square of these values.

We also included a control variable for full-time status and a dummy variable indicating an interruption in the college career. A student is full time if enrolled in 12 or more credits during a semester. If a student misses a fall or spring semester before completion, then she has interrupted her college education. Similarly, some students may have started in one community college and switched institutions before any completion or transfer outcome. If these students obtain outcomes at an institution different from their first institution, it is difficult to attribute the outcome to any of the attended institutions. Since rankings are based on a student's first institution, we added a dummy variable indicating whether or not a student transfers to another community college before an outcome to reduce the impact of the student's first institution.

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[24] The three-year period can be broken into nine terms with one year comprised of fall, spring, and summer terms. To be considered persisting, the student must be enrolled in the last fall, spring, or summer term of the three-year period.

Equation (1) was estimated using both a full sample of Florida community college students and a sample of minority (African American and Hispanic) students. After controlling for the main student characteristics, any institutional effect will be captured in the institutional dummy, which is then ranked from high to low. Institutions with relatively large dummy variable coefficients have a higher impact on the probability that their minority students succeed than do other colleges. Coefficients from the regression results are presented on Table A-2.

Table A-2:
Regression Coefficients, Minority Sample

Variable	Coefficient (std. err.)
Age	-0.004 (0.001)*
Female	0.075 (0.005)*
Black	-0.045 (0.006)*
Math score	0.002 (0.000)*
Math score^2	-0.000 (0.000)*
Verbal score	0.001 (0.000)*
Verbal score^2	-0.000 (0.000)*
Full-time in term 1	0.070 (0.005)*
Interrupted	-0.497 (0.008)*
Received financial aid in term 1	0.022 (0.005)*
Transferred between community colleges	0.239 (0.037)*
1999 cohort	0.008 (0.006)
2000 cohort	0.039 (0.006)*
Institution Dummies	
Florida Community College N	0.263 (0.057)*
Florida Community College E	0.386 (0.053)*
Florida Community College I	0.258 (0.058)*
Florida Community College O	0.266 (0.062)*
Florida Community College K	0.288 (0.056)*
Florida Community College X	0.279 (0.056)*
Florida Community College J	0.286 (0.054)*
Florida Community College AA	0.231 (0.100)
Florida Community College V	0.262 (0.062)*
Florida Community College Z	0.307 (0.053)*
Florida Community College B	0.362 (0.057)*
Florida Community College R	0.173 (0.070)

Variable	Coefficient (std. err.)
Florida Community College H	0.271 (0.084)*
Florida Community College T	0.322 (0.057)*
Florida Community College Y	0.411 (0.052)*
Florida Community College W	0.392 (0.077)*
Florida Community College Q	0.289 (0.057)*
Florida Community College D	0.358 (0.053)*
Florida Community College F	0.249 (0.061)*
Florida Community College L	0.256 (0.057)*
Florida Community College C	0.298 (0.056)*
Florida Community College BB	0.344 (0.054)*
Florida Community College S	0.255 (0.055)*
Florida Community College P	0.233 (0.063)*
Florida Community College G	0.345 (0.061)*
Florida Community College A	0.309 (0.054)*
Florida Community College M	0.320 (0.054)*
Florida Community College U	0.326 (0.053)*

* denotes significance at 0.01
N=32,572, Adj. R^2=.60

Although the main focus of our regression results is the institutional dummy variables, it is useful to discuss briefly how the other covariates affected the probability of graduating, persisting, or transferring over three years. Students who entered college at later ages and those who interrupted college enrollment had lower probabilities of experiencing one of our successful outcome measures. Compared with Hispanic students, Black students are expected to have a graduation rate that is about 4.5 percentage points lower on average. Higher estimated graduation-transfer-persist rates are associated with students who are female, begin college as full-time students, transfer between community colleges, or receive financial aid in the first term. There is also a positive but small increase in success rates for students who have higher scores on math and verbal ability measures.

The coefficients on the institutional dummy variables are the effects that the institutions have on the probability that minority students who began college at a Florida community college in the time period in question will graduate, transfer or persist. Table A-3 shows the rankings of the colleges based on their institutional dummy coefficients from regressions using the minority

student samples only and the full sample of first-time, degree seeking students.[25] With one notable exception (Florida Community College W), the rankings are fairly consistent across the two samples, suggesting that colleges that have a higher impact on the success of minority students generally do well with students generally and that minority and non-minority students generally have a lower rate of success (all else equal) at the low-impact colleges.

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[25] Since many of our dependent variables are binary outcomes, one would first think to use a logit or probit model. Maximum likelihood estimation has difficulties converging when many dummy variables are included as covariates and use substantial computing time. Thus, we chose to employ a linear probability framework that still provides unbiased coefficients and allows for panel data techniques.

Table A-3:

Adjusted Completion, Transfer, or Persist Rates

	Full Sample	Minority Sample
Florida Community College N	17	20
Florida Community College E	2	3
Florida Community College I	23	22
Florida Community College O	20	19
Florida Community College K	15	15
Florida Community College X	27	17
Florida Community College J	9	16
Florida Community College AA	28	27
Florida Community College V	25	21
Florida Community College Z	14	12
Florida Community College B	10	4
Florida Community College R	26	28
Florida Community College H	19	18
Florida Community College T	13	9
Florida Community College Y	1	1
Florida Community College W	21	2
Florida Community College Q	22	14
Florida Community College D	6	5
Florida Community College F	18	25
Florida Community College L	12	23
Florida Community College C	11	13
Florida Community College BB	3	7
Florida Community College S	16	24
Florida Community College P	24	26
Florida Community College G	8	6
Florida Community College A	7	11
Florida Community College M	4	10
Florida Community College U	5	8

Appendix B:

PROFILES OF HIGH- AND LOW-IMPACT COMMUNITY COLLEGES

Overview

This appendix presents case profiles of each of the six colleges where we conducted field research. Each case study consists of three sections. The first section examines the extent to which the given college had adopted the institutional policies and practices that we hypothesized to be associated with minority student success during the study period. The second section presents a summary assessment of the extent to which the college's policies and practices during the study period make sense in terms of its classification as a high- or low-impact institution. The final section describes major changes in the relevant policies and practices of the college in the three years since the study period.

High-Impact College A

Findings on Hypothesized Institutional Policies, Practices, and Culture

Institutional Focus on Student Retention and Outcomes

According to the college's president, in the mid-1990s, the college saw that policy makers were increasingly interested in student outcomes and were beginning to consider ways to hold colleges accountable for outcomes. Before that time, the focus of policy and funding was on enrollments, and colleges responded accordingly. As the president said, "Now state policy is more focused on completion, rather than how many bodies are in the classroom."

The president said that the college responded by focusing more of its data collection and research on tracking course completion, retention, and graduation rates, rather than just on enrollments. In 1997, the college established a standing retention workgroup made up of academic administrators and faculty to identify barriers to completion, propose solutions, and evaluate their impact. (Student services staff joined the group in 2002 and it continues to function today). In that same year (1997), the college created a Student Support Services program with its own funding (the TRIO program came later) which uses the college's student information system to identify students who are struggling academically and then directs them to services that will help them stay in school.

Thus, our study period (1998-2003) was a formative period for the college's efforts to improve student outcomes. Since that time, the college has further strengthened and integrated programs, services, and systems to support student success. Starting in 2002 (in effect, after our study period), these efforts accelerated as a result of an initiative, spearheaded by the college's president, designed to further promote a thriving culture of innovation on the campus focused on finding better ways to help the college's students succeed.

Targeted Support for Minority Students

Leadership Commitment

The college's president has sought to reach out to and build understanding with the African American community. The president meets with the Black ministers in the community because "they have sway in the minority community to get people to go to school." The president is concerned with the state of African American men (for example, the fact that more are in prison than in college), so to better understand the problem he spoke with 20 Black male students to find out "what is your life like?" After these conversations with students, the president tried to talk with local ministers about what to do about the problem and to educate people at the college about what he learned. The president said that he continues to try to keep the issue of minority student success "on the front burner" at the college.

Minority-Inclusive Campus Environment

During the study period, the college had a dean of minority affairs who was responsible for overseeing the TRIO grant programs and promoting efforts to improve achievement by minority students. According to the president, this dean was the "go-to person" at the college for issues affecting minority students and the minority community. The president called the dean: "a conscience to all of us." If there were concerns about how minority students were being served, this person would not hesitate to call attention to how the situation could be improved. The dean has recently retired and been replaced by a new dean who said that she would like to expand supports for minority students further.

Targeted Outreach and Retention Initiatives

According to one minority staff member who has been at the college since the mid-1990s, about the time he started, the college began to focus on ways to improve college access and attainment by minority students. Before that, the college's outreach and retention efforts had not focused on any particular groups. This new focus led the college to apply for Upward Bound grants for its main campus and for work with schools in one of the other counties within the college's service district, both of which were awarded in 1995. Since that time, each of these programs has served 55 economically or educationally disadvantaged students per year and has a high proportion of its students go on to postsecondary study. The college's foundation and financial aid office work together to ensure that each Upward Bound completer has either financial aid or a foundation scholarship upon entering the college. The college was awarded a Talent Search TRIO program grant in 2002. Through this program, the College serves 600 economically and educationally disadvantaged students in one of the counties within the college's service district who are currently in the sixth through twelfth grades.

Since the mid-1990s, according to student support staff members, the college has been very aggressive in building retention supports for minority students. The college's Student Support Services (SSS) program, begun in 1997, has benefited many minority students, though it is open to all students at risk. In 2001, the college applied for and received a TRIO Student Support Services grant. The program enrolls 160 students as well as about 300-400 who are on a waiting list and receive some but not all of the program's services. The program offers a broad range of supports, including financial aid, advising, and counseling, one-on-one tutoring, and cultural and career exposure. The program staff tracks the SSS students using the college's early alert system. SSS staff members told us that individual attention is very important because many students in the program "have no one at home to go to when the going gets tough." The college reports that 95 percent of students in the program complete a two-year degree at the college. We should note that this program probably started too late to benefit the students in the cohorts we tracked. Still, it indicates the college's willingness to undertake targeted efforts to improve minority student success.

Efforts to Increase Minority Hiring

During the study period, the college established equity goals for minority representation on the faculty that reflect minority representation among graduates from graduate programs nationwide. The current overall goal for minority representation among all college employees is 20 percent. As openings occur, the college requires that the applicant pool be at least 20 percent minority. The president reports that when he sees an area of the college that is constantly hiring Whites, he will reject a candidate and ask staff to keep looking for a qualified minority candidate. He believes that the college needs to "create an attitude of equity in terms of faculty and students." He reports it is hard to find candidates with master's degrees in fields such as health care, information technology, and others where minorities are especially underrepresented.

The college uses a variety of strategies to recruit minority faculty members. These efforts have resulted in modest increases in the proportion of minority faculty members. The following table shows the racial/ethnic breakdown of the full-time faculty since the beginning of our study period.

Academic Year	Black	Hispanic	Other	Total	Black %	Hispanic %	Other %
1998-1999	12	2	123	137	8.8%	1.5%	89.8%
2002-2003	13	6	124	143	9.1%	4.2%	86.7%
2004-2005	18	7	143	168	10.7%	4.2%	85.1%

Design and Alignment of Student Support Services

With one exception, described below, most of the college's student support services during the study period seem to have been well designed to support student success. The strong or innovative features of each are described below.

Outreach to High School Students

As mentioned, the college was awarded an Upward Bound (UB) grant in 1995 to serve 50-60 students per year. Program staff said that they continue to support UB students who enroll in the college. The college has had dual enrollment of local high school students, serving approximately 1,500 students per semester, for over 20 years. During the study period, the college began providing public high school students in the college's service area the opportunity to take the college placement test (CPT) at no charge. Students can begin taking this exam as early as the tenth grade to determine if they are eligible to take dual enrollment classes, or to determine if they need remediation to become college-ready upon graduation from high school. Remediation in English, math, reading, and writing is provided at no charge to high school students in any of the college's Academic Support Centers. Since 1985, the college has partnered with the local workforce board to offer Expanding Horizons, a six-week summer program that provides career exploration and academic remediation for disadvantaged high school students.

The college currently has several other high school outreach programs (although we are not sure whether all of them were operating during the study period): Fine Arts Camp, Summer Academy on Emerging Technology, Take Stock in Children, Summer Youth Leadership Institute, Techno Camp, Testing CPT, and Tech Prep. The only one of them targeted at minorities is Take Stock in Children, which provides college scholarships and other supports to minority high school students who stay in school, get good grades, and are on track to attend college.

Advising and Counseling

Advising is, and has always been, centralized. Advisors advise on all programs, both academic and occupational.

The college's staff believes it is important to get students into counseling early because they find that students who are clear about their goals for education and careers are more likely to complete. The first time they come to the college, students are required to meet with an advisor. At this point, the advisers distinguish degree seekers from course takers. They work with those who are seeking a degree to develop an academic plan.

The college's information system generates mailings for all students indicating how far along each is in meeting their requirements so students know how much they have completed and how much they need to finish. The mailing brings in students to ask questions.

Financial Aid

The college is aggressive in helping students secure financial aid and also in raising scholarship money. During the study period, the college, through its foundation, gave over $500,000 per year in scholarships, primarily to students from local high schools. Currently, the foundation gives nearly $1 million in scholarships.

Through the federal Work Study Program, the college employed 143 students in various jobs across campus resulting in $209,218 in earned wages during the 2003-2004 academic year. The college also employs students in various departments as student employees.

College Success Course

Before 2000, the college success course was taught by adjuncts. In 2000, the college hired a full-time instructor who has since worked to improve the course. An analysis in 2001 found that 92 percent of college prep students who took the course completed college prep and advanced to college credit courses. Since 2001, the curriculum has been revised to include content on how to read college tests and take notes, manage time, do research using the Internet, and speak in class. An online version of the class has been added and is very popular. The college is considering requiring the course of students who take more than one prep course.

Developmental Education

College prep courses are taught through the Learning Assistance Department, which has seven full-time faculty members and a department chair. Adjunct faculty members also teach prep courses, although the college seems to rely less on adjunct prep instructors than the other colleges we visited. Students in prep are required to use the college's free tutoring services in the academic support centers located on each of the college's campuses.

During our study period and continuing to the present, the college regularly scrutinizes the performance of its college prep programs. The reason, according to one administrator, is that the college believes that "college prep is the gateway to a college education for many students." According to statistics provided by the college, 49 percent of the students at the college's 2004 - 2005 graduation ceremony began at the college as a prep student. More than half (53 percent) of the students enrolled in prep are African American or Latino. At the end of each semester, the Learning Assistance Department works with the college's institutional research office to analyze the success rates of students in prep courses and to determine how well prep students do in degree-credit courses and the rates at which they complete degree programs.

Student Tracking Systems

Beginning in the mid-1990s, the college developed an early alert system using funds from a Title III grant. With this electronic system, instructors can see all students in a class and generate a form letter to students who are not doing well. The letter allows the faculty member to indicate the particular issue of concern (e.g., absences, poor performance on an exam) and what the instructor would like the student to do to improve, as well as make other comments. The letter, which also asks the student to contact the instructor, can be sent to the student by regular or e-mail. Student support staff we interviewed said that students appreciate getting personal attention from faculty members. The college encourages instructors to get in touch with struggling students as early as possible. Previously, the college distributed mid-term grade reports, but discontinued doing so after staff found that the likelihood of "saving" a student after eight weeks had passed, and with only eight weeks remaining, was low. Staff reported that about half of instructors are consistent users of the early alert system, about 25-30 percent are occasional users, and about 20-25 percent used it infrequently or never at all.

Since the study period, the college has tied the early alert system to an online grading system, which allows both full-time and adjunct instructors access the application directly from their computers where they can generate e-mail or a printed document for mailing.

Academic Support

The college has long offered a center for personalized instruction that includes tutoring labs open to all students, including those in occupational programs. Interviewees indicated that instructors

(both adjunct and full time) think highly of the center and encourage students to take advantage of the tutoring services.

During our study period and continuing to the present, the college also has had an academic support center that is largely for college prep students, as they are required to use a learning lab two hours per week. The center has computer labs and other learning materials.

Career Services

All students are encouraged to use the college's career planning resources in order to identify career goals and select appropriate program majors upon entrance to the college. The identification of specific career and program goals is central to student retention efforts in both the academic transfer and occupational areas. As far as we were able to determine from our interviews with current staff, the college's approach to career services has remained consistent throughout the study period and into the present.

Extracurricular Activities and Campus Life

The college has an extensive and well-organized student affairs division composed of six areas: athletics, health and wellness programs, student activities, student leadership development, transportation, and a public radio station. The structure and range of offerings were essentially the same during our study period.

The college has intercollegiate sports, including men's and women's volleyball, softball, swimming, and diving. These teams compete with teams from other colleges in their region and recruit nationally (and sometimes internationally). The college's foundation runs a dorm, which houses 184 students who are athletes or fine arts students.

The campus coalition government was established 25 years ago and sponsors numerous clubs on campus. Over 1,000 students participate in clubs each year. Each semester, the college has an average of 44 active clubs.

The college has an impressive array of "co-curricular clubs" that are tied to academic programs, with the largest number in occupational areas. The college reports that older students participate in the occupational clubs much more than they do in other types of clubs or athletics.

The college's radio station airs NPR. Both students and faculty are involved, enabling students to learn about the inner workings of radio stations.

Responsiveness to Older, Working Students

The college seems to be well oriented to serving non-traditional students. According to a senior administrator: "The 'typical' student at [the college] is a working non-traditional student.

Therefore our services are structured and provided with this student in mind." About 40 percent of classes are offered in the evenings or on weekends, and this was the case during the study period.

The college started offering online courses in 1993. Today it offers over 178 classes over the Internet. They include courses in the second level of college prep math (but not the first), introduction to algebra, and a student success course. Students are able to take these classes to accommodate their work schedules. Students can also access the library, tutorials, and other services over the Internet. Over 3,300 students enroll in online courses each year. The college did offer online courses during the study period, but, not surprisingly, they have increased in recent years.

Childcare and Other Social Services

The college has long offered childcare for the children of students, college personnel, and community members. The college charges a flat fee that is below market rate to make it more affordable. The college also participates in a state pre-kindergarten program for children who are four years old on or before September 1.

The college has (and had during our study period) a health and wellness center with some crisis counseling and referrals.

New Student Orientation

The one service that seemed not well designed was new student orientation. During our study period, orientation was just a quick information session. Few new students attended – perhaps 150 per semester. The college has since revamped it. Now orientation is longer and includes information on topics such as how to register, what is a syllabus, and places to get help on campus. The staff said that they try to get across to younger students in particular that this is not high school and the expectations are higher. About 1,000 first-time students now attend orientation each year.

Since our study period, the college has taken steps to improve all of its student services, including new student orientation. More importantly, it has sought to better connect them using a student information system that integrates data from the various service areas and provides timely information on student progress to staff and faculty.

Support for Faculty Development

Professional Development

Faculty are required to complete six college credits of instruction in their field every five years. New faculty members are also required to take classes on effective classroom practice. Since

2002-2003, the college has engaged in a major professional development initiative around learning styles.

Orientation/Treatment of Part-Time Faculty

The college has as many as 1,000 adjunct instructors. In the past, it gave new adjunct faculty the textbook and said "go ahead and teach." Now the college provides more support to adjuncts, including an office, e-mail and Internet connections, and a phone number. At the same time, adjuncts are also watched more carefully and given more guidance than are full-time faculty. The college now has an adjunct faculty workgroup, which has led to some improvements for adjuncts like website resources, socials, awards, and a newsletter.

Experimentation with Ways to Improve the Effectiveness of Instruction And Support Services

Culture of Innovation

The college's president, who was at the college during the study period, has helped create a culture at the college where staff and faculty are expected to work together across divisions to figure out ways to improve service to students. This orientation was expressed in nearly all of our interviews:

- "We are encouraged and expected to communicate across silos in the college. [The president's] expectation is that there are no boundaries – we need to be doing whatever we need to do to make things work. [The president] makes it his challenge to make the institution better."

- "Here we can turn on a dime. It is easy when you spot something that needs help or some work to work at it. It is just harder to do at other schools. There is entrenchment, more of an us versus them."

- "What is exciting about being here is 'if you can dream it, you can do it.'... Communication is very good here. People are aware of what's going on. They don't need to get permission. If it is going to help learning; they can do it."

The following are examples of drawn from comments concerning problems with student achievement that were identified and addressed:

- The college found that, despite academic support, some students continued to have problems, so they realized they needed to do something differently. Now they have a major learning styles initiative.

- Reflecting research that the college conducted on the learning styles of college prep students, staff reported that it is important to use technology at an early stage with these students. As a result, college prep students are required to use tutorial labs or online labs to reinforce what they do in class. The college is increasingly using software for lab instruction that continually updates students on their progress and helps them pinpoint where they need to improve.[26]

- The college found that students undecided about their major or career goals were much more likely to drop out than are those with a clear goal. As a result, the college requires new students to meet with an advisor to develop a plan and has emphasized college and career exploration and planning in its high school outreach programs.

The expectations for and intensity of educational innovation have increased as a result of an effort initiated by the college's president in 2002. Still, interviewees who were at the college during the study period indicated that the culture of innovation was evident during that earlier time period as well.

High Level of Investment in Instruction

The college is close to the top among Florida community colleges in the percentage of its budget devoted to instruction. According to the college's president, putting money into instruction is a core institutional philosophy. The president said that, to keep overhead costs down, he does not hire many administrators. There are not a lot of management layers in the college. The president believes that "one should need to talk with no more than four people to get an answer to a question."

Use Of Institutional Research to Track Student Outcomes and Improve Program Impact

The college is exemplary in its use of student data to manage and improve programs and services.

Beginning in the early 1990s, the college began developing a decision support system (DSS) that today provides real-time data on the college's students and operations. Rather than relying on the institutional research office to generate reports, this system puts information in the hands of decision makers.

When the DSS was first created, it was designed for top-level access only – the president and the president's cabinet. Over time, access to the system was expanded. It started out with five to six users. Within two years, it was open to all administrators. By 2000, it was used by department heads.

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[26] The college has adopted these particular practices since our study period. Still, they show its orientation toward program innovation, which was evident during the period of interest to this study.

Since the DSS was established, the college has used data from it in two main ways:

(1)   *To identify college-wide problems or needs*. For example, the college saw that course pass rates in math and science were unacceptably low. The college responded by securing a Title III grant to revamp math and science curricula. Now math and science courses at the college include collaborative assignments, embedded assessment, and computer-aided learning. Indications thus far show significant improvements in rates of student success.

(2)   *To identify specific issues with classes or faculty*. Department heads meet with faculty, both full time and part time, after every semester to review pass rates, grades, and student evaluations from their courses. The DSS has a trigger that notifies administrators if there is a substantial drop in pass rates for particular courses or instructors.

As part of its college-wide analysis, the college tracks completion rates by minority students. In part, this is an effort to comply with the reporting requirements of the Florida Educational Equity Act. Also, Florida's performance-based budgeting system includes indicators for rates of enrollment and graduation by Black males. However, the college's president said that he has sought to keep a spotlight on the problems of minority student access and achievement because the problem persists and is a threat to the health of the local community.

Institutional Management of Improvements in Programs and Services

Committees Focused on Student Learning

The college has standing "workgroups" or committees on retention, learning environments (also called the "student success" group), and technology. These committees are responsible for monitoring and evaluating the college's programs and services on these various fronts. During the study period, only faculty participated in these groups. Starting in 2002, student services staff were represented as well.

Program Review

The college regularly and systematically reviews all programs down to the course level. As was already mentioned, department chairs are responsible for working with the faculty to examine and compare performance across instructors and classes using data from the college's decision support system. Academic administrators say that they take pains to work constructively with the faculty to improve and to keep these efforts from being perceived as a punitive process. This program review process was in place during the study period, although enhancements to the college's student information and decision support systems have substantially enriched the data available to inform it.

Strategic Planning

In 1997, the college started using a strategic planning online (SPOL) tool to make planning a dynamic process. The system tracks budget requests from each unit to ensure that they are connected with the unit objectives and, in turn tied to the college's goals, which are set to meet state accountability goals and measures. According to the current director of planning, department objectives must reflect a concern for improving students' progress and outcomes. Department chairs are responsible for bringing faculty and staff together to regularly assess whether or not unit goals are being attained.

Summary Assessment

This college has all of the characteristics we hypothesized to find at a high-impact institution:

- Sustained focus on and commitment to improving outcomes of students generally and minority students in particular.

- Well-integrated, proactive services for students generally and customized supports for minority students.

- Extensive use of data on student outcomes to identify barriers to student achievement, devise ways to overcome those barriers, and evaluate the effectiveness of the solutions.

- A culture of innovation in which faculty and staff are expected to work together across departments and divisions to find ways to improve student success.

- Strategic approach to managing instruction and support services focused on promoting student success.

In addition, the college has a strong track record of raising grant and scholarship funds and invests a high proportion of its budget in instruction, rather than administration.

Our interviews with college personnel and review of documents indicate that all of these characteristics were true of the college during our study period. As will be evident in the next section, however, the college has taken each of these features to a higher level of sophistication and excellence in the last three to four years.

Developments Since the Study Period

Effort to Accelerate Innovation around Student Success

In 2002, the college's president launched an initiative designed to prevent the college from becoming complacent and to involve a broader segment of the staff and faculty in finding better ways to serve students. As one administrator explained: "[The college] was very solid on its

indicators. We were doing fine, but the [president], who is one who is never one to rest on our laurels, said, 'We are good, but what is it going to take to get to the next level?'"

The process started with numerous interviews, surveys, and town hall meetings with persons from all parts of the college as well as with outside community members. The college's leadership studied the issues and concerns that surfaced through the initial gathering of input and identified five areas for further examination by workgroups composed of faculty and staff: purpose, learning environment, future students, strong and viable organization, and communication. The core principles that grew out of the deliberations of the working groups were codified in the "In Dedication to Students" declaration, which is included as the preface to the college's student handbook and catalog.

In the three years since the initiative was launched, the college's leadership has continued to promote the values of continual self-improvement, collaboration across silos, and engagement of employees at all levels. These values have led to numerous innovations in the college's programs and services. Some of them are these:

New Enrollment Management Department

The college created an enrollment management department in 2003 to improve student recruitment and retention. The enrollment management staff works with the academic and student services departments to develop plans for improving recruitment and retention. For example, enrollment management has worked closely with minority affairs division to develop a plan for recruitment and retention of minority students.

Learning Styles Initiative

This initiative grew out of recognition that established ways of teaching were not working with a substantial number of students. The goal was to make faculty aware of different learning styles and to determine if students from different groups learn differently. Since many of the college's students have not been in school in a while, they need repetition and need to have information presented in a variety of ways.

Reorganization of Student Services to One-Stop Model

Since 2003, the Educational Services Division (which provides academic, career, and financial aid advising) has been engaged in a process of reorganization to provide student services in a more efficient, effective, student-centered fashion. Because the staff members are cross-trained in all of the main student service areas, they take a holistic approach to serving students. Rather than going from office to office, students need only to go to one location and, increasingly, meet with one advisor to address all of their student service needs. This ongoing development will culminate with the anticipated move into new facilities in 2006. In addition, student services are being continuously expanded at the branch campuses and online. Student satisfaction with these

services is measured annually via the ACT Student Opinion Survey and Community College Survey of Student Engagement (CCSSE) Survey.

Strengthened New Student Orientation

Since our study period, the college has revamped student orientation. It is longer and provides more information. Now over 1,000 new students attend, up from around 150 before. During orientation advisors explain what the college placement test (CPT) scores mean and stress and the importance of prep courses for students who score below the cutoffs. The college requires that the first level of prep students register in person rather than on line. Thus, they are able to impress on these students the importance of college prep even if they miss orientation.

Enhancements to Academic Support

In the past couple years, more and more instructional materials have been made available to students online. The college has also added peer-led learning groups. Students who did well in a course can become peer learners, help facilitate groups of 8 -10 students, and earn a small amount. The faculty provide questions and students work together to solve the problems with the student leader as facilitator.

Enhancements to Developmental Education

Since 2003, some of the notable and significant changes to college prep include an increased use of technology in the classroom and tutoring labs. Students now have access at no charge to a wide array of instructional software programs that also provide an assessment of the student's skills mastery for immediate feedback. In addition, college prep students are tested in their learning styles to help them identify the way they learn best. College prep students are also offered the opportunity to participate, at no charge, in supplemental learning workshops that cover specific topics that they may not have thoroughly absorbed in the classroom. Finally, college prep courses are also being created as online classes to offer students greater educational access. The second level developmental mathematics course was offered for the first time as an online course in the summer 2005 semester. Other courses are also being created.

Accountability Measures for Student Services

The college has also established accountability measures for student services areas. They include availability, quality, and student satisfaction with services, communication, professional development, and integration of technology.

Web-Based, Unified Student Information System

In 2002, the college converted its unified student tracking database to a web-based system. This new system integrates data from all areas of student services. It was a major step toward becoming a truly one-stop system to help students. Departments use it to schedule classes and faculty can grade with a web-based interface. The system automatically checks to ensure that students are being properly placed according to their test scores and that they have met the necessary prerequisites for any given course or program.

Financial aid has also been completely integrated into this system. Now students can see their financial aid status online. This system has helped with reporting to federal and state student aid agencies, which in the past the staff had to do manually. Financial aid staff used to spend a lot of time doing manual processing to award financial aid; they now do this in a batch mode. As a result, the college has more staff available to do financial aid counseling.

The college has integrated its early alert system into a web-based system so that instructors can use it from anywhere. In 2004, the college created a module of the system that flags students who are withdrawing from class. The staff heard from faculty members that some students were withdrawing from class when they were in fact doing well. This system flags the withdrawal and e-mails the faculty member about the student. The faculty member can then contact the student and find out why he or she is withdrawing. In spring 2005, this kind of contact turned around 40 students and kept them enrolled.

Enhancements to Institutional Research and Reporting

Since 2002, the college has expanded its data reports to include semester by semester analysis of student performance by department and courses. Instructional administrators, faculty, and institutional researchers have collaborated to design and maintain internal accountability reports that measure success by department and give an indication of areas needing review.

Sometimes, enrollment management identifies issues of concern. But usually, studies are initiated by the academic departments or other divisions, which go to institutional effectiveness for analysis of access issues and to enrollment management for help with retention problems. In many cases, departments want to know how they can better meet their objectives and accountability measures.

Joint 2+2 Campus

In 2002-03, the college opened a joint campus with a university on one of its campuses. Currently there are over 5,000 students on this campus taking bachelor's degree programs.

Talent Search Program

Talent Search (TS) began at the college in September 2004. The program was funded for two years and the college is now in the process of writing a grant for the next four years. TS serves about 600 students per year, and about 50-70 percent of graduating students from TS enroll at the college. Of the students from 2004-2005 cohort, 81 of 128 have come to the college. The cost of TS is $378 per student. In TS, the staff works with students as early as the sixth grade. Two thirds of the students are both low-income and first-generation college students. TS is looking for students that are in need of academic assistance and try to make sure that they have a match by assessing students' academic weaknesses.

"Bridge" for Adult Literacy Students

Since 2002, the college has sought to increase the rate at which adult basic skills students advance to college level programs. It tried to promote itself via a mentor program where associate in arts and associate in science students talk with adult education students. The college also brings adult education students on tours around the campus. Through these efforts, the college has increased the percent of adult education students transferring from 12 percent to 20 percent.

Findings on Hypothesized Institutional Policies, Practices, and Culture

Institutional Focus on Student Retention and Outcomes

During our study period (1998-2003), the college experienced substantial enrollment growth as well as a change in its student body from majority White to majority minority. This shift in student composition helped to bring about what one administrator called a shift in the "educational ideology" of the college. According to this person, the college came to realize that it was attracting a growing number of students who were "grossly academically under-prepared." Faculty increasingly complained about students' lacking the basics to do college level work. Now, though, 85 percent of new students test into at least two college prep (i.e., developmental) courses.

Initially, the college's main response to the change in student makeup was to add more prep classes. In 2000, the college initiated a self study in preparation for the SACS reaffirmation visit in 2002. Forums were held with a broad cross-section of the college's personnel to find out what the college was doing well and what needed to be improved. The college's institutional research department provided extensive data and analysis to inform these discussions. Three issues of concern were consistently raised through these forums: student success, cultural diversity, and faculty development.

In 2003, the college developed a strategic plan to address the issues raised through the self study. As it did with the self study, the college involved a broad segment of the college community in the development of the plan. According to those we interviewed, this inclusiveness helped to win buy-in for the plan from faculty leaders and other key constituencies.

The 2003 strategic plan, which grew out of the SACS self study, seems to have been a turning point at which the college began to view student retention and completion more systemically. The plan reflects the growing awareness among faculty and others of the need to focus on retention. As one administrator said, there was increasing recognition that "it is cheaper to retain students than to go out and recruit a new one." Another administrator said that there was also the realization that the college could not improve retention overall without working to improve attainment by the growing number of poorly prepared students coming to the college.

Targeted Support for Minority Students

The college has for a number of years offered several programs designed to reach out to disadvantaged students in the schools and help motivate and prepare them to attend college. The majority of participants in these programs are students of color. The programs include the STARS Academy, which serves very disadvantaged youth – "throw-away children," in the words of one interviewee – and the College Reach Out Program (CROP), which works with disadvantaged students starting in middle school. The STARS Academy was started in the mid-

1990s. CROP began five or six years ago and serves 50-60 students per year. Since 2000 the college has also had a Gear Up program that also serves 50-60 students annually.

During the early 1990s, the college had a Title III grant that sought to improve outcomes for minority and other disadvantaged students by strengthening tutoring, enhancing faculty development, and creating "student success services." The latter included student success workshops, an early warning system, and a mentor program that paired students with faculty and staff. Around 2001, the student success services were reorganized under a college-wide "student success department," with coordinators on every campus. One reason for this restructuring was to increase the visibility of these services. According to several interviewees, the student success coordinators are the college's lead "retention staff." They run student success workshops for college prep students, and administer the early warning and mentor programs. They also work with athletes (and their coaches) to ensure that they stay in school. The student success staff visits every prep class each semester to make sure students know about the support services the college offers. Interviewees said that the student success staff works closely with counselors and advisors. While the student success services are made available to all students, most students who get assistance from the student success staff are African American or Latino.

To accommodate the growing numbers of immigrant students, the college hired multilingual staff in all student services departments, including financial aid, during our study period. According to staff members we interviewed, in 1997, none of the college's materials were printed in Spanish; now substantial portions of the college's website are in Spanish.

Despite these efforts, African American and Hispanics were underrepresented among degree recipients during the study period, indicating that they were succeeding at rates lower than that of Whites. In 2002-03, African Americans accounted for 29 percent of the college's students, but only 20 percent of associate in arts graduates, 27 percent of associate in science graduates, and 14 percent of certificate graduates. Hispanics made up 27 percent of the student body, but only 20 percent of the associate in arts graduates, 15 percent of the associate in science graduates and 21 percent of certificate graduates.

Reflecting a concern for how to deal with the increasing number of minority students on campus, the 2002 self study called for greater attention to cultural diversity in the curriculum. As one response, the college established multicultural centers on each of its campuses. Both the self study and 2003 strategic plan, while highlighting the decline in rates of student success overall, also drew attention to the gap in achievement between minority and White students. The efforts by the college since then have focused on improving outcomes for students generally while also providing targeted support for particular groups in some cases. For example, the college recently received four grants (two coop grants and two solo grants for particular campuses) to improve attainment by Latino students from the Title V, Hispanic serving institution program of the U.S. Department of Education.

Another goal of the 2003 strategic plan was to increase the diversity of the faculty and staff.[27] In the 1990s, according to faculty members, the college had taken steps to recruit and hire more

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[27] According with the 1999-2000 Florida Equity Act Report, the college actually had fairly respectable minority faculty representation compared with the other Florida community colleges we visited. Ten percent of the full-time

minority job applicants. As a result of the 2003 strategic plan, the college has stepped up these efforts. Now, if an applicant pool does not have enough persons of color, the college will encourage the search committees to find more minority candidates.

Design and Alignment of Student Support Services

During the study period, the college offered a wide range of student support services. The management of these services was mostly left up to the individual campuses, however. As a result, according to several interviewees, there was considerable variation in the intensity and quality of services by campus. Generally, the services were not very well marketed to students, according to more than one person we interviewed.

During our study period, the college began to shift its student services philosophy from a "hand-holding" approach to one "that empowers students to navigate themselves," according to a student services administrator. This shift was the result of at least two factors. First, as mentioned, the college went from being a majority White college to a majority minority institution during that period. Second, rising enrollments and tight budgets led to pressure to "do more with less." In the latter part of the study period, the college began to rely more heavily on technology to provide quality student services – not only student orientation and counseling and advising, but also "co-curricular" activities, such as cyber cafes on every campus. Today, according to one interviewee, the library is "no longer a place where students expected to keep quite." It now has a "café mocha" lounge, tutoring, and banks of computers where students can access information or seek online academic support.

The following are summary descriptions of the college's approach to particular services during the study period and some of the changes made since then:

New Student Orientation

During the study period, the college offered what staff referred to as a "very traditional" new student orientation through two-hour sessions at the beginning of each term. Staff strongly recommended, but did not require, that students attend. In 2003, the college began offering more orientation material online. Students are now better informed as a result, according to staff.

Advising and Counseling

According to a student services administrator, around 2000 the college hired additional advisors to keep up with the growing enrollment. With advisors handling more of the regular academic advising, counselors were freed to do more personal counseling. Even so, the ratio of counselors and advisors to students remained at about 1 to 1,000 during our study period. The administrator

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faculty was African American and 7 percent was Hispanic. (By 2002-2003, the percentages had increased slightly to 11 and 9 percent, respectively.) At the same time, these figures do not compare very favorably with the student body at that time, which was 29 percent Black and 23 percent Hispanic.

further indicated that the ratio has not improved much since, although Internet technology has helped because it allows students to answer many of their own questions and frees the counseling staff to focus on more specific questions or problems that students encounter. During the study period, students would just drop in to see an advisor. As a result, according to one staff member who was there at the time, students would often have to wait in line for hours. Now students are required to make an appointment, which has reduced the line sizes considerably.

Financial Aid

According to the Community College Survey of Student Engagement (CCSSE) administered at the college in 2004, the college was significantly below the mean of comparison colleges (of similar type and size) in students' satisfaction with financial aid advising. Since the study period, the college has implemented new procedures and made greater use of web technology to make it easier for students to obtain financial aid.

Student Success Class

Students who test into two or more prep classes have to take a student success class. This three-credit course is open to all other students, although they are not required to take it. This practice was in place during the study period.

Developmental Education

As mentioned, during our study period the college added numerous sections of college prep to accommodate the increase in students entering unprepared for college work. The college also added a required learning lab component to prep courses. During and since the study period, the college has experimented with different approaches to teaching developmental education. For example, in 2003, the college started a learning community titled "the first-year experience" for students in the second level of prep courses. Only recently, however, with the new education master plan, has the college taken a college-wide, systemic approach to improving college prep. A committee made up of faculty and support staff is now poised to propose a major revamping of the college's approach to college prep that involves hiring of new faculty and providing release time for experienced faculty to coordinate prep programs and promote innovative teaching and faculty development.

Through the Title III grant it received in the early 1990s, the college developed an "early warning" program designed to identify college prep students who are struggling. Prep faculty alert student success staff about students having difficulties. The student success staff contacts the students by phone or e-mail. A staff member told us that between 40 to 70 percent of prep faculty participate, depending on the campus.

Student Tracking Systems

With the exception of the early warning system for prep students, during our study period the college took a mostly informal approach to monitoring student progress that relied on advisors and faculty working together voluntarily. According to one interviewee, the effectiveness of this approach was mixed – it worked when advisors and faculty took the initiative; it didn't when they did not. In 2001, the college began discussing the need for an automated tracking system. The college plans to implement such a system in the near future.

Academic Support

Before 2001, tutoring was organized through learning centers on each campus. In 2001, the college's president convened a working group to review the college's tutoring and other academic support services. The group found that the tutoring varied in quality and needed to be better coordinated across the campuses. It also found that many academic departments were offering their own tutoring in addition to what was provided through the learning centers. The effectiveness of these services was uneven, according to an interviewee who was in the working group. According to the CCSSE administered at the college in 2004, the college was significantly below the mean of comparison colleges in students' satisfaction with tutoring services.

Under the Title III grant the college received in the early 1990s, the college began offering supplemental instruction (SI) for students in "high-risk" courses – those with high failure rates. An evaluation of this effort by the college showed that students who participated in SI were more likely to pass these courses. SI was offered college-wide for the three years of the Title III grant. Since then it has been only offered on only one of the college's campuses.

Transfer Opportunities and Support

During the study period, the college established joint facilities with one of the Florida public universities and expanded articulation agreements with others. Transfer advising was provided by the college's counselors and advisors. Since our study period, the college has greatly expanded the transfer information available on its website.

Career Services

Each of the college's campus has a career center, but most of the career planning assistance is done by the counseling and advising staff. Advisors sit down with students and develop an education plan that is tied to the students' career plans. During our study period, the college's career services were used primarily by occupational students, although they were available to all students. In the last four years, according to staff, demand for career services from transfer students has increased. The college does not offer job placement assistance for students. Perhaps not surprisingly, then, the college was significantly below the mean of comparison colleges in

students' satisfaction with job placement assistance, according to the CCSSE administered at the college in 2004.

Extracurricular Activities and Campus Life

In 1999, the college conducted a review of its athletic teams. Based on the review, it eliminated three of them, shifted resources to the remaining teams, and sought to change the philosophy of the college's programs to one of "cultivating scholar-athletes." Coaches are now held more accountable for ensuring that athletes graduate and are strongly discouraged from recruiting individuals who are unlikely to graduate. One interviewee said that the teams have had trouble attracting spectators. The best attended games are men's and women's basketball and those are not very well attended. One staff member argued that more student life activities are needed for evening students.

Childcare

The college did not offer on-campus childcare during the study period, but has since built facilities at two of its campuses.

Support for Faculty Development

Using support from the Title III grant it received in the early 1990s, the college developed training manuals to improve the consistency of information and training provided to new faculty members. Faculty we interviewed said that the college has always been supportive of individual members who take the initiative to pursue professional development.

The self study process identified a need to help faculty become better teachers, particularly for students who are unprepared for college level work. Since then, the college has taken a number of steps in that direction, including giving experienced faculty members support to mentor new faculty and regularly soliciting input from faculty members on what is and is not working to support effective teaching and learning.

Experimentation with Ways to Improve the Effectiveness of Instruction and Support Services

During our study period, there seems to have been a considerable amount of experimentation with methods for improving student success. For example, the college experimented with different approaches to developmental education. By all accounts, the college's strong institutional research office was open to working with those who wanted to evaluate the effectiveness of particular interventions. For example, the research office collaborated with the Title III project staff to evaluate the supplemental instruction, mentoring programs and other services developed through that grant.

Two staff members who came to the college during the study period indicated that the college generally encourages staff to try out "best practice" ideas gleaned from conferences or other institutions.

Nevertheless, the experimentation on ways of improving student success seems not to have been well coordinated across the college. Even where studies showed particular practices to be effective, this finding did not necessarily lead to their adoption throughout the institution. Faculty and staff indicated that the availability of grant money or other funding, more than evidence of effectiveness, was the main determinant of the scope with which particular practices were implemented.

Use Of Institutional Research to Track Student Outcomes and Improve Program Impact

In the late 1980s, the college's director of institutional research developed a longitudinal dataset that allowed tracking of student cohorts over multiple years. The research office began to use this information to conduct studies of student persistence, with a special focus on those who were not completing their programs. By the study period, the college could track some cohorts over ten years or more. The institutional research office produced numerous analyses of student retention, often disaggregating the results by student race and ethnicity.

Despite the presence of this rich dataset and strong institutional research capacity, the college's leadership was selective about who within the college had access to information. As a result, according to those we interviewed, data on student success were not always shared with faculty and staff.

Through the self study process initiated in 2000, the college began to make much more widely available data on student success and on the performance of specific programs and services. For example, the student services area, working closely with the institutional research office, did a series of analyses, including usage studies and student satisfaction surveys, in order to measure the cost effectiveness of its services.

Institutional Management of Improvements in Programs and Services

We heard from several persons we interviewed that the approach to institutional decision making during the study period was generally top-down and not very reliant on data. According to a long-time faculty member, the 2003 strategic plan that grew out of the SACS self study was the college's first effort in many years at long-range, college-wide planning.

Summary Assessment

Our study period (1998-2003) was a time of rapid enrollment growth and change in the composition of students from majority White to majority minority. The college not surprisingly

devoted a great deal of energy to trying to keep up with increasing enrollments and the growing number of students unprepared for college-work.

At the same time, the college offered an array of support services designed to promote student retention. These included student success workshops, an early warning system, and a mentor program that the college developed to enhance success by disadvantaged students through a Title III grant that it received in the early 1990s. During our study period, the services were reorganized under a college-wide "student success department" with coordinators on every campus. Although these services are open to every student, most of those served are students of color. These well-coordinated retention supports for minority students are likely to have been a key reason minority students were so successful at the college during the study period.

There seems to have been a considerable amount of experimentation during the study period with different approaches to improving success by student generally. These efforts were supported by the college's formidable institutional research office. In the early part of our study period, however, the college lacked a mechanism for disseminating practices found to be effective across the institution. Moreover, data on student outcomes were not consistently made available to faculty and staff.

Through the self study process initiated in 2000 in preparation for the SACS reaffirmation committee visit in 2002, the college began to make more widely available data on student success and on the performance of specific programs and services. This process laid the groundwork for the colleges recent efforts to take a more systemic approach to improving student success.

Developments Since the Study Period

The current president, who came to the college in 2004, has set in motion a process for establishing a system for managing teaching and learning that is designed to bring about systemic improvements in student outcomes, particularly for students who arrive unprepared for college.

The blueprint for this transformation is the education master plan created soon after the new president arrived. The college has sought aggressively to raise funds to support implementation of the plan. These efforts have paid off with a grant from Lumina Foundation for Education as part of its Achieving the Dream initiative and four major grants from the Title V, Hispanic Serving Institutions program of the U.S. Department of Education.

Under the master plan, the college is seeking to better coordinate student services across campus and to better connect student services with academics. According to several persons we interviewed, faculty and staff now work much more closely together and "there are many more positive, honest conversations about how student services can complement academics." One student services staff member said that it was more challenging for the student services staff to get faculty to cooperate in efforts to improve student success during our study period. The president's cabinet now includes the president of the faculty senate and a person who represents

professional staff. Both are voting members. Another staff member told us that advisors and other student services staff are on all the major committees related to student success. In the past, such committees were typically dominated by faculty and academic administrators.

Tutoring and other academic supports are also critical elements of the education master plan. In 2005, the college conducted a study showing that students in selected courses who received tutoring did better than comparable students who did not. In 2004, the college piloted an online system that made tutoring and academic support available "24/7." The student services division is now proposing to fund this system from the student fees budget.

As part of this process, the college is making student information widely available to administrators, faculty, and staff on the front lines of working with students, and promoting the use of data and research to guide decisions that affect student outcomes, including those related to budgeting and resource allocation.

The college has combined its institutional research and information technology departments to create a "business intelligence" unit that is responsible for providing the data and analysis needed to implement the new education master plan. The college is now installing software that will enable department chairs, faculty, staff, and other end users to conduct their own analyses. The business intelligence staff has organized user groups to identify the sorts of data and analyses that will be useful to decision making in particular functional areas of the college. These groups are also responsible for training personnel in their respective areas on how to use data in planning and decision making.

The business intelligence staff indicated that the demand for data and research seems to be increasing. As one staff member said, "People are more aware that there are data out there that can inform practice." Before this time, requests for data were typically *ad hoc*. Now many more departments are requesting data and they are making these requests to measure progress toward the goals of the education master plan. A key reason for this shift, according to several persons we interviewed, is that the new president now requires that all budget requests be tied to the goals and strategies of the master plan and be justified with data on how students will be better served as a result.

Findings on Hypothesized Institutional Policies, Practices, and Culture

Institutional Focus on Student Retention and Outcomes

Multiple interviewees mentioned the friendly and frequent interaction among faculty, staff, and students, which is facilitated by the college's small size. For example, one student we interviewed said that the faculty will "work with you – they have the time." In our interviews with student services administrators, the attitude of staff towards students was described as "hand holding." As one said, "Everyone knows that making sure students graduate is the goal." The president and academic vice president touted the college's "student friendly" reputation, which they said derives from its small size and the frequent interaction among faculty, students, administrators, and staff. The president said that the majority of the faculty creates a "positive atmosphere of success," adding that there are "lifelong friendships" among the faculty and a "caring atmosphere." The president argued that what is special about the college is not a specific program or initiative. "It isn't anything formal, just caring about students." The president said that more than half of the college's employees, including himself, are former students. This strengthens the transmission of the culture and sense of mission.

These claims are supported by the results of the Community College Survey of Student Engagement (CCSSE) conducted at the college in 2004. The college scored significantly higher than the mean of its comparison institutions on a number of measures, including "relationships with faculty"; "relationships with administrative staff and relationships with other students"; "encourages contact among students from different economic, social, and racial or ethnic backgrounds"; and "participation in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)." The college's students rated it high on these other measures: "provides the support you need to help you succeed at this college," "helps you cope with your non-academic responsibilities (work, family, etc.)," and "provides the supports you need to thrive socially." Based on these results, CCSSE designated the college a "model small college."

One faculty member, who has been at the college since the 1970s, said that there has been a consistent culture of caring and commitment to students among faculty and staff. According to another faculty member, the reason she stayed at the college despite turmoil under a previous president was because of the sense of shared mission among the faculty and staff.

At the same time, the college had no formal policies or initiatives focused on student retention or outcomes during our study period (1998-2003). Moreover, according to several persons, the administration at the time was focused on the college-ready student, that is, students who come to the college prepared to master college-level work without remediation or extensive support. There was little acknowledgement that, as one current administrator who was there at the time put it, "our student is someone who is first generation, very financially disadvantaged, [and] unprepared academically for college." More than one person said that the administration at the time was content to send unprepared students to remediation with little additional formal support.

Targeted Support for Minority Students

The college seems to be friendly to minorities. One of the college's minority faculty members, who was at the college in study period, said that the college provides very welcoming environment for minority faculty members and students. He used to teach at a college close to his home that was not friendly to minorities. Now he commutes over 50 miles to this college.

At the same time, we detected ambivalence on the part of several interviewees about whether minority students should receive special attention. Several interviewees argued that most of the college's students are needy and that it is important to be "color blind" in serving them.

Since 1997 the college has had a College Reach Out Program (CROP) through which it has reached out and sought to prepare and motivate economically and educationally disadvantaged students in local schools to attend college. The program starts working with students in middle school and provides academic support, mentoring, and college and cultural exposure. Most of the students in the program are African Americans.

The college has had a TRIO, Student Support Services (SSS) grant program, serving 200 students per year, since 1987. The SSS program serves first-generation, low-income, and disabled students with the goal of improving their retention in college and transfer rates to four-year programs. The program is staffed by a full-time director, retention advisor, and transfer advisor, and provides support for most of the learning resource center coordinator's time.

In 1999-2000, there were 96 African Americans enrolled in all associate in arts or associate in science programs at the college out of a total 615 (headcount) students. Since most of the college's African American students qualify for the SSS program, it is possible, even likely, that the SSS program served most of the college's African American students during the study period. (The college has few Hispanic students.) The program provides two counselors for 200 students. This is more than double the counselor-to-student ratio for students not involved in the program.

The college's faculty is not diverse. During the study period, there were only two or three non-White full-time faculty members. The college does not seem to have taken special steps to recruit minority faculty members or staff.

Design and Alignment of Student Support Services

Because of the college's size, the student services staff can get to know students by name. Still, with a very small student support staff – two advisors for more than 450 students in academic transfer programs – the college was limited in the amount of support it could provide each student.

During the study period, the college did offer some services that seem well designed to promote student success. They included these:

Outreach to High School Students

The college has had dual enrollment arrangements with local high schools for a long time. High school students taking college courses account for 20-25 percent of the college's degree-seeking headcount. Several interviewees said that the college maintains positive relationships with the faculty and administration of local high schools. Since 1999, the college has held annual "summits" bringing together high school teachers and college faculty in same disciplines for professional development and relationship building.

College Success Course

During 1998-2003, all students were required to take College Study Skills, Introduction to Speech, and Library Skills.

Academic Support

The college has had a well-organized and -run learning resource center funded by the TRIO Student Support Services (SSS) program that offers peer tutoring and other math, writing, and reading labs.

Transfer Opportunities and Support

A public (minority serving) university and a private university have offered bachelor's degree programs in education, business, and criminology on the college's campus since 1999. Several interviewees, including students, indicated that their presence has increased opportunities for students to pursue a bachelor's degree while not having to leave the area.

Despite being well designed, these services were not well aligned in a way that would enable the college's small student support staff to serve students efficiently. Except for the staff members of the TRIO SSS program, who were funded to serve a limited number of students, staff was less able to be proactive in reaching out to students, particularly those who were struggling. Moreover, other services seem to have been less well designed and implemented during the study period. They include these:

New Student Orientation

During the study period, new student orientation was minimal, although the college has recently expanded and enriched it.

Advising and Counseling

The college has (and had during our study period) only two counselors for more than 450 transfer program students not in SSS. Until recently, students in occupational programs had no staff advisors; rather, they were advised by the program faculty. Following the recommendations of the 1994 SACS accreditation review, the 1998 strategic plan called for making academic advising more structured and proactive. This mandate was not implemented until after 2002, however.

Developmental Education

Students enrolled in developmental courses are required to spend one hour per week per class in the learning resource center. Yet, faculty and staff we interviewed agreed that the tutoring offered through the lab has been strengthened since the study period. Moreover, there does not seem to have been much effort during the study period to better connect developmental students to degree-credit programs. This is not surprising given the focus of the college's leadership at the time on college-ready students.

Students testing at the developmental level in math or English are encouraged to take developmental courses immediately, although they can take college level courses simultaneously. Yet, students requiring prep reading can take it anytime. These policies were in place throughout the study period. College staff said that this flexibility results primarily from the limited availability of sections for the developmental reading class each semester, and that the college is considering changing the policy.

Student Tracking Systems

The financial aid office "flags" students who earn 60 credit hours. Advisors then reach out to these students to ensure they are on track to complete their degrees within the 90 credit hours for which the state provides financial aid. The college has had a voluntary system whereby faculty notify tutoring center staff about students who are having difficulty. It is not clear how many faculty participate, however. Other than that, the college has no formal system for student tracking.

Career Counseling

The college does not provide formal career counseling or services for liberal arts students. The occupational program faculty members help their students explore career options and find jobs. Career counseling has remained the same throughout the study period and into the present.

Services for Working Students

There were no special services for working students during the study period. The college admits that it does not do much for working students. It sees its primary clients as students right out of high school, even though the average age of its students is 27. The college does not offer childcare on campus, although we do not know if there would be demand for this service.

Support for Faculty Development

Faculty members interviewed were positive about the professional development opportunities and support provided by the college. We are not sure whether the college was as supportive during our study period, although we assume that it was. However, there was not any focused effort to help faculty become better teachers of academically unprepared or culturally diverse students.

Experimentation with Ways to Improve the Effectiveness of Instruction and Support Services

We did not see any evidence of substantial program innovation during the period we are interested in. There has been a lot more innovation at the college since 2002, as is evident from the section below on developments since the study period.

Use Of Institutional Research to Track Student Outcomes and Improve Program Impact

Until 2005, the college did very little collection and analysis of data on students, other than what was required by the state. Institutional research was under the MIS department and was mainly responsible for external reporting and *ad hoc* data production (i.e., grants, public relations).

Other than what was required for reporting to the state, the college did not break out analyses by race or income. It did not examine whether Blacks graduate at the same rate as Whites nor do other sorts of longitudinal tracking analyses. As one staff involved with research said, "Most of our students are needy, so why look at minorities in particular?" In 1998, according to the recently appointed director of institutional research and effectiveness, who was a faculty member at the time, faculty rarely if ever looked at data on student performance. Even now, she says, "most faculty think of evaluation as pre- and post-tests."

In the past, if the college administrators examined student data at all, it was the information provided back to the college from the state, rather than the college's own research. Even then, "We would get the fact book from the state, and we wouldn't know how to interpret it," admitted an administrator who was at the college during the study period.

Generally, college administrators and staff are just now getting used to asking for research and beginning to use it to guide decisions about programs and services. When asked, "How do you

know what is working and what is not?", the reply was "That's a new concept here….We've never done that before." An administrator said that, in the past, "We'd get together in a meeting and talk about what we thought was working, but we never knew for sure." The dean of enrollment and student services admitted that: "I don't know what questions to ask to operate my department more effectively. I am still learning that."

Institutional Management of Improvements in Programs and Services

The college's accreditation review in 1994 produced 37 recommendations focused primarily on institutional effectiveness. The college did not get re-accredited until 1997. In 1998, the college developed a strategic plan, which it had not done before. The plan called for enhancing relationships with high schools and the designation of a minority high school student recruiter. It also proposed enhancing partnerships with universities to facilitate transfer and stressed the importance of making academic advising more "intrusive" through earlier contact with students, required meetings with advisors, and more contact between counselors and the faculty.

When the current president was appointed in 2001, he adopted the plan. Since then the college has moved to a more formal and strategic approach to improving student outcomes. In 2005, as part of the ongoing reaffirmation process, the college established a new "office of institutional research and effectiveness." Among the goals of the office is to establish a program review process (which the college has not had to date) and an institutional effectiveness system tied to strategic planning. As part of this, the new director is working with deans and program heads to establish measurable objectives.

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Summary Assessment

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From 1996-2001, the college did not undertake any major initiatives aimed at improving student outcomes. That administration was focused on college-ready students and not committed to actively helping disadvantaged student succeed.

The 1998 strategic plan, which was a response to the highly critical 1994 accreditation review, did seem to raise consciousness among many at the college about the need to improve outreach to high schools, strengthen advising and counseling, and increase opportunities for students to transfer to baccalaureate programs. However, while the strategic plan seems to have laid the groundwork for reform, real change did not begin in earnest until after 2001, when the new president arrived. In fact, most of the major reforms have come since 2002 and so probably would not have benefited the students in the cohorts we tracked to rank the colleges.

Most of those we interviewed mentioned the college's culture of caring and support for students by faculty and staff, many of whom are from the area and some of whom came from circumstances similar to those of their students. According to a faculty member who has been at the college more than 25 years, this culture has long been present at the college and was evident among the faculty and staff even in periods (as under the previous president) where there was not much support for it from the college's leadership.

Although there is little racial or ethnic diversity on the faculty, a minority faculty member who was at the college during our study period said that the college provides a very welcoming environment for minority faculty and students. While there was not a clear consensus among the interviewees about how the college should approach minority students, and in fact some level of disagreement about whether these students have needs so different from other students that they warrant special attention, the idea that all of the college's students are capable of success, but face great barriers that require a lot of support to overcome, was clearly articulated in almost every interview.

And yet, during 1998-2003, while the college offered a number of services well designed to support student success, they were not well coordinated to enable staff to serve students efficiently. The college had the tutoring center during the period and students in developmental education were required to attend at least one hour per week. However, interviewees who were at the college during our study period said that the center was less well organized then. In addition, college success courses were required of all students at the time of the study, so it is possible that participation in these courses had a positive effect (we have no further information about these courses such as content or grades). Still, with a very small student support staff – including two advisors for more than 450 students in academic transfer programs – the college was limited in the amount of support it could provide each student.

The main exception was the TRIO-funded Student Support Services (SSS) program, which the college has run since 1987 and which is funded to serve 200 students annually. SSS supports two advisors for these 200 students. In 1999-2000, there were 96 African Americans enrolled in associate in arts or associate in science programs out of a total headcount of 615 at the college. Most of the college's African American students qualified for the SSS program. Therefore, during the study period, the SSS program served a substantial portion of the college's minority students. The intensive supports provided to a large share of the college's minority students through the SSS program is the most likely reason that the college ranked high on its impact on the success of minority students compared with other Florida community colleges in the state.

It is notable that, while the college ranks second out of 28 in its estimated impact on graduation by minority students, its rank drops to 21 when all first-time students are considered. Thus, the college's impact on minority student success seems to be considerably greater than its impact on students generally. The fact that minority students likely received a much higher level of support than did others during the period seems to explain this discrepancy.

Developments Since the Study Period

New Leadership, with a More Client-Focused Attitude

By all accounts, the new president, who was appointed in 2001, together with the academic vice president who was promoted at the same time, have has brought a more client-focused attitude to the college. The college is now more attuned to the college's target audience: first-generation, economically disadvantaged students, and members of minority groups. According to an

administrator who has been at the college since before our study period, "This is not the same school….Everyone is focused on students' experiencing success. We don't like to lose students."

Reorganization of Student Services After 2002

Student services has been restructured since 2002 (under a new dean of enrollment and student services) to strengthen advising, the TRIO SSS program, and services to students with disabilities. It was both a physical move, placing student services and advising under one roof, connected to the bookstore and cafeteria, and an administrative restructuring that placed both the registrar and student services under one administrator. In effect, it consolidated the key student services in a "one-stop" model.

Advising has become more proactive. New students are required to meet with an advisor for first-time registration. The student services staff feel that the nature of advising has also changed since 2002, with more discussion of course options, program options (online, various associate in art degree options), use of the FACTS.org state system, etc. Also, advisors are more insistent that students choose a major early on and try to limit "exploration."

This year, the college expanded new student orientation, offering an overview of study skills and time management. The college has also recently hired a minority high school recruiter and an advisor to students in the occupational programs.

More Focused, Well-Organized, and Proactive Student Support Services Program

Under a new director who took over in 2002, the college's SSS program has become much more proactive in reaching out to students and much more focused and structured in the delivery of services. The advisors work with each student to develop a plan and monitor student's progress over time. The program provides a lot more in the way of exposure activities, including orientation to study at a university. In 2002, the program began offering supplemental grant aid of $400 - $800 per semester above and beyond students' other financial aid to students in the program who show evidence of making progress on their academic plans.

New Focus On Program Review, Institutional Effectiveness, and Strategic Planning

In response to the recommendation of the SACS reaffirmation committee that visited the college in November 2004, the college established a new institutional research (IR) office in 2005 and appointed a director of institutional research and effectiveness who is overseeing the research office and working with the deans and department heads to establish an institutional effectiveness plan, with clear outcome measures that can be documented using data supplied by the IR office.

The college never had a formal program review process, but is now establishing one through a body called the instructional quality committee. A goal is to link strategic planning with

institutional effectiveness. The new director of institutional effectiveness is working with each department to set measurable goals. In many cases, the goals that the departments proposed initially were more process oriented than measurable outcomes. Even though the college had an established strategic planning process, it did not have institutional effectiveness goals or measures.

At management meetings during the past year, the discussion is much more data oriented, now considering the question: What data do we have to make this decision? Thus, the college is moving toward a more strategic approach to management that is tied to goals and data related to student outcomes.

Findings on Hypothesized Institutional Policies, Practices, and Culture

Institutional Focus on Student Retention and Outcomes

The time frame of our study, 1998-2003, was a growth period for this college as it sought to increase enrollment. Before that time, the college had not actively recruited students. A task force was formed and it recommended a series of recruitment strategies focused on recent high school graduates. These efforts seem to have paid off. The president's report of 2002 touts the "exploding growth in first-time-at [the college] students," with a 47 percent increase in full-time equivalent (FTE) students from 1997-98 to 2001-02. (Notably, during that period enrollment by Latino students grew by 39 percent, while African American student enrollment declined by 7 percent.) The college was expanding physically, with a new campus and new buildings yielding a 36 percent increase in square footage.

While much energy was being devoted to student recruitment, discussion and planning about ways to increase student retention began to emerge during the study period. In spring 1998, the college held a planning retreat. Out of that retreat came a vision statement that presents broad goals for improving student outcomes. We heard from several interviewees that, in the subsequent period, the college's president (who arrived in 1996) aggressively promoted the broad values and goals embodied in the vision statement, particularly the goal of becoming a more "student-centered" college, where "everyone's goal is to help students complete their programs." The college's main strategy to achieve this end has been to implement a strategic planning and performance management process. In this process, the college established institutional goals for student retention and completion and is working with the "planning units" (i.e., departments and other operational units) to set objectives and measures that support attainment of the institutional goals.

The interviewees agreed that the president has succeeded in communicating the message that student retention needs to be a college-wide effort. Not surprisingly, it has taken some time for this new mindset to sink in. Initially, department chairs expressed concern about the emphasis on retention because they feared it would promote grade inflation or lower standards. Those concerns have been allayed, according to the administrators we interviewed.

At the same time, several interviewees indicated that formal, college-wide efforts to improve student retention have only recently begun to be implemented. According to one faculty member: "It [retention] always has been there on paper, a goal of departments. But in reality, no one has really looked into it – or at least in my area, until the last couple years."

While this new effort is a positive development, it indicates that the focus on student retention and outcomes had not yet crystallized during the study period.

Commitment to Minority Student Success

The vision statement produced through the spring 1998 planning retreat includes a call for greater "diversity and inclusiveness" at the college. The planning group noted that, although the college appeared to be doing fairly well in terms of enrolling minority students in proportion to their representation in the college's service region, there were substantial gaps in the completion rates of minority and White students.

The president said that her first hire was an African American female and that the rationale for hiring her was in part to add needed diversity to the staff, but also the result of being told by the staff that, in order to retain more minority students, the college needed more staff who looked like them. She added that "diversity is something that I want to be part of my legacy" at the college.

In 2002, the college started a diversity council "to support and foster a campus environment where our differences are recognized, appreciated, and celebrated." The diversity council has examined data on gaps in success indicators between minority and non-minority students and proposed strategies for narrowing the gap. Narrowing the gap in performance between minority and White students is now one of the main goals of the college's planning process.

Some interviewees maintained that a considerable number of faculty and staff are reluctant to treat minority students differently just because as a group they perform less well than White students. For them, the college's approach to students should be "color blind." In describing how data on the Black-White and Hispanic-White performance gaps are received on campus, one minority staff person said:

> There are some faculty members who will embrace that information and some who just don't care. The feeling is that all students should be treated the same….When you talk about diversity and infusing it into curriculum, many will just turn a cheek. I think that it is history, who we are. We say we are progressive in our thoughts, but sometimes we aren't [in our actions]. This is why we are reluctant to address race. I think students of color have different issues than majority students and sometimes they just need a place where they can go to express concerns and fears. But I don't think everyone wants to embrace this concept."

The results of the Noel-Levitz surveys of students at the college in 1998, 2001, and 2003 indicate that minority students were significantly less satisfied than were White students with the following aspects of their experience with the college: registration and institutional effectiveness, maintenance of campus, fair and unbiased treatment of students by faculty, convenience of paying for school bills, faculty consideration of student differences as they teach a course, understanding by faculty of students' unique life circumstances, academic support services adequate to meets student needs, readily available tutoring, reasonable billing policies, excellent quality of vocational education instruction, and necessary help provided by career services .

As with efforts to retain students generally, the college seems to have begun to actually implement minority student retention measures only in the past couple years. For example, the

college was awarded a Title III grant in 2003, a key focus of which is to improve minority student outcomes.

Several interviewees voiced the opinion that, in the words of one, "if you want minority retention, you must have minority faculty." According to the Florida Equity Act reports submitted annually to the state, in 1998-99, the college exceeded the benchmark proportion of minority faculty with 13 full-time faculty members who were African American and four Hispanics. By 2002-03, the number of African American faculty had dropped to nine while the number of Hispanic faculty had increased by one to five.

Several interviewees indicated that the college leadership has championed the importance of ensuring diversity on the faculty. A minority faculty member indicated the college has made an effort to increase minority faculty members and she has seen some improvement since she became a full-time faculty member in 2002. An African American staff member agreed that the college has sought to ensure minority candidates are well represented in job applicant pools, but could do more to create an environment where minority faculty not only want to come to the college, but, once at the college, stay there.

Programs and Services for Minority Students

The college does not seem to have had major programs designed specifically for minority students during our study period. A staff member who has been at the college a long time said that there had once been more programs for minority students than was the case since the beginning of our study period, and called programs targeting minorities "a throwback to the old days." According to this person, "The emphasis and language has moved away from targeting minority students; we now target at-risk students." This person acknowledged that the persistent gap in achievement between minority and White students could justify providing special supports for minority students.

Design and Alignment of Student Support Services

The following student support policies, programs, and services seem to have been well designed to support student success during the study period:

Outreach to High School Students

The college started the College Reach Out Program (CROP) in 1996-97 to improve the preparation of low-income and minority students in area schools beginning in the sixth grade. The program helps student develop both their academic skills and "life skills" and provides exposure to college. By 2001, 500 students from grades 6-12 had participated in the program. Also in our study period, students from the local school district participated in 1,408 dual enrollment classes and 33 Tech Prep courses. The proportion of local public high school graduates who attend the college rose from 25 percent to 33 percent from 1998-2003. To

maintain relationships, two members of the college's board of trustees were from the county public schools during the study period.

"Bridge" Programs to Prepare Disadvantaged Adults for College

The college also has an alternative high school for students who dropped out of the local public schools. The school, which the college has operated for over 20 years, provides shorter classes and treats students with more of an adult attitude. The racial mix of the students, most of whom are of traditional high school age, reflects that of the college. According to an individual who has taught at the school for several years, the goal of the adult high school is to prepare students for college even if they did not arrive intending to go.

Assessment and Placement

According to an academic support staff, the college found that the college placement test (CPT) that all Florida community colleges are required to give to new students (only if SAT/ACT scores do not indicate the student is college ready) does not provide an accurate profile of a student's academic status. Some college prep instructors give students diagnostic tests to better customize academic support to where each student needs it most.

Academic Support

In 1996-97, the college merged the writing and math centers with a computer lab to create an academic success center that provides tutoring to all students, although it is primarily used by students in academic transfer programs. In 2001, the center also began offering supplemental instruction for students in "gatekeeper" courses. A faculty member we interviewed said that the center is helpful for students who take advantage of it, but not many do so. "It is hard for students who are working often, adults who are making a living who come to Tuesday and Thursday classes and work the rest of the week. The majority of [students] in arts and sciences are only on campus to attend classes."

The college has long had a lab, paid for by Perkins dollars, where students in occupational programs can go for tutoring and supplemental instruction. The lab places particular emphasis on academic support in mathematics.

Career Services

The college's career services office helps students find jobs and do career and life planning. The latter emphasis has expanded since the beginning of the study period. Also, in recent years, the career services staff has sought to reach out to employers and the community. Serendipitously, the staff member who advises the African American Cultural Society works out of the career

services office and is very proactive in encouraging African American students to use the college's career services.

Student Activities

Since the current president arrived in 1996, the college's student life department has grown substantially. Beginning in 1996, with support from the president, the department began the student leadership program that sponsors weekend retreats featuring motivational speakers and team- and leadership-skills building activities. Some 70-80 students participate each month. Minority and international students make up about a third of the participants in a typical retreat.

According to the director of student life, the college has strong African American and Hispanic student organizations. "If we can get students into these groups, we can keep them." The director admits having difficulty getting African American males to participate in these and other student life activities.

While the college did offer a number of programs and services during the study period that seemed well designed and implemented, they were not well integrated and, in general, were not proactive in reaching out to students who did not come seeking support.

A number of the support services the college offered students during the study period were less well designed. They are these:

Financial Aid

When the current director of financial aid arrived at the college in 2002, he found that there was no clear system for dispersing financial aid. There were "silos" of funds around the campus and disparities whereby students in some programs did not receive aid in proportion to their need. Since then, the college has made a concerted effort to ensure support for students who cannot easily get federal financial aid. The Noel-Levitz surveys of student satisfaction administered at the college in 1998 and 2001 indicated that the college ranked below that of other Florida community colleges in the area of "early notification of financial awards." In 1995, according to the financial aid director, the college's "cohort default rate" was nearly 20 percent. The college had to restrict borrowing to half the allowable amount. Thanks to these and other efforts, the default rate has declined to under 10 percent.

New Student Orientation

During the study period, orientation was required for new admitted students. Students went through an orientation program, took placement tests if necessary, and then were advised before registering for class. The college has since taken steps to strengthen orientation – including offering it online.

College Success Courses

According to one interviewee, "the college needs a mandatory college success course. Until that is addressed, we are walking in circles." This person believes that faculty members should teach the course.

Advising and Counseling

Until recently, advising was there for students who sought it out, but it was not proactive in reaching out to students. In its 2003 recommendations to the college, the SACS reaffirmation committee indicated that "the college needs to demonstrate that it conducts a systemic, effective program of undergraduate academic advising." Chiefly, the committee was concerned because: (a) new students were not assigned an advisor, but are allowed to self select; (b) students could return to an advisor whenever they want, but no one was responsible for tracking them; and (c) the system of advising is mostly informal. The SACS committee indicated that only about a quarter of students had an educational plan.

Developmental Education

An administrator said that the poor performance of students in "college prep" continues to be a problem. This person does not recall that the college sought to improve college prep during our study period, except to provide data on student performance in these courses to faculty to increase awareness about the problem. Both administrators and faculty members indicated that a key problem with college prep courses at the college is that they are taught primarily by part-time faculty. One faculty member said that the adjuncts are good teachers, but they are not available to meet with students outside of class.

Student Tracking Systems

The college's counseling department contacts students who complete both 30 and 45 credit hours and invites them to meet with a counselor to ensure they are on track to complete their program. Beyond this practice, the college does not have a system for tracking the progress of individual students and, specifically, for identifying students who are struggling academically. College officials say a more proactive approach to tracking is desired but has been hampered by the explosive enrollment growth. The SACS reaffirmation committee noted in its 2003 report that no one is responsible for tracking students to ensure they are doing well. As a result, the SACS report noted, too many seem to fall through the cracks. The Noel-Levitz surveys of student satisfaction administered at the college in 1998 and 2001 indicated that the college ranked below that of other Florida community colleges in the area of "early warning for poor performance."

Transfer Counseling and Support

Since the current president arrived in 1996, relationships with the nearby public university have improved (according to the president and other administrators) and the college now has a number of formal agreements, many of which seem to have been established after the study period, for both associate in arts and associate in science programs of study in both public and private institutions. These agreements supplement state-wide articulations between the community college system and the State University System as well as the Independent Colleges and Universities of Florida.

Between 1997 and 2000, the college tried to strengthen relationships with two Florida Historically Black Colleges and Universities (HBCUs) with the aim of increasing transfer rates by the college's minority students. However, university staff turnover thwarted efforts to establish formal articulation agreements.

Services for Working Students

According to a department chair, most evening classes are taught by adjuncts. As a result, evening students have difficulty getting help outside of class.

Childcare

During the study period, college did not offer on-campus childcare, though it did provide childcare vouchers for children of needy students. This still seems to be the case.

Support for Faculty Development

The college does not seem to have made any special efforts to promote faculty development during our study period. However, in 2003, the college got a Title III grant, a key focus of which is helping faculty become better teachers and stay abreast of their fields.

Use of Student Outcome Data to Improve Programs and Services

The college's institutional research (IR) office has evolved since our study period. Before that time, the IR office spent most of its time responding to the state reporting requirements. In 1997-98, the new vice president of educational programs promoted the idea of using the state data for research. As a result, the academic deans and then, increasingly, department chairs and even faculty began asking for access to data for use in program review and planning. The college moved to PeopleSoft in 2003, which has allowed administrators, staff, and faculty to run their own queries.

PeopleSoft has also allowed the college to track cohorts of students. The research office also developed a process for evaluating efforts to improve student success. The research office uses this methodology to evaluate intervention strategies proposed by the student success committee. The use of research to evaluate the impact of interventions has come to the fore only since the study period, however.

Experimentation With Ways to Improve Student Success

During the study period, most of the activity around student success was largely in planning. There does seem to have been experimentation with ways to improve student success at the department level. For example, the chair of the math department said that he and his colleagues have tried different ways to improve outcomes for students in college prep math, although none has produced impressive results. Only since the study period has the college begun to implement college-wide strategies for enhancing student retention and success, however.

Institutional Management of Improvements in Programs and Services

Following a 2002-03 accreditation visit, the college has been focused on instituting a planning process that the leadership believes is the key to improving student success. According to one administrator, "[The college's leaders] are trying to focus the institution to get us all working to common goals, which is a culture change. Every person in the college would belong to a planning unit. We don't want to compete for resources; we want to allocate the best way to achieve our vision."

The PeopleSoft student information system has made it easier to disaggregate data and establish performance measures at the department or planning unit level.

In 2004, the vice president for student success (a former director of institutional research at the college) was charged with spearheading the planning effort and overseeing efforts to improve student outcomes. The college also established a student success committee made up of administrators, faculty, and staff to propose strategies for increasing student success and monitoring their impact.

The president has made clear that the goal of the planning process is to become more "student-centered" and thereby improve student outcomes. However, the following quote from a staff member suggests that the planning process has yet to lead to fundamental changes in the way the college does business:

I am not sure if everyone understands the planning and evaluation process or system, but at least we are doing something. It is a change of mindset. The people who are here have been here almost 30 years. To transition to something so foreign is difficult. I think we are still trying to get our stuff together. By saying that we want to be student centered and focused; at least we know that. I am certain that the president and everyone involved have a goal that the students are successful and they graduate. The president says that all the time and really believes it. I am just not sure that planning has had an effect on that yet.

Summary Assessment

From the evidence presented above, it seems that the relatively low impact on success of minority students that we observed for the college during the study period (1998-2003) can be attributed to four main factors.

First, during our study period, the college was focused on recruiting new students, particularly recent high school graduates.

Second, the college did not have programs or services targeted to minority students, reflecting a view shared by many (but not all) faculty and staff that the college should be color blind in serving its students.

Third, while the college did offer support services to students generally that seem to be well designed to promote student success, they were not well integrated with one another. Further, there seems to have been little effort proactively to track and reach out to students who did not come seeking assistance. Other student services that the college offered during the study period were in need of strengthening.

Finally, since the current president arrived at the college in 1996, the administration has championed the idea that the college needs to become more "student-centered" and focus more on student retention and completion. Because this is a new way of thinking for many at the college, the shift has taken a long time to become accepted. Moreover, the college's main strategy for bringing about improvements in student outcomes has been to institute a strategic planning and performance management process, which the college formally established in 1998 with the implementation of the new PeopleSoft student information system and appointment of a new vice president for student success and a student success committee. The performance management system, however, was impaired by a lack of capacity and tremendous enrollment growth, and it was not likely a factor in planning until 2004.

As part of this process, the college set goals for narrowing the gaps in achievement between minority and White students. However, it has only recently begun to implement the ideas for achieving these goals. It is not clear, moreover, if the prevalent view that the college should not give preferential treatment to any one group of students will allow it to provide the sorts of targeted supports that some faculty and staff, including most of the minority individuals we interviewed, believe are necessary to begin closing the achievement gaps.

Developments Since the Study Period

In 2002, the college's occupational programs started a retention initiative for healthcare, business, information technology, and auto students. Case managers were hired who encouraged student to go to class and they met with students whom faculty members indicated were struggling. This effort succeeded in boosting completion rates in these programs. The case managers were funded by a special grant, and thus it has not been feasible to offer such services to all students in occupational programs.

In 2002, the college launched a "Grow Your Own" program through which it supports minority staff or adjunct faculty in getting the education they need to move into full-time faculty positions. The program has proved difficult to implement, since the college cannot guarantee that an open faculty position will go to any one individual, so the incentives to participate have not been strong.

In 2003, the college was awarded at Title III grant with two main thrusts: first, to improve success among college prep students by providing peer mentors and other supports; and second, to create a faculty institute through which faculty can improve their teaching skills and stay abreast of changes in their field.

In 2004, the vice president for student success was charged with spearheading the planning effort and overseeing efforts to improve student outcomes. The college also established a student success committee made up of administrators, faculty, and staff to propose strategies for increasing student success and monitoring their impact.

In the last three years, the college has offered a career forum for minority students called "Surviving and Thriving in Spite of…" Minority speakers from different fields come in to talk about "careers, strides, and struggles." Participation in these forums has ranged from 30 to 75 students. Recently, the college's Diversity Council has been charged with helping the institution navigate how best to approach its commitment to narrowing the gap in performance between minority and White students, including whether and how to treat minority students differently and whether and how to incorporate interventions for minority students under the broader umbrella of interventions for at-risk students.

As part of its commitment to student success and retention, the college is in the process of defining what measures of retention will be used in its planning and assessment activities. The performance of at-risk and minority students will be prominent among the measures.

The college has funded a new position, director of student success initiatives, which is to galvanize collaborative, college-wide efforts to improve student retention. It is also using the CCSSE to stimulate dialogue – within and across Academic Affairs and Student Affairs – about quality, student learning, and persistence.

Findings on Hypothesized Institutional Policies, Practices, and Culture

Institutional Focus on Student Retention and Outcomes

Historically the college has focused on enrollment. Only since the end of our study period (1998-2003) has retention been cited as a goal of the college: it was not mentioned in the president's annual reports until 2002-03, after a new president arrived, replacing the predecessor, who had served since the 1980s. Even now, one high-level administrator noted that the college has set no specific objectives for student retention. After the study period, an associate dean for enrollment services and university relations was assigned to oversee retention, but she has other duties and limited staff.

Targeted Support for Minority Students

The senior administrators we interviewed indicated that they are making efforts to recruit and support minority students. However, student services staff members argued that the college needs to do more to understand and respond to the particular needs of minority students. They said that the college has a philosophy of seeing all students the same way, even when some have different levels of need. They feel that the college is reluctant to give preferential treatment to any one group so as not to be perceived as providing "affirmative action."

Student services staff members argued that the college's "one-size fits all approach" is not an effective strategy for serving the needs of minority students. They believed that the college should be more proactive in reaching out to minority students once they are enrolled, and should customize services to their needs; it is not enough just to offer these services. Several noted that the responsibility for supporting minority students is not shared throughout the college, but rather is seen as the purview of special programs and student services staff who are themselves minorities.

The fact that the college had CROP (College Reach-Out Program) and other high school outreach programs aimed at low-income and minority students, during and since our study period, is an indication of its commitment to promoting access by these students. Started in the early 1990s, CROP has served between 100-200 students per year. It has a good rate of high school completion with lots of "top-tenners," though most CROP "graduates" attend universities rather than this community college. In 1997, the college started Florida Farmworkers Jobs & Education Program (FFJEP), which includes outreach to children of migrant farm workers in the high schools. Additional programs include the Take Stock in Children and Panther Youth programs, both of which started toward the end of our study period. The programs identify students in middle school and high school (respectively) and support then them academically, emotionally, and financially with tutoring, guidance, mentoring, study skills, and other services, in an effort to ensure high school completion and to encourage enrollment in college. While not

targeted to minority youth, the programs have large numbers of minority students. Each operates independently of one another.

The college ran a program called BMOC in the early 1990s, which was designed to recruit and retain African American males with scholarships, a supporting cohort, and on-campus activities. The program served 10-12 students a year and, according to more than one interviewee, was successful, since about half the participants ended up earning a degree. The college stopped supporting the BMOC program before the study period, however. Some staff members indicated that the college's decision to discontinue funding BMOC was an indication of its lack of commitment to serving minority students.

During our study period the college did have a TRIO Student Support Services (SSS) grant that provided mentoring and tutoring for first-generation, low-income, and physically-challenged students in college transfer programs. The program provided a wide range of support services, including tutoring, instruction in college success skills, personalized advising and counseling, regular progress reports, and exposure to universities and their expectations. The program served 150-160 students per year, most of whom were African American. One interviewee said that not many Hispanic students participated because it was perceived as "a program for Black students." The program ended in 2001 because the college was not successful in getting refunded. Still, it was operating during our study period and likely served at least some of the students in our cohort.

The administration says that the college has made an effort to recruit minority faculty, but it maintains that the qualified candidate pool is small because of the rural community in which the college is located. The community has a poorly educated local population to draw from, and when trying to attract outsiders to the area, the region is seen as unappealing (particularly to African Americans) due to its rural location and lack of cultural amenities and social networks for minority professionals. Internal critics claim that insufficient effort has been made to find such faculty. One interviewee indicated that even among the non-professional staff there isn't as much diversity as there should be.

Design and Alignment of Student Support Services

There appears to be a strong culture of commitment across the college to caring about and serving the needs of the students. Several interviewees (administrators, faculty, and students) spoke of the excellent faculty and their real interest in student success and the extra effort given toward students. This view was echoed constantly as one of the main benefits of this small school: familiarity, individual attention, and a caring attitude.

However, there is less evidence that this attitude has been translated into policies and programs that support student success. The college's approach to student needs seems more reactive than proactive. For example, it does seem to be responsive to requests and complaints of students about schedules, tutoring, and such, but does not appear to have sought to bring about systemic changes in programs and services that would promote student completion or transfer.

The March 2002 SACS report listed a number of suggestions for improvement, indicating that the college's support services were generally not well aligned. SACS identified a need for: improved assessment and documentation of institutional effectiveness, clearer evidence of systematic and effective advising services, and stronger new student orientation.

During our study period, there was a clear divide between occupational certificate programs, which are run on a "clock hour" basis, and degree programs, even those in occupational fields. Occupational programs had their own advising (through the faculty and program heads) and tutoring. Few students in certificate programs seemed to go on and enter degree programs. We heard anecdotal evidence that minority students were disproportionately represented in the certificate programs. There has been some effort to integrate support for the two programs in the Tutoring and Learning Center established in 2005, although we also heard that some of the academic faculty members think that including the occupational students will lower the quality of the services.

The following student support policies, programs, and services seem to have been strong during the study period:

Community Outreach

Dual enrollment began in 2001 and has grown to be quite a large program. One interviewee said the college is not doing much to reach out to poorest rural areas with highest concentrations of minorities. Another described a program to reach out to an African American community with a large population needing adult basic skills, but the program eventually folded due to a lack of community interest.

Financial Aid

Students apply through the student services office, which seems to be very hands-on and supportive. All are encouraged to apply for federal financial aid (especially Pell grants) as soon as they arrive. Students interviewed expressed satisfaction with the money available to them and the financial support they have obtained.

College Success Courses

A "master student course" is required for students who have to take two or more developmental education courses (this was also the policy during the study period). The faculty and staff involved think that it is very effective and should be a requirement for all students.

Developmental Education

According to staff, the college had an outstanding developmental reading instructor during our period of study. One academic administrator noted that many Hispanic students have to take developmental courses and that many of them have difficulty passing the developmental writing class. The percentage of new students needing developmental math increased dramatically in the past ten years. In 2002, because of the inferior math background of many students requiring developmental math, the department added a basic math skills course (including arithmetic review) that was at a lower level than the existing developmental math. The college caps enrollment in developmental math classes at an average of 20 students.

Childcare

On-campus childcare was available to students during the study period, but was subsequently discontinued because there were problems with funding and staffing and students complained that it did not help them that much.

The following services seem to have been weak or nonexistent during the study period:

New Student Orientation

New student orientation was minimal, consisting of a video at registration. This practice was in place in 1998-2003 and is still the standard operating procedure at the college. The requirement to attend this orientation has not been enforced, but student services is attempting to implement a procedure whereby new students must attend this orientation in order to receive "course management tools" (i.e., ID, e-mail account). The March 2002 SACS visiting committee report suggested that the college take steps to strengthen its new student orientation.

Advising and Counseling

During our study period, advising was done exclusively in the student services office with four counselors on the main campus and qualified counselors at each of the satellite campuses. Indications are that counselors were not very proactive – they were available to students, but did not seek them out. The March 2002 SACS visiting committee report asked for clear evidence that the college had systematic and effective advising services. Recently, the college hired additional full-time advisors at all its campuses, and faculty who wish to take on a formal advising role are supported in doing so. In the past, counseling for arts and sciences and occupational students was separate; now it is combined so that all students have access to the same level of counseling and advising services. Also in the past only the registrar's office could register students, which caused many problems, such as late registration. Now the college has implemented point of contact registration, which expedites the process.

Student Tracking Systems

In a practice in place since 1998, faculty alert counselors if they see a student struggling. The counselor then contacts the student to offer assistance. Student services staff said it works well, but faculty interviewed hinted that not many faculty members participate. Otherwise the college does not have an early alert system or other formal means of tracking of student progress.

Academic Support

There was no college-wide tutoring program until 2005, when the tutoring and learning center (TLC) opened. We were told that the college had long been aware of the need for such a center and that students had complained about not having such a resource. In the past, top-tenners were asked to do peer tutoring, but not within a formal structure. The TLC now provides the necessary training and structure for tutoring.

Transfer Opportunities and Support

We did not see much evidence that during our study period the college was aggressive in providing information and counseling about transfer opportunities to students, with the exception of the TRIO SSS program. The only four-year institutions in the area are two private colleges. The two closest public universities are more than an hour away. In 2002, the college established a University Center offering bachelor's and master's degrees in public administration, education, business, and other applied fields. All courses are offered on the college campus and taught by faculty from area colleges and universities. By all accounts (student, faculty, and administration), this has been a valuable and successful arrangement, with 270 graduates thus far. However, it probably started too late to benefit the students in the cohorts we tracked. One interviewee noted the minority students are underrepresented in University Center programs.

Career Services

The college offers little in way of career services. We assume that this was the case during study period. Administrators in the college's Arts, Science and Technology division indicated that faculty offers career guidance to students in occupational programs, but it is not formalized.

Extracurricular Activities and Campus Life

The college sponsors three intercollegiate sports teams (baseball, volleyball, and softball) with scholarships, but they tend to appeal to "middle-class White kids." One African American interviewee noted that low participation by African American students in the college's sports teams, clubs, and activities on campus makes them feel that "they don't want us out there." One administrator estimated that only about 100-200 of the 2,500 students participate in extra-curricular activities. Both students and staff indicated that there is generally very little going on

on campus in the evening. The dearth of on-campus activity gives the institution a "commuter college" feel. One student noted that it feels dead and a bit scary in the evening. The college sponsors a relatively small number of on-campus special events (such as festivals) each year.

Services for Non-Traditional Students

The college offers few evening programs. The AS&T division has tried offering evening certificate programs, but says there is little demand from students.

Support for Faculty Development

During the study period, the college made some funds available for faculty to attend conferences and participate in other professional development activities, although we did not get the sense that there was strong support for faculty development at the time. The current president acknowledged that faculty professional development is an area where the college could do more.

Experimentation With Ways to Improve the Effectiveness of Instruction and Support Services

In 2002, the math department added another lower level developmental math course to the existing course because of the inferior math background of many students requiring developmental math.

We saw no other evidence of substantial program innovation during our study period. There has been some subsequent activity, however, as is evidenced by the recent establishment of the tutoring and learning center.

Use of Institutional Research to Track Student Outcomes and Improve Program Impacts

Under the former president, decisions were made more on the basis of experience and intuition than on data. During much of our study period, the institutional research (IR) office produced what the staff called "canned" reports, but they did not seem to be used much, as is evidenced by the fact that when the institutional research office stopped producing the reports, no one asked for them.

The current administration, which has been at the college since 2002, has not actively used data for decision making either, although it does seem open to doing so. This practice may be changing, though, because the new vice president for academic affairs is asking for data and research to justify requests for funding or proposed operating changes.

Collection of data on students has improved with the implementation of a Banner system in 2001. Prior to that time, data, collection was quite rudimentary. One interviewee claimed that the

reason that the college failed to get its TRIO SSS program re-funded was that it could not provide the necessary data for the grant application, which included information on program enrollments and outcomes. The IR department has had a steep learning curve in using the new Banner system, and so it is still a struggle to keep up with the state data reporting requirements. Slowly, information on students is being made more widely available to decision makers in the college. The college has not analyzed data broken down by race/ethnicity, except for state reports, nor has it done longitudinal tracking of students.

There is no evidence that the college used data for program assessment or decision making during our study period. This practice has only begun to change in the last year or two, and the analysis of data is still very basic. The IR director admitted that the college has used data reactively for required reports and administrative requests, and not proactively to produce information for use in informing efforts to improve programs and services for students. The IR department is not yet an integral part of management decision making at the college.

These observations are supported by the March 2002 SACS report, which suggested that the college take steps to improve its institutional research capacity and the use of data in the management of educational programs.

Institutional Management of improvements in Programs and Services

We did not see evidence that the college's program review, strategic planning, and budgeting processes are driven explicitly by a focus on improving student outcomes. The fact that the college has only begun to ask for data to support budget requests is an indication that this was also the case during our study period.

Summary Assessment

During our study period and into the present, the college has devoted more resources and energy to recruitment and enrollment than to retention and completion. Even the new University Center is touted as a means to attract more academically prepared students to the college. The college has at least two long-running programs designed to prepare and motivate minority and first-generation middle- and high-school students to attend college. They seem to be well run and have generated lots of success stories, although they have not been rigorously evaluated. While these programs are intended for students in secondary school, their staffs continue to provide support informally to participants who enter the college.

Across the board, people liked the fact that this college is a small school that provides personal interaction, individualized attention, and a caring environment. Nevertheless, it appears that the college suffered due to a lack of a hands-on, regimented approach (i.e., less *laissez-faire*) to student retention. Examples of the latter would include requiring the "master student" class, more oversight of student course taking, more support for students' completion of paperwork (financial aid applications, for example), a more comprehensive and required orientation, and more required tutoring. Many students, particularly minority students, are enrolling with little

familiarity with the demands, expectations, and culture of college; poor academic backgrounds; and little home support for education and the education process; and suffering from precarious financial or personal situations that might put their persistence in postsecondary education in jeopardy. Without strict guidance, oversight, and support, many such students fall through the cracks. One interviewee noted that, among African American students in particular, it is common for students who fall below the minimum GPA needed for a Pell grant to drop out of school. The college clearly has made an effort to get students to enroll, but it lacks the policies and procedures to keep them in school until they complete. In short, as many interviewees said, the college needs to be proactive in serving students who have greater needs.

Programs that might promote outcome success, such as tutoring, counseling, mentoring, community-building, learning communities (in the form of TRIO and BMOC, for example), and those that provide financial support to students were either not well designed for their purpose or are no longer operating. For example, the school could take advantage of its small size to better use its personal touch for student outcomes (while students see the faculty as very approachable and supportive, nothing has been done to utilize it to establish true mentoring relationships). Also, despite the college's small size, information seems not readily available to all students. One student noted that students who are not in special programs seem to have to take a lot of initiative to find out about student services.

The members of the college's leadership whom we interviewed indicated that the college is very proactive and caring and is doing everything it can to help students (administrator: "this is a high caring college." student: "lots of one-on-one support from faculty and staff"), provided that students are motivated to help themselves (instructor: "when we get them, I think we do everything we can for them, but we can't make them seek out support").

Other administrators and staff members believe that the college is not doing all it could. Some see the college's decision not to continue funding the BMOC program, which was designed to recruit and help retain African American males, as an indication that the college does not invest sufficient resources in serving minority students. Others said that the college is reluctant to show preferential treatment to any one group of students, i.e., that it is not "sensitive to the needs of students," as one administrator said. Some felt that administrators resisted efforts to single out any one particular group for assistance, even when many in that group were not achieving. Minority student services staff argued that minority students and other disadvantaged students often need support that is customized to their needs and situations in order to succeed, but that often they are the only ones fulfilling that need (though not on a formal basis). One interviewee quoted another minority staff person as saying "'What are they going to do after I leave? Who's going to be here to look after their [minority students'] interests?'"

There has been a general lack of data about student enrollments, retention, completions, among other statistics. Without such evidence, the administration and faculty cannot identify weaknesses in programs and services and opportunities for improvement.

Developments Since the Study Period

The college has made many positive changes since the study period.

In 2003-04, the college hired a new vice president for educational and student services, and he has promoted the concepts of "culture of evidence" and "data-driven decision making."

Orientation, advising, and counseling services were expanded and revised to provide better service to students. In 2005, the college opened a comprehensive tutoring and learning center.

Dual enrollment has expanded since it started in 2001. Currently about 10 percent of the college's full-time equivalents (FTEs) are high school students taking college courses (either in academic or vocational-technical program areas). Several interviewees touted the program as strong and successful. Students we interviewed spoke highly of it, including some who had not participated in it.

The University Center opened in 2002. By all accounts it has been successful, although one interviewee said that minority students are underrepresented in the Center's programs.

Findings on Hypothesized Institutional Policies, Practices, and Culture

Institutional Focus on Student Retention and Outcomes

According to more than one interviewee, the focus of the college during our study period (1998-2003), was primarily on recruitment, since enrollment had been declining in the period before that time. Only since the study period has the college begun to focus on student retention.

In 2005, the college adopted a retention plan that lays out a series of measures for ensuring that students stay and complete their programs. However, the faculty members we interviewed said that the new plan formalizes the personalized outreach and attention that most faculty on this small campus were already providing to students. Similarly, student services staff members said that the college did not have formal programs or policies for retention, but has taken a more informal approach based on personal attention to students. According to one interviewee, the individualized approach is more effective than the organized approach.

The student services staff added that there is a tradition at the college of faculty and staff reaching out to students to ensure they succeed. They said that the size of the college helps – there are small classes, and the staff and faculty are approachable. They also believe that the college has hired personnel who are passionate about what they do. The people make the difference – they take calls at home from students and make the extra effort to support them. As one faculty member said, "We try to bend over backwards to accommodate students. We have a sense of what they are up against and have some compassion towards that, and you do what you can do."

Targeted Support for Minority Students

The college has had at least one program to reach out to minority students in the schools and help prepare and motivate them for college. Through the Take Stock in Children program, the college provides mentoring and college preparation support to low-income students (most of whom are African American) starting in middle school.

According to the Education Equity Act Report annually submitted by the college to the state, the proportion of first-time students at the college who were African American fell from 16 percent in 1998 to 11 percent in 2003, even though African Americans made up 15 percent of the adult population in the college's service area. Several interviewees mentioned that the college had shut down the men's basketball team during that time. One individual indicated that the Black community in the area was upset by this decision. It therefore might have been one factor contributing to the decline in minority student enrollment.

College administrators admit that the college was not very effective in recruiting African American students during our study period. One administrator thinks that one reason the college

had a hard time attracting African American students was that Black students in the college's service region who are oriented to college tend to go to Historically Black Colleges and Universities (HBCUs). Many of the remaining youth need remediation and are "not attracted to college," whether community college or university.

Other respondents pointed to the local culture and economy as barriers to recruiting minority students. One said that the mindset among minority families in the area is that young people should be working, not going to college after they graduate high school. This person said that the college needs to do more to educate parents and the community about the importance of a college education and about the opportunities available through this college. Another staff person added that, because the rural local economy offers few skilled jobs, most occupational programs lead to jobs that would require leaving the area, and local residents, particularly minorities, are reluctant to do that.

In 2003, the college hired a new admissions director. This person, who is African American, has made a concerted effort to recruit from minority high schools and communities in the college's service area. The person also works with counselors in each of the region's high schools on the premise that the older counselors in particular are reluctant to steer students to community colleges, although that attitude may be changing. An administrator indicated that the efforts of the new admissions director, plus the effect of the economic downturn that has made HBCUs too expensive for many families in the region, has led to an increase in enrollment of minority students in the past couple years.

However, the college does not have (and did not have during our study period) any formal programs designed to help minority students succeed once they enroll. Senior administrators and several others we interviewed said that the college did not single out particular groups of students for special attention, preferring to take a more "color blind" approach. One faculty member argued that most of the college's students are disadvantaged and that the college's programs, such as developmental education, are designed to serve disadvantaged students generally, regardless of whether they are Black or White.

From all accounts, this was also the philosophy in the study period even though enrollment by African American students declined during that time and, more important for this study, African American students were underrepresented among program completers at the college compared with Whites. (The college has very few Hispanic students.) In 2003, again based on figures reported by the college in the Equity Act report, African Americans comprised only 2 percent of associate of arts graduates and 5 percent of associate of science graduates, even though 11 percent of the college's students overall were Black. African Americans made up nearly 16 percent of occupational certificate recipients, however.

We heard from several interviewees that African American students generally have not felt particularly comfortable on campus. The results of the Community College Survey of Student Engagement (CCSSE) administered at the college in 2004 suggest a lack of social or cultural integration among students generally:

- 58 percent of students surveyed "sometimes" or "never": "Had serious conversations with students who differ from them in terms of religious beliefs, political opinions, or personal values."

- 59 percent of students surveyed "sometimes" or "never:" "Had serious conversations with students of a different race or ethnicity than their own."

Interviewees said that minority students were active in a multicultural student union during the early part of our study period, but the group was mostly inactive since that time.

Since the study period, the college does seem to have taken some steps to make the campus more welcoming to minority students. For example, the college recently started a gospel choir and expanded intramural sports, which, according to a staff member, "have attracted a lot of minority students." There has also been more emphasis on "cultural diversity" in the college's annual Fallfest and Spring Fling social events.

Yet, the college has still has not undertaken any formal efforts aimed at retaining minority students. Noting the increase in the minority population at the college in the past two years, one administrator admitted that: "We have not set ourselves up to deal with them." The student services staff members we interviewed said that the attrition rate among minority students is unacceptably high. They seem passionate about working to improve outcomes for students generally and for minority students in particularly.

While the college generally has generally taken a *laissez-faire* approach to recruiting and retaining minority students, the college's athletics program may contribute to minority student success through its efforts to recruit and support athletes, many of whom are members of a minority group. The coach monitors the academic performance of the athletes on a weekly basis, making sure that they have been on time for class, completed all assignments, and are maintaining an acceptable grade point average. The coach will not let the teams practice if one member gets a bad report – the whole team goes to the library or the learning lab instead.

According to the college's Equity Act report, in 2003 the college had two full-time Hispanic faculty members and no Black faculty. Faculty members we interviewed said that increasing faculty diversity was one of the objectives set forth in the college's strategic plan for 2003-06, but that a formal strategy for accomplishing this objective had not yet been established. One faculty member spoke about how the culture of the college's service area might be a deterrent to attracting minority faculty members. She said that her husband, who is Hispanic, did not feel particularly welcome in the community. Several interviewees talked about the continuing social segregation of Blacks and Whites in the area. According to one person, Blacks generally only eat at the chain restaurants by the interstate, rarely going to the local restaurants downtown, where the clientele consists almost exclusively of Whites.

During the past several years, the college has hired or promoted minorities to key positions in the student services staff. Several persons indicated that these personnel decisions helped make minority students feel more comfortable on campus. One minority staff member agreed, but

added that the college "still has issues" with respect to "race and tolerance" on campus which need to be addressed before minority students truly feel welcomed.

Design and Alignment of Student Support Services

Following its reaffirmation visit to the college in 2000, SACS issued a report to the college presenting 27 recommendations and 19 suggestions. The recommendations were in four areas: institutional effectiveness, planning and evaluation, educational support services, and administrative services. The college submitted two responses to the initial report, but nevertheless was placed on "warning" status by SACS. The college submitted a follow-up report and was removed from warning status in July 2002.

In the area of educational support services, the college did have some policies and practices that seem to have been well designed to support student success during our study period. They include these:

Outreach to High School Students

Besides the Take Stock in Children program focused on preparing low-income and minority youth for postsecondary education, the college has had a relatively large dual enrollment program with local high schools for at least ten years. According to the staff and faculty we interviewed, most of the students are well prepared academically and many wanted an associate degree. Currently students are enrolled in classes both at the campus and in local high schools.

Advising and Counseling

Students in college prep programs were advised by staff at the college's advising center. All others were assigned a faculty advisor. This was the only one of the six colleges where faculty were extensively involved in advising.

Transfer Opportunities and Support

Beginning early in the study period, the college formed a partnership with a private university to offer bachelor's degree programs on campus. Administrators and students we interviewed touted the arrangement as offering a convenient way for students to earn a bachelor's degree without having to leave the area. Two of the students we interviewed had earned associate degrees from the college and were interested in taking courses at the partner university, although neither had begun that process yet. The college does not have staff dedicated to providing information and guidance about transfer to students, although we did not see any evidence that the informal support provided was inadequate.

Several other of the college's support services seemed less well designed during the study period. They include the following:

New Student Orientation

Until recently, new student orientation was conducted once a semester. Its aim was to provide students with the practical information they needed to register for classes. Last year, the college expanded orientation, offering it several times a semester at different times of day. The sessions have been expanded to a half day, and they are conducted by faculty members and staff from the registrar's office, financial aid, and student activities. Family members are invited to attend.

Student Tracking Systems

During our study period, faculty members were asked to send notification forms to students who missed an "unacceptable" number of classes. Concerned that not enough faculty members were participating, the college formalized the policy by requiring faculty to contact students after one absence from class in 2005.

Financial Aid

The director of financial aid, who had been at the college since 1994, bemoaned the fact that, while scholarships were available to athletes and some other groups of students, the college could not provide every student with the level of financial support needed. More and more students have to take on unacceptable levels of debt to finance their education. The director is trying to do more outreach with middle and high school students and their parents to raise awareness and encourage families to begin financial planning for college as early as possible.

Student Success Course

College prep students are offered a course called "Student Development" that is taught by faculty from across disciplines. None of the interviewees touted the course as being particularly helpful to students. In any event, prep students are not required to take the course.

Developmental Education

In the 1980s and 1990s, the college tried different approaches to teaching college prep math, with different combinations of classroom or lecture segments followed by required study in the learning laboratory. None of these approaches proved especially effective. In 2003, the college's administration required that faculty use instructional software in both the classroom and lab components of the prep classes. Moreover, the college also created sections that are built around computer instruction, with a faculty member present to provide support. The college is currently

evaluating whether the use of computerized instruction has made a difference in student outcomes. According to faculty members we interviewed, the faculty felt that the computer strategy was forced on them. As a result, "[some] don't really use it to its capacity."

In 2003, after reviewing the outcomes of students in the college's remedial writing class on the state exit exam for developmental education, the college decided to divide the writing course into two levels. The college is currently evaluating whether that has had an effect on student success.

Both administrators and faculty admit frustration at not being able to achieve greater improvements in the outcomes for prep courses. One administrator conceded that one reason may be that the college relies heavily on part-time faculty to teach these courses.[28] According to this person, these part-time faculty may have appropriate knowledge of the content area, "but don't have specific skills in dealing with developmental students."

Academic Support

Academic support is provided through the college's learning lab, a center with computers, tutorial software, and student tutors. (During our study period, the lab had fewer computer resources and relied mostly on student tutors.) Tutors receive a day of training and the staff has created a manual for them. All college prep students are required to spend at least one hour per week in the lab. The faculty members we interviewed were unsure how effective the lab was in supporting student success. The learning lab staff tried to conduct its own research tracking the relation between the use of the lab and student grades, though this research did not seem to have produced definitive findings. The lab staff members said that they struggle communicating with the faculty on course expectations and recommended tutoring strategies.

Career Services

The faculty in occupational programs provides career counseling and job search assistance to their students. The college does not offer formal career services to students in academic transfer programs. This appears to have been the case during the study period.

Programs and Services for Working Adults

The college has recently begun to offer credit courses in the evening, although, during our study period, it seemed as though the college provided few opportunities for students who worked during the day to pursue degrees in the evening.

Childcare

The college has never offered childcare services on campus.

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[28] In 2003-04, 60 percent of the college prep faculty members were part time.

Support for Faculty Development

Faculty members indicated that the college provides some support for faculty who want to pursue professional development. The college has not had any formal initiatives focused on faculty development, however.

Experimentation With Ways to Improve the Effectiveness of Instruction and Support Services

Since even before our study period, the college does seem to have been active in experimenting with different approaches to improving student success in the area of developmental education. Until recently, however, the college lacked a mechanism for systematically evaluating the impact of efforts to improve student success.

Use of Institutional Research to Track Student Outcomes and Improve Program Impacts

During our study period the college did not seem to have done much research on student outcomes beyond what was required by the state. In general, there did not seem to have been much of a culture of using data on students to design and manage programs and services. This inattention to data has changed somewhat since 2001, as described below.

Institutional Management of improvements in Programs and Services

In 2001, following the warning from SACS that raised concerns about the college's approach to research, planning, evaluation, and institutional effectiveness, the college restructured its institutional research function to encompass planning and institutional effectiveness in addition to research, and it hired a new person with research experience to oversee the new function.

Since then, the new director has focused on expanding the collection and use of data at the college, and strengthening the connection between research, strategic planning, and institutional effectiveness. The director has also reconfigured the strategic planning committee into an institutional effectiveness committee, with four subcommittees: accreditation, assessment (monitors outcomes for students, programs and faculty), resource management, and strategic planning (oversees the plan and its implementation).

The research and institutional effectiveness director has also worked with the academic vice president and department chairs to revamp the program review process. The new process considers a wider number of indicators than before, including enrollment, grade distributions, program completions, and job placements. The process is now in place for all academic areas.

One impediment to the college's efforts to establish a more strategic approach to managing improvements in student outcomes is the fact that the college has an antiquated student information system that has been in place since 1985. This system makes it very cumbersome and time consuming to extract and analyze data on students and programs. The college is considering purchasing a new system, but is still trying to figure out how to afford it.

Summary Assessment

Our finding that minority students at the college were less likely to graduate, transfer, or persist than were students at many other Florida community colleges (controlling for student characteristics) makes sense in that, during our study period, the college was focused on reversing the enrollment decline in the previous period. The college's main strategy was to strengthen recruitment through more active outreach into the high schools. Only recently has the college begun to emphasize retention in addition to recruitment as a means of increasing enrollment. Up until that point, the college had not developed extensive formal supports for student success, nor has it created a particularly supportive culture beyond what seem to be the inherent benefits of being a small college.

While the college had made at least one effort to improve college access by low-income and minority youth, it did not have any formal programs designed specifically to retain minority students once they enroll at the college. Senior administrators and some of the faculty we interviewed stressed the view that no particular student group should be singled out for special treatment. That view seems to have been widely shared on campus during the study period, even as enrollment by African American students was declining and attrition among minority students was substantially higher than that of Whites. Since our study period, the college does seem to have taken steps to make the campus more welcome to minority students. The student support services staff members we interviewed, some of whom are persons of color themselves, seem eager to work to improve outcomes for minority students, although their efforts will likely have the greatest impact if responsibility for minority student success is shared broadly among faculty and staff.

The college's efforts to move toward a more data-driven approach to program review, strategic planning, and institutional effectiveness following the critical 2000 SACS accreditation review may well provide the impetus and the framework for systemic improvements in student outcomes. Indeed, in the time since our study period, the college has instituted a number of changes that have the potential to promote the success of students generally and minority students in particular. They include hiring of a new admissions director, revamping new student orientation and, this past year, establishing a retention plan for the college.

Developments Since the Study Period

Since the study period, the college has made changes that promise to improve the outcomes for students generally and minority students in particular. Most of them have already been mentioned, so we briefly summarize them here.

In 2003, the college reorganized its institutional research function, hiring a new director of research, planning, and institutional effectiveness and establishing a strategic planning committee. The new director worked with the planning committee to develop a three-year strategic plan to address recommendations of the 2000 SACS report.

In that year, the college hired a new admissions director, who has sought to build stronger relationships with all local high schools and has reached out to minority high schools and communities in particular.

Also in 2003, in an effort to improve the outcomes of college prep programs, the administration required the faculty to use instructional software in both the classroom and lab components of prep classes. The college is in the process of evaluating whether this move has improved outcomes.

In 2004, the college expanded new student orientation, offering longer sessions more frequently over the semester and at different times of day. The college has also formalized an "early warning" system by requiring faculty to contact students after one absence from class.

In 2005, the college adopted a retention plan. We expect that this plan, and the other new changes described here, will lead to improved outcomes for the college's students.