AN EXPLORATORY STUDY OF THE IMPACT OF INSTITUTIONAL POLICIES AND PRACTICES OF COMMUNITY AND TECHNICAL COLLEGES IN TEXAS ON STUDENT PERSISTENCE IN ONLINE COURSES

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Online education is the fastest growing form of course delivery of higher education in the United States. It has revolutionized how students and instructors interact in the educational process. Yet students in online courses continue to experience higher attrition rates than their counterparts in traditional face-to-face classes despite the advantages offered by the technology.

This study examined the impact that institutional policies and practices at community colleges in the state of Texas have had on student persistence in online courses. It also examined how institutions collect and use data in addressing students’ attrition. The findings were used to identify the most effective institutional practices to share with community college systems in Texas in an effort to improve student persistence in online courses across the state.

The population for the study consisted of the 50 public two-year community college and the technical college systems in the state of Texas.

The study used a mixed method. A theoretical model of institutional impact on online persistence was drawn from the literature review. This model's five categories were then used to construct a survey to collect data on institutional practices and measure the effectiveness in addressing student persistence. Four college systems were identified using the survey data that best met the five categories. Interviews were
then conducted at these four college systems to produce case studies of these institutions’ practices and experiences with online persistence.

The results highlighted the roles that institutions play in promoting student persistence in online programs. They revealed differences in the ways institutions define and track student success in online programs and the difficulty these differences pose in comparatively evaluating various institutions’ programs. Results lent support to the theoretical model of institutional impact on online persistence that was developed for this study, and results yielded a proposed list of promising practices to enhance student persistence in online programs in public two-year community and technical colleges.
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CHAPTER 1
INTRODUCTION

Distance education is the fastest growing form of course delivery in higher education in the United States. It has revolutionized how students and instructors interact in the educational process. Unlike the traditional classroom environment where the instructor and student are physically located in the same room, in distance education, also known as distance learning or distributed education, the instructor and the student are separated by space and time (Meyer, 2002; Oblinger, Barone & Hawkins, 2001). Through technology, students can now access the educational experience anytime and anywhere (Dykman & Davis, 2008a). These technologies have evolved over time from the early use of the radio to television and most recently the Internet. Web-based learning management systems running over the Internet offer teachers opportunities to interact with their students while addressing their unique learning needs through real time (synchronous) and over time (asynchronous) communication (Palloff & Pratt, 2003). This “online education” is the segment of distance education that has had the greatest growth in higher education over the last twenty years. Yet students in online courses continue to experience higher withdrawal rates than their counterparts in traditional face-to-face classes despite the advantages offered by the technology (Aragon & Johnson, 2008; Diaz, 2002; Meyer, 2002; Oblinger, 2001). This study focused on online education in community colleges and the unique challenges it poses to students successfully completing their courses (persisting) in higher education. The study then explored institutional responses in addressing these
challenges to improve students’ opportunities to successfully achieve their educational goals.

Background

Online education is the fastest growing segment in higher education. The 2008 Sloan-C report, *Staying the Course, Online Education in the United States*, found that 3.9 million students were enrolled in online courses in the fall of 2007, a 12.9% increase over the fall 2006 and a 19.7% compounded growth since 2002. The study reported that in the fall of 2007 20% of all students in the United States were enrolled in at least one online course. Overall higher education enrollment, on the other hand, had only grown by 1.6% over the same period. The 2008 Instructional Technology Center’s (ITC) annual survey (2009) found that online enrollment is the only real growth ongoing in most institutions of higher education. The majority of the students in this growth segment are undergraduate students who make up 80% of all online enrollments in higher education. Further, of the entire online student enrollment, over half are enrolled in associate degree programs with the largest group in larger, public institutions such as community colleges (Allen & Seaman, 2008).

This rapid growth in online education is due to numerous factors. First, online education offers students coursework in a convenient and flexible format adaptable to their varied life demands such as off-campus employment, family and mobility (Dykman, 2008a). This educational environment is especially well suited for community college students who are mainly commuters with job and family requirements that often conflict with fixed face-to-face class schedules (Cohen & Brawer, 2003). Additionally, studies also credit this growth in demand for online options to the economic downturn of the
2008 recession as well as the rising price of fuel (Allen, 2008; ITC, 2009). Again, this especially impacts programs serving working adults as is the case with community colleges (Allen, 2008). Further, online courses are popular for the modern workforce seeking to update skills and/or retrain for new jobs as result of globalization (Dykman, 2008a). Community colleges have a large role in developing and fielding these programs and are now challenged with moving many of their courses and degrees online to meet the growing student demand.

Distance education does offer college administrators and state policy makers a number of benefits. Online courses present college administrators with an effective way to expand classroom capacity and outreach with relatively little fixed costs of buildings, utilities, and other forms of infrastructure (Howell, Williams & Lindsey, 2003). With projected growth in student enrollment in higher education expected to exceed the current capacity of facilities at college and universities, distance education offers a scalable solution. Online courses also allow institutions to extend access to geographically dispersed students and provide a variety of course offerings in order to remain competitive in the education market (Allen, 2008). Furthermore, these courses allow colleges to respond to state demands to graduate higher numbers of skilled workers into the workforce at a reasonable cost. In states like Texas with a healthy economy, the demands for a skilled workforce and of a rapidly growing and diverse population living across a wide geographic area, distance education offers unique opportunities in meeting these demands (Colms, 2008).

Unfortunately, to meet the need for increased graduates, community colleges must wrestle with the issue of student persistence, whether it be in online or face-to-
face programs. Community college students have the lowest overall persistence rates among higher educational institutions. A longitudinal study by ACT, Inc.’s Educational Research Division spanning 1983 to 2008 reports that student persistence between freshman and sophomore semesters at public community colleges ranged between 51 to 53.7% which is less than the 68% persistence rate at four-year public institutions and the national average 65.7% for higher education in 2008 (ACT, 2008). This lower persistence rate can be attributed to a number of factors. First, unlike most four-year institutions, community colleges have open admission which attracts students with varying levels of skills and different capabilities for handling the rigors of higher education (Cohen, 2003). Additionally, unlike four-year institutions serving traditional students (18 to 24 years of age), community colleges reach a diverse student population that includes traditional students, first generation students, non-traditional students, secondary students, and adult learners. Further, a majority of community college students commute and attend college part time, living and working off-campus with competing off campus responsibilities unlike their traditional four-year counterparts (Cohen, 2003; Schuetz, 2005).

Horn and Premo (1995) identified seven risk factors that lead to student dropping out of a course and leaving the college experience. These factors include students who delay college enrollment after high school, attend college part time, are financially independent, have children, work full time while enrolled, or were high school dropouts and completed their secondary education with a GED. Horn and Premo found that any combination of these factors increased the risk to a student’s persistence (1995). Using these, the National Center for Educational Statistics’(NCES) 1999-2000 Profile of
Undergraduates in U.S. Postsecondary Education Institutions (2002) evaluated the different populations in higher education. They found that American Indian/Alaska Natives faced the highest average number of risk factors (2.8) followed by Black students (2.7), students with disabilities (2.6) and Hispanics (2.4). The study also found that students facing three or more risk factors had a 43% or higher chance of leaving postsecondary education within 5 years without a degree.

These findings are important to community colleges. With their policy of open admission and focus on serving the needs of their local communities, community college student populations attract a high concentration of at risk students. According to the American Association of Community Colleges (2009), in 2007, community college enrollment consisted of 55% Native American, 46% Black, and 55% Hispanic of all undergraduate students. Moreover, the average age for students at community colleges in the United States is 29 years. Consequently, community colleges face additional challenges in meeting the unique needs of these diverse student populations (Cohen, 2003; Diaz, 2002; Fikes & Fikes, 2008).

Online education programs add a new challenge to the issue of student persistence. The 2008 ITC survey (2009) reported that in 2008 student successfully completing their courses and enrolling in the following semester (retention) in online courses was 65% as compared to 72% in the traditional face-to-face classroom setting. This continues to be a concern to college administrators. Others report attrition rates ranging between 10 to 20% higher than face-to-face classes (Aragon, 2008; Carr, 2000; Wild & Ebbers, 2002). Actual numbers are hard to find because of limited data but
reports estimate that attrition in online courses in higher education can range from 20% to 50% (Aragon, 2008; Carr, 2000).

Lower persistence rates in online courses versus those offered in the traditional course format can be attributed to a number of factors. First, courses offered online are by design learner centric as the instructor and the student are not physically present in the same place. This makes the student take the initiative to engage the course material (Palloff & Pratt, 2003). This separation in time and space calls on online faculty to consider new approaches to course development and instruction. This distance can create for online students a sense isolation and alienation from their instructor and fellow classmates. Further, since distance education students do not physically have to come to a classroom they are not as prone to participate in other campus activities. To reach these students, institution of higher education must take a proactive approach to reach and integrate these students into the college’s academic and social community (Kember, 1989). An added challenge is adapting to and effectively using necessary technology to be successful in an online course (Palloff, 2003). Faculty and students in an online course must contend with this added challenge of mastering the technology to effectively communicate, collaborate and successfully engage the material over the course of the term of study (Meyer, 2002; Palloff, 2003). The combination of the above factors adds an extra burden on students which in turn impacts a student’s persistence.

The combination of the existing factors that lead to low student completion rates and the added challenges of online education put community colleges in a difficult position in promoting student persistence. With more community college students enrolling in online courses, more students are at risk of dropping out of their coursework
and/or degree plans and failing to meet their educational aspirations and goals. This risk is significant. The American Association of Community Colleges (AACC) reports that nationwide community colleges serve 48% of all undergraduate students (2009). In Texas, these percentages are much higher with 75% of all undergraduates and 78% of minority freshman and sophomores enrolled in community colleges (TACC, 2009). Plus, community colleges in Texas account for the largest sector in the state’s higher education programs with more than 600,000 students in 2007, or 61% of all higher education enrollments in the state.

High attrition rates also impact the college. First, there is a loss of resources, time and energy spent on the student who opts to drop out of their course and/or degree (Liu, Gomez, Khan, & Yen, 2007). Attrition also leads to a decrease in funding expected from future tuition and fees as well as later alumni donations had that student been successful. Then there is the cost of recruitment fees in searching for new prospects to replace the student losses (Fikes, 2008; Liu, 2007). College programs themselves may face a loss of faculty and course offerings with lower student numbers. Finally, all institutions of higher education now face pressure from federal and state governments to account for student attrition (Business-Higher Education Forum, 2004; Dykman, 2008a; Rovai, 2003; Wild, 2002). This is due to both the high cost of higher education and the demands for a skilled workforce in a competitive global marketplace. Therefore, college faculty and administrators now face both internal and external pressures to improve student persistence in all educational programs.
Problem Statement

Community colleges face growing demand for online courses which offer students flexibility and convenience in meeting their educational goals. However, colleges are also faced with high attrition rates in their online courses due to a number of factors that impact student persistence. Research shows that the institution plays an important role in building a culture that promotes student persistence; however, there are few studies that focus on what impact a community college has as an institution on student persistence in online courses.

Purpose of the Study

The purpose of this study was to explore the impact of institutional policies and practices at public two-year community and technical colleges in Texas have on student persistence in online courses.

Research Questions

The research questions in this study were:

- How do institutional policies and programs in community and technical colleges in Texas impact online course persistence?
- What role do assessment data have in institutional decision making in developing policies and programs for online student persistence?
- What institutional practices have been most effective in promoting student persistence in online courses among community and technical college students in Texas?
Significance of the Study

Online education offers many opportunities to the various stakeholders in higher education. Students gain greater access to and flexibility in how they engage education. College administrators, faced with the rise in student enrollment and the stagnation and/or loss of funding view online education as a way to increase the number of students and classes without the need for additional physical facilities. With the added demand for online courses, institutions are rushing to open greater access in order to remain competitive with other colleges and the for-profit education organizations already tapping into the lucrative online student market. Online education offers federal and state governments the potential for more graduates by reaching a more diverse student population across greater distances and at a lower cost. Identifying the most effective practices employed in community colleges across Texas that can address student attrition and improve student persistence will benefit all stakeholders. The following is a summary of what each stakeholder group has to gain from increase student persistence in online courses at community and technical colleges in Texas.

Student

Students have the most to gain from institutional practices that help them successfully complete their coursework and degrees. Research has shown that students completing a postsecondary degree or certificate, especially a bachelor's degree, experience greater occupational and economic benefits than students who do not attain a degree (Institute of Higher Education Policy, 1998). These benefits include higher salary and benefits, better chance of full employments, a higher level of financial
independence, an improved quality of life and life expectancy, and the ability to make better consumer and civil decisions. A college degree also serves to increase the student’s personal status and often translates into greater personal and professional mobility.

Another consideration is a postsecondary degree may soon be a requirement for all students entering the workforce. The Department of Education reports that 90% of the fastest growing job markets will require some postsecondary education (U.S. Department of Education, 2006). Two-thirds of these jobs require a certificate or an associate’s degree (Texas Association of Community Colleges, 2008). By 2012, over 40% of factory jobs will require postsecondary training. Furthermore, the Bureau of Labor and Statistics report that jobs requiring science, engineering and technical training will increase by 24% by 2014 (U.S. Department of Education, 2006). A post-secondary education is no longer an option but an important requirement for students in today’s competitive marketplace.

Online education programs expand access and flexibility of higher education beyond the traditional campus (Oblinger, 2002). Online education provides a way to enhance student learning experiences by addressing their different learning styles and educational needs through varied technological means (Dykman, 2008a; Meyer, 2002; Palloff, 2003). Online learning also improves a student’s access to education because it is available anywhere and at anytime, meeting the student’s varied life demands (Dykman, 2008a). Reaching new groups of learners is an advantage because online education can meet the needs of students who do not have the time for or access to a traditional classroom setting. The groups most affected would include students in rural
areas, single parents with children, working parents, and military or civilians located in remote locations.

Institutions

Community and technical colleges have much to gain from improving student persistence in online programs. Traditionally, community colleges spend more effort on recruitment than they do on retention (Fikes, 2008). This is significant since the loss of a student to attrition is more costly as it then requires recruiting new ones. By providing a positive college experience for students, institutions can help students complete their degrees and achieve their career goals. This in turn provides stability for the college, both in maintaining steady enrollment in an institution’s academic programs as well as ensuring financial stability for the college.

A second important reason for focusing on student persistence is a growing concern for accountability by the government and society (Business Higher Education Forum, 2004; Dykman, 2008a; Liu, 2007). With the rising cost of tuition and fees, and a drop in federal, state and local funding, access to higher education is becoming a serious challenge for many (U.S. Department of Education, Office of the Secretary, 2006). Nearly 62% of undergraduates have debt from college loans (2006). This places higher education practices under scrutiny as society demands greater insight into educational costs and student outcomes. A major recommendation from Secretary of Education Margaret Spellings’ Commission on Higher Education (2006) was for higher education to develop a “robust culture of accountability and transparency” (p. 12). Key to this accountability is better information on the quality and cost of higher education as well as student learning outcomes for policy makers and the general
public. Improving student persistence in the rapidly growing area of distance learning will help provide more successful student outcomes and help reduce the costs associated with current high student losses.

In Texas, the governor has set ambitious growth and retention goals for higher education in the state. The initiative titled Closing the Gaps calls on higher education institutions to expand their student enrollment by 630,000 additional students beyond their original projections and award 210,000 undergraduate degrees and certificates by 2015 (Texas Higher Education Coordinating Board, 2006). To reach these goals, community colleges will not only need to increase the number of courses and programs but also improve on student persistence. With an effective system in place to promote student persistence, online education offers community colleges a powerful means to quickly and economically meet the governor’s tasking.

Finally, online education provides institutions of higher education a means of reaching underserved population seeking access but unable to complete their education in traditional formats (Oblinger, 2001; Palloff, 2003). Community colleges provide open access to the community they serve. Each community has differing needs that the colleges meet such as serving the non-traditional student, retraining the local workforce, and reaching the rural and the geographically dispersed (Cohen, 2003). Online education provides students the means of effectively engaging the educational experience at a time and a place that best serves their life needs, opening opportunities to attain postsecondary certificates and degrees.
Policy Makers

Society has much to gain from an increase in college graduates (Institute of Higher Education Policy, 2005). Citizens with a degree in higher education have greater productivity, a decreased reliance on the government for financial support, and the ability to contribute higher tax revenue. Postsecondary degree holders also have lower crime rates, give back to the community through charitable giving/community service, and have an increased quality of civic life, more social cohesion and a greater appreciation of diversity. Educated citizens are also more able to adapt and use technology, an important skill in today’s highly technical workplace.

Education has contributed to long-term gains in the nation’s average productivity and the real earning power of workers (Burtless, 2009). Higher education allows workers to perform more complicated and intellectually demanding tasks and helps broaden their ability to learn new occupations and contribute to the innovation process in the workplace. Workers who successfully complete higher education degrees also have higher earning potential and a lower likelihood for unemployment. In 2005, college graduates earned 75% more in wages than workers with only a high school degree. Moreover, simply having a degree does not guarantee higher pay; the Department of Labor reports that college degree holders who do not keep up with the skills of their occupation quickly fall behind in today’s workplace (2009). The need for lifelong learning adds importance to the role of community colleges which are well positioned to offer this type of training with their comprehensive vocational programs. Further, with the economic downturn, the state is also seeking ways to retrain displaced workforce quickly and cost effectively.
Based on the above, a student’s successful completion of higher education is a growing interest to policy makers. With changes in the economy, federal and state governments are looking for ways of controlling educational costs while expanding access to rural and underserved areas. To do this, they are looking for ways of improving productivity of faculty, efficiency of administrators, and the accountability of institutions in delivering education to the state and the federal government (US Department of Education Office of the Secretary, 2006). Increased student persistence is a major goal of this process.

The State of Texas

Texas and its system of community colleges offer unique opportunities for this study. It has one of the largest community college systems and number of enrolled students in the United States, second only to the Californian community college system (AACC, 2009). As such, the institutional practices of community colleges in Texas have an impact on other states and influence the national dialogue.

Second, each college in Texas is an autonomous entity under the oversight of the state’s coordinating board. This organization provides opportunities for each college to adapt to their local community needs; however, it also means each college has varying approaches to dealing with student successfully completing online courses. The result is some colleges have model programs while other struggle to find solutions. By identifying the programs that work and sharing their ideas with the rest of the colleges in Texas, this study can serve to help all colleges in their efforts towards improving student persistence.
The opportunity provided by doing this study in Texas is the state population diversification (Pettersson & Assanie, 2005). Texas community colleges are experiencing growing enrollment of non-traditional and minority students. These students offer greater diversity to the campuses but also offer some unique challenges. Therefore, in studying the role of institutions in decreasing student attrition in online courses in Texas community colleges could yield models that would be applicable to other state community college systems that are just beginning to deal with the changing demographic currently faced in Texas colleges.

Finally, the Texas community college system consists of varied college systems and demographics. College systems range from multi-campus to single campus systems, centralized and decentralized administrations, urban and rural locations, and large to small institutions. Consequently, though the focus will be on community colleges in Texas the results of this study may be generalizable beyond Texas and provide insights for other colleges and state systems.

Definitions of Terms

Definitions of terms used in this study include:

Attrition describes a student failing to complete an online course be it through self selecting to withdraw from the course before its completion or being dropped from the course by faculty or the institution for failing to meet course or institutional expectations. Attrition was measured by course withdrawal rates.

Distance education, distance learning, distributed learning and distributed education are all interrelated terms used to describe the educational process where students, instructor, and course content are separated by time and place. Course
interaction occurs over some form of technological interface, most recently the Internet and the World Wide Web (Dykman, 2008a; Meyer, 2002; Oblinger, 2001; Palloff, 2003). These terms are often used interchangeably. If the emphasis is on the educational process, the terms used are distance education or distributed education. If the focus is on student learning, the terms used are distance learning and distributed learning.

**Institutional policies and practices** include the college’s governing policies and planning processes, administrative structures, and priorities in the execution of their online programs within the five categories of the theoretical model.

**Persistence**: describes the student’s decision to remain in an online course through its successful completion.

**Online education** is a form of distance education or learning where the interaction among the instructor, course material and student takes place 100% over the Internet through a web site or web based learning management system (LMS).

**Limitations**

Limitations of this study:

- The data collected in this study were based on the response from the specific senior administrator(s) of each college using self report. The accuracy therefore depended on the background, time, and effort of the administrator put in completing the study.

- The specific data required for a more in-depth quantitative analysis of the impact of institutional policies and practices on student persistence was limited by the researcher’s lack of access to individual college databases. This limitation was a problem and would need to be addressed in future
studies that seek to delve deeper into institutional practices and their long range impact of student online persistence in online courses.

- There were various ways of measuring attrition and student persistence in online courses which complicates the comparison of institutions and their practices (Hagedorn, 2006; Hyllegard, Deng, & Hunter, 2008). This study sought to understand how institutions measure student persistence in an online course and use these measures to compare institutions.

Delimitations

The delimitations for this study:

- This study addressed the institutional practices of the 50 Texas public community colleges and the Texas State Technical College system in support of the online learning.

- The study sought to learn about the institutional practices in support of distance education and not specific efforts by individual faculty or instructional design.

- The study focused on student persistence in online courses and not on student completion of specific certificates, degrees or awards. This delimitation was placed because students can take any combination of online and traditional courses as they progress towards a degree or certification (Hagedorn, 2008; Hyllegard, 2008). Consequently, the study looked at persistence in online courses as the primary dependent variable in order to capture the larger student population.
• This study focused primarily on online learning courses, limiting the ability to generalize the finding to other distance learning delivery methods such as telecourses, two-way interactive, and computer aided design. It did not address hybrid courses where part of the instruction is online and part is face-to-face and which is also growing in demand in higher education. Hybrid or blended courses were also not the subject of this study since part of the instruction is done in a physical classroom.

• Statistics collected on student demographics and withdrawal rates were based on the fall 2008 semester which contained the most complete data set at the time of the study.

• The study focused on institutional practices and how they impact student completion of online courses. It did not evaluate specific student characteristics or backgrounds that may impact persistence. The latter though, worth future research, was not the focus of this study.

Overview of the Dissertation

Chapter 2 explores the literature to highlight what research says about student persistence, the role of institutions play in promoting student persistence, and what has been identified as best practices. This information served as a foundation for the study. Chapter 3 identifies the research methodology used in developing and conducting the study and how the findings were tabulated, analyzed, and presented in the final report. Chapters 4 and 5 provide an overview of the quantitative and qualitative findings respectively from the study. Chapter 6 offers a summary of the study along with conclusions and recommendations for research and practice.
CHAPTER 2

REVIEW OF LITERATURE

This chapter explores the literature for studies on student persistence and the institutional role of community colleges in promoting student persistence. This study was not designed to develop another predictive framework based on specific student traits or personalities but instead to study the impact community college institutional practices have in promoting student persistence in online courses. This chapter will first explore the numerous models proposed by researchers addressing student persistence in higher education and how these models have been applied in the community college environment and in distance education. This chapter also includes an overview of current studies on student persistence in higher education and discusses how these studies inform the methodology chosen for this study. The chapter concludes with a proposed theoretical model of institutional impact in online programs that emerges from the literature and which will serve as a framework for the study.

Research on Retention and Persistence in Higher Education

Research in undergraduate student persistence can be categorized into four major areas: sociological, psychological, economic, and organizational (Braxton & Mundy, 2001-2002; Kuh, 2007). Most of the research centers on residential four-year institutions and the traditional student. Only recently has work emerged on retention in community colleges and distance education.

Sociological Models

The most prominent sociological research model is Tinto’s student integration model (Summers, 2003). Tinto’s longitudinal model builds on the earlier work of
Spady’s sociological model and Durkheim’s suicide model, and postulates that a student’s persistence in higher education relates to how quickly and effectively the student integrates into the academic and social fabric of the college (Tinto, 1975, 1993). He found that students bring certain expectations and motivations to the college environment built from their background experiences, commitments (family, neighborhood, peer groups, work setting), and personal traits. As the student enters and begins interacting with the higher education environment, he/she encounters new experiences in the academic (classroom interaction, faculty/student interaction) and the social (student life, student activities) spheres of campus life. Students weigh each experience against their background which influences their expectations and impacts their motivation to persist or withdraw. Tinto found that failure to interact in either area would lead to a sense of isolation and incongruence eventually leading to a student’s dropping out of a course and/or the college experience all together.

Tinto states that institutions have a major role in incorporating students into the higher education process by creating integrative experiences through academic and social systems in the college and helping the student develop positive and realistic expectations (intentions, goals and commitment) and motivation (educational and occupational) to enforce persistence. He challenges higher education to take a more proactive role in facilitating student success in the following areas:

- Pre-enrollment preparation to provide students with accurate, honest and complete perspective of college and academic expectations
• Freshman orientation to inform students of the many services and opportunities available on the campus and to equip them with skills they will need to be successful in the classroom and on the campus
• Transition assistance utilizing counselors and advisors to assist students in building skills to cope with and overcome difficulties they may encounter as they make the academic and social adjustment in their transition into college
• Early contact with students by faculty and staff to help prospective students build community in the college environment
• Academic involvement and support through faculty and staff interaction with the student throughout their educational experience
• Monitoring and early warning mechanisms through institutional assessment processes to track student progress and intervene when necessary to help them attain their educational goals (1993)

Unfortunately, Tinto’s model does not address non-traditional students (adult learners) because it is based on traditional undergraduate programs in four-year colleges and universities offering traditional face-to-face classroom environments. The stronger the student’s external focus, the weaker the academic and social integrative forces that draw a student into the campus community potentially undermine the student’s ability to persist (1993). This creates a challenge for community colleges with a high percentage of commuting students and adult learners who retain their ties and commitment to their external communities, tend to live off campus, have families, and are not involved in campus activities and/or attend college part time (Rovai, 2003).
A second influential sociological model is Astin’s input-environment-output model (1984). Astin’s work reinforces Tinto’s findings and further emphasized the importance of the institution in promoting student persistence. Astin proposes that a student’s success in higher education, what he called output, depended both on the students’ background, or input, and their experiences throughout their postsecondary work, or environment. He found that students’ persistence in higher education depended on their involvement with faculty, the overall academic experience, and their peers. Astin highlights the institution’s role as promoting opportunities and resources to nurture these interactions so as to encourage students to persist in meeting their educational goals (Astin, 1993). He emphasizes that higher education should “rethink traditional ways of structuring collegiate environments and find new ways of actively involving students, as well as faculty, in their intellectual life…” which he points out “requires a deeper understanding of the importance of educational community to the goals of higher education” (p. 212).

Psychological Models

Bean (1980) approached the issue of student persistence with a psychological model to identify factors that lead to student attrition from their postsecondary pursuits. His model of student departure found that students weigh their commitment to the educational institution based on perceived objective (such as grade point average and campus associations) and subjective measures (such as practical value of the education and quality of the institution). These factors influence student satisfaction with and increase their commitment to the institution. This information led Bean to
conclude that an institution’s commitment to education and student success has a direct link to student persistence.

Bean and Metzner’s student attrition model (1985) expand on Tinto’s and Bean’s earlier models with the inclusion of the non-traditional student. They define non-traditional students as 24 years or older, attending college part time, living off campus (commuter), or any combination of these three factors. Bean and Metzner studied non-traditional student interaction on college campuses and found that these students had stronger ties to their external communities (work, family, external peer groups) than the traditional student residing on the campus. Their study showed that non-traditional students’ integration into the campus culture was based primarily in their interaction in the academic environment and less on socialization. Bean and Metzner identify four factors that impact nontraditional student persistence:

- Academic performance such as a student’s study habits, academic advising, absenteeism, certainty in their academic major, and course availability
- Psychological outcomes such as satisfaction, goal commitment, and stress a student experiences with their educational experience
- Background and defining variables such as a student’s age, enrollment status, residency, educational goals, high school performance, ethnicity, and gender
- Environmental variables including a student’s finances, hours of employment, outside encouragements, family responsibilities, and the opportunity to transfer (1985)
Bean and Metzner (1985) postulate there are two compensatory interactions among the four factors at work within their model. The first is between academic performance and environmental variables. They found that positive environmental variables such as encouragement from family and their peers are often important enough to a nontraditional student that they can compensate for lower academic performance. Conversely, even though students value academic performance, low environmental variables like employment concerns and/or lack of support from their peers can lead to their course and/or college attrition. Of specific concern to the non-traditional students is paying for their education which has a major impact on these students continuing their education.

The second compensatory interaction occurs between academic performance and psychological outcomes (1985). A student with high psychological outcomes such as a strong sense of purpose or commitment to attaining their education will often persist even with low academic performance. However with high academic performance does not compensate for low psychological outcomes and can lead to a student dropping out of the college/university.

Bean and Metzner’s (1987) work highlights the role institutions of higher education should take in working with non-traditional students even though many of the factors impacting a student’s persistence are outside the scope of an institution’s abilities. For instance, their study revealed that non-traditional students’ backgrounds are strong indicator of how well they will interact in college or university. Environmental variables also exercise a strong influence on non-traditional students’ decision to stay and to successfully complete their educational goals. However, a student’s grade point
average (GPA) and the institutional commitment to the student successfully completing their academic pursuits directly affect persistence by impacting the student’s perception of the usefulness and employment opportunities available due to a postsecondary education. Moreover, Bean and Metzner’s work points the importance of the faculty and classroom interaction in serving this population. Their findings are especially relevant to community colleges who serve a large number of non-traditional students (Cohen, 2003).

Bean and Eaton (2002) provide a detailed model of student persistence based on psychological processes involving academic and social integration. Their model includes work with attitude-behavioral theory (the overall structure of their model), coping behavioral theory (student’s ability to assess and adapt to a new environment), self-efficacy theory (a student’s self-perception when dealing with specific tasks), and attribution theory (a student’s sense of internal locus of control). Based on their model, Bean and Eaton call attention to the need of an institution to address these different psychological processes by providing for service-learning, freshman interest groups, learning communities, freshman orientation seminars, and mentoring programs to support student success.

Economic Models

The economic model posits that students’ willingness to stay or leave a course and/or higher education is based on how they perceive the benefits they will gain from their educational experience (i.e., better job, higher earning potential, personal growth) versus the costs they must pay (i.e., tuition, fees, temporary loss of income and time) to complete the work (Tinto, 1993). If a student perceives that an alternative form of
investment of time, energies, and resources would yield greater benefits relative to costs of the higher education experience, the student will likely withdraw from the institution even if the overall experience has been positive. Thus if external activities become more attractive than the college experience, the student will leave higher education. On the other hand, if the alternatives are limited or less attractive, the student will be motivated to persist. This model is apparent in times of economic downturn when the number of students increases in higher education. Joblessness rates restrict alternative opportunities and limit a student's options. Institutions of higher education should help students recognize the benefits they will gain from their educational experience to include their personal growth, obtaining a desirable job and living a more productive life after college that offset costs or hardships students might encounter in the educational process (Kuh, 2007). This model also calls for institutions to facilitate financial aid for disadvantaged students. Educational costs are major concern to students and can outweigh any benefit student might seek from their educational experience (Braxton and Mundy, 2001-02)

Organizational Models

Organizational studies have focused on the role of institutions in promoting student persistence. Instead of looking at individual programs or faculty, these studies have focused on the importance of holistic approaches of integrating academic and student affairs with administrative practices (Berger, 2001-2002; Borland, 2001-2002). Berger and Milem (2000) stress the importance of an organization’s behavior, culture, and climate on influencing a student’s commitment to the institution. They point out that
the importance of an institution in building comprehensive processes and structures committed to student learning are crucial to student success.

Chickering and Gamson (1991) emphasize the important role institutions have in shaping an environment favorable to student persistence. They recommend that an institution have a “strong sense of purpose, concrete support from administrators and faculty leaders for those purposes, adequate funding appropriate for the purposes, policies and procedures consistent with the purposes, and continuing examination of how well the purposes are being achieved” (p. 51) They argue that institutions can create effective learning environments when there is a common sense of purpose, proper resourcing and professional development, class sizing to encourage faculty student interaction, and staff support/advising. Chickering and Gamson stress that environments need to be structured so that:

- Policies are consistent with good practice in undergraduate education
- Institutional performance is held to high expectations
- Bureaucratic regulations and practices are kept to a minimum
- Adequate funds are available for student programs and professional development for faculty, staff and administrators
- Institutional employment of under-represented groups is encouraged
- Provision of programs, facilities, and financial aid needed for good practice in education (1991)

Kuh (2001-2002) emphasizes that single programs or policies are by themselves not enough and “only a web of interlocking initiatives can over time shape an
institutional culture that promotes student success” (pp. 30-31). He suggests that institutions accomplish this when they:

- Clarify institutional values and expectations early and often to prospective and matriculating students
- Conduct a comprehensive examination of the student experience inside and outside the classroom
- Consistently use good practices in teaching, learning, and retention programs
- Intentionally tie the curriculum to students’ lives outside the classroom to bring students into ongoing contact with one another and with campus resources, especially after the first year of study
- Remove obstacles to student success associated with disciplinary cultures (2001-2002)

Kuh, Kinnzie, Buckley, Bridges, and Hayek (2007) postulate that institutions that focus on student success and create a student-centered culture are better positioned to help students achieve their educational goals. Kuh et al. emphasize that postsecondary institutions require assessment process to monitor student performance through the educational process. They include early warning systems which identify areas where students are experiencing problems and that might go unnoticed. Kuh et al. recommend developing a common set of reporting indicators that measure student persistence and using these indicators to collect, analyze, and use the data in maintaining the college’s accountability to students successfully completing their educational goals and guide the institution in a continual improvement process. Ewell
and Wellman (2007) call for more systematic research on the implementation of student success initiatives, such as how institutions use the data on student success, so as to “investigate more fully the roles of academic leadership and culture in creating institutional environments that support and reward collective efforts to improve student success” (p. 15).

Research in Student Retention and Persistence in Community Colleges

Much of the research in community college has focused on adapting the models developed for traditional four-year institutions discussed previously to the community college setting (Wild, 2002). Though there are many similarities, the community college mission and the students it serves are different from its four-year counterparts (Cohen, 2003; Schuetz, 2005). Schuetz (2005) points out that the student retention models based on four-year institutions offer community colleges a starting point but these models only account for 8% to 25% of the total variance of attrition in community college. She states that the environment (i.e., enrollment, location, faculty/student ratio, expenditures per FTE of instruction, student support services, socioeconomic status, and financial aid) is an important factor in the study of any attrition model at the community college level. This has received less attention as most studies focus on student characteristics. Schuetz highlights the interdependent relationship a campus environment has on both faculty and students, and postulated that it plays an important role in student persistence. She suggests that institutions reexamine their impact on the environmental factors and take action to bring about the necessary changes to help their students persist in their education by providing orientation programs, tutoring, access to technology, counseling, and other services adapted to the needs of the
different student groups both on and off campus. According to Schuetz, “innovative, flexible, and engaging educational environments best support student outcomes” (p. 68).

Wild and Ebbers (2002) state it is necessary to establish a definition for retention and persistence in community colleges. They point out that the definition used for these terms are still based on a four-year institutional model and does not reflect the unique environment of a community college. Wild and Ebbers stress that much of the attention placed on retention and persistence in community colleges focuses on the student and does not take into account the role of the institution in promoting student persistence. They recommend that community colleges reevaluate their definitions of student success to consider the student’s initial goal, how the student is progressing in their education, and what support the student will require to achieve their educational goal. This will require community colleges to implement various strategies to include the use of student success indicators or measures, the creation of learning communities and cohort groups, the development of directed retention programs (i.e., outreach/recruitment, orientations, financial support) and the establishment of tutoring and supplemental programs to effectively address student requirements in successfully completing their education.

Hagedorn (2008) argues that the definitions used to assess student retention, persistence, and success in colleges and universities by both the state and the federal government do not consider the varied nature of student enrollment patterns and student goals in community colleges. She posits that the student success definitions are based on students completing their degree at one institution within a prescribed time
period and fail to address students who transfer to other colleges, attend part time, enroll but do not work towards completion of a degree or certificate, enter the college in times other than the traditional fall semester, return to the college after an extended absence, or have undeclared majors. Additionally, she calls attention to the differences in how colleges account for student attrition and persistence depending when the institution measures student withdrawal, be it at or after the add/drop point, and what constitutes successful course completion. Hagedorn argues that there is a need to address these definitions and adapt them to include the community college student in order to better identify predictors of student persistence and success.

Goble, Rosenbaum, and Stephan (2008) find that current measures of success at community colleges are based on graduation rates and fail to address persistence of the high and low achiever student. Among these groups are the minority students many of whom are considered at risk. Rendon (2002, 1994) describes the unique characteristics of non-traditional and minority students. She emphasizes that instructors and counselors must assume an active role in connecting to and validating these students in the learning environment and so promote student persistence. Rendon calls on community colleges to build campus communities that welcome diversity and where faculty and staff interact with and validate their students. Fischer (2007) finds that the minority student, especially the Black and Hispanic student, tend to be first generation students and face a major adjustment in integrating into the higher education environment. Many of these students come from lower socioeconomic backgrounds and depend on financial aid to complete their education. Fischer stresses that these students need additional support and encouragement to effectively join the academic
and social fabric of the college. Faculty interaction is important to connect these students to the academic environment which helps them persist in their courses. Fischer also specifies the need for academic enrichment programs such as tutoring and mentoring services. Additionally, the institution must ensure that the structural and environmental aspects of the campus provide a positive racial climate.

Research in Student Retention and Persistence in Online Education

By definition, online students are distant from the campus and do not have the direct social contacts of traditional, face-to face students. However, much of the work in retention and persistence in online students has focused on traditional four-year institutions and has revolved around trying to adapt traditional retention models to the online environment (Liu, 2007). Kember (1989) took Tinto’s model and applied it to the online environment. Kember’s findings show that although Tinto’s model had merit, a more linear model fits the online student better. He found that the internal (academic and social integration in the college) and external factors (family, work, and community commitments) build on each other consecutively instead of concurrently throughout the integration process as these factors would in a traditional classroom environment. Online students’ first interactions are academic and only later do these students develop social ties due to the uniqueness of the online environment. He emphasized the importance of academic interaction and expanded Tinto's academic environment to a distance education course. Kember states that in the online environment, the quality and quantity of a students' “collective affiliation” with the institution includes the interaction with the academic staff, the course layout and materials, the availability of support services such as tutoring, and the awareness of institutional norms (p. 204).
Diaz (2002) points out that two of the greatest benefits of online education, flexibility and convenience, attract students with busy lifestyles (family, work and/or school) who self-select these courses as a way of completing their educational goals. He states that it should not be surprising when these students choose to drop out of their online courses due to schedule conflicts or course overloading. Sullivan (2001) notes in his study that non-traditional female students found that online education was appealing as a way to balance their family, work and educational obligations. Hyllegard, Deng, and Hunter (2008) later tested Diaz’s concept and found that even though online education environment was serving non-traditional students, it was also attracting at-risk students who were under the misconception that online courses were an easier, less demanding route to completing their studies. Hyllegard et al. conclude that though a student’s extracurricular activities are a major contributor in online attrition, community colleges must also address at-risk students who enroll in online courses with incorrect expectations and are unprepared for the rigors of the online environment.

The online educational environment offers additional challenges than those of the traditional face-to-face classroom. Students working in an online environment are physically separated from their instructor, their classmates, and the college environment. This separation is a concern as it can lead to a feeling of alienation and disengagement. The interaction between faculty and student becomes a major factor in online courses. Aragon and Johnson (2008) recommend that instructors need to embed communication systems and procedures in their courses to establish and maintain times and ways in which students can connect with them in the online course.
Meyer’s (2002) states that there is a strong correlation between student-faculty interaction and a student successfully completing a course.

Online education by design is learner centric since students make connections, construct meaning, navigate and create their own knowledge with limited instructor guidance (Palloff, 2004). An online student is thus responsible for his/her own learning experience as the instructor becomes a guide interacting with the student from a distance (Rovai, 2003). This calls for students to be self motivated and self directed in their studies. It also calls for students to have or to develop time management and organizational skills to meet the course deadlines and complete the assigned work without the physical presence of an instructor reminding the student of deadlines. If students do not have these skills prior to the online class, they need to learn them on their own or face failing or with dropping the course (Aragon, 2008; Liu, 2007). Diaz (2002) finds that many adult learners in the community college environment have these skills. Based on Knowles’ (1984) work with adult learners, these students have developed traits such as being problem-centered, self-directed and able to build on personal experiences. However, adult students often lack technology skills which can hinder their progress online (Rovai, 2003; Whiteman, 2002). Students who lack these skills are at risk of failing in the online environment without proper preparation and support (Aragon, 2008; Diaz, 2002).

Online course design is also an important consideration in promoting student persistence (Dykman & Davis, 2008b). The concept of “anywhere and anytime” offers faculty distinct challenges as they preplan course content and delivery while anticipating how a student will engage and process the course material. This concept also requires
faculty adapt new approaches for course delivery by integrating different electronic communications media and course structures to achieve the desired content delivery. Furthermore, course expectations and instructions must be clear and concise. Dykman and Davis (2008b) state that consistency in the design and structure of an online course is important to help students navigate, find, and engage the course content. This consistency also includes effective course design standards and a common learning management system within an institution. This allows students to focus on the course material and minimize the effort of learning new software and course structures. Aragon and Johnson (2008) stress the importance institutions have in providing appropriate training to help faculty deliver the same course content as they do in their face-to-face class while using new methods of instructional delivery tailored to the online environment. These methods include addressing the individual differences among the online learners, motivating students to engage their coursework in a setting outside the traditional classroom, avoiding information overload, creating a real-life context, encouraging social interaction at a distance, providing hands-on activities, and encouraging student reflection.

Another consideration in deploying online courses are the benefits and challenges of technology. Technology provides the means by which faculty and students can interact over long distances and time. It also provides a way for students to collaborate, another major component of the online educational environment. Additionally, technology allows faculty to address their students’ different learning styles simultaneously throughout the course. However, technology presents its own challenges to student persistence. First, it requires both student and faculty develop
technological skills in a short timeframe. Lack of technological aptitude is a well
documented reason for student withdrawing from online courses (Milligan &
Buckenmeyer, 2008). Lack of technical competence is also a major reason many
faculty opt out of the online environment. With the rapid changes in technology, faculty
face the need to continually learn new techniques and adapt their courses to integrate
the latest media in an effort to best serve student learning needs. Institutions must
provide the training and technology support to both students and faculty to help them
keep up with the changes.

The skills students develop to be successful in the online environment (self
motivation, time management, self direction and independent learning) make the online
student as competitive as their counterparts in traditional face-to-face classroom
settings (Diaz, 2002; Milligan & Buckenmeyer, 2008). Palloff and Pratt in their book The
Virtual Learner (2003) identify seven characteristics of an effective online student. First,
the online student should have access to and the skills to use a computer and high
speed network access. Second, they need to be open-minded about sharing personal
details about themselves and their educational experiences. Third, students should be
able to work, communicate and collaborate without visual or auditory cues. This
includes the ability to create mental picture of their fellow students and to create a
sense of presence online through textual communications. Fourth, they need to be
willing to commit their time towards their studies and not see their work as “softer,
easier way” (p. 11). Fifth, an online student should be able to think critically and use
problem solving skills as they engage the course content. Sixth, they should be able to
reflect critically on material and concepts that arise in course discussions. Finally, the
student should believe that the quality of their learning is not dependent on place or time of instruction. It is important to help students develop these skills as they interact within the online environment so as to increase their persistence.

Faculty who are effective online instructors also share a number of characteristics. Palloff and Davis (2003) find that faculty who teach online need to be open to new teaching approaches and techniques as well as adaptable to new technology. Further, online instructors must be willing to learn from their students and collaborate with them because both student and instructor share in the course design and learning process. Meyer (2002) adds that online faculty must be team players as they work with course designers, technologists, and their students’ feedback in creating their course content.

Not all students and faculty are prepared for online courses and online education, however (Meyer, 2002; Milligan, 2008). Students who do not meet these characteristics face significant challenges in successfully completing an online course. Research challenges institutions to establish a pre-selection process and orientation to help students develop clear understanding of what to expect in online course and prepare them with the necessary skills to be successful (Aragon, 2008; Milligan, 2008; Liu, 2007; Rovai, 2003; Schuetz, 2005). This same process is necessary in the selection and preparation of faculty to teach in the online environment (Liu, 2007; Maddux, 2004; Milligan, 2008). Current research also requires institutions to provide follow-up student support services such as technical help desks, and advisement and tutoring to help students expand on their skills (Aragon, 2008; Diaz, 2002).
Liu, Gomez, Khan, and Yen (2007) propose a three dimensional predictive framework based on learner-oriented factors that impact student persistence in online courses in the community colleges. The three dimensions of the framework are psychological, technological and social factors. For the psychological dimension, they identified those student characteristics necessary for learning to occur. With the online environment being learner centered, the student is responsible for the learning experience. The second dimension, technology, includes the equipment, software, and training which are crucial because online education depends on the technology. The social dimension includes the student’s feeling, perception and reaction to others in the ongoing computer interaction of an online course. Lui et al. highlight the important role the college has in the early identification of student potential for the online environment. They highlight that this identification should consider the student’s psychological, technological and sociological skills. With this information, the institutions should then make any necessary interventions to address shortcomings through training, counseling, and technical support.

Meyer (2002) argues that institutions can do much to encourage and to prepare faculty for the online environment. She finds that faculty who teach online do so for intrinsic reasons such as the challenge and improvement to their teaching. Those who decide not to teach online cite extrinsic motives such as lack of release time, or lack of support. Meyer stresses that colleges and universities have a direct impact on the quality of online education based on how they select, train, and equip faculty for the online environment. Meyer also recommends that administrators build reward systems (i.e., promotion and tenure) that recognize faculty efforts in developing and maintaining
online courses. Also, classes should be sized appropriately to allow the best interaction between student and faculty to promote student persistence.

There can be institutional barriers to effective online education which in turn impact student persistence (Kuh, 2007; Meyer, 2002). First, the lack of skills and knowledge by faculty, staff, and administrators of the online environment can impact institutional decision making. Rapid expansion of an online program without the necessary support or resources for effective course development and support structures simply perpetuate the problem of attrition. A second barrier is an institutional structure and policies that make it difficult to bring about and maintain needed changes. An online program requires different approaches than those used for traditional instruction. To use a “one size fit all” model fails to address the needs of the students and faculty. Finally, people and institutional information systems can inhibit action.

Kuh et al. (2007) point out that institutions have an important role in overcoming these barriers and meeting the challenges of establishing an effective online program. They emphasize that an institution must first establish a clear commitment to online education programs in the college’s vision, mission statement, campus values, policies, and systems. Second, the institution must address policies that hamper the success of an online education program, such as residency requirements and transfer of credit. Then, the institution must take action to allocate the necessary resources and staff to support the online student and faculty. This includes revising hours and access for student services, and allocating technology and training resources to prepare faculty and students.
Palloff and Davis (2003) specify that an institution has a major role in developing and maintaining an effective online program. This entails providing students with a high quality educational experience by ensuring the institution uses learner centered courses and programs built on effective course design and taught by properly trained and equipped faculty. Further, students should have access to all the campus services and resources available to on-campus students. These services must be available anytime and anywhere to meet the needs of the online student. Palloff and Davis also emphasize that the institution should ensure the availability of a robust technology infrastructure and technological support available around the clock. Finally, they point out that these programs should be cost-effective so as to place an undue financial burden on the online student.

Current Surveys of Student Retention and Persistence

The work that has been done with student retention and persistence in online courses at community colleges falls into two categories: studies that focus on single campus and the nationwide studies by government, nonprofit and academic research organizations. Research organizations that look across higher education on the national level include the National Center for Educational Statistics (NCES), National Survey of Student Engagement (NSSE), and the Community College Survey of Student Engagement (CCSSE). These studies have been complemented with work by non-profit organizations such as the Sloan-C foundation (Allen, 2008), the ACT, Inc. (2008) and by the Instructional Technology Council (2009). All address different aspects of student persistence such as student and faculty traits (i.e., NSSE and CCSSE), institutional practices and retention; however, they do not cover online programs (i.e.,
ACT Survey, What Works in Student Retention, 2008), or focus on institutional interests and perception of online educational programs (Sloan C Report on Online Education and ACENET). The Instructional Technology Council’s Distance Education Survey Results: Tracking the Impact Of eLearning at Community Colleges (2008) is the only study that addresses online education programs on community college campuses across the United States. It focuses on the development of online education programs on community college campuses in areas of administrative practices, technological issues, and policy challenges facing the institutions. This study found that student attrition is a growing issue among community college administrators but did not explore how a college’s policies and practices reflect this concern or how they impact student persistence. These surveys and reports provide models on which to build this current study’s survey instruments, provide guidance on how to conduct this study, and offer a baseline on which to compare the findings of this study.

Emerging Theoretical Model for Study

In reviewing the literature, institutions play an important role in student persistence by building positive environments in which students find support, encouragement, and the motivation to persist in their studies and achieve their educational goals. Online education adds additional challenges institutions must face in extending this environment beyond the boundaries of the physical classroom. Community colleges are faced with having to adapt their existing efforts in addressing student persistence in the online environment. Based on the findings from the literature, a model emerges for institutional intervention to support student persistence in online courses with a focus in five main categories (see Table 1). First, a college must build
an institutional culture that communicates high expectations for students, faculty and staff, and promotes student success in both the traditional and online environment (Bean, 1985; Braxton, 2000/2001; Chickering, 1991; Kuh, 2007, 2005; Tinto, 1975, 1993). This first category includes senior administration endorsement of student success through institutional policy and structures that build a supportive and dynamic environment.

Table 1

*Theoretical Model with Five Categories for Institutions Addressing Online Student Persistence*

<table>
<thead>
<tr>
<th>Category</th>
<th>Supporting Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutional Culture Supportive of Online Programs</strong></td>
<td>Bean; Berger &amp; Milem; Borland; Chickering &amp; Gamson; Kuh, Kinnzie, Buckley, Bridges, &amp; Hayek; Meyer; Wild &amp; Ebbers</td>
</tr>
<tr>
<td>• Institutional commitment to online programs and student persistence and success</td>
<td></td>
</tr>
<tr>
<td>• Integration of online programs in campus planning and policies</td>
<td></td>
</tr>
<tr>
<td>• Developed definition of student persistence in online courses consistent with community college environment and student goals</td>
<td></td>
</tr>
<tr>
<td>• Institutional structure and resources in place in support of online programs</td>
<td></td>
</tr>
<tr>
<td><strong>Institutional Efforts to Screen and Prepare Online Students</strong></td>
<td>Aragon &amp; Johnson; Bean &amp; Eaton; Liu, Gomez, Khan, &amp; Yen; Milligan; Schuetz; Rovai; Tinto; Whiteman; Wild &amp; Ebbers</td>
</tr>
<tr>
<td>• Pre enrollment preparation/screening</td>
<td></td>
</tr>
<tr>
<td>• Freshman orientation and transition assistance through counselors and advisors to help students build skills for academic and social adjustment</td>
<td></td>
</tr>
<tr>
<td><strong>Institutional Academic Support of Online Courses</strong></td>
<td>Aragon &amp; Johnson; Astin; Dykman &amp; Davis; Kember; Kuh, Kinnzie, Buckley, Bridges, &amp; Hayek; Liu, Gomez, Khan, &amp; Yen; Maddox; Metzner &amp; Bean; Meyer; Milligan; Palloff &amp; Davis; Schuetz; Tinto</td>
</tr>
<tr>
<td>• Equipping and encouraging full time and adjunct faculty in developing and fielding online courses that promote interactivity with students</td>
<td></td>
</tr>
<tr>
<td>o Faculty selection and preparation for the online environment</td>
<td></td>
</tr>
<tr>
<td>o Recognition and reward system in place for faculty teaching online</td>
<td></td>
</tr>
<tr>
<td>o Ensuring the proper class size to maximize learning in an online course</td>
<td></td>
</tr>
</tbody>
</table>

*(table continues)*
Table 1 *(continued)*

<table>
<thead>
<tr>
<th>Category</th>
<th>Supporting Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutional Student Support for Online Programs</strong></td>
<td>Aragon &amp; Johnson;</td>
</tr>
<tr>
<td>• Tutoring</td>
<td>Bean &amp; Eaton; Braxton and Mundy; Diaz;</td>
</tr>
<tr>
<td>• Advising/Counseling</td>
<td>Kember; Palloff &amp; Davis; Schuetz; Tinto; Wild &amp; Ebbers</td>
</tr>
<tr>
<td>• Library</td>
<td></td>
</tr>
<tr>
<td>• Financial Aid</td>
<td></td>
</tr>
<tr>
<td><strong>Institutional Use of Data in Tracking Student Success in Online Courses</strong></td>
<td>Kuh; Kinnzie, Braxton; Buckley, Bridges, &amp; Hayek; Chickering; Kuh; Tinto</td>
</tr>
<tr>
<td>• Develop and track common set of reporting indicators to tracks student persistence in online programs to maintain the college’s accountability to student retention and for use in continual improvement</td>
<td></td>
</tr>
<tr>
<td>• Early Alert system in place to track online student progress</td>
<td></td>
</tr>
<tr>
<td>• Open access to online student retention data to online program stockholders</td>
<td></td>
</tr>
</tbody>
</table>

campus culture focused on student persistence in all institutional processes. It also involves institutional recognition of the benefits, the challenges and the requirements of online education. Moreover, institutions must respond with the necessary resources, personnel and support structures to meet the needs of faculty and students engaged in the online education environment.

A second major category that emerges from the literature is the institutions role in screening and preparing students for the online environment (Bean, 1985; Dykman, 2008b; Kuh, 2005; Meyer, 2002; Palloff, 2003; Tinto, 1975, 1993). Institutions need to help students when deciding to take online courses by helping the student recognize the technical and motivational skills he/she will need to be effective in this environment. This preparation includes providing students with assessment tools, orientations, and advising and counseling to help the student make informed decisions on their readiness and establishing realistic expectations for the online environment.
A third major category of institutional impact is providing the instructional standards, preparation, and support of faculty and campus administrators in adapting their instructional programs to engage the students at a distance. The literature points out the important role faculty have as the major integrating influence for online students in community and technical colleges to higher education (Astin, 1975, 1993; Bean, 1985, 1993; Kember, 1989; Palloff, 2003; Pascarella, 1980; Tinto, 1975). Institutions thus play a major role in the selection of faculty to teach online, preparing them for the unique challenges of distance education, and providing them with the standards on which to build their courses and teach online students. This category also necessitates the support structures and tools to help faculty develop courses best fit for the online environment using proven national standards that promote student persistence. Moreover, online faculty support includes incentives, class sizing and faculty class assignments built on a proper understanding of the increased role faculty have in interacting with their students when and where needed.

A fourth category includes the institutional building and fielding online student support services to encourage and help students beyond the physical confines of the college campus (Kuh, 2005; Meyer, 2002, Oblinger, 2001; Palloff, 2003; Tinto, 1993, 1997). These services include counseling, advising, financial aid, testing services, tutoring, and library support recognizing that online students interact with their courses at a distance and require access at times outside the traditional work week. Additional services for the online community include technical and course help desks.

A final category is that of developing and employing assessment mechanisms to track a student’s progress through their online experience. This includes the availability
of early alert systems and data to track student progress through their courses and the institution’s effectiveness in promoting student persistence (Astin, 1975, 1993; Braxton, 2000-2001; Chickering, 1991; Kuh, 2007; Tinto, 1993). It is important that the institution use varied assessment mechanisms to track a student’s progress through their coursework. The data gleaned from this assessment can then be used in focusing institutional programs so they more effectively support the student and faculty in the learning process. Further, the assessment is not limited to students and faculty but also includes the supporting structures and their impact on overall student success.

Summary

This study used this model to explore online education programs at community and technical colleges in Texas. The five categories identified in this model provided a framework on which to structure the assessment instruments and analyze the results of this study. It also helped in identifying effective policies, programs, and practices in each category in an effort to propose a comprehensive model of best practices. The following chapter lays out the methodology used in this study framed by this theoretical model.
CHAPTER 3

METHODOLOGY

Introduction

This study focused on institutional policies and practices for online programs at community colleges in Texas. It used both a quantitative and a qualitative approach to explore the institutional policies and practices at public two year community and technical colleges in Texas and how the impact these had on online student persistence. Both the quantitative survey and qualitative case studies were built around the five major categories in the theoretical model derived from the literature review in chapter 2. This chapter outlines the research methods, instruments and processes used in this study.

For the purpose of this study an online course is defined as one in which the instructor, course material, and student are separated by time and place, and one that takes place over the Internet. A traditional class is denoted as being “face-to-face” (F2F) to differentiate them from online courses throughout this chapter and the research instruments.

Research Methods

This study used a mixed method design. Quantitative methods were used in preparing and analyzing the results of the survey instrument. This was followed by a qualitative study using the survey results to identify four institutions on which to conduct case studies into their online programs. The case studies were based on interviews with senior administrators at the four colleges and served to develop a more in-depth understanding of these institution’s policies, programs, and practices in addressing
online education. The findings from both approaches were then used to identify trends and recommend institutional practices that promote student retention and persistence in online courses.

Quantitative Research

Population

The population for this study included the 50 two-year public community college systems and the Texas State Technical College (TSTC) system in the state of Texas (identified as community colleges throughout the study). These institutions offer both traditional and online education courses with a combined enrollment of over 600,000 students (Texas Association of Community Colleges, 2009). These colleges also vary in size and structure. There are large multi-college systems like those in Houston, Dallas, Fort Worth, and San Antonio. Within these larger systems, the governance varies from centralized management as in the Houston Community College system to loose federation of colleges as found in the Dallas Community College system. There are also multi-campus systems like Austin Community College in Austin, Collin College in Plano, and North Central Texas College in Gainesville, mid-sized systems such as McLennan Community College in Waco and Lee College in Baytown, and smaller, rural campuses such as Ranger College in Ranger and Panola College in Carthage. There are also residential colleges such as Tyler Junior College in Tyler and Kilgore College in Kilgore.

Instrument

A survey instrument was developed for this study using questions derived from the findings in the literature review and framed within the five areas of the theoretical
The survey consisted of two sections. The Section I of the survey had seven subsections that addressed the institution’s policies, administrative practices, support structures, and assessment mechanism in support of online education programs. The seventh subsection provided administrators an opportunity to identify the programs they find have been most effective in addressing student persistence in online courses at their institution. The Section II of the survey requested demographic and student course attrition data both for the college’s overall and online enrollments in the 2008-2009 college year (fall, spring and summer semesters). These data were then used in to compare institutions and their online programs during the analysis phase of the study.

The format of questions and the overall survey structure was derived from surveys used in national studies focused on online educational programs or student persistence in higher education. Examples of survey questions were gleaned from ACT’s What Works in Student Retention Survey (2004), the Instructional Technology Council’s Distance Education Survey Results: Tracking the Impact of eLearning at Community Colleges (2009), and the Sloan C Report on Online Education (2008). These national studies polled four-year and two-year institutions in various areas including student retention, online education, administrative perspectives in online education, and administrative practices for higher education in general. Though the survey instruments used in these studies do not address the specific focus of this research, they provided a template for formatting survey questions and examples that were useful in the development of the survey.

The survey was first screened by a team of online education professionals to include an institutional researcher, various online faculty, and two instructional
designers. The final survey was then reviewed by a panel of three community college senior academic administrators who were not part of the surveyed group. Both groups of reviewers examined the survey for face validity, clarity and effectiveness of the questions (Gall, 2007). The survey was then sent to the University of North Texas (UNT) Institutional Research Board (IRB) to ensure compliance with the use of human subjects. UNT IRB approval was received on December 1, 2009. The survey was also formally reviewed and approved by the Tarrant County College District, the Lone Star College System, and Richland College IRBs.

Data Collection

The survey process began with an introductory letter mailed to the senior academic administrators over the 50 public two-year community college systems in Texas to include college systems/district offices and their major campuses, and to the TSTC system office and its four campuses. The mailing addresses were compiled from the Texas Association of Community College’s web site (http://www.tacc.org) and the Texas Higher Education Coordination Board’s web site (http://www.thecb.state.tx.us) (see Appendix A). Specific names and contacts for senior academic administrators were confirmed by researching each institution’s web site or by calling the college directly. The letter introduced the instrument, explained the reasoning for the study, and requested the institution’s participation in the study (see Appendix B). A second letter was included in the same envelop from the researcher’s dissertation chair from the Department of Higher Education in the College of Education at the University of North Texas explaining the importance of the research and verifying the researcher’s efforts (Appendix C). Both letters offered all participating institutions a copy of the research
finding and assured them that individual identity and survey results would remain confidential and would not be presented separately as part of the final report.

The survey package was mailed a week later to the designated senior education administrator and with a cover letter (Appendix E) and a paper copy of the survey (Appendix F). The surveyed administrators had the option of completing the survey either in hard copy or electronically. An electronic copy of the survey was created on Survey Monkey™ web-based survey system (www.surveymonkey.com) and the website’s universal resources link (URL) was included in the survey instructions and in the cover letter. The package also included a self addressed stamped envelope to offer the respondents the opportunity to choose which means of response they preferred. The letter asked each respondent to identify a point of contact for follow up calls. Three reminders were sent via email or by phone as required with the goal of ensuring the highest response rate on the survey (Alreck, 2004).

Each institution was given a numeric code to help track the surveys to maintain confidentiality of the results. The codes assigned each institution were randomly generated using spreadsheet software. Institutional data was then tracked using database software using this code as a primary key. The database was organized by institution and each record included the name of all senior academic administrators of participating institutions, their contact information, and the tracking of the survey process. The database was then used throughout the study to compile, organize, and analyze the results from the survey.

Upon receipt of each completed survey, all survey tally sheets were reviewed for completeness. During the data verification stage of the study, designated points of
contact from each institution were contacted to clarify any data entry errors and to fill data voids.

Data Analysis

Data from the survey were analyzed using database software for data aggregation, spreadsheet software for numerical analysis, and Statistical Package for Social Sciences™ (SPSS) version 12.0, (IBM's predictive analytics software, www.spss.com), for statistical analysis. Descriptive statistics were run on all survey questions to include means, medians, modes, and standard deviations to determine similarities and differences among the different college institutional practices and programs. Frequency distributions of each factor and a series of analysis matrices were used to study the data to identify any trends and/or themes that might emerge about the comparisons.

Qualitative Research

Research Participants

The study used purposeful sampling for the interviews based on the findings from the survey (Gall, 2007; Patton, 2002). Four institutions were selected based on their having best met the five categories of the study’s theoretical model. Other criteria used included the maturity of their online programs, their response on the “best practices” in the survey, and the low student withdrawal rates in their online courses from Section II of the survey. A scoring table was developed with weighted values for each of the five categories of the theoretical model (see Appendix G). The scoring table aligned the survey questions with the category it measured. The weighting factors were assigned to determine the number of policies, programs, and practices each institution had in
place that was supportive of online programs. These factors were assigned so that no one practice would outweigh the rest. Furthermore, the total score for each category was then judged separately as there was no overall score for the five combined categories. The scoring table was then applied to each institution’s survey responses to determine how the institution scored in each category.

Methodology

The qualitative study used interviews with the senior academic administrator over distance learning at the four selected college systems. These interviews were then used to develop case studies of the four institutions. The qualitative portion of the study used an open-ended questionnaire as the basis of the interview to gain a greater understanding of each college system’s processes, practices, and issues in administering their online education programs (Miles & Huberman, 1994, Patton, 2002). The interviews also served to confirm the findings from the survey (Patton, 2002). I conducted all the interviews so there was no need for specialized training of additional interviewers or an interview guide (Gall, 2007; Miles, 1994; Patton, 2002; Schram, 2006). The same panel used to review the validity of the survey screened the interview questionnaire for clarity of the questions and face validity. The interview questionnaire was then sent to the University of North Texas (UNT) Institutional Research Board (IRB) to ensure compliance with the use of human subjects. UNT IRB approval was received on December 1, 2009.
Data Collection

The interviews followed the completion of the survey. In person interviews were scheduled with the senior academic administrator responsible for online education at the four institutions identified from the survey results. An additional survey was conducted at one of the institutions based on the institutional structure of its online program. The five formal interviews were recorded on a digital voice recorder as well as on data collection sheets. The recordings were then transcribed by a transcriptionist and stored in word processing software for analysis.

The interviews took place in the office of each of the interviewed administrators (three in district/system office buildings, two in the college itself). Prior to each interview, each of the institution’s web sites was examined to gain insights on its distance education policies and programs. Analysis of the web sites provided additional data on the type of academic and student support services available to online students. This insight was also used to validate survey results and served as the basis for the data collection sheet that supplemented the interview questionnaire. After each interview, other college organizations were visited such as the distance learning office, student counseling and advising, the library, and help desk to clarify and/or validate comments made by the administrator. This helped better understand the college system’s structure and practices and help validate comments made in the interviews.

The interviews were captured on a digital recorder and the recordings were stored electronically on the researcher’s computer. A copy was given to a professional transcriptionist who redacted the interviews and provided the results in word processing files.
Data Analysis

In analyzing the transcripts from the interviews, a typological approach was used to identify themes or trends among the interviewed institutions (Gall, 2007; Miles, 1994; Patton, 2002; Schram, 2006). A coding list developed and used in analyzing the transcripts to tie findings in the interview with the survey results (Miles, 1994) (see Appendix I). The findings from this analysis then served to develop case studies describing in depth the online programs at the four institutions framed by the five categories of study’s theoretical model (Patton, 2002).

The internal validity of the study is concerned with how accurately the findings reflect reality (Gall, 2007). The data from the survey was then used to verify the qualitative findings from the interviews. Further validation came from review of each institution’s distance education web sites and contact with different offices at each college that the interviewee identified as important to their online programs in the interviews. The interview transcripts were cross checked with the results from the survey.

Confidentiality was important for this survey. Community college names were removed from the data set so as to protect their privacy and their records were tracked by the numeric identifier provided to each institution. The same steps were taken for any individual such as an administrator, faculty, or students who participated in the survey so as to protect their privacy. Finally, informed consent notice forms were made available with the surveys and the interviews identifying the privacy protection measures and requesting permission to use the study’s findings in later publications.
Testing Research Questions

Research Question 1

How do institutional policies and programs in community colleges in Texas impact student online course persistence? The questions in the survey instrument used the framework of the five areas in the study’s theoretical model to address Research Question 1. Analysis of the data revealed trends in institutional practices in support of online education. Institutional practices were also analyzed to determine similarities and differences. Withdrawal rates were requested from each institution to compare the effectiveness of the institutional practices within the college as well as to compare it with the other community colleges within the surveyed group. Interview data and the case studies provided a more detailed understanding of policies, structures and practices at the four college systems in support of their online programs which helped confirm and explain trends that emerged from the survey analysis.

Research Question 2

What role do assessment data have in institutional decision making in addressing online student persistence? The survey addressed institutional data collection, analysis, and use in decision making that impact online course persistence. The case studies then explored in more depth how four institutions used assessment data in their online programs to confirm survey findings and develop a more complete picture on how these practices impact online student persistence.

Research Question 3

What institutional practices have been most effective in reducing attrition in online courses among community college students in Texas? The compilation of data
collected using both instruments, campus visitation, and findings from previous research from the literature identify the most effective institutional practices in promoting online student persistence in community colleges in Texas.
CHAPTER 4
QUANTITATIVE FINDINGS

This chapter covers the results from the survey. It then also covers the quantitative and qualitative findings, and how the data were used in selecting four institutions for the case studies covered in Chapter 5.

Instrumentation

The survey consisted of two sections, the first dealing with specific questions on the institution’s online policies and programs and a second section requesting demographic and withdrawal data on the college’s overall enrollment and those specifically enrolled in online courses (see Appendix F). Section I consisted of seven subsections with the last offering the participant an opportunity to share their best practices and assessment mechanisms. The survey was addressed to the senior academic officers in charge of the corresponding institution’s online education program. Respondents varied from the senior academic officer to the senior online education administrator, depending on how the institution opted to handle the survey. This was apparent in the point of contact cards returned with the survey package. The actual title of the respondent was not requested and thus kept anonymous.

Participation in the Survey

Seventy-nine surveys were mailed to the senior academic officer at the 50 college systems/district offices and their major campuses, and the TSTC system office and its four campuses. Thirty-two surveys were returned. Of the returned surveys, all respondents completed Section I of the survey including the seven subsections. Only 22 of the 32 respondents returned the Section II, and of these only 19 submitted a
complete set of demographic and student withdrawal data. The more complete surveys were those submitted using the paper form. Reasons given by respondents for the incomplete response to Section II ranged from the college did not disaggregate student data based on online classes (two responses), the data were not available at the college as they were undergoing some form of change (data system updates, changes, or administrative changes) at the time of the survey (two responses), and the data were available at another office within the college system (two responses). Two of the data sets for individual colleges came from their district/system office. The five participants did not provide any input for Section II.

The response rate for Section I of the survey based on 32 completed surveys was 40.5%. The response rate for the Section II of the survey was lower as only 19 of the 32 surveys returned had a complete data set representing a college system. Therefore, the response rate for Section II of the survey was 24.1% percent.

The 32 survey participants represented 24 of the 51 community and technical college systems in Texas and all major regions in the state except east Texas. In two college districts, both the district office and individual college(s) responded to the survey. The respondents varied from large urban multi-college systems to midsized and smaller college systems in urban, suburban, and rural settings. The more complete responses came from the larger urban college systems with the college district offices providing much of the demographic and course data.
Section I. Institutional Programs in Support of Online Education

Section I of the survey sought senior academic administrators’ perspectives on how their institution handled online education and their support of online student persistence.

Subsection A: Defining student success and persistence in online courses. The first subsection of the survey sought information about the institution’s history in online education as well as how they defined and tracked online persistence.

Question A1 - When did your college start its online program? All participating institutions had active online programs. About a third of the colleges (34.4%) had programs over 20 years old; another third (36.7%) had programs that emerged in the 1990’s; and the remaining third (25.1%) had online programs developed in this decade (Table 2). Of interest is the number of programs developed before 1990 (34.4%) and those developed during 1995-1999 (34.4%) with the rest of the program starts spread out across the other time spans. The early programs were early adopters of the distance education and may have gotten their start in earlier

Table 2

<table>
<thead>
<tr>
<th>Year(s) of Institution’s Online Program Start</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 1990</td>
<td>11</td>
<td>34.4</td>
</tr>
<tr>
<td>1990 to 1994</td>
<td>2</td>
<td>6.3</td>
</tr>
<tr>
<td>1995 to 1999</td>
<td>11</td>
<td>34.4</td>
</tr>
<tr>
<td>2000 to 2004</td>
<td>6</td>
<td>18.8</td>
</tr>
<tr>
<td>2004 to the Present</td>
<td>2</td>
<td>6.3</td>
</tr>
<tr>
<td>Do not have an online program at this time</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. n = 32
forms of distance learning to include television and radio. The second grouping, those programs started during 1995 – 1999 most probably represent a second wave of interest in online education as the technology became more widely accepted in the late 1990s.

**Question A2 - Does your institution offer certificates/degrees that are fully online?**

The second question addressed if the college was in providing full degree plan options for online students or simply offering online course sections. Twenty-three (71.9%) of the respondents offered some form of online degree, certificate, or award. Table 3 shows the breakout of degrees by institutions with 17 (36.0%) offering a full online two year degree, 17 (34.0%) an online one year certificate, and 5 (10.0%) an online award. Twelve (37.5%) of the reporting institutions had both two year and one year certificates. The number of one year certificates and marketable skill awards may actually be higher as both are often components of a two year degree. Therefore, the actual number of online certificates and marketable skills are probably higher than reported. Nine (28.1%) of the respondents did not have a full degree, certificate, or award offering fully online at the time of the survey.

**Table 3**

*Institutions Offering Online Degrees, Certificates and Marketable Skills Awards Ordered by Frequency Cited (Multiple Choices Allowed)*

<table>
<thead>
<tr>
<th>Online Degrees, Certificates and Marketable Skills Awards</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online certificate(s)</td>
<td>18</td>
<td>36.0</td>
</tr>
<tr>
<td>Online associate degree(s) *</td>
<td>17</td>
<td>34.0</td>
</tr>
<tr>
<td>Online marketable skill award(s)</td>
<td>5</td>
<td>10.0</td>
</tr>
<tr>
<td>No fully online certificate and/or degree offered</td>
<td>9</td>
<td>18.0</td>
</tr>
</tbody>
</table>

*Note. N = 32. *Comment: "Fully online associated degrees plus a hybrid speech degree."
This survey question inquired about the degrees and certificates being offered fully online. However, as was stated in a comment by one of the respondents, there are probably a number of institutions offering degrees with hybrid or blended courses that do not meet the fully online criteria but do offer distance learners degree pathways to degrees, certificates, and awards.

Table 4 compares the online degree offered by the different colleges based on the age of the institution’s online program. To note, the majority of institutions with online programs that started before 1990 have two year degrees fully online. This number also represents half of the institutions offering two year programs online. The newer the online program, the fewer options students have at fully online degrees.

**Table 4**

*Crosstab of Highest Online Degree Offered versus Institution’s Online Program Start Dates*

<table>
<thead>
<tr>
<th>Start of Online Program</th>
<th>Online Certificate</th>
<th>Online Associate Degree</th>
<th>Online Marketable Skill</th>
<th>No Full Online Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 1990</td>
<td>1</td>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1990-1994</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1995-1999</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2000 to 2004</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2004 to the Present</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 32

**Question A3 - How do you define student success in an online course?** The next four questions seek to understand how the institution measures student persistence in online courses. The definition for what constitutes success in an online course varied by institutions. Table 5 shows that twenty-three of the surveyed institutions (71.9%)
defined successful completion of an online course as students receiving a grade of A, B, or C while nine (28.1%) included the grade of D in their definition.

Table 5

Institution’s Definition of Student Success in an Online Course Ordered by Frequency Cited

<table>
<thead>
<tr>
<th>Student Success Measure</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student completing an online course with a grade of A, B or C</td>
<td>23</td>
<td>71.9</td>
</tr>
<tr>
<td>Student completing an online course with a grade of A, B, C or D</td>
<td>9</td>
<td>28.1</td>
</tr>
<tr>
<td>Student completing an online course with any grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 32

Question A4 - Is this the same criteria for defining student success for face-to-face (F2F) courses? All 32 respondents did state they use the same criteria for defining student success for both their face-to-face courses as they do for their online courses. One respondent commented that “We also define student success through evaluation of student learning outcomes which are measured better in face-to-face, but we are working on including in our online sections as well.” This indicates student success in online programs is not viewed differently to the traditional F2F course formats.

Question A5 - Which of the following actions would result in a student being withdrawn from an online course? As mentioned in previous chapters, student and faculty interact at a distance over a span of time as compared to the traditional face-to-face environment where students and the faculty member are physically present in the classroom on a weekly basis. This makes measuring an online student’s attendance and participation in class a challenge. At what point does an institution withdraw a student for non-participation, if at all? Table 6 presents the surveyed institutions
response to this question. The majority of respondents (29 out of 31 with one no response) had policies in place for handling online student withdrawals. Fourteen institutions (45.2%) leave the decision on when to drop a student from an online course to the faculty’s discretion just as they would in a F2F classroom. Nine institutions (29.0%) stated that a student may not be dropped from an online course except if the student requests to be withdrawn or for failure to pay their tuition costs. Two (6.5%) of the responding institutions did not have a policy in place. However, these numbers do not reflect the diversity of comments provided by participants on their withdrawal policies did vary. Their comments included:

- It is the student’s responsibility to withdraw from any class. Faculty cannot drop students for any reason.
- Only students can withdraw themselves (except for disciplinary reasons).
- Failure to pay tuition.

Table 6

Institutional Policy on Actions that Lead to a Student’s Withdrawal from an Online Course Ordered by Frequency Cited

<table>
<thead>
<tr>
<th>Actions Leading to Student Withdrawal from an Online Course</th>
<th>Frequency</th>
<th>Percent</th>
<th>Adjusted Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to present any work or participate in the class over a specified period of time (i.e., three weeks)</td>
<td>6</td>
<td>18.8</td>
<td>19.4</td>
</tr>
<tr>
<td>Decision left to individual instructor</td>
<td>14</td>
<td>43.8</td>
<td>45.2</td>
</tr>
<tr>
<td>No policy in place</td>
<td>2</td>
<td>6.3</td>
<td>6.5</td>
</tr>
<tr>
<td>Students choice either by failure to pay tuition or by self initiated drop</td>
<td>9</td>
<td>28.1</td>
<td>29.0</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>3.1</td>
<td></td>
</tr>
</tbody>
</table>

Note. n = 32. Adjusted Percent: percent distribution adjusted to compensate for missing data.
College policy is not to withdraw students from any course (F2F or Online) decision by Faculty Senate.

Our distance learning committee is determining a policy to be used consistently with all online classes. Now faculty specify all the above in their syllabus.

Failure to present work, contact instructor, and decision up to instructor.

Two of the institutions stated their policies had been developed by their faculty senate or by a committee of faculty members. In both these cases, the decision favored not dropping a student unless for disciplinary or financial reasons.

Question A6 - At what point is a student withdrawal counted against a class retention rate? Question six continues the inquiry into the institution’s policy on when students are withdrawn. All of the respondents counted students as withdrawn from a course after the census date (twelfth class date in which semester enrollment is reported to the State) while two (6.3%) set a final date for student initiated withdrawals (Table 7). The two with a later date for student withdrawal require faculty to track student activities online till a certain date after the

Table 7

Institutional Policy on Student Withdrawal Date for Online Courses Ordered by Frequency Cited

<table>
<thead>
<tr>
<th>Point Student Withdrawal Counted Against Course Retention Rate</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>After the official census date</td>
<td>30</td>
<td>93.8</td>
</tr>
<tr>
<td>After census date to a specified last official student drop date</td>
<td>2</td>
<td>6.3</td>
</tr>
<tr>
<td>After the first day of class</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. \( n = 32; \) * Comment: “After census through the last date of withdrawals (8 wks)”

formal census date. Students withdrawing or withdrawn before that date receive a withdrawal on their transcripts. Those failing to meet attendance expectations after this
date receive the grade they earn in the class. Another difference was reported by one institution that stated:

If a student doesn’t participate in an identified activity by census date, they will be de-registered from that class. After census data [sic], we do not withdraw students [sic] they simply make the grade they earn.

The results of Questions A3 through A6 indicate there are differences in how institutions track student persistence in a class, ranging from what is considered successful completion to when and why a student would be withdrawn from an online course. This has implications for the course completion data as some institutions would report a higher failure rate and a smaller withdrawal rate while another may report higher withdrawal rates and lower failure rates.

Subsection B: Institutional culture supportive of online programs. The second subsection focused on the institutions perspective of online education and their commitment to their online program and student persistence.

**Question B1 - How much do you agree or disagree with the following statements?**

Table 8 shows the mean and standard deviation (SD) among respondents to six statements inquiring on the institution’s attitudes toward online education. The response to the first statement shows there is a strong sense of the importance of online education to all 32 institutions. There was also a strong agreement among the institutions that online education and student retention play a major part in the institution’s decision making and policy process. Further, participants agreed that online education is not less rigorous than the face-to-face format, an important factor as there are still institutions of higher education that are suspicious of online course delivery as being less strenuous than F2F courses. The participants were less sure of there being
differences between programs and faculty effort online as compared to traditional F2F instruction. In both cases, surveyed institutions scored 3.5 out of 5 (5 being strongly agree) for the need to treat online courses differently and 3.4 out 5 for online faculty effort being more strenuous as compared to the face-to-face environment. Of the six statements, there was great variance in responses on treating online programs differently to F2F courses due to their unique requirements. This is an important consideration and can impact how the institution addresses staffing, class sizing and resource allocation for online programs.

Table 8

Institutional Response to Statements of Attitudes towards Online Education (1 - Strongly Disagree to 5 - Strongly Agree)

<table>
<thead>
<tr>
<th>Statement of Institution’s Attitude Toward Online Education</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online education is important to your institution</td>
<td>4.8 (.4)</td>
</tr>
<tr>
<td>Online education is an important consideration in the institution’s planning process</td>
<td>4.7 (.5)</td>
</tr>
<tr>
<td>Student retention is an important factor in institutional decision making</td>
<td>4.6 (.8)</td>
</tr>
<tr>
<td>Online programs must be treated differently than F2F courses as they have unique requirements</td>
<td>3.5 (1.4)</td>
</tr>
<tr>
<td>Online education is less rigorous than F2F formats</td>
<td>1.4 (.6)</td>
</tr>
<tr>
<td>Faculty teaching online courses put in more effort than those teaching in F2F formats</td>
<td>3.4 (.8)</td>
</tr>
</tbody>
</table>

Note. n = 32; SD is Standard Deviation.

Question B2 - What policies do you have in place in support of online education at your institution? Table 9 shows a breakout of institutional policies in place in participating institutions that address online education. All institutions addressed online education in three or more policy areas listed under this question. Twelve (37.5%) of the 32 participating institutions stated they addressed online education in all eight policy
areas. Institutional policy covering technology requirements was the most mentioned with 31 of the 32 institutions stating they had a technology policy in place at their college. It was also the policy area most frequently selected among the other eight categories (16.1%). Online education is very technology intensive and requires a commitment from the institution to provide an electronic infrastructure and learning management system or educational platform to host online courses. The institutional policy category least mentioned was that for assessment standards and data collection processes for online programs (9.9%). This could explain

<table>
<thead>
<tr>
<th>Institutional Policies Covering Online Education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology requirements for online programs (i.e., required use of an LMS like Blackboard®)</td>
<td>31</td>
<td>16.1</td>
</tr>
<tr>
<td>Course approval and review process for online courses and degrees</td>
<td>26</td>
<td>13.5</td>
</tr>
<tr>
<td>Institutional administrative structure in support of online programs</td>
<td>25</td>
<td>13</td>
</tr>
<tr>
<td>Faculty selection and training/certification requirements to teach online</td>
<td>24</td>
<td>12.5</td>
</tr>
<tr>
<td>Institutional policy on the development, implementation, and execution of online programs</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td>Strategic plan for online education programs</td>
<td>22</td>
<td>11.5</td>
</tr>
<tr>
<td>Course development certification and standards for online programs</td>
<td>21</td>
<td>10.9</td>
</tr>
<tr>
<td>Required assessment standards and data collection processes for online programs</td>
<td>19</td>
<td>9.9</td>
</tr>
<tr>
<td>Other *</td>
<td>1</td>
<td>.5</td>
</tr>
</tbody>
</table>

Note. \( n = 32; * \) Comment: “Part of Institutional Strategic Plan”
the problem with collecting the data for online programs experienced in the second part of the survey. The other six categories were selected with about the same frequency.

*Question B3 - What level administrator heads the institution’s online education program?* All but two of the 32 participating institutions have a designated administrator over their online education program; however, the level and title varied by institutions. Table 10 shows the three most common administrative levels were vice presidents (25%), assistants to the chief academic officer (25%), and deans (25%). Vice president and district vice chancellors were mostly found at large multi-campus systems. Smaller systems tended to have a dean, director, or program coordinator.

**Table 10**

*Level of Administrator over the Institution’s Online Education Program Ordered by Frequency Cited*

<table>
<thead>
<tr>
<th>Level of Senior Administrator over the Institution’s Online Education Program</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice President</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Assistant to the Chief Academic Officer</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Dean</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>District Assistant Chancellor</td>
<td>2</td>
<td>6.3</td>
</tr>
<tr>
<td>Director</td>
<td>2</td>
<td>6.3</td>
</tr>
<tr>
<td>Program Director or Coordinator</td>
<td>2</td>
<td>6.3</td>
</tr>
<tr>
<td>Assistant to the Dean</td>
<td>1</td>
<td>3.1</td>
</tr>
<tr>
<td>No designated online program administrator</td>
<td>1</td>
<td>3.1</td>
</tr>
</tbody>
</table>

*Note. n = 32*

Subsection C: Institutional efforts to screen and prepare online students. The third subsection addressed the institution’s approach to selecting and preparing students for their first online course. The question offered a number of options based
on student preparation models discussed in Chapter 2. These included four prerequisites that addressed a student’s readiness for the academic rigor in the online environment (reading, math, writing, and computer literacy), two designed to help students develop realistic expectations of college and the online experience (college and online orientation), two to assess a student’s readiness for the online environment (technical exam and advisor permission) and one to have the student first engage the college experience before tackling his/her first online course (one semester requirement).

The results in Table 11 indicate that computer literacy prerequisite scored the highest among the campus-wide initiatives in preparing students for the online environment (29%) followed by college reading proficiency (21.9%), writing proficiency (18.8%) and math proficiency (12.5%). However, the majority of campuses handled student skill proficiencies either as course specific or as optional. In the case of computer literacy, over half the institutions either did not consider computer literacy a requirement (48.4%) or made it an optional (9.7%).

The second group of prerequisites dealt with shaping student expectations of the online environment either through a college wide orientation or an online course orientation. Of these, campus orientation was the most cited as a college wide requirement with 13 colleges (40.6%) requiring it for first time online students. An equal number of participating colleges did not require a campus orientation, however, with the remaining 6 (18.8%) stating it was optional. As for the online course orientation, the colleges were split almost equally on the need for an online course orientation. About half the colleges required an online orientation but were split on if it should be campus
wide (9 respondents or 28.1%) or course specific (7 respondents or 21.9%). The other half did not make it a prerequisite with 11 (34.4%) colleges stating it was not required with another five (15.6%) making it optional of first time online students.

Table 11

Frequency (percent) of Prerequisites Imposed By Institutions for First-Time Online Students (Multiple Choices Allowed)

<table>
<thead>
<tr>
<th>Prerequisites for First Time Students Taking Online Classes</th>
<th>Campus Wide</th>
<th>Course Specific</th>
<th>Optional</th>
<th>Not Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>College reading proficiency</td>
<td>7 (21.9)</td>
<td>14 (43.8)</td>
<td>11 (34.4)</td>
<td></td>
</tr>
<tr>
<td>College math proficiency</td>
<td>4 (12.5)</td>
<td>17 (53.1)</td>
<td>11 (34.4)</td>
<td></td>
</tr>
<tr>
<td>College writing proficiency</td>
<td>6 (18.8)</td>
<td>15 (46.9)</td>
<td>11 (34.4)</td>
<td></td>
</tr>
<tr>
<td>Computer literacy</td>
<td>9 (29.0*)</td>
<td>4 (12.9*)</td>
<td>3 (9.7*)</td>
<td>15 (48.4*)</td>
</tr>
<tr>
<td>Student must have completed a college semester before taking an online course</td>
<td>1 (3.1)</td>
<td></td>
<td>31 (96.9)</td>
<td></td>
</tr>
<tr>
<td>College orientation</td>
<td>13 (40.6)</td>
<td>6 (18.8)</td>
<td>13 (40.6)</td>
<td></td>
</tr>
<tr>
<td>Online course orientation</td>
<td>9 (28.1)</td>
<td>7 (21.9)</td>
<td>5 (15.6)</td>
<td>11 (34.4)</td>
</tr>
<tr>
<td>Technical proficiency exam</td>
<td>3 (9.4)</td>
<td>1 (3.1)</td>
<td>4 (12.5)</td>
<td>24 (75)</td>
</tr>
<tr>
<td>Advisor permission</td>
<td>3 (9.4)</td>
<td>5 (15.6)</td>
<td>2 (6.3)</td>
<td>22 (68.8)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (3.1)</td>
<td>1 (3.1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. n = 32, *Adjusted percent based on one missing value for Computer Literacy

Of the remaining three prerequisites listed, most respondents did not require or made them optional. Only one college had a prerequisite for a student to have completed one semester college before taking an online class with the other 31 colleges stating it was not a requirement. A technical exam and advisor permission was a campus-wide prerequisite in only 3 institutions (9.4%) with the majority of institutions stating it was not required or was optional.

Of the “Other” requirements provided by respondents, the most frequently mentioned was the use of the READITM (now SmarterMeasureTM), a web-based
assessment tool (SmarterServices, LLC., www.readi.com) used to help students self-assess their ability at successfully engaging an online course. Four institutions mentioned their use of the READI (SmarterMeasure) tool making it available to students and faculty to use in helping student prepare for the online environment. However, none of these institutions had made it a prerequisite for first time online students at the time of the survey.

Subsection D: Institutional academic support of online courses. The fourth subsection of the survey focused on the institution’s selection and support of online faculty, and management of online course selection, development and certification.

Questions D1 - How many online courses are faculty allowed to teach each semester? This question was intended to see if the college had a policy on the number of courses full-time and adjunct faculty taught online as these courses can be time consuming and demanding beyond that which is required in a traditional face-to-face class. Table 12 shows that 24 of the institutions had policies in place that set course loading in online courses for full-time faculty and 22 for adjunct faculty. The actual number of courses either faculty group could teach varied by campus. For full-time faculty, four (12.5%) colleges set the limit at one to two courses per semester, 8 (25%) at two to four courses per semester, and eight (25%) allowing for a full class load (five or more courses) online. As for adjuncts, 11 (34.4%) colleges limited the number of online courses to two to four courses. Ten (31.1%) colleges had no policy for adjuncts in place at the time of the survey. As adjuncts are part time faculty and have other jobs and responsibilities off campus, the opportunity to teach online would be advantageous. Of the comments that accompanied the selection of “Other” for both full-time and
adjunct faculty, one participant pointed out that his/her college had policies in place but the number of courses allowed varied by discipline. Another comment stated that there may also be extenuating circumstances such as medical or personal reasons a faculty member might be allowed to teach a full load online.

Table 12

*Frequency (Percent) of Online Course Instructional Load Institutions Allow Full-time and Adjunct Faculty to Teach by Semester*

<table>
<thead>
<tr>
<th>Online Courses Taught Per Semester</th>
<th>Full-time faculty</th>
<th>Adjunct faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>One to two courses per semester</td>
<td>4 (12.5)</td>
<td>5 (15.6)</td>
</tr>
<tr>
<td>Two to four courses per semester</td>
<td>8 (25.0)</td>
<td>11 (34.4)</td>
</tr>
<tr>
<td>Full load online</td>
<td>8 (25.0)</td>
<td>3 (9.4)</td>
</tr>
<tr>
<td>Overload only</td>
<td>1 (3.1)</td>
<td>1 (3.1)</td>
</tr>
<tr>
<td>No specific rule in place</td>
<td>8 (25.0)</td>
<td>10 (31.3)</td>
</tr>
<tr>
<td>Other</td>
<td>3* (9.4)</td>
<td>2** (6.3)</td>
</tr>
</tbody>
</table>

*Note. n = 32.*

*Questions D2 - What incentives are offered to faculty to teach online?* The second question addressed how a college compensates, if at all, full-time and adjunct faculty to develop and field online courses. Table 13 indicates the most offered incentive for both full-time and adjunct faculty was for course development. Nineteen (39.6%) of the colleges offered stipends to full-time faculty and 13 (32.5%) offered the same to adjuncts to develop new online courses. Other incentives included release time and additional hardware and software to aid in the course development. One of the comments for the “Other” category indicated that some colleges may also provide stipends for faculty teaching online for the first time that modify an existing online course and adapt it for their use. As for incentives to faculty for teaching online, three colleges did offer a stipend to both full-time and adjunct faculty to teach an online course the first
Table 13

Frequency (percent) of Institutional Incentives Offered to Full-time and Adjunct Faculty to Teach Online Ordered by Frequency Cited (Multiple Choices Allowed)

<table>
<thead>
<tr>
<th>Incentive to Teach Online Course</th>
<th>Full-time faculty</th>
<th>Adjunct faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stipend to develop the online course</td>
<td><strong>19 (39.6)</strong></td>
<td><strong>13 (32.5)</strong></td>
</tr>
<tr>
<td>Release time to develop the online course</td>
<td>9 (18.8)</td>
<td>5 (12.5)</td>
</tr>
<tr>
<td>Additional equipment/software for course development</td>
<td>5 (10.4)</td>
<td>2 (5.0)</td>
</tr>
<tr>
<td>Stipend to teach the online course the first time</td>
<td>3 (6.3)</td>
<td>3 (7.5)</td>
</tr>
<tr>
<td>Release time to teach the online course the first time</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>6 (12.5)</td>
<td>5 (12.5)</td>
</tr>
<tr>
<td>None</td>
<td>5 (10.4)</td>
<td>9 (22.5)</td>
</tr>
<tr>
<td>No Response</td>
<td>1 (2.1)</td>
<td>3 (7.5)</td>
</tr>
</tbody>
</table>

Note. n = 32.

time. However, none of the respondents offered release time for either full-time or adjunct faculty teaching an online course for the first time. Five respondents did not offer incentives to either full-time or adjunct faculty.

Questions D3 - Who is the primary decision maker for the following online course issues? This question seeks to understand what level of administrator and/or faculty member within the institution identifies the need for online courses, selects faculty to teach them, and decides when the course is ready to field. From the responses tabulated in Table 14, 22 (37.9%) stated the department or program chair decides on the need for the course and selects the faculty to teach it (50%), the faculty
Table 14

*Frequency (percent) and Level of Decision Making for Online Course Deployment (Multiple Choices Allowed)*

<table>
<thead>
<tr>
<th>Online Course Deployment Process</th>
<th>Level of Decision Making</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dean</td>
</tr>
<tr>
<td>Identification of courses to offer in online format</td>
<td>16 (27.6)</td>
</tr>
<tr>
<td>Selection of faculty for online courses</td>
<td>16 (33.3)</td>
</tr>
<tr>
<td>Design of online courses</td>
<td>5 (10.0)</td>
</tr>
<tr>
<td>Final approval to offer online courses</td>
<td>20 (42.6)</td>
</tr>
<tr>
<td>Class size *</td>
<td>20 (40.0)</td>
</tr>
</tbody>
</table>

Note. N = 32; * Adjusted percent: percent distribution adjusted to compensate for missing data; ** Comments: “Distance Learning Committee” and “Distance Education Director involved in many of these decisions”; *** Comment: “Faculty must meet college criteria and training requirements” **** Comment: “Institutionally set with set exceptions”
member prepares the course (52%), and the Dean gives the final approval to field the course (42.6%) as well as sets the class size (40%). From the comments provided by various participants, the distance education administrator and/or distance education committee often have a part in providing criteria for the selection, design and certification of an online course. However, the final decision on fielding the course is made by the academic administrator(s) (academic dean or program chair) in 66% of institutions.

Questions D4 - *What is the enrollment maximum set for online courses at your institution?* This question was meant to find out how online courses are sized. With online courses requiring greater faculty interaction with their students, class sizing becomes an issue to consider. The responses compiled in Table 15 highlight the differences across institutions. Twenty-three respondents had a college-wide standard

Table 15

*Frequency (percent) of Institutional Policy Addressing Class Sizes for Online Courses (Multiple Choices Allowed)*

<table>
<thead>
<tr>
<th>Maximum Students per Online Class</th>
<th>All online classes sized the same</th>
<th>Discipline Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Technical classes</td>
<td>Natural Science Classes</td>
</tr>
<tr>
<td>10 to 14</td>
<td>1 (3.1)</td>
<td>1 (3.1)</td>
</tr>
<tr>
<td>15 to 19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 to 24</td>
<td>7 (21.9)</td>
<td>9 (28.1)</td>
</tr>
<tr>
<td>25 to 29</td>
<td>11 (34.4)</td>
<td>15 (46.9)</td>
</tr>
<tr>
<td>30 or More *</td>
<td>12 (37.5)</td>
<td>9 (28.1)</td>
</tr>
<tr>
<td>No set maximum - Sizing varies by discipline</td>
<td>4 (12.5)</td>
<td></td>
</tr>
</tbody>
</table>

*Note. n = 32; * Comments: “Extra Pay for over 30 students”
class size ranging from 5 (15.6%) with a maximum of 20 to 24 students, 10 (31.3%) with a maximum of 25 to 30 students, and 8 (25.0%) with a maximum of 30 or more students. Five of the institutions (15.6%) had a standard class size but allowed for difference in some cases based on the type of class. These varied between 20 to 24 students (1 respondent) and 30 or more students (3 respondents). Four colleges (12.5%) did not have a standard size for online classes but instead varied size based on the discipline taught.

The standard class size most selected was for classes of 25 to 30 students (65 respondents or 40.4%) followed by 30 or more students (56 respondents or 35.9%). Both technical and natural science classes tended to have smaller online class sizes as compared to the humanities, social science, and math classes. This is most likely due to both technical and natural science classes requiring hands-on lab experience that can be time and resource intensive.

Subsection E: Institutional student support for online programs. The fifth subsection addressed how each institution provides support services to online students. From the literature review, it is important to student persistence that students have ready access to campus services and support mechanism to include tutoring, testing, library resources, etc. Online students require the same access but need it when (24 hours/7 days a week) and where (on and off campus) they take their classes.

Table 16 provides an overview of the responses from the survey. The student application process was the one most often selected as being online and available 24/7. Colleges responses were evenly distributed between on campus (32.8%), internet (32.8%) and 24/7 availability (34.4%). For those services available online, college
Table 16

Frequency (percent) and Availability of Student Support Services by Institution Surveyed (Multiple Choices Allowed)

<table>
<thead>
<tr>
<th>Service offered to Students</th>
<th>Not Available</th>
<th>Available for on campus use</th>
<th>Available through the Internet</th>
<th>Available 24 hours/7 days a week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Application Process</td>
<td>20 (32.8)</td>
<td>20 (32.8)</td>
<td>21 (34.4)</td>
<td></td>
</tr>
<tr>
<td>Registration Process</td>
<td>19 (29.7)</td>
<td>27 (42.2)</td>
<td>18 (17.0)</td>
<td></td>
</tr>
<tr>
<td>Student Counseling *</td>
<td>27 (73.0)</td>
<td>9 (24.3)</td>
<td>1 (2.7)</td>
<td></td>
</tr>
<tr>
<td>Tutoring *</td>
<td>1 (2.1)</td>
<td>24 (51.1)</td>
<td>17 (36.2)</td>
<td>5 (10.6)</td>
</tr>
<tr>
<td>Advising</td>
<td>27 (75.0)</td>
<td>9 (8.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career planning</td>
<td>30 (83.3)</td>
<td>5 (13.9)</td>
<td>1 (2.8)</td>
<td></td>
</tr>
<tr>
<td>Student enhancement programs *</td>
<td>1 (2.4)</td>
<td>28 (68.3)</td>
<td>11 (26.8)</td>
<td>1 (2.4)</td>
</tr>
<tr>
<td>Business Office Services (payment)</td>
<td>26 (53.1)</td>
<td>17 (34.7)</td>
<td>6 (12.2)</td>
<td></td>
</tr>
<tr>
<td>Financial Aid Services</td>
<td>26 (53.1)</td>
<td>17 (34.7)</td>
<td>6 (12.7)</td>
<td></td>
</tr>
<tr>
<td>Library Orientation</td>
<td>25 (37.9)</td>
<td>26 (39.4)</td>
<td>15 (22.7)</td>
<td></td>
</tr>
<tr>
<td>Electronic Reserves</td>
<td>22 (35.5)</td>
<td>24 (38.7)</td>
<td>16 (25.8)</td>
<td></td>
</tr>
<tr>
<td>Electronic Books</td>
<td>2 (3.3)</td>
<td>18 (29.5)</td>
<td>24 (39.3)</td>
<td>16 (15.1)</td>
</tr>
<tr>
<td>Library Help Desk *</td>
<td>1 (1.9)</td>
<td>26 (50.0)</td>
<td>22 (42.3)</td>
<td>3 (5.8)</td>
</tr>
<tr>
<td>Technical Help Desk (i.e., hardware/software issues)</td>
<td>1 (1.8)</td>
<td>23 (41.1)</td>
<td>23 (42.2)</td>
<td>9 (16.1)</td>
</tr>
<tr>
<td>Course Support Help Desk (i.e., learning management system support)</td>
<td>24 (42.1)</td>
<td>24 (42.1)</td>
<td>9 (15.8)</td>
<td></td>
</tr>
<tr>
<td>Academic Testing Services</td>
<td>29 (74.4)</td>
<td>9 *23.1)</td>
<td>1 (2.6)</td>
<td></td>
</tr>
<tr>
<td>Writing Lab</td>
<td>5 (11.1)</td>
<td>23 (55.6)</td>
<td>9 (20.0)</td>
<td>6 (13.3)</td>
</tr>
<tr>
<td>Math Lab</td>
<td>4 (9.1)</td>
<td>25 (56.8)</td>
<td>9 (20.5)</td>
<td>6 (13.6)</td>
</tr>
<tr>
<td>Reading Lab</td>
<td>5 (11.6)</td>
<td>25 (58.1)</td>
<td>9 (20.9)</td>
<td>4 (9.3)</td>
</tr>
<tr>
<td>Bookstore Services (i.e., textbook listings, purchasing)</td>
<td>1 (1.8)</td>
<td>26 (47.3)</td>
<td>20 (36.4)</td>
<td>8 (14.5)</td>
</tr>
<tr>
<td>Information On Student Activities</td>
<td>1 (1.6)</td>
<td>25 (39.7)</td>
<td>28 (44.4)</td>
<td>9 (14.3)</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 16 (continued)

<table>
<thead>
<tr>
<th>Service offered to Students</th>
<th>Not Available</th>
<th>Available for on campus use</th>
<th>Available through the Internet</th>
<th>Available 24 hours/7 days a week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic/Social Clubs</td>
<td></td>
<td>26 (54.2)</td>
<td>17 (35.4)</td>
<td>5 (10.4)</td>
</tr>
<tr>
<td>Student Newspaper Or Publication</td>
<td>13 (29.5)</td>
<td>16 (36.4)</td>
<td>12 (27.3)</td>
<td>3 (6.8)</td>
</tr>
</tbody>
</table>

*Note. n = 32; * Adjusted Percent: percent distribution adjusted to compensate for missing data

registration (42.2%), library resources (39%), and help desk (42.1%), both technical and course support, were most cited as being available over the internet in support of both online and face-to-face students. To note that a service reported as available over the Internet does not necessarily mean a student can engage with a college office or staff member 24/7. From the comments provided for this question, many of the colleges selecting 24/7 services meant the student could access automated services, information or tutorials but not necessarily contact a college official. Most other services and support mechanisms were available to students but on campus during normal college operating hours.

Subsection F: Institutional use of data in tracking student success in online courses. This sixth subsection of the survey explored the institutions access to and use of data in making decision on online programs, especially dealing with student persistence and attrition. This subsection addressed both research question one and two.

Questions F1 - What online retention data do your institution track?

Understanding why a student drops an online course is important in addressing persistence. Table 17 shows that 30 out of 31 respondents track the number of student
withdrawals and 26 out of 31 track the date of the withdrawal. Other data collected included the reason for student withdrawal (16.5%), demographic data on the student withdrawn (15.5%) and source of the withdrawal (12.6%). Eight of the 31 institutions (25.8%) collected data on all five categories.

Table 17

*Online Withdrawal Data Tracked by Institutions Surveyed Ordered by Frequency Cited (Multiple Choice Allowed)*

<table>
<thead>
<tr>
<th>Type of Withdrawal Data Tracked for Online Course</th>
<th>Frequency</th>
<th>Percent</th>
<th>Adjusted Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of student withdrawals</td>
<td>30</td>
<td>28.8</td>
<td>29.1</td>
</tr>
<tr>
<td>Date of student withdrawal</td>
<td>26</td>
<td>25</td>
<td>25.2</td>
</tr>
<tr>
<td>Reason for individual student withdrawal</td>
<td>17</td>
<td>16.3</td>
<td>16.5</td>
</tr>
<tr>
<td>Demographic data on student withdrawal</td>
<td>16</td>
<td>15.4</td>
<td>15.5</td>
</tr>
<tr>
<td>Source of student withdrawal (self-initiated or faculty-initiated)</td>
<td>13</td>
<td>12.5</td>
<td>12.6</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

*Note. n = 32; Adjusted Percent: percent distribution adjusted to compensate for missing data*

Questions F2 - *Does your institution have an early alert system in place to identify and alert students who are struggling in their courses?* Tracking student persistence in online courses is complicated by the faculty member not being in physical contact with the student and relying on electronic means for following a students’ progress through their class. Table 18 indicates that 16 of 31 participants (51.6%) had an early alert system that helped faculty track their students work and alert them to students falling behind or failing to produce in their online course. This allows faculty and/or the institution to contact the student and intervene as needed before the student withdraws from the course and possibly the college. One college had a system in place
but had not made it available to online classes as of the date of the survey. Another college had an early alert system but it was limited to gateway courses. A third commented that,

Yes, all students filtered through student success program [are] automatically enrolled if [their] GPA [drops] below 2.0. There is an online session for the Student Success Course.

Table 18

Institutional Use of Early Alert Systems to Track Students Progress in Online Classes Ordered by Frequency Cited

<table>
<thead>
<tr>
<th>Availability and Use of Early Alert Systems in Online Classes</th>
<th>Frequency</th>
<th>Percent</th>
<th>Adjusted Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, the system is used in all institutional courses</td>
<td>16</td>
<td>50.0</td>
<td>51.6</td>
</tr>
<tr>
<td>Yes but the system is not available for online classes</td>
<td>1</td>
<td>3.1</td>
<td>3.2</td>
</tr>
<tr>
<td>Yes but the system is available only for online courses</td>
<td>1</td>
<td>3.1</td>
<td>3.2</td>
</tr>
<tr>
<td>No, institution has no early alert system</td>
<td>7</td>
<td>21.9</td>
<td>22.6</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>21.9</td>
<td>22.6</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>3.1</td>
<td></td>
</tr>
</tbody>
</table>

Note. n = 32; Adjusted Percent: percent distribution adjusted to compensate for missing data.

Questions F3 - Who has access to the data on student retention in online courses? Having the data is only part of the process, using the data to inform decision making is important to bring about changes necessary to improve student retention. Results compiled in Table 19 indicate the group most often listed as having access to student online course data were academic administrators (25.9%) followed by faculty (19.6%), student services (17.0%) and academic advisors and/or counselors (15.2%).
Table 19

Levels of Access to Online Course Data within the Institution Ordered by Frequency Cited (Multiple Choices Allowed)

<table>
<thead>
<tr>
<th>Level of Access to Online Course Data</th>
<th>Frequency</th>
<th>Percent</th>
<th>Adjusted Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic administrators</td>
<td>29</td>
<td>25.1</td>
<td>25.9</td>
</tr>
<tr>
<td>Faculty</td>
<td>22</td>
<td>19.3</td>
<td>19.6</td>
</tr>
<tr>
<td>Student Services administrators</td>
<td>19</td>
<td>16.7</td>
<td>17</td>
</tr>
<tr>
<td>Academic advisors and/or counselors</td>
<td>17</td>
<td>14.9</td>
<td>15.2</td>
</tr>
<tr>
<td>Institutional Governing Board/Board of Trustees</td>
<td>13</td>
<td>6.8</td>
<td>11.6</td>
</tr>
<tr>
<td>Students</td>
<td>6</td>
<td>5.3</td>
<td>5.4</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>5.3</td>
<td>5.4</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>1.8</td>
<td></td>
</tr>
</tbody>
</table>

*Note. n = 32; Adjusted Percent: percent distribution adjusted to compensate for missing data.*

Other stockholders listed with access to the data included 13 colleges (11.6%) offering the data to their governing board/board of trustees, and six colleges (5.4%) make the data available to students. Two other groups offered data under the “Other” category included the community and the distance learning committees and/or administrators.

*Questions F4 - What assessment data do your institution use in making the following decisions for online courses?* The last question under this subsection asks what data were used in making six major decisions in managing online programs. Table 20 summarizes the responses to the survey. Of interest were the data most often stated as important in decision making is enrollment demand when adjusting course sizes (36%), deciding on the number of online sections to offer (37.9%), keeping a course online (33.3%), and allocating institutional resources (36.3%). Availability of
Table 20

*Institutional Use of Assessment Data in Online Programs in Frequency (Percent) Response (Multiple Choices Allowed)*

<table>
<thead>
<tr>
<th>Actions Taken with Online Courses</th>
<th>Student Evaluation(s of Faculty)</th>
<th>Faculty Availability</th>
<th>Classroom Availability</th>
<th>Enrollmen t Demand Statistics</th>
<th>Student Retention Data</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting course sizing *</td>
<td>5 (10.0)</td>
<td>12 (24.0)</td>
<td>5 (10.0)</td>
<td><strong>18 (36.0)</strong></td>
<td>6 (12.0)</td>
<td>4 (8.0)</td>
</tr>
<tr>
<td>Faculty selection or retention *</td>
<td>21 (26.6)</td>
<td><strong>25 (31.6)</strong></td>
<td>7 (8.9)</td>
<td>14 (17.7)</td>
<td>9 (11.4)</td>
<td>3 (3.8)</td>
</tr>
<tr>
<td>Number of online sections *</td>
<td>4 (6.9)</td>
<td>19 (32.8)</td>
<td>5 (8.6)</td>
<td><strong>22 (37.9)</strong></td>
<td>5 (8.6)</td>
<td>3 (5.2)</td>
</tr>
<tr>
<td>Keeping a course online</td>
<td>13 (17.3)</td>
<td>19 (25.3)</td>
<td>7 (9.3)</td>
<td><strong>25 (33.3)</strong></td>
<td>9 (12.0)</td>
<td>2 (2.7)</td>
</tr>
<tr>
<td>Evaluating student learning outcomes measures *</td>
<td>8 (17.4)</td>
<td>6 (13.0)</td>
<td>2 (4.3)</td>
<td>7 (15.2)</td>
<td><strong>13 (28.3)</strong></td>
<td>10 (21.7)</td>
</tr>
<tr>
<td>Allocation of institutional resources *</td>
<td>4 (6.9)</td>
<td>14 (24.1)</td>
<td>7 (12.1)</td>
<td><strong>21 (36.2)</strong></td>
<td>8 (13.8)</td>
<td>4 (6.9)</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* n = 32; * Adjusted Percent: percent distribution adjusted to compensate for missing data
faculty to offer the courses online is the next most cited data in making online course decisions with it being the primary factor in selecting and retaining faculty (31.6%). Both enrollment demand and faculty availability make up over 50% of the data used in making four out of the six actions listed. The only area where this was not the case was in evaluating student learning outcomes where student retention data were the primary data source (28.3%) followed by “Other.” Comments for Other included faculty assessment of student learning and varied institutional effectiveness reports measuring student learning. Student evaluation of faculty is a secondary consideration (26.6%) used in selection and retention of faculty.

Subsection G: Most promising practices. The survey offered this subsection of the survey for respondents to offer their share their best practices in increasing student persistence online and identify how they track the effectiveness of these programs. Twenty-three out of the 32 colleges surveyed provided input to this section and responses provided insight into ongoing initiatives at the different colleges.

Institutional culture supportive of online programs. Though not addressed directly, the institutions role in providing a supportive culture for online programs was identified in a number of the most promising practices. Two colleges listed retention as a college priority which was reflected in their policies and practices. One respondent indicated that his/her institution’s emphasis on student persistence and support of online programs had led to “course completion rates increasing by 8%”. Another theme was that of recognizing the importance of faculty and their role in online programs. This was clear in one college’s stating that its online success was due to, “Having the best faculty.” As to including faculty in online program decision making, various institutions
listed everything from faculty review panels, online education committees with strong faculty participation, peer review, and faculty control of their course development. An example of this was one college’s statement that it had a, “faculty driven process that determines college rubric and requirements for all online courses.” Finally, establishing a common learning management system (LMS) was another way three institutions identified as ways the college was supporting their online programs. The specific platforms mentioned varied by college.

**Institutional efforts to screen and prepare online students.** The area where colleges were most active in preparing students for the online environment was in developing or revamping their online orientations programs. One college mentioned its interest in making the online orientation mandatory but had not done so at the time of the survey. Comments provided by participants on what they were doing with their orientation programs included:

…revamping our computer literacy requirement for students and considering how we might require this before students are eligible for online instruction.

…mandatory online orientations.

All students filtered through student success program automatically enrolled in Student Success course if their GPA falls below 2.0.

Online orientation and personal interview with faculty; "READI" assessment tool (student self-assessment) and use standardized data from READI [SmarterMeasure].

Implemented orientation for online students – F2F, online and Wimba™ Live [web-based collaborative tool developed by Keith Wimberly Ross, www.wimba.com] interactive sessions (voluntary) or by instructor requirement.

Posting info upfront on syllabi of requirements and needs to be successful in an online course. Some faculty even use a 1st assignment to do this.

Flag new online students.
Four institutions mentioned they were using READI (SmarterMeasure). Colleges using this service were incorporating it in their online orientation as a means of identifying students who may be at risk and require further help, counseling, and communications to improve their abilities to persist throughout their online courses. One college stated it was piloting a program using READI (SmarterMeasure) with the goal of increasing student persistence in online courses. The college’s pilot program was going to use READI (SmarterMeasure) to identify students who have special needs and:

… initiate special communications with these students to encourage their participation in online courses and to provide information as to who to contact if assistance is needed. These students will be tracked during the semester and contact will be made by campus leadership if students fail to complete major requirements such as completing the required orientation session or first exam.

One college mentioned the use of Wimba both for its online orientation as well as in support of student services such as tutoring, advising and counseling. Wimba is an online service provided by Wimba, Inc. (www.wimba.com), an application service provider that offers a suite of online interactive services to include audio, video, application sharing and instant messaging. Wimba services can be integrated into various LMS and provides students, faculty, and college staff (counselors, advisors and tutors) with the ability to interact and collaborate online.

Finally, one college shared its findings from research on incoming student behavioral traits and how these were impacting their persistence in the online environment. The college reported:

Research conducted [in] spring 2009 – determined that of the student behaviors (seeking technical help, READI [SmarterMeasure] or participation in orientation pre-term) preterm orientation participation was statistically significant in relation
to course completion. However this is a measure of behavior, not the impact of the orientation. Too many changes during the course of the year to identify the specific initiative that was of greatest impact.

*Institutional academic support of online courses.* The area most addressed was that of how the institution selects, prepares, and certifies faculty for the online environment. Nine of the 23 respondents mandate all instructors complete formal training prior to teaching online. These colleges offer this training at college or district level, depending on the college system. This training is then used to certify faculty to teach online courses. Best practices shared by the colleges on their faculty preparation programs included:

All faculty teaching online for the college are required to complete a rigorous training program which entails demonstrating technical competency and familiarity with online pedagogy. In addition, every faculty member’s course must be reviewed and approved prior to being opened for registration. The training and course review programs help to ensure that faculty are well equipped to teach online thereby resulting in a better learning experience for students.

We have developed a new faculty certification process that is required and is focused on instructional strategies, not just the how to manage the technology. We are implementing Quality Matters™ [www.qualitymatters.org] in pilot because we need a good way to evaluate online instruction.

We implemented a professional training workshop with a $250 stipend and certification of completion. Faculty peer-reviewed courses and submitted them for approval. Beginning fall 2010, no one can teach online without this certification.

One college shared its use of faculty mentors who help faculty new to the online environment with questions and suggestions in developing and fielding their courses.

As one college stated, by preparing faculty before they teach online “helps to ensure that faculty are well equipped to teach online thereby resulting in a better learning experience for students.”
Another practice shared by a college in supporting online faculty was in setting the number of online courses faculty can teach. The respondent stated, “Increased percent of load for faculty teaching online from 40% to 60% allowed the strongest online faculty to teach greater number of classes.”

Course design standards and formal course review processes were also identified as important to student success. Comments ranged from having faculty driven course development process, course evaluation rubric and standards, faculty peer course design verification, and follow-up course validation to ensure students are exposed to quality courses. Two institutions recommended using national standards such as Quality Matters™ (QM) (www.qualitymatters.org) to build and assess online courses, faculty training programs, and instructional assessment tools. QM is a nationally accepted program developed and managed by the MarylandOnline Inc., that provides a quality assurance rubric and assessment program for online courses to be used across intuitions of higher education. The rubric is designed to be a “faculty-centered, peer review-based process” used to certify and improve online course and component quality. One college speaks to the success they have had with using the QM standard:

Between F2006 – F2008 [we] Initiated the process of faculty peer review of all online courses using an adapted version of the Quality Matters rubric by Online Advisory Board and instituted mandatory certification prior to teaching course completion rates increased 6% between fall 06 to fall 08 (process continues for all new courses and cyclical review of existing courses).

Encouraging greater student interaction online was another practice cited in this section. Programs varied but the consensus was that greater communication between
faculty and their students was important to promoting student persistence in online classes. Comments included:

...engagement; required discussions.

Administration of online faculty to communicate early and frequently with students as well as to provide online orientation to the class.

Research shows that interaction (teacher-to-student and student-to-students) increases student persistence in courses. Anecdotal information from our online faculty supports this claim. To encourage interaction, our faculty members are instructed that they need to communicate with their students via announcements and/or email on a weekly basis. In addition, our faculty commit to reading and responding to email messages five-days-per-week. This policy helps to ensure that a student typically receive a response from his/her faculty member within 24-hours. Faculty are also required to build some form of interaction, such as the use of discussion boards, into their classes to facilitate student-to-student interaction.

We continue to upgrade Blackboard® [comprehensive learning management system by Blackboard, Inc., www.blackboard.com], our LMS, to provide both the students and teachers with more capability in regards to interaction, course tools, etc.

To help promote this interaction, one institution found class sizing to be important. They stated, “The college places a class-size limit of 25 for online courses to allow faculty to focus on interaction with students.”

Institutional student support for online programs. Another area which colleges identified as important to their students increase persistence was that of providing support services to online and available 24 hours a days and 7 days a week. Some of the areas colleges found the most fruitful in supporting students included online advising, help desk services, and tutoring. One college mentioned it was developing its own online assistance center for students to include an online tutoring/assistance resource. Another college highlighted the importance of having a dedicated distance-learning student service staff to provide the level of assistance online students require.
Further, one college shared their experience where loss of these services had direct impact on student persistence. This college had just completed a grant to develop online help desk services which had resulted in marked increase in student persistence. Once the grant ended and staffing for the help desk had to be cut back, there had been a measurable decrease in student persistence and retention.

One student service mentioned by a two colleges as effective in supporting student persistence was “24x7 online tutoring.” One college mentioned specifically their use of Smarthinking™, an online tutoring and writing support service provided by Smarthinking, Inc. (www.smarthinking.com). This online tutoring service provides a twenty-four hours a day and seven days a week network of online tutors in various disciplines to include Math, Sciences, Spanish, English, business, nursing, writing, etc. that are then reachable through the Smarthinking, Inc. website. The college using this service found that, “the number of hours used in online tutoring has increased since we started using Smarthinking.”

_Institutional use of data in tracking student success in online courses._ Under assessment, seven of the 23 colleges completing this section of the survey noted they were working on pilot projects to better assess their online programs. Seven more responded that they did not have data at this time. All colleges completing this question highlighted the importance of assessment in ensuring student persistence but varied on what data they collect and when and how they use it. The type of data collected included course retention rates (by semester and longitudinally), student demographic data, faculty evaluations, early alert data, course evaluations/certifications, grade distributions and course completion rates, student and faculty surveys, ad hoc research
by faculty, standardized data from the READI (SmartMeasure) assessments, and student learning outcomes. Data were collected at the end of each instructional term or activity. Data were reviewed by faculty, department chairs, division deans, vice presidents, directors of distance education to be used in faculty evaluations, faculty and course recertification, program reviews, curriculum review, departmental planning, setting teaching loads and class sizing.

Use of early alert mechanisms in online courses was mentioned by four college as important to tracking student persistence. One college stated,

Early alert is online so statistics are looked at as to how many times a student is reported and outcomes. [This helps with] identifying problems quickly and applying resources to help the student.

Another college highlighted the use of an early alert system that contacts students both via email and through phone calls when they miss more than a week of class and how this had helped improve student persistence rates. They pointed out that,

Implementation into a few courses has resulted in a decrease in withdrawal rates. Additional measurement and data collection will be done once system-wide implementation of the early-alert system is put into place.

Most institutions highlighted that they were in process of developing assessment tools to measure and track student persistence; however, it was too early in the process to determine their effectiveness. Comments from colleges highlight how they intend to use the data from their pilot projects:

Currently, effectiveness is measured by examining student evaluations of instruction and reports examining grade distributions and course completions to identify faculty members who may not be successful in the online environment. The use of the READI [SmartMeasure] exam will be studied this summer to determine how many students have utilized the assessment tool and to survey those students to ascertain whether or not the tool was helpful. Results from the
pilot program targeting students online taking online courses should also be available in summer 2010…The campus will initiate special communications with these students to encourage their participation in online courses and to provide information as to who to contact if assistance is needed. These students will be tracked during the semester and contact will be made by campus leadership if students fail to complete major requirements such as completing the required orientation session or first exam.

Because most of our initiatives are in pilot or have just been implemented, we have no data yet. However, all institutional strategies and activities must have assessment inherent in the design; and we review data at the end of each instructional term or activity.

Section II. Demographic Information

The second section of the survey requested demographic and course persistence data from participating colleges to use in comparing college online programs and measuring the effectiveness of ongoing practices. To facilitate access to existing data, the survey requested information from the 2008-2009 academic year as this would be the most recent and complete data set available to the colleges at the time of the survey. However, response rates for this section were poor as mentioned at the beginning of this chapter. This limited the amount of quantitative work that could be done with the survey and impacted the reliability of the findings due to small response (<30). Descriptive statistics calculations were run on all data to compare the online response to the overall population for each institution so as to identify any trends between the two across all responding institutions.

Question 1 - Please provide the following data (percent of students in the 2008-09 academic year). Table 21 provides a summary of the data based on student gender. Twenty-one of 32 participants provided complete data for this question. The data show that the number of female students both overall and in online classes surpassed those of the male students. In the case of female students, the percentage of students online
(64.1%) was greater than the percentage of the female population (58.4%) in surveyed institutions. Male students, on the other hand, were fewer online (41.1% male students overall: 35.5% online).

Table 21

*Gender Distribution in All Classes versus Online Classes in 2008-09 Academic Year*

<table>
<thead>
<tr>
<th>Gender</th>
<th>All Classes</th>
<th>Online Classes Only</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>Female</td>
<td>58.4</td>
<td>64.1</td>
</tr>
<tr>
<td>Male</td>
<td>41.1</td>
<td>35.5</td>
</tr>
</tbody>
</table>

Note: n = 21

Table 22 shows the diversity of ethnicities in the community colleges surveyed.

The Caucasian/White students were the largest group overall (50.9%) and in online classes (49.8%). Native Americans were the smallest ethnic group representing only 0.9% of the overall population and 1.5% of the online students. There were more

Table 22

*Ethnic Distribution in All Classes versus Online Classes in 2008-09 Academic Year*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>All Classes</th>
<th>Online Classes Only</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>African American</td>
<td>9.2</td>
<td>9.9</td>
</tr>
<tr>
<td>Asian</td>
<td>3.9</td>
<td>3.8</td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>50.9</td>
<td>49.8</td>
</tr>
<tr>
<td>Hispanic</td>
<td>32.5</td>
<td>28.5</td>
</tr>
<tr>
<td>International</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Native American</td>
<td>.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Other</td>
<td>1.2</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*Note. n=22*
African American, International, and Native American students online as compared to their representation in the overall population while Caucasian/White, Asian, and Hispanic students had a slightly smaller representation online as compared to their numbers in the overall college population.

Table 23 shows the differences in age grouping of students in overall and online courses. Only 19 of the 32 participating colleges provided a complete input on this section of the survey partly due to differences in age categories used in aggregating student data. This was a problem, especially for the age grouping of student under 18 through those 30 year old as the grouping categories have changed in national reporting systems and not all institutions had implemented the changes at the time of the survey.

Table 23

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>All Classes Mean</th>
<th>Online Classes Only Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 18 years old</td>
<td>18.8</td>
<td>7.8</td>
</tr>
<tr>
<td>18 to 24 years old</td>
<td>47.5</td>
<td>47.0</td>
</tr>
<tr>
<td>25 to 29 years old</td>
<td>15.7</td>
<td>20.3</td>
</tr>
<tr>
<td>30 to 39 years old</td>
<td>11.8</td>
<td>15.6</td>
</tr>
<tr>
<td>40 years or older</td>
<td>9.0</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Note. $n = 19$

Table 23 shows that the 18 to 24 year old age category was the largest group represented both overall (47.5%) and in online (47%) of these students taking online courses.

Question 2 - Please provide the following data (number of students). The second question in this section requested the participating colleges to provide the total number
of students enrolled in their institution as well as the number of students enrolled in online courses during the 2008-2009 academic year (fall, spring, and summer semesters). Further, it requested each college provide the student withdrawal rates by semester both for overall and online courses. As mentioned earlier when discussing survey participation rates, the data provided for this question were the most incomplete of the survey with only 20 respondents out of 32 providing a complete data set for the fall 2008 semester. Reasons given for this included participating colleges did not disaggregate their course data for online courses, the data were handled by different offices and was not easily accessible or releasable for the survey, and/or respondents lacked of the data overall. In three instances the data provided for the college was given by the district office for the entire college system and was not broken out by individual colleges in the system. Furthermore, some institutions provided data as unduplicated student counts (students enrolled in college programs) while others provided the data as duplicated student counts (students enrolled by course). Moreover, findings from Section I subsection A of the survey also highlighted that colleges have different withdrawal policies about who can withdraw students from classes and when the withdrawal is counted against the course’s overall attrition rate. Therefore, using this data to make quantitative comparisons among colleges from the results submitted in the first section of the survey would not yield reliable and/or significant results. The lack of data may also suggest there is a larger problem both at the institutional level and the state level in analyzing the effectiveness of online programs and initiatives in community colleges. The data did provide an overview of
the different colleges and guided in the selection of the four institutions for the qualitative interviews.

Descriptive data for this section is displayed in Tables 24 and 25. Table 24 reveals that on the average 18% of students are enrolled in online courses though this

Table 24

Percent of Students in Online Courses as Compared to Overall Courses

<table>
<thead>
<tr>
<th>Percent Students Online</th>
<th>Mean</th>
<th>Max</th>
<th>Min</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Students Online</td>
<td>18.0</td>
<td>43.9</td>
<td>5.4</td>
<td>38.5</td>
</tr>
</tbody>
</table>

Note. n = 20

percent varied widely by institutions ranging from 5.4% to 43.9% of the total student population. Further analysis in Table 25 shows that of the 20 participants with complete data sets, online withdrawal rates (18.5%) were higher in online courses when compared to the overall college withdrawal rates (13.5%) which reflects finding in the literature review in Chapter 2. To note is the range for online withdrawal rates also varied widely from a high of 40.9% to a low of 9.8%.

Table 25

Comparison of Withdrawal Rates (%) between College-wide Versus Online Courses in Fall 2008

<table>
<thead>
<tr>
<th>Withdrawal Rates in Fall 2008</th>
<th>Mean</th>
<th>Max</th>
<th>Min</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>13.7</td>
<td>25.7</td>
<td>6.1</td>
<td>19.6</td>
</tr>
<tr>
<td>Online</td>
<td>18.5</td>
<td>40.9</td>
<td>9.8</td>
<td>31.1</td>
</tr>
</tbody>
</table>

Note. n = 20
Question 3 - Have you experienced growth or losses in online courses over the last five years? All participants replying to this question (24 out 32) were experiencing growth in their online programs. Table 26 shows that thirteen of the 24 colleges (54.2%) stated the demand for online courses had grown by at least 35% or greater over the last five years. This reflects the findings from the literature that

Table 26

<table>
<thead>
<tr>
<th>Percent Growth of Online Programs</th>
<th>Frequency</th>
<th>Percent</th>
<th>Adjusted Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>35% or greater</td>
<td>13</td>
<td>40.7</td>
<td>54.2</td>
</tr>
<tr>
<td>20 to 29%</td>
<td>6</td>
<td>18.8</td>
<td>25.0</td>
</tr>
<tr>
<td>10 to 19%</td>
<td>5</td>
<td>15.6</td>
<td>20.8</td>
</tr>
<tr>
<td>No response</td>
<td>8</td>
<td>25.0</td>
<td></td>
</tr>
</tbody>
</table>

Note. n = 32; Adjusted Percent based percent distribution adjusted to compensate for missing data

demand for online programs is growing steadily and the need to address online course persistence is even more important as the ranks of online students swell community colleges.

Data Analysis

In an effort to analyze the data from the survey and select four institutions for the qualitative part of the study, a scoring table was developed with weighting criteria for each question in Section I of the survey. This table was organized using the framework of the five categories in the theoretical model (Appendix G). The weighting factors were assigned based on the number of policies, programs, and practices each institution had in place that was supportive of online programs. These factors were assigned so that
no one practice would outweigh the rest. Furthermore, the total score for each category was then judged separately as there was no overall score for the five combined categories. The scoring table was then applied to each institution’s survey responses to determine how the institution scored in each category. Table 4-27 is a summary of the overall weighting of the survey by category.

Table 27 shows that the mean of the surveyed institutions fell between the 50 and 70 percentiles in the first category of developing an institutional culture supportive of online programs and student persistence. Survey results indicated that all Institutions recognized the importance of online education and promoting student persistence. Twenty-eight of the 32 institutions offered some form of online degree, certificate, and/or

Table 27

Survey Analysis Using Weighting Criteria Based on the Five Categories in the Theoretical Model

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Points Possible</th>
<th>Observed</th>
<th></th>
<th></th>
<th>75 Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>Max</td>
<td>Min</td>
</tr>
<tr>
<td>Institutional Culture Supportive of Online Programs</td>
<td>12.0</td>
<td>10.0</td>
<td>1.5</td>
<td>12.0</td>
<td>6.6</td>
</tr>
<tr>
<td>Efforts to Screen and Prepare Online Students</td>
<td>9.0</td>
<td>2.3</td>
<td>1.6</td>
<td>5.7</td>
<td>0</td>
</tr>
<tr>
<td>Academic Support of Online Courses</td>
<td>12.5</td>
<td>5.3</td>
<td>1.7</td>
<td>9.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Student Support of Online Students</td>
<td>20.7</td>
<td>9.8</td>
<td>2.9</td>
<td>16.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Use of Data in Tracking Student Success</td>
<td>22.0</td>
<td>9.7</td>
<td>3.9</td>
<td>20.5</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note. n = 32; M = Mean, SD = Standard Deviation. * Expected based on a normally distributed data set.*
marketable skill award. Further, online and F2F courses were measured with the same success criteria. This suggests that online courses results are considered equitable to those in F2F courses. All but one of the 32 institutions had designated an administrator to oversee their online programs and all had integrated online education into all or part of their planning processes. However, there was disagreement among the surveyed institutions on the statements in Question B1 on online courses having different requirements to F2F classes and on the additional effort required of online faculty over their F2F counterparts. Though the research highlights the additional challenges required of online courses and faculty, institutions may still not be willing to allocate additional resources and support to online programs. Additionally, there were differences in the way institutions defined student success as well as accounted for when and who could withdraw students from an online class. This complicated the task of comparing institutions and their online programs. Based on their policies, some institutions will have higher fail rates yet fewer withdrawals while others have higher withdrawal rates but lower failure rates. Another factor impacting comparative data is the differences in how faculty track student progress online and handle lagging performance. With students and faculty being separated by space and time, tracking student progress requires additional mechanisms and/or assessment tools over those used in traditional F2F class formats. This places online students under closer scrutiny than those in F2F classes. Depending on the college withdrawal policy, faculty may be required to keep closer watch on their online students’ performance to ensure they are meeting the college’s participation requirements than they do for their F2F students.
which may also reflect in the difference in persistence data among the two course formats.

In the second category, preparing students for the online environment, respondents scored lower than expected. Most required an online orientation to prepare students for the unique requirements of the online environment. However, only 28% of the respondents had made these orientations mandatory campus-wide while 50% either made them optional or did not require an online orientation. The rest of the prerequisites listed in the question were course specific or optional.

A number of colleges did highlight initiatives they were piloting that included READI (SmartMeasure), a diagnostic tool used to help students identify their readiness for the online environment. The college pilot programs were using this online assessment tool to provide faculty and support staffs (advisors, counselors and tutors) a means of identifying students who may be at risk in the online environment so as to deploy additional support and communications to help the student persist in their online class.

The third category, academic support, also scored lower than expected even with the majority of respondents listing a majority of their best practices as focused around academic programs. The weighting for this Section was based on the institution having policies and processes in place in selection, development and support of faculty, and design, development and approval of online courses, and in online class sizing. For the Question D1, almost 75% of the participating colleges had a policy in place setting the number of online courses both full-time and adjunct faculty could teach per semester. On Question D2, twenty-two colleges provided some form of incentive, be it a stipend
and release time, to develop online courses for full-time faculty and while 15 provided
the same to adjunct faculty. However, only three colleges offered stipends for both full-
time and adjunct faculty the first time a course was taught online. As for academic
decision making in online programs in Question D3, most participating colleges left
course design decisions to faculty with support from the online support office and/or
instructional design team. Identification of courses to move online and faculty selection
were left to the department or discipline chairs. The Dean over the academic programs
made final approval decisions on course deployment and class sizing with the input
from faculty and the online program administrator. This is in line with academic support
of F2F courses. The last question, D4, on class sizing showed that most institution set
a standard class size for their online courses, most often at 30 or more students. With
online courses requiring greater interaction among faculty and students as well as the
need for additional assessment mechanism to track student progress online, larger
class sizes and greater teaching load of online courses can impact faculty's ability to
keep up with student needs in an online environment. Consequently, these factors can
impact student persistence. However, with shrinking budgets and growing demand for
online courses, the temptation is there for administrators to increase the size of online
course enrollment as it requires no physical or resource commitment from the college
beyond the infrastructure already in place to support all online and traditional classes.

Participant submissions for best practices provided greater insights into the
different academic support initiatives in place at the different colleges. The most
common initiative was establishing faculty training and certification programs. A second
area where colleges had implemented a number of initiatives was in online course
design and certification. A common theme among colleges was the importance of having a faculty driven process. Respondents also pointed out their use of nationally accepted standards such as Quality Matters to build faculty training programs, course design and certification processes, and course assessment mechanisms. A third area was in encouraging faculty and student interaction online in course design and instruction. Colleges also offered highlighted the importance of providing online tools that supported this need for interactivity to include Wimba and learning management systems.

The fourth category covering availability of student support services for online programs also scored lower than expected. The weighting for this category was based on the institutions providing student services and support mechanisms for online students where (online) and when (24/7) they needed them. All participating colleges offered a variety of student services for their students. However, a majority of these were on campus and not available 24/7. The only service that scored highest for online availability 24/7 was the student application process. College registration, library support and help desks were three areas of student support that were online and often available 24/7. In most cases, though, these services were available as some form of automated tutorial, video, and/or informational web site. There were a number of initiatives identified by the participants in the best practices subsection that were helping improve student persistence. These included online counseling and advising services using interactive web services like Wimba, online tutoring systems using online services like Smarthinking, and technical and course support help desks available for online
students. One college pointed out the importance having a distance education support staff to handle the unique needs of online students.

The availability and use of assessment mechanisms in collecting and analyzing data for decision making for online programs also was lower than expected. Participating colleges reported having data tracking mechanisms either in place or as a pilot in tracking online student progress and persistence rates. Additionally, over half of the participating colleges had some form of early alert systems which was giving faculty and student support staffs a tool to identify and intervene as needed in support of students lagging in their online performance. Furthermore, a majority of the colleges shared online program data with a variety of decision makers on their campuses from administrators, faculty, support services, to students. Finally, the majority of the colleges used a variety data in making decisions for their online programs. However, many of the participants qualified their responses in their submissions of best practices that their data collection programs were still in pilot format. Additionally, the lower than expected score in this category may reflect the comments that arose for the lack of data for Section II of the survey. The difference between data processes in Section I and availability of data in Section II of the survey raises concerns on whether the appropriate data systems are available to evaluate online programs within and across college programs. Another point of interest is that student demand and faculty availability drive much of the decision making for online programs. So, though there are a number of data sources to address the unique requirements in online programs, student demand still is the source of most decision making.
Summary

The survey data provided an overview of community and technical college institutions policies and practices support online education programs. It also offered a list of initiatives each institution identified as their best practices. From the survey data, four institutions were selected for the interviews based on their scores using the scoring rubric that best fit the theoretical model and who offered innovative approaches in support of their online programs. The results of these interviews and the resulting case studies are discussed in the next chapter.
CHAPTER 5
QUALITATIVE FINDINGS

Introduction

This chapter covers the qualitative part of the study. It is organized into four case studies describing the online programs at four community college systems selected from the results of the survey. The chapter concludes with a summary of the similarities and differences among the four institutions.

Setting Up the Case Studies

Based on the findings of the survey, four institutions were selected that best met the five categories of the study's theoretical model (Table 28). Other criteria used included the maturity of their online programs, their response on the "best practices" in the survey, and the low student withdrawal rates in their online courses from the Section II of the survey. Using this criteria, a case study was developed of each institution’s distance education program based on formal interviews with the senior distance education/learning administrator at each institution, visits to each institution, contacts with various officials and staff members suggested from the interviews, study of the distance learning web site on the institutional web portal, and a review of distance education policies and documents available to the public through the institutional web site. An interview questionnaire was used to direct the formal interviews (Appendix H). Each interview lasted about an hour. A coding rubric was then used to analyze the transcripts (Appendix I). The case studies were organized using a.
Table 28

Selection Criteria for the Case Studies

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Points</th>
<th>M</th>
<th>75 Percentile Observed</th>
<th>College Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutional Culture Supportive of Online Programs</strong></td>
<td>12.0</td>
<td>10.0</td>
<td>11.2</td>
<td>A=11.5</td>
</tr>
<tr>
<td>• Institutional commitment to online programs and student persistence and success</td>
<td></td>
<td></td>
<td></td>
<td>B=11.6</td>
</tr>
<tr>
<td>• Integration of online programs in campus planning and policies</td>
<td></td>
<td></td>
<td></td>
<td>C=11.8</td>
</tr>
<tr>
<td>• Institutional structure and resources in place in support of online programs</td>
<td></td>
<td></td>
<td></td>
<td>D=11.0</td>
</tr>
<tr>
<td><strong>Institutional Efforts to Screen and Prepare Online Students</strong></td>
<td>9.0</td>
<td>2.3</td>
<td>3.4</td>
<td>A=2.1</td>
</tr>
<tr>
<td>• Pre enrollment preparation/screening</td>
<td></td>
<td></td>
<td></td>
<td>B=5.4</td>
</tr>
<tr>
<td>• Freshman orientation and transition assistance through counselors and advisors to help students build skills for academic and social adjustment</td>
<td></td>
<td></td>
<td></td>
<td>C=3.7</td>
</tr>
<tr>
<td>• Institutional Academic Support of Online Courses</td>
<td>12.5</td>
<td>5.3</td>
<td>6.2</td>
<td>A=6.1</td>
</tr>
<tr>
<td>• Equipping and encouraging full time and adjunct faculty in developing and fielding online courses that promote interactivity with students</td>
<td></td>
<td></td>
<td></td>
<td>B=9.0</td>
</tr>
<tr>
<td>• Institutional Student Support for Online Programs</td>
<td>20.7</td>
<td>9.8</td>
<td>12.1</td>
<td>A=12.6</td>
</tr>
<tr>
<td>• Tutoring and mentoring</td>
<td></td>
<td></td>
<td></td>
<td>B=14.5</td>
</tr>
<tr>
<td>• Advising/Counseling</td>
<td></td>
<td></td>
<td></td>
<td>C=12.2</td>
</tr>
<tr>
<td>• Financial Aid</td>
<td></td>
<td></td>
<td></td>
<td>D=15.9</td>
</tr>
<tr>
<td><strong>Institutional Use of Data in Tracking Student Success in Online Courses</strong></td>
<td>22.0</td>
<td>9.7</td>
<td>11.0</td>
<td>A=13.0</td>
</tr>
<tr>
<td>• Tracking comprehensive data on student withdrawals in online programs</td>
<td></td>
<td></td>
<td></td>
<td>B=11.0</td>
</tr>
<tr>
<td>• Early Alert system in place to track online student progress</td>
<td></td>
<td></td>
<td></td>
<td>C=11.5</td>
</tr>
<tr>
<td>• Use of varied sources of data and open access to online student persistence data to online program</td>
<td></td>
<td></td>
<td></td>
<td>D=20.5</td>
</tr>
</tbody>
</table>

*Note: M is the mean of college scores for each category.*
common framework based of the five categories of the theoretical model used in this study.

In an effort to maintain confidentiality of the participants in this study, a letter designator was assigned to each college and participants are identified only by their position titles. Additionally, generic names were used where possible to identify college initiatives and programs so as to maintain anonymity of the college.

In all four college systems, the selection of the administrator to interview derived from the findings on the survey. In working with College System A, comments both from email with and on the survey returns from academic administrators for the individual colleges under this system was referred to as the Associate Vice Chancellor for Distance Learning (AVCDL) as the person who could best answer the survey questions for the college system. However, the distance learning program at this college system was much decentralized with individual colleges handling much of the preparation of faculty, development of courses and fielding of student services. Furthermore, two colleges in the system did reply to the survey, one of which met the criteria set forth for the interview. The AVCDL did not respond to the survey directly but did provide student completion information for the fall 2008 semester for the district. Consequently, two formal interviews were performed for College System A, one with the AVCDL and the other with the Vice President for Instruction (VPI) at the institution that met the study criteria to better understand the distance learning program within this college system. The combined results of these two interviews plus the additional research mentioned before formed the basis for the case study for College System A.
In the case of College System B, surveys were sent to all three colleges in the system but all responded by passing them to the Associate Vice President for Distance Learning and Weekend College (AVPDL) who answered the survey for the entire college system. Consequently, the AVPDL was interviewed for College System B. From that interview, follow up visits were made with the DL staff, student support staff, and the digital librarian.

For College System C, both the district office and one of the colleges responded to the survey. However, when asked about the college’s online program, the Vice President of Student Success at the college was referred to as the Director for Distance Learning (DDL) for all distance education/learning initiatives in the college system. The DDL was also the person who completed the district survey. Therefore interviews with the DDL and his staff provided the information for the case study on College System C.

Finally, College System D Vice Chancellor for Instruction directed the survey for this college system to the Associate Vice Chancellor for Distance Learning (AVCDL) to answer for the entire institution. Interviews with the AVCDL and the Counseling Department Chair of Distance Education provided the information for the case study on College System D. The AVCDL asked the Counseling Department Chair of Distance Education to join the interview as she could offer more insight into the college system’s program and provide information on the DL offices counseling support,
Case Study on Distance Learning at College System A

Overview of the College System

College System A is a suburban multi-college system (5 separate colleges). The survey used for the selection of this college system was submitted by one of the five colleges with the oldest online program within the system dating back to 1995-1999 timeframe. The selected college has over 7,000 students but forms part of the larger college district with 48,000 students. The college’s senior academic administrator is the Vice President for of Academic Affairs and Student Success. The college system’s DL office is headed by an Associate Vice Chancellor for Distance Learning (AVCDL). The system’s DL office did not respond to the survey but provided withdrawal data for the college system. Both were interviewed for this case study to better understand the unique relationship between the two organizations within this college system.

Of the four institutions interviewed, College System A is the most decentralized. Each college within the system is responsible for the development and fielding of their academic programs with the AVCDL providing support and coordination for online courses. The college district itself has recently been realigned and reorganized with the Distance Learning (DL) office being a result of the new system structure. The DL office was formed to provide a system wide support infrastructure for the institution’s online programs and to tap new markets beyond those already reached by the individual colleges such as online dual credit courses and accelerated timed courses.

Demographic data in Table 29 show the demographic diversity of the selected college campus with a large percent of female students online (73%). Additionally, there are a greater number of students age 25 to 39 taking online classes (43%) as
compared to those in F2F (29%). This reflects the number of mid career students with work and/or family obligations who are best served by online courses.

Table 29

Demographic Data Reported by Selected College under College System A for Fall 2008 from Section II of the Survey

<table>
<thead>
<tr>
<th>Demographic Data</th>
<th>Percent of Total Student Population</th>
<th>Percent of Online Student Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
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Institutional Culture Supportive of Online Programs

Distance learning structure and responsibilities. The Distance Learning (DL) program at College System A is decentralized with the responsibility for course development, faculty selection, scheduling and student services resting with the Vice Presidents of Instruction at the different colleges within the system. The DL office is headed by the AVCDL who reports to the Vice Chancellor for of Academic Affairs and Student Success for the district. The DL office role in the district is to assist each
college in creating and developing online courses, training faculty to teach online and help build a common infrastructure in support of online education for the institution.

Institutional perspective on online student persistence. Student success is stated as an institutional strategic goal and is part of the district’s strategic plans and policies. The district has a Student Success Council headed by the Associate Vice Chancellor of Academic Affairs and Student Success that addresses issues related to improving student persistence and retention in all classes, both F2F and online. The AVCDL is part of the Student Success Council which also includes the Associate Vice Chancellor of Student Success and the Associate Vice Chancellor of Curriculum and Instruction, all who work for the Vice Chancellor of Academic Affairs and Student Success. The AVCDL also advises the district’s Executive Council that includes the Chancellor, Vice Chancellors and college Presidents; the Instructional Deans Council; the Faculty Center Presidents; and the Distance Learning Council. The Distance Learning Council is composed of faculty, professional development staff, and deans from across the district who deal with online courses. The Council also includes representatives from the DL office. Further, AVCDL engages with the Vice Chancellor for Office of Technology Services (OTS) each semester in college faculty forums to discuss the DL program and technology issues. Contribution to all of these forums help inform the college system on distance education/learning issues and advocate for changes leading to greater student persistence and retention in online classes such as online class sizing, criteria for evaluating online classes, and quality and innovation in DL programs across the district.

Defining online course and student success. The district defines an online course as one taught solely over the Internet while hybrid courses are those where part
of the instruction is F2F and part is delivered through an alternative method such as the internet. F2F course also use the learning management system (LMS) and internet sources to supplement their courses.

As to tracking student progress in online courses, the college district’s student withdrawal process is only the student can initiate a withdrawal request but its implementation varies by campus. In general, non participation in an online class results in whatever grade the student earns at the end of the semester. The only other reason for withdrawing a student from any class is for administrative issues or nonpayment. Student success is measured by students completing a course with a grade of A, B, or C.

Institutional support of learning management system. The district has adopted a common learning management system (LMS) that serves online, hybrid courses and F2F (supplemental) classes. The current LMS is managed remotely by the LMS service provider who hosts services for the college. Technical support issues involving the LMS are handled by the DL office. All other technical issues are handled by the Office of Technology Services.

The district has undergone three changes in LMS systems in the last four years. These changes have been disruptive to faculty and course development. The DL office has had to build faculty training programs to teach the new skills and tools required of each new LMS and work to migrate courses from one system to the other. To deal with this issue, the DL office now requires new online courses be developed using IMS Global Learning Consortium specialized packaging software instead of building courses directly on the LMS (www.imsglobal.org). IMS Global Learning Consortium is a non-
profit consortium of educational technology suppliers, government organizations, educational institutions and school districts offering online course development standards, tools, tutorials and software support. The software provider then handles the integration of the course into any LMS the college selects making course migration easier district wide.

Institutional Academic Support of Online Courses

Online course selection, design, and approval process. As mentioned previously, each college in the system decides on the need for a course to be offered in an online format and selects the faculty to teach the course. There is no centralized office tracking system-wide needs. Furthermore, faculty members develop their own courses as there is no district-wide template or model courses to draw on at this time. The DL office serves as a support to faculty developing their courses by offering assistance with instructional designer (course development and pedagogy) and instructional technologists (LMS tools and technologies) as needed. There are also veteran online instructors on each campus who serve as mentors and tutors if needed. These mentors receive stipends from the DL office for their help in course development. The Distance Learning Council has recommended the use of Quality MattersTM (QM) rubric (MarylandOnline, Inc., www.qualitymatters.org) in developing and evaluating online course. Faculty members developing courses have this rubric as a guide in developing their course. The DL office uses the QM standard in developing their online faculty training program. Another area in which the DL office supports faculty is in providing a learning object repository of course modules and materials “harvested” from a number of leading national and European educational institutions. The learning
objects offer faculty a rich source of supplemental materials and course modules they can use in their F2F and online courses.

Final course approval comes from the dean, program chair or lead faculty in the respective subject area of the college offering the course. The DL office provides the standards and offers training for the college administrators on how to evaluate an online course. Once approved, the course is ready to be posted in the next semester’s class schedule.

Online course scheduling is handled by each college in the system based on their local student demand. The DL office is not part of this process. All courses offered by each college do form part of a system wide schedule and students are welcome to take courses at any campus or online based on their personal needs. The Vice President of Instruction from College A pointed out that this caused an initial competition among the different colleges for online students but with the rapid growth in student demand this is no longer a problem. The DL office does work with the colleges in building the schedule for accelerated course offerings (eight week courses) as courses start every Monday throughout the fall and spring semesters and require closer scrutiny than the regularly scheduled semester classes.

The only course development done by DL office is the district’s dual credit courses offered to local high school students. The DL office role is to standardize online course structures to aid high school students new to the online environment and to ensure the course meets both the Texas Education Agency’s Texas Education Knowledge Skills required by the high schools and the college’s own higher education standards.
Faculty selection and training. All faculty must be certified to teach online courses within the college system. To be online certified faculty must complete the faculty orientation for online teaching course. The orientation is run by the DL office and consists of twelve online, self-paced modules. These modules include an introduction to online learning, and cover flexibility and time management, learning styles, classroom management and communications, cultural and global considerations, legal issues, collaboration and community building, trends in online classroom, assessment, web literacy, vertical and horizontal alignments, and student retention and faculty development. Each module is designed to be standalone and can be taken in any order or combination. The orientation course concludes with a final exam. Faculty can take the orientation training anytime they want as it is available on the institution’s Virtual Teaching Assistant Center (VTAC), an online support site for faculty. Faculty members who have taught online at other colleges may opt to just take the exam. However, all faculty must pass the exam to be certified.

The DL office also provides faculty with additional training resources, tutorials, “how to” videos, and support in their online instruction through the VTAC. This includes tutorials in the use of the different technologies available to faculty such as lecture capture system, wikis, blogs, and presentation tools they can use in their courses. The link to the VTAC is integrated within the LMS and faculty can use an online chat feature to connect to the DL office and work directly with either an instructional designer or an instructional technologists. These specialists have the capability of directly accessing the faculty member’s course electronically and resolving issues through their computer.
The AVCDL stated the service is available 14 hours a day on weekdays and the average response rate to faculty inquiries within the system was 6 seconds.

Faculty online course loading and class sizing. Both the number of courses a faculty can teach online and online class sizing is up to individual colleges. The VPI shared that class sizing is based on both the course’s discipline requirements as well as F2F classroom sizing. Certain disciplines, like English, have smaller course sizes due to the amount of papers an instructor must review each semester. The district has a default standard of 30 students per online class which is based on research on national norms for online class sizing. The Distance Learning Council dropped the original class sizing from 35 to 30 students based on the additional time required by online faculty in interacting with their students. By dropping the online class size, the Distance Learning Council hopes to increase the amount of time faculty spend interacting with their students. The VPI highlighted the importance of this interaction stating that the most important thing the college can do to improve student success is to help faculty realize the impact they have on student persistence.

Institutional Efforts to Screen and Prepare Online Students

Recognizing the need to better prepare new students for the online environment, the district has made online student orientation mandatory for all students taking an online class for the first time. This applies both to online students and those using the LMS for supplemental materials. The initiative was driven by faculty who felt they were spending too much class time teaching students how to operate in the online environment. The online orientation is available on the LMS and covers online learning and navigation using the LMS. The orientation is designed to take under an hour and
students must complete it before they can access their online course(s). The LMS keeps an electronic record of all students who have completed the orientation for three years. If a student has not taken a class in three years, they must retake the online course orientation to access their online courses. Additionally, the DL office offers tutorials and information to students new to the online environment to familiarize them with the LMS and help them develop proper expectations of learning in the online environment. Among these resources is access to the READITM (now SmarterMeasureTM), a web-based assessment tool (SmarterServices, LLC., www.readi.com). This online assessment tool is optional but provides students with an assessment of their skills and motivational readiness for an online course. These materials along with information on the online orientation are available on the College's DL web site. Reading, writing, math and computer proficiency are handled at a course level.

Institutional Student Support for Online Programs

The college system currently has a limited number of comprehensive student support services dedicated to online students at the time of survey. The VPI pointed out that there are a number of student services available on the individual campuses and at the present most students taking online classes are also taking a F2F class. This means they have access to the student services and information they need on their home campus or on one of the many colleges throughout the system. If the student needs to access a service such as counseling, advising, or financial aid, they can either call their home campus or visit the same service on a college nearest them. All college
support services at the different campuses work together to support each other’s students.

The DL office offers a help desk service for online students and faculty with 24 hours a day seven days a week (24/7) support. This service is contracted out. Students and faculty can email, telephone or Internet chat with the help desk contractor who will help the caller if possible or forward their concern via an electronic trouble ticket to the DL office for follow-up and resolution. The DL office also serves as the point of contact for all technical issues with the LMS, working closely with the LMS contractor to resolve technical and course management issues. Another service offered students with 24/7 support is online tutoring through Smarthinking™ tutoring services (Smarthinking, Inc., http://www.smarthinking.com). The VPI pointed out that this service is not widely used and is expensive which limits how much the college is willing to expand its availability at this time.

The DL office is now working on a Virtual Learning Assistant Center (VLAC) for student that will expand the number and availability of comprehensive services and resources in support of their online courses. The VLAC will provide links to help students get technical support, set up advising, and find information on financial aid and grades. Furthermore, students contacting the VLAC will be automatically transferred to the student support services at their home college. The VLAC will be available to all students through links on the LMS.

Institutional Use of Data in Tracking Student Success in Online Courses

The district and colleges have a number of data systems they use in tracking student persistence, both online and in F2F classes. The recent reorganization of the
district led to the consolidation of data analysis at the district level institutional research (IR) office. However, the VPI pointed out that most colleges still look to their local IR representative for the data they need.

The district offers an early alert system to track online student participation. The system is set up to send emails to students failing to meet certain participation or grade thresholds. An added feature of this early alert system is it also sends a copy of the email to the faculty member, a counselor and/or other support offices as required. This provides visibility of a student’s progress in the course and brings to bear the necessary resources and support mechanisms to help the student persist throughout their course.

AVCDL shared he tracks online course effectiveness by using a series of analytics derived from the percentage of course successful completions (earned grades of A, B or C), percent of students withdrawals after the 12th class day, and percent of student failures. These analytics have revealed some telling statistics; 75% of students successfully completing an online course within the district will take another the following semester at a college in the district. On the other hand, the high number of withdrawals after the 12th class date may indicate students are not getting the proper support in time or require some of notification or contact. The AVCDL uses these analytics to inform the college academic administrators and guide in developing support structures and development tools his office offer faculty in online training and course development. The AVCDL pointed out that the data were also important in his continuing role as advocate for student services for online students.

The VPI shared that at the college level academic administrators have recently implemented an online course evaluation tool that looks at enrollment trends,
persistence and completion rates, and success rates for all courses. This data are also disaggregated by delivery method as there is a large difference between online and F2F, hybrid course formats. This tool is meant to help academic administrators at the college level evaluate online courses and faculty teaching online.

Colleges Strengths and Areas for Improvement in Addressing Student Persistence

When asked which of all the initiatives had had the most impact on student persistence, the AVCDL stated, “it's a combination of a lot of those different kinds of things...And so there's really no area that we do that we can rest our heels and feel satisfied with something because tomorrow it's going to change again.” The AVCDL did state that he thought a major factor impacting student success in online courses is “time” for faculty to feel comfortable teaching online and in using the LMS. He pointed out that the more faculty teach online, the better they get in interacting and understanding how to teach in that environment. When a faculty member is more comfortable developing their classes and teaching in a certain kind of environment, then it shows in student retention and how they interact with the students taking their classes. On the area needing more work, the AVCDL pointed out that many of the initiatives ongoing at both College A and throughout the district to improve online courses and services are relatively new so there are limited longitudinal data available to properly evaluate them. There are a number of these initiatives to include mandatory online orientation, fielding of the VTAC and VLAC, the numerous changes of LMSs, and providing different technologies to improve student access to educational and support technologies. A further complication is the institutional research function has been recently centralized and data are not readily available for the entire institution.
Consequently, the DL office is monitoring these initiatives to determine what works best and how to improve those areas that still need work.

The VPI emphasized the need for a comprehensive review of pedagogical methods to determine which are the most effective online. She pointed out that there are not a lot of opportunities for online faculty to share their teaching experiences as compared to those who teach F2F. All faculty members could use help in “how to craft assessment tools that really speak to what they believe their students are learning or supposed to learn.” Further, the VPI emphasized that it is important to focus on teaching methods and their impact on student persistence and success instead of what new technologies to add online.

Recurring Themes throughout the Interview

In analyzing transcript for themes emerging from the two interviews with College System A, a common point that arises with both the AVCDL and the VPI is the decentralization of the DL program across this college system where each college handles its own online course selection and development and the DL office plays only a supportive role where needed. Another common theme was the newness of this process. Both AVCDL and the VPI highlighted that the presence of a DL office at the district level is relatively new and the district was still sorting out the break out of responsibilities for online education programs between the AVCDL and the individual colleges. Both pointed out that there were a number of promising innovative programs and pilots in progress to include mandatory online education, virtual learning and teaching sites for faculty and students, and new online courses assessment tools emerging across the district. Both were hopeful that these will expand the college’s
online services but longitudinal data were not available yet to show their impact on student persistence. A point that arose in the interviews with the AVCDL was the importance of new technological solutions in providing expanded services to the district. These included online help desks, managed hosted services of the LMS, course development software, online tutoring services, and testing technologies that will offer the district greater flexibility and outreach in the near term.

Case Study on Distance Learning at College System B

Overview of the College System

College System B is a suburban multi-campus college system with three college campuses and 25,000 students. Its online program dates back to mid nineties. Management of the DL program is handled by the Associate Vice President for Distance Learning and Weekend College (AVPDL). The AVPDL reports directly to the Vice President/Provost for one of the three colleges in the system but works with all three in the execution of the distance learning program. The AVPDL oversees the college system’s online education program by offering oversight, guidance, and support of online course development and online faculty training. The individual campuses, in turn, manage the deployment of their online courses and faculty.

College System B’s demographic data reflected in Table 30 shows that the largest number of students taking online courses are female (67%) and white (67%). Further, 51% of online students are between 25 to 39 year olds, a reflection of the number of suburban, mid career students with work and family obligations continuing their education online.

Table 30
Demographic Data Reported for College System B for Fall 2008 from Section II of the Survey

<table>
<thead>
<tr>
<th>Demographic Data</th>
<th>Percent of Total Student Population</th>
<th>Percent of Online Student Population</th>
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<td>40 years or older</td>
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Institutional Culture Supportive of Online Programs

Distance learning structure and responsibilities. The AVPDL oversees the DL program at College System B. The DL offices responsibilities include developing and overseeing the online course design process and the online faculty training and certification program. The DL office also provides the district’s course standards for online course design and evaluation. Working with the program chairs and deans from each of the campuses, the AVCDL also monitors all online course offerings to make sure courses and certified faculty are available to meet student demand. The AVCDL also coordinates with college administrators to ensure online students can access the support services and resources when and where they need them. The DL office staff includes an Associate Dean for Distance and Weekend College who manages the
Online Student Support Center (OSSC) and a Director for Distance Learning Development (DDLD), supervises the Teaching and Learning Center. The Teaching and Learning Center is responsible for online course development and the faculty training program.

Institutional Perspective on Online Student Persistence

The AVPDL pointed out in the interview that the college system is very supportive of student success initiatives and has integrated this support throughout the system’s policies and procedures. She shared a quote by the college system’s president: “By being flexible and eliminating time and space barriers, we enable our students to participate and, ultimately, succeed.” An important initiative in meeting this goal is the Retention Council that was created to consider factors impacting student retention in both F2F and online classes and provide recommendations to the institution’s Senior Leadership Team on how to improve student persistence throughout the college system. The Retention Council is faculty driven with an ex-officio dean as chair. It began as part of the institution’s Academic Planning Team discussions and has evolved from a task force to a full committee. The Council represents the college system’s commitment to student success and is now working on a model to improve student persistence. The AVPDL pointed out that with the institution’s emphasis on persistence and the various initiatives put into practice by the Retention Council, the College System has already experienced an increase in course completion rates of 8%.

Defining online course and student success. College System B defines online courses as where 80% or more of the course content is offered over the Internet. Hybrid courses are those that combine online and F2F instruction. The institution also
has web enhanced courses where F2F courses supplement their instruction through the Internet.

The College System has no official process in place for administratively dropping online students for non participation in their class. The only way an online student can be withdrawn from a class is by their own initiative or due to administrative reasons such as nonpayment for the course. The AVPDL did say this process is currently under review by the Retention Council. Student success is measured by students completing a course with a grade of A, B, or C.

Institutional support of learning management system. The institution supports one LMS system for all online, hybrid, and web-enhanced courses. The information systems (IS) staff manages the technical aspects of the LMS while the DL office handles faculty training and course management. The IS director is part of the Distance Learning Information Technology committee that meets regularly to cover topics involving technical support of the LMS such as system maintenance, updates, and scheduling requirements. These meetings include representatives for the DL office as well as the officers from the Faculty Council and the chair of the faculty technology committee to ensure that faculty have a voice in the process.

Institutional Academic Support of Online Courses

Online course selection, design, and approval process. The AVPDL highlighted throughout the interview that course selection and development is fully faculty driven. There are three routes to field an online course. The first is when faculty identify a course that has never been offered online before at the college. The faculty then takes the course request to their dean for approval. Once approved, the faculty then work
with the Teaching and Learning Center (TLC) to develop the course. This process is overseen by the Director of Distance Learning Development (DDLD) who coordinates a cross-functional team of instruction designers, a digital librarian, and a media specialist to work with the faculty member in building their course. The faculty member is also given the college's online course standards based on the Quality Matters rubric to guide them in their work. Once complete, the course is forwarded to the Online Advisory Board (OAB) for their review and approval. The OAB is faculty run with members of the DL staff serving as advisors. The OAB examines the course for completeness and compliance with the institution’s online course standard. The OAB can approve the course, approve it pending minor revisions, or not approve it and send it back for redesign. If approved, the course is then ready to add to the following semester's class schedule.

The second option is for faculty wanting to teach a new section of a course that is already approved and fielded online. Again, the faculty member needs to go through his/her dean for permission to teach the course. The faculty member then is given the course template and materials so he/she can customize it to his/her teaching style. The faculty member works with the TLC for course design support. Once the course is ready, the DDLD reviews the course to ensure it has not undergone major changes to the original course design and has retained all the essential design elements. If there have been no major changes, the DDLD approves the course for deployment. On the other hand, if the DDLD feels the course has been changed from the originally approved course design, he/she refers the course to the OAB for formal approval.
A third alternative is for courses not yet offered online but identified by the AVPDL as needed due to high student demand, to balance degree/program needs, and/or to meet system’s contingency requirements. The AVPDL forwards the recommendation to the appropriate program chair(s) and dean(s) for their approval. Once approved, the AVPDL, working with the deans, identifies a team of veteran faculty from the course discipline and representative of the three campuses. This team works with the TLC instructional design team to build the course template. Once complete, the course template is submitted to the OAB for their approval. These course templates are then made available to the deans who can then identify full-time and adjunct faculty to teach them. These course templates are also available to the college(s) should a contingency (natural disaster, college disruption, etc.) arise where a F2F class would need to be moved to an online format.

The AVPDL highlighted that this process has been effective for the institution in many ways. First, it ensures that all course development and approval is done by faculty. Second, it ensures all three campuses’ perspectives are represented in the development process. Further, the course is easy for faculty to customize to their teaching style with minimal effort. Additionally, the course template is not unique to one faculty member but represents a wider perspective both of the discipline and from across the college system. All courses are built according to a national proven standard Quality Matters ensuring they incorporate the best practices submitted by experienced professionals. These templates also provide students and faculty with a common course design to help them focus on the course content without the complication of having to learn a new course layout each time they engage an online course. Finally,
courses are scalable as many faculty can take the same template, adapt it to their
teaching style, and field online courses quickly to meet student demand.

Faculty selection and training. All faculty seeking to teach online must first be
certified by the DL office. Faculty certification involves a five-module training program
offered by the TLC. The first module is an initial assessment of a faculty member’s
skills with the LMS. Based on the assessment, faculty requiring training then proceed to
the second (LMS basic skills) and third modules (advanced LMS skills), or are waivered
to proceed to the fourth module. The fourth module consists of online pedagogy and is
required of all faculty, no matter their previous experience teaching online courses in
other college settings. The training consists of required professional development hours
which can be met with in-house teaching and learning conferences of best practices or
with seminars given by organizations like Texas Distance Learning Association, Sloan
C, and other professional online teaching conferences and/or seminars. Attendance of
these seminars are open to all faculty and help provide continuing professional
development opportunities and refresher training for both faculty members teaching F2F
and online courses. These first four modules are open to all faculty and are encouraged
for those who might be interested in teaching online but have not committed to a
course. Opening the training to all faculty helps ensure the college system has a pool of
faculty certified to teach online should an online course requirement arise. Only those
faculty selected to teach a course online move on to the fifth module.

Course development is handled in Module 5 where the faculty member is given a
new course shell (first time courses) or a course template to develop or customize. It is
during this module that faculty work closely with the TLC instructional design team and
supporting organizations. The DDLD works with the faculty member and provides a final review and determines whether to approve the course (minor modifications) or move it onto the OAB for peer review and approval. Since the implementation of this peer review process in fall 2006, the AVPDL reported that the course completion rates increased 6% between fall 2006 to fall 2008.

Once a course is ready for the online environment it is up to the program chairs and deans to select the faculty and place the course into the institution’s instructional schedule. The AVPDL monitors all online courses and keeps a list of certified online faculty. All online courses must be reviewed every five years unless there is a major change in the course template design or significant changes to the course itself due to changes in course content. Course templates are reassessed each time a new faculty member is chosen to teach the course. Department chairs and deans can also request a course be reassessed based on their annual faculty reviews. These reviews use an assessment tool based on the Quality Matters rubric and approved by the OAB for their annual course evaluations. In all cases, courses under development, revision and/or evaluation are monitored by the DDLD and the TLC to ensure they remain compliant with the institution’s standard and/or sent to the OAB for reapproval.

Other assessment tools used in evaluating an online course and online faculty include student evaluations of the course, faculty evaluations, and class visits through an online review process. The AVPDL provides guidance and support to the program chairs and deans in this process. The DL office also offers a special program designed to train program chairs and academic deans on the use of the online course assessment tool.
Faculty online course loading and class sizing. Course sizing is set system-wide at a maximum of 25 students per online course section. This number is based on prior research into class sizing to meet pedagogical demands (increased faculty-student interaction). Online course sizing also takes into account the institution’s policy for sizing of F2F classes. If the F2F class is less than 25 students based on pedagogical requirements, then the online equivalent will be lowered accordingly. Online class sizing can also be adjusted downward by the dean based on unique discipline requirements and/or needs (lab modules). Any changes to expand the online class beyond 25 students result in the faculty member receiving additional compensation per student over the 25 maximum. As to the number of online courses a faculty member can teach each semester, the college system has increased the online teaching load from 40% to 60% to allow the strongest online faculty to teach greater number of online classes.

Institutional Efforts to Screen and Prepare Online Students

The AVPDL stated that initiatives to help prepare students for the online environment are “the most recent piece of our puzzle, most recent implementation.” Historically, the college system left online student preparation up to the faculty. This led to faculty complaints that so much of their time in the first two or three weeks of a semester was spent teaching the students how to navigate their course, how to upload, how to do an attachment, and where to find help. The institution established a DL help desk to answer student questions and help them with technical and course support. This help desk has since evolved into the Online Student Support Center (OSSC) that now provides online support to all students, both in F2F and online courses. The OSSC
also provides an online orientation students can access via the DL web site in a variety of formats: F2F in a computer lab, through interactive sessions using Wimba\textsuperscript{TM} Live (web-based collaborative tool developed by Keith Wimberly Ross, [www.wimba.com](http://www.wimba.com)), and through Internet based, self paced modules. The online orientation is not mandatory because the institution’s overall college orientation is optional as well; however, faculty can make it a mandatory part of their initial course orientation.

The online orientation includes three modules. The first introduces students to the online environment and what they can expect in an online course. The institution uses the READI (SmarterMeasure) assessment tool to help students assess their online skills and motivation. The second module includes a tutorial on the use of the LMS including course navigation, file management, and LMS tools. The final module is dedicated to digital services librarian who teaches students about the library’s electronic resources, accessing electronic databases, and using and citing references.

The online orientation is offered to students before the semester starts and throughout the beginning of each semester. There is also a module on online education in the system-wide orientation to inform students about online course opportunities. Furthermore, the online orientation is open to all students. According to the AVPDL, the number of students how opt to take the online orientation is growing rapidly. To quote the AVPDL:

> Our orientations specifically are targeting the DL students, but we’ve determined that the majority of our calls and the majority of our walk-up are not coming from our online students; it's coming from students that go into a class and go "Ah! Okay. Now I'm going to have to do all of this", and they really weren't prepared for that. So we now have orientations very early on for students that are taking a class where technology is used in support of classroom; so they can get that, as well.
The OSSC web site also provides students with specialized materials and information throughout the semester to help them adapt to the online environment. These materials include interactive modules using Wimba and other online interactive communications tools to address student success topics like time management, online testing, and study skills. Additionally, the DL office offers faculty panels in which students have opportunities to hear directly from faculty about their expectations. Other system’s prerequisites such as reading, writing, math, and computer proficiency are handled based on course requirements.

Institutional Student Support for Online Programs

The Dean of Student Services works closely with the AVPDL to ensure student support services are made available in a variety of formats for students throughout the college system. The institution subscribes to Presidium Learning that provides 24/7 technical and course navigation support for students (www.presidiuminc.com). The Presidium help desk refers matters that arise after hours to the appropriate organization. The OSSC web site is the DL office’s primary support site and it is open to students 8 AM to 8 PM weekdays and Saturday mornings. As mentioned previously, the support site offers a number of interactive services, self-pace learning modules, and tutorials for F2F and online students.

One of the important support services offered by the college system to online students is online advising. All campus advisors take turns in supporting the online student community through Wimba’s online interactive tools. All advisors are trained to support online students, and they use a central advising system to centralize and track student requests and system usages on a common database. Student feedback has
been very positive of the online advising program. Links to the online advising are available on the institutional web site and in all course shells on the LMS.

Many of the student services and materials are available online in the form of interactive modules, collaborative workshops, and electronic brochures. Further, the DL and the Student Services offices are working to evaluate what other services to move online to include student development tools such as study skills, support classes, and tutoring.

The library has a dedicated librarian supporting online students. This librarian supports all campuses and provides guidance on research technique, use of electronic databases and online citation and documentation. The digital librarian explained that students can access these services through email, the Internet, phone, as well as streaming video and animated tutorials tailored to individual courses. The digital librarian is also a member of the Distance Learning committee and a nonvoting member of the OAB.

Institutional Use of Data in Tracking Student Success in Online Courses

The institution relies on a number of data sources in evaluating the effectiveness of online courses and/or online faculty members to include student evaluations, faculty annual evaluations, student and faculty surveys, class participation rates, student completion and success rates, and student outcomes. These are available to program chairs and deans as well as to the AVPDL in monitoring the online program. The system does not currently have an early alert system tracking student persistence in online courses. The system has been moving to new data systems over the last two years and the AVPDL expects these systems will allow the institution to more effectively
monitor impact of online education programs and track student progress. However, at
the time of the study, data were limited to general system reporting and was not
disaggregated by course delivery format or course level.

Colleges Strengths and Areas for Improvement in Addressing Student Persistence

When asked what one area has most impacted online student retention, AVPDL stated,

I really think it's a combination, including the emphasis by the institution on
retention and course completion….I would not direct one piece of this as having
been the largest factor. I think it would probably differ if you were talking to
faculty or students, but I think what we've tried to do is approach all of those
factors that can contribute to student course completion, persistence,
satisfaction; and therefore, it would be very difficult to. The good news is… we've
seen drastic increases in our student course completion rates for distance
learning and the institution over the past 2 to 3 years

Finally, when asked what the next area to address in improving online student
persistence, the AVPDL stated that it probably would be making an online orientation
mandatory. To date, though most of the evidence is still anecdotal, but she pointed out,

from the orientations in particular you have generally two different populations
attending orientations: Those that want to do well; therefore, they're going to
take any opportunity to prepare to move into that environment; and those that are
concerned -- now, this may be -- particularly with distance learning, maybe they
have no choice. They want to do well, but do not have the background.

The Retention Council is now addressing this as one of the options in their
retention policies but only for certain category of students. Other areas that need
addressed are study skills and student preparation tailored to specific at-risk categories.
Finally, the AVPDL pointed out that with the increase in the number and variety of
hybrid courses and the increased integration of technology in all classes, the lines
between student preparation and support for F2F and online courses is rapidly blurring.
Recurring Themes throughout the Interview

In analyzing the transcript from the interview with the AVPDL and her staff, the following themes emerged. First, the AVPDL emphasized that all course and approval processes were faculty driven processes. The faculty are also represented on all major distance learning boards so as to make sure their voice is heard in all college system decision processes. A second theme is the importance the institution’s senior administrators place on online education and student persistence. From pronouncements from the institution’s president, institutional policies and planning documents, to the formation of the Retention Council, student persistence is an institutional goal which is taken seriously, and providing a sound DL program is part of this process. Finally, the AVPDL used the words collaboration and coordination often in describing her role at the system and the way the DL office works with all the different organizations within the institution.

Case Study on Distance Learning at College System C

Overview of the College System:

College System C is an urban multi-college system (5 college campuses) with a student population of over 48,000. The system’s DL program has been around since 1973 when it began with Instructional Television (ITV) programs. The DL office now supports online and ITV programs and is considering adding hybrid courses. The DL office is located at the district level and is headed by the Director for Distance Learning (DDL). The DDL reports to Associate Vice Chancellor for Teaching and Learning Services who in turn reports to the Vice Chancellor for Academic Affairs.
The demographic data in Table 31 shows that the institution has a diverse student population with a larger online population of female (68%) and white (63%) students. The table also highlights that the largest group of students are those in the age range of younger than 18 (high school students) to 24 year olds (51%). This may reflect the number of high school students taking online dual credit courses through the system.

Table 31

*Demographic Data Reported for College System C for Fall 2008 from Section II of the Survey*

<table>
<thead>
<tr>
<th>Demographic Data</th>
<th>Percent of Total Student Population</th>
<th>Percent of Online Student Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>58%</td>
<td>68%</td>
</tr>
<tr>
<td>Male</td>
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<td>31%</td>
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<tr>
<td><strong>Ethnicity</strong></td>
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<td></td>
</tr>
<tr>
<td>African American</td>
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<td>16%</td>
</tr>
<tr>
<td>Asian</td>
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<td>4%</td>
</tr>
<tr>
<td>Caucasian/White</td>
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<td>63%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>19%</td>
<td>13%</td>
</tr>
<tr>
<td>International</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Native American</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 18 years old</td>
<td>42%</td>
<td>21%</td>
</tr>
<tr>
<td>18 to 24 years old</td>
<td>25%</td>
<td>30%</td>
</tr>
<tr>
<td>25 to 29 years old</td>
<td>11%</td>
<td>17%</td>
</tr>
<tr>
<td>30 to 39 years old</td>
<td>12%</td>
<td>19%</td>
</tr>
<tr>
<td>40 years or older</td>
<td>8%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Institutional Culture Supportive of Online Programs

Distance learning structure and responsibilities. The DL office is headed by a Director for Distance Learning (DDL) who reports to the Associate Vice Chancellor for Instruction. However, in his role of providing oversight of the district’s DL programs, the
DDL works directly with the other vice chancellors, associate vice chancellors, college presidents, academic vice presidents and academic deans on all campuses in the system. The DDL is responsible for approving online course offerings, setting the quality standards for online courses and assuring these are maintained across the district. The DL office also trains and certifies faculty for the online environment. Further, the DL office manages the online course LMS for the district. The DDL serves as an advocate for the availability and access of student support services for online students.

The DL office consists of an Associate Director and three department managers. The manager for Planning and Support works closely with the deans from all campuses to develop the distance learning course schedule for the district. This office also schedules orientation for faculty training classes and oversees the on-campus testing program for online courses. Additionally, this department manages the ITV program schedule. The manager for Faculty Training and Course Development oversees the faculty training program and supervises the curriculum coordinators. These coordinators monitor and assist faculty with course development. The manager for Technology Services is responsible for the online course help desk and the online course LMS system.

Institutional perspective on online student persistence. The DDL mentioned at various points in the interview the support he has from the institution’s Chancellor and the Executive Leadership team. Senior administration has continually supported the DL initiatives at the institution including endorsing a “Standards of Excellence”, a district-wide quality standard for all online courses, and giving the DDL the necessary authority
to enforce it. Further, senior administration require online course development be approved by and all faculty be trained through the DL office. The DDL said that the Chancellor and college presidents have stood behind his decisions even when it meant rescheduling an online course where the assigned faculty member was not properly certified. The DDL highlighted that distance learning is fully integrated within the college’s processes and policies to include strategic planning and resource allocation.

Defining online course and student success. The district wide drop policy states that faculty cannot withdraw students from their classes for non participation. Institutionally, the only reason to drop a student is for administrative problems, or if the student fails to pay for the course. Students may ask to be withdrawn from a class. This policy applies to all courses, F2F and online. Student success is measured by students completing a course with a grade of A, B, C or D.

Institutional support of learning management system. All students enrolled in online classes across the district use a common LMS for their courses. The LMS is open source software which has been customized to the institution’s specifications. This offers the district a low cost yet scalable platform to meet their online learning requirements instead of going with a more expensive proprietary solution. However, it does require specialized programmers who are hired on a consultative basis to maintain and update the system. Additionally, the LMS used in online courses is different to that used to supplement F2F and hybrid courses. This causes problems for faculty and students as each LMS has a different email systems and set of online tools. This duplication of systems has created a problem with the portability of courses and communications between the two systems. The district is now working on a system-
wide strategic initiative to integrate the two LMS communities into one educational platform in the near term.

The DDL emphasized the importance of developing a working relationship with the information systems staff in managing the different LMS systems. He said that information systems (IS) department is under the Manager for Technical Services who reports to a different Vice Chancellor than the DL office, a decision that was made after years of reorganizations. However, the new arrangement has resulted in a more efficient operation. The Manager for Technical Services attends the IS administrative meetings each month and the Vice Chancellor for the Information Systems is a regular member of the Academic Council meetings. This has helped both organizations stay informed of each other's needs and capabilities. Moreover, the district offers a variety of electronic communication services, including Internet messaging which has helped speed up interaction among all organizations. Additionally, since the LMS for the online program is open source and requires special programming, a computer programmer is assigned directly to the DL office to manage the system.

Institutional Academic Support of Online Courses

Online course selection, design, and approval process. Selection of courses to teach online is a faculty driven process as all new course development results from faculty requests. This selection process includes both courses taught online for credit and for continuing education. Moreover, this process impacts all faculty within the college system. For the last five to six years, new faculty contracts contain a clause that states they may be required to teach both in the F2F and the online environments.
Faculty selection and training. Once a faculty member identifies a course(s) they would like to teach online, they can proceed via two routes. If the course has not been offered before, it must go through an approval process that starts with the faculty member’s department chair, through the dean, and the Vice President of Teaching and Learning. Once approved at the college, it then requires district approval from all faculty within the specific discipline taught. This is done on “Academic Day” when faculty of each academic and technical discipline from across the college system meet on the first week faculty report back before the fall semester and discuss topics common to all colleges. All new online course proposals for each discipline are reviewed during the Academic Day. This process then ensures that the course receives both administrative and district approval. Once cleared, the faculty member is ready to start the training process and course development cycle. The second route is if the course has already been developed and taught online. In this case, all the faculty member needs is his/her program chair and dean’s permission to proceed through the training process.

All faculty interested in teaching online must enroll in the district wide DL learning program. DL training is mandated system wide for all faculty teaching online courses. This training is open to all faculty and include technical skills training, online pedagogy and course development. The training consists of three modules. The first covers use of the learning management system. It is a self paced, competency based module offered online that culminates with a skills based, practical exam. Faculty can opt to complete the module or, if they are already experienced with the LMS, take the exam.

In the second module, the faculty member is then given access to the developmental tools on the LMS to develop the course. The DL office curriculum
coordinators provide pedagogical training, course development support, and help monitor the faculty member’s progress. All curriculum coordinators have online teaching experience. The system does not have an instructional design team building online courses as they leave this up to the faculty member. The curriculum coordinators are assisted by veteran online faculty who review the course midway through this module for course design features and check to see if it complies with the Standards of Excellence. These veteran faculty also serve as mentors for the faculty member as needed in the course design process. Faculty who are not developing a new course are given access to the existing course materials for the course they are going to teach and allowed to modify/adapt the material to their teaching style. In both cases, once the faculty member completes this module, they must write a summative evaluation report describing how their course meets all the standards.

The final module covers the many aspects of online course management such as daily teaching responsibilities, syllabus development, course expectations, use of the grade book and setting up interaction with their students. Interaction is a major concern to the DL program and is heavily emphasized throughout the training. The whole process can take between four to six months, depending on the faculty member’s skills and the time it takes to develop a new course or modify an existing one.

Once the faculty member completes the required modules their course is ready for final approval. Again, the Standards of Excellence are used to assess if the course is ready for the online environment. The curriculum coordinators review the course and recommend it for final approval to the Director for DL. Once approved, the course is then entered into the district wide course schedule and is made available to students on
all campuses. Though faculty develop and review the course throughout the approval process, the DDL is now working to move the decision for final approval to a faculty curriculum committee. He explained that this will better meet the requirements of Southern Association of Colleges and Schools (SACS), regional accreditation agency, that faculty retain the primary responsibility for all course curriculum decisions. (SACS, 2010, Section 3.4.10).

Follow up assessments are left to the program chairs and deans through the regular academic review cycle. The DDL serves a consultative role and intervenes only if a faculty member’s student evaluations, withdrawal data and grade distribution reflect a problem.

Faculty selection and training. The faculty training and online course development process is mandated by the Chancellor and the Executive Leadership Team. No faculty member is allowed to teach online and no course is allowed to be offered until both have completed this process. Faculty members who are already teaching online and have completed the training previously, can skip Modules I and III of the training program but still must complete Module II by either developing a new course or adapting an existing one. This ensures standardization and currency in faculty skills and course development across the district.

The online training program for faculty is open to all faculty members including those who do not have a specific online course in development but who may be interested in teaching online at a future time. Online training is also considered professional development so many faculty take it to meet their professional development requirements. The system does require all faculty interested in teaching
online to take the READI (SmarterMeasure) assessment to assess their skills and motivation for the online environment. The DL office reviews these scores to help the curriculum coordinators adapt their training program to the needs of each faculty member. The DDL did state his Manager for Faculty Training and Course Development was working on developing follow-on training courses for online faculty using interactive webinars.

The college system does provide incentives to full time faculty to develop new courses. Faculty members receive a stipend during the second training module for any courses they develop that have not been previously offered in an online format. Those training to teach a course that already exists online do not get a stipend but are given access to all course materials and resources used in developing the original course. They are allowed to adapt the course to their teaching style, but it must pass the final course approval process. Adjuncts are given a small stipend to take the online training program, though this is under consideration.

Faculty online course loading and class sizing. The district has set the number of courses a faculty member can teach online to three fifths of their teaching load. An issue that has emerged is how to handle faculty overload classes. The DDL says this is not clear district wide and has caused problems on some campuses; some allow faculty to teach all their overload classes online while others limit the overload classes to comply with the district’s required course balance. The policy also does not take into account faculty who may excel in the online environment over the F2F classroom or those who have tried online instruction and would like to opt out of it to only teach F2F
classes. Senior administrators are aware of these issues and have forwarded them to the Academic Council for guidance.

The institutional policy for online class size is 25 students. The DDL stated that this was set by district policy ten years ago and is based on research on what is a manageable class load (considering the rigors of online instructions and “to encourage faculty to build a lot of interaction into their courses”). Moreover, the deans agreed on a standard online class size as they did not want to try to justify differing class sizes on different campuses. In some cases, the deans can lower the number of students in an online class based on discipline specific needs as in the case of a technical or science course that has time consuming lab requirements. With the growing demand for online courses, the district is now considering raising this level, but the final decision was still under discussion at the time of the interview.

Institutional Efforts to Screen and Prepare Online Students

The DDL pointed out that online courses provide a unique challenge to first time students as they need to be prepared for both the college experience and for the online environment. At the present, there is no district-wide requirement for students to take preparatory courses such as orientations and special assessments. Reading, writing, math and computer proficiency are assessed based on course requirements but the DDL added that there are students who can enroll in an online class that does not have these perquisites. The college system does have a district-wide orientation but it is optional. Each online course has a required orientation. These class orientations are developed by the faculty member and teach the basic technology skills, course navigation, and class expectations. The institution does subscribe to READI
(SmarterMeasure) and offers it to all students. This tool is effective but is optional though faculty can require it in their course orientations. To date, few have opted to use it at the time of the survey. The DDL said that the reason for not requiring an online orientation is twofold: one, because the system-wide orientation is optional, and two, tracking student completion of the orientation is difficult with the current LMS configuration and with due to a rapidly growing student population. He did say his office provides students with a user handbook for online courses as well as help desk support to answer student questions.

The DDL reported on an ongoing pilot on one of the college campuses addressing student persistence by working with students taking only online classes. The campus pilot is using targeted communication and interaction with these students to ensure they complete required assignments and encourage their participation throughout the semester. The pilot will also provide students with contact points if assistance is needed. The DDL hopes to use the results from the pilot in developing district-wide initiatives to help student persistence.

Institutional Student Support for Online Programs

The DL office serves as an advocate for online students with student service staff ensuring that the students have the services and support they need when and where they need it. One of the key services provided by the DL office is the online help desk which provides students with technical and course support weekdays and on call support on weekends. Students can access the help desk via email, telephone, or through Internet trouble tickets to address technical problems with the LMS, online course navigation, resetting exams, and other LMS related questions. The help desk
forwards student course specific questions to their respective instructors. The DL office also has a dedicated web presence on the campus’ main web site. It is available from the main page and provides students and faculty with information on the online program, links to online course schedules, contact points for online services, and help desk support.

Institutional Use of Data in Tracking Student Success in Online Courses

The college system has an early alert system that they make available to all faculty to track and email students who either do not start a course on time or who fail to meet course assignment deadlines. This has provided a helpful tool that increases student awareness of their course obligations. However, it is available only through the LMS system supporting F2F and hybrid classes making faculty teaching online courses to switch systems to access the alerting function. Further, it only sends a maximum of two notices to students per course. This limitation is now under study and should be addressed in the specifications for the new LMS system now under study.

Student course evaluations are important both to the academic administrators and the DL office. Both use them to monitor student perspectives of an online course and faculty responsiveness to student needs. Student evaluations are incorporated into all online courses. Furthermore, the district has new software that sends out four to five reminder emails to students to complete the surveys, because completing the survey is a major problem in the online environment. The DDL stated that since implementing the software, the survey completion rates have risen by 50 to 60% providing administrators with more balanced data to use in these evaluations. Other data sources used to evaluate the online program include course persistence data and grade distributions
over the last three to four years. The DDL compares the data to see if there are any changes in student success rates and makes recommendations to the respective program chairs and deans.

The DDL highlighted the breakout of roles in how the data are interpreted and how decisions are then handled throughout the district. Faculty teaching online are responsible to the DDL for course deployment and student interaction and their program chairs and deans for course discipline, content, student concerns, course loading, sizing and teaching responsibilities. The DDL serves as a consultant, advising the academic administrators of online course issues and trends, and recommending corrective actions where needed. The DDL meets with the academic administrators, discusses problems with faculty, and recommends actions such as sending a faculty member back for refresher training or pulling them from teaching online courses. However, it is the academic administrators who have the final say on actions taken with faculty.

Colleges Strengths and Areas for Improvement in Addressing Student Persistence

When asked if there was one effort that has most impacted student persistence, the DDL pointed out that distance learning has “so many variables” that no one initiative can address the issue of persistence but online education instead requires a multifaceted approach. This is a challenge as more students move to the online environment. The DDL did highlight two areas he felt the college system had the biggest impact on online course persistence. The first was mandatory faculty training and course development program that sets a standard by which all online courses are built and run. This provides students with a consistent course structure built to established standards with trained faculty so as to maximize their online experience.
Moreover, faculty who teach online must demonstrate a level of competency and dedication to teaching in the online environment.

A second area is the district’s emphasis on faculty interacting with their students. The DDL pointed out that this is probably the one most important aspect in student persisting in online courses. To quote the DDL:

The teacher component is critical. I do strongly believe that the more interaction a teacher has with his or her students, the more successful they will be…. the faculty influence is so great, the amount of time they interact with the students, the responsiveness, timeliness, their willingness to design engaging activities. All of that is so crucial to a student's success.

As to areas requiring work, the DDL stated there was a need for more professional development opportunities for faculty teaching online, both for those who have been identified needing more training and those who need refresher and/or updates on course pedagogy and technologies. He stated that this is a problem currently as the demand for training for new online faculty is so great that he does not have the staff to focus on professional development. As for student services, the DDL is constantly seeking to expand the number and availability of services for online students. Three services he mentioned include writing and math labs, and online tutoring. He highlighted that with the growing number of students using the Internet to access class materials and services, these services are increasingly important to both the F2F and online student communities.

Recurring Themes throughout the Interview

From an analysis of the transcript with the DDL, the most prevalent theme was the importance of faculty interaction in keeping students engaged in their online classes and the impact this has on student persistence. The DDL emphasized multiple times
how this forms a critical part of faculty training, online course development and approval, and in follow-on evaluation of online courses and faculty performance. Further, the DDL pointed out that this was an important area he considered when reviewing course data. A second theme that emerged is the support the DL office has from the institution’s senior administration. The DDL stressed how the senior administration have established standards for the online program and given him the authority to make sure they are enforced, even when it may impact the fielding of a course due to improper faculty training. Third, terms used to describe the role of the DDL and the DL office included matrix management, coordinator, consultant, and collaborator. Finally, an observation shared by the DDL in the interview that reflects his perspective on the future of DL education was as follows:

I believe we're now seeing a population of students that this is the preferred learning method for them. They're not taking online classes because it's inconvenient. They're taking online classes because this is how they have grown up their entire life learning. This is how they learn best. And so this is their first choice. And those students tend -- if students have had success learning online, then they're going to be successful in their online classes in college; and so I think those numbers are what is pulling up the retention. I would like to say it's because of better efforts by colleges to do better or better student services. My gut feeling says it's because better -- because of a new population of students coming in, but I think that number of students is going to continue to escalate.

Case Study on Distance Learning at College System D

Overview of the College System

College System D is an urban multi-campus system (6 college campuses and various educational centers) serving a student population of over 40,000 students. The system’s DL program dates back to 1980 with educational television course and now involves a number of media to include cable TV, videotape, videoconferencing, educational TV and web based courses. The district level by the Associate Vice
Chancellor for Instructional Resources and Technology (AVCDL) manages the DL program.

The demographic data in Table 32 indicates that College System D is the most ethnically diverse of the four colleges interviewed in this study with a large minority representation online. Additionally, College System D has a large female presence (68.3%) online. Of note, the largest age range represented online are the traditional student 18 – 24 (46.7%) but presence of mid career student 25-39 year old (42.1%) has a greater representation online than in traditional F2F classes (30.4%). The 25 to 39 year old represent the mid career student seeking to further their education online so as to accommodate work and family obligations.

Table 32

<table>
<thead>
<tr>
<th>Demographic Data</th>
<th>Percent of Total Student Population</th>
<th>Percent of Online Student Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>59%</td>
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<td>Hispanic</td>
<td>26.1%</td>
<td>19.9%</td>
</tr>
<tr>
<td>International</td>
<td>10.1%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Native American</td>
<td>.2%</td>
<td>.3%</td>
</tr>
<tr>
<td>Other</td>
<td>5.2%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Age</td>
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<tr>
<td>Less than 18 years old</td>
<td>7.1%</td>
<td>.5%</td>
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<tr>
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<td>53.4%</td>
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<tr>
<td>30 to 39 years old</td>
<td>14.2%</td>
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<tr>
<td>40 years or older</td>
<td>9%</td>
<td>10.7%</td>
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</table>
Institutional Culture Supportive of Online Programs

Distance learning structure and responsibilities. The AVCDL reports directly to the Vice Chancellor for Instruction and oversees the district's DL program. The AVCDL is tasked with supporting the institution’s faculty, staff, and administrators in training faculty and providing quality online credit and non-credit courses, programs, and services. The DL office staff includes departments for Administration, Student Services, Instructional Support, Technical Support, and Online Tutoring. The DL office is also responsible for overseeing the institution's LMS.

Institutional perspective on online student persistence. The AVCDL pointed out that the college system has placed student success as one of its strategic goals. As a founding member of the Achieving the Dream: Community Colleges Count, a national non-profit initiative to promote student success in community colleges (Chapel Hills, NC, www.achievingthedream.org), the institution is committed to improving student success. To this end the institution has created a Retention Office at the district level to address student persistence in all classes.

The system’s DL program is built around both national and state standards for online programs. The DL program abides by the commitments and practices laid out in the Texas Higher Education Coordination Board Distance Learning Advisory Committee’s “Principles of Good Practice for Academic Degree and Certificate Programs and Credit Courses Offered Electronically” (1999). According to the AVCDL, this provides a framework on which to structure DL practices and initiatives. The institution also follows the national Quality Matters rubric in structuring its course development, faculty training, and course evaluation standards. Both these sources
provide standards and guidelines for online educational programs derived from research and practice.

Finally, the AVCDL highlighted the support the DL office receives from senior administration. The AVCDL has direct access to the Vice Chancellor of Instruction and works closely with the other vice chancellors, and the system colleges’ vice presidents of Instruction, deans and program chairs in coordinating the districts DL program.

Defining online course and student success. The college system defines an online course as one being taught over the internet while a hybrid course is offered 50% online and 50% F2F. The system also has a third category for web enhanced courses where the F2F instructor uses online tools to enhance student learning. Student success in any class in the institution is measured by student course completion with a grade of A, B, or C.

Institutional support of learning management system. College System D supports one LMS for all its courses system-wide be they online, hybrid, or web enhanced. The LMS is hosted remotely by the LMS service provider who handles all technical and equipment issues. The LMS provider supports the system through a 24/7 technical help desk.

Institutional Academic Support of Online Courses

Online course selection, design, and approval process. Selection of courses to move online, scheduling of these classes, and selection of faculty to teach online is the responsibility of the academic administrators at each college campus. Faculty interested in teaching online must first have completed the online teaching certification and must have approval from their respective department chair and dean. Once
approved, the faculty member is given access to the class shell on the LMS and works
with an instructional designer and a web-design/media specialist in developing their
course. The faculty member is also provided preset departmental and discipline
guidelines to use in their course design. Each course shell comes preloaded with
modules containing information and resources for students such as links to the online
library portal and student support services. Additionally, faculty can also find technical
training and support through the institution’s Curriculum Innovation Centers located on
each campus. When the course is complete, it must be approved by the department
chair, the discipline chair, and the instructional designer to ensure the course is
instructionally sound. Once approved, the course is made available in the district
semester schedule. Faculty members are offered a stipend for new course
development but the amount varies depending on if they have developed a new course
or adapted an existing one.

The DL office can take the initiative in selecting and developing courses that
indicate a high demand or are offered in multiple sections each semester. The DL office
submits a call for proposals throughout the college system. Faculty teams of two to
three subject matter experts representing more than one college campus submit their
proposals. The DL office picks the best proposal and assigns the winning team to
create a “master” course. The winning faculty team is awarded a fellowship with a
stipend to develop the course. These teams work with a peer reviewer (a program
chair) from the discipline, an instructional designer, and a web-design/media specialist.
These master courses must meet the institution’s online curriculum standards derived
from the Quality Matters rubric. Once approved, these master courses are made
available for use by all colleges within the institution. When a faculty member wishes to teach one of these classes, the DL office gives him/her access to the course materials and allows the faculty member to customize the course to their teaching style. When the course is ready, the faculty member only needs his/her department chair and dean approval to offer the course.

The AVCDL pointed out that there are numerous advantages to having these master courses. First, they provide a readymade course for faculty throughout the institution to meet student demand. They also save on developmental costs as faculty do not have to create a new course but simply have to customize an existing one, and they ensure that a level of quality is maintained by all faculty members teaching the same course. Further, the master courses also provide district-wide acceptance of the course as all must be reviewed by department chairs, peers, and instructional designers before they are approved. Finally, they allow the institution to rapidly expand course offerings by cutting back on faculty training and development time.

Online course scheduling is handled by the different college campuses in the district. The DL office monitors student demand across the institution and makes recommendations to the respective program chairs and deans to help balance online course offerings. All courses offered by individual colleges are available to all students district-wide.

Faculty selection and training. Selection of faculty to teach online is up to the program chairs and deans at the different campuses. However, any faculty member wishing to teach online must first complete a six module training program to receive the Certification in Instructional Technology (CIT). These modules include an orientation to
distance learning, a module on library technology and copyright literacy, and four modules on managing the LMS. These modules are available both F2F and online, and they are part of the institution’s professional development program in teaching and learning effectiveness. Faculty members completing their first ten modules of professional development receive a basic certificate and a stipend. Consequently, many faculty take the six module CIT even though they are not teaching online to meet their professional development requirements. There is also a CIT course to teach department chairs and deans on how to evaluate online courses.

Faculty online course loading and class sizing. Full time faculty may teach up to 60% of their teaching load with the remaining 40% as F2F. Faculty overloads may be taught online but only after all full-time faculty certified for online instruction have made their required class load. Exceptions to this rule may be approved by the campus deans depending on student demand.

The maximum class size for an online course is set district-wide at 32 students. There are a few exceptions for math and technology courses to allow smaller online class sizes based on lab and equipment requirements. The maximum class size for online classes is based on the size of the average F2F class, and the policy is meant to maintain compatibility in class sizing between online and F2F classes.

Institutional Efforts to Screen and Prepare Online Students

There are no district-wide prerequisites or orientation program for online courses. Academic and technical prerequisites vary by program or course. The only exception is a pilot program designed to promote freshmen student persistence. Students taking this program online have higher developmental English and reading proficiency
requirements than their counterparts in the F2F program. All student enrolled in online courses are required to complete a course specific online orientation. These orientations are developed by the faculty members teaching the class with assistance from the DL instructional designers. The orientation must include a welcome statement, a course syllabus, an introductory orientation to the LMS, information on what to expect in the online environment at the institution, and a form requesting information on the student and his/her technical expertise. This form is reviewed by the DL Student Services in order to identify new students to the online environment or students repeating an online class. These students are then sent an email with links to additional resources and are referred to the online student and tutoring services. Additionally, submission of this online form opens the rest of the course for the student to start and signals the faculty member that the student has completed the orientation and is ready start.

The DL office also offers a number of tutorials and assessments for students new to the online environment. Online students have access to READI (SmarterMeasure) to help them gauge their readiness for the online environment. Additionally, students considering an online course can use special tutorials that give them access to a course on the LMS where they can learn about the online environment. The DL office also offers a Distance Education Student Handbook online to all students containing a comprehensive guide to DL services at the institution.
Institutional Student Support for Online Programs

The AVCDL highlighted the various student support services available to students via the College’s web site. The one he found most exciting is the specialized counseling and student services department dedicated to online students under the supervision of the Counseling Department Chair of DL. This department offers counseling and advising services via email, telephone, in person and Internet based response forms. Services provided include admissions, registration and enrollment, academic preparedness, environmental stresses, career exploration, and academic goal setting. The counseling office uses a specialized database system that manages student requests and tracks their progress throughout their time at the institution. The DL counseling staff reviews this database regularly to identify and help students progress in the online environment.

Technical support for faculty and students is available 24 hours a day and seven days a week through a help desk services outsourced to a web-based help desk service provider. Students and faculty can contact the help desk service either over the Internet or by telephone. The online service provider answers questions where possible or forwards student and faculty concerns to the appropriate college organization or via electronic trouble tickets to the DL office for follow up.

The DL office provides testing services for online courses. The institution uses web-based testing service that helps faculty create and manage secure online exams. Additionally, the DL office coordinates with the different colleges to provide proctored testing services at testing centers in support of online courses. These testing services are available on weekdays and rotate among colleges on weekends.
Online students also have access to the institution’s library system through a specialized web link. This link provides students with information, electronic resources and tutorials in support of their class requirements.

The DL office has created its own web-based tutoring services. This online tutoring service is staffed by faculty from within the college system, and it supports all students, both F2F and online. The tutoring services also include a writing lab.

Institutional Use of Data in Tracking Student Success in Online Courses

The college system has an early alert system that is available to faculty teaching both F2F and online courses. This early alert system was developed originally by the DL office and is now available to all faculty district-wide.

The AVCDL emphasized the importance of data in evaluating student success in online courses. Moreover, as a founding member of the “Achieving the Dream” initiative, the college system is committed to using data effectively in all institutional decision making processes. The AVCDL pointed out that data are collected from a variety of sources each semester is disaggregated by the length of course, subject matter, student success factors (grade distribution, student evaluations, and student completion), and attrition rates. This data then is used to inform decision making processes such as the College’s Freshman Success initiative which tracks ways to improve freshman persistence online in both developmental and freshmen classes. Additionally, faculty/course evaluation are conducted annually using the institution’s Performance Excellence Program’s Online Course Evaluation rubric that informs instructional administrators and the DL office of the effectiveness of online course development and training initiatives. Online course data are then compared to overall
college course performance to identify trouble areas and track progress in programs and pilot projects in place to improve online student success. The AVCDL makes the data available to the program chairs and deans across the system. Where significant discrepancies arise, the AVCDL refers the matter to the Academic Deans Council for discussion and action steps.

The DL office also provides academic administrators with a summary of online course demand at the beginning of every semester so they can take the necessary actions to create new courses or to combine others depending on student demand. This is important as the DL has an overall institutional perspective on online course offerings and helps the different colleges develop a balanced district-wide course schedule.

The Vice Chancellor of Instructions evaluates the AVCDL and the DL office annually using the Administration Program Excellence Program Evaluation. The Vice Chancellor uses this data to measures how well DL administrators are handling the district's online programs. Further, institutional tracking reports measure the progress of ongoing DL instruction and technology projects.

Colleges Strengths and Areas for Improvement in Addressing Student Persistence

The AVCDL identified a number of institutional initiatives he felt were impacting student persistence in online classes including the online early alert system, faculty training program, mandatory online orientations, dedicated distance learning services staff, and improved communication between the different student services organizations throughout the district. Further, he emphasized that the DL office must remain accountable to the institution in terms of transparency. The AVCDL emphasized the
importance of statistical analysis in gathering, interpreting, and using data in molding the various DL initiatives throughout the institution.

As for areas needing further improvement, the AVCDL identified the need for a DL retention specialist to work with the district retention office addressing online student persistence. This is important as the AVCDL recognizes the need for an advocate who can address the unique needs of online students so as to help student succeed in online courses. With 25 to 30% of the College’s student population taking one or more online courses each semester, the AVCDL stressed the importance of addressing student persistence in online programs. Further, that number is growing so the DL office will need to continually consider different possibilities to support students and faculty in online programs.

Recurring Themes throughout the Interview

In analyzing transcript from the interview with the AVPDL and the Counseling Department Chair of Distance Education, a theme that emerged often was the importance of data collection and analysis in decision making processes. Of the four colleges interviewed, College System D referred to the importance of the assessment process the most. The AVCDL identified the variety of data sources used and how decisions are made based on the analysis of the data. College System D was also the only one that identified an assessment process that evaluates the DL office management the online program. A second theme was the importance of having a dedicated student service staff for online students. This was clear in the interview itself when the AVCDL invited the head of the online student support staff to join the conversation. The AVCDL also emphasized the importance of working closely with the
different student service organizations to ensure students have a range of services and resources integrated within the DL program to be successful in their online programs. A third theme emerged from this study is the number of technological solutions used by the College System D in support of the DL program. These include database systems and online services providing counseling, tutoring, testing and help desk support. Some of these were developed by the DL staff like the early alert system and the online tutoring program.

Similarities and Differences Among Case Studies

In reviewing the findings from the four case studies, a number of similarities and differences arise among the college systems and their DL programs. The case studies raise a number of issues each college system is working through that have a bearing on this study.

Similarities between college system Distance Learning Programs

All four college systems have a district-wide DL office overseeing the development and deployment of online courses across their various college campuses. All four DL offices are represented at the district level and report to a vice chancellor or vice president of instruction for the college system, giving them wide visibility and reach throughout their institutions. In general, all DL offices have similar responsibilities including setting online course standards, developing and running faculty training programs for online instruction, providing technical and course support for students and faculty, and serving as the online advocate for support services for students, faculty and staff.
A second similarity among the four college systems is none have a separate online college or organization. Instead, each institution integrates online courses into the rest of their instructional programs with the DL office offering oversight through a matrix management organization structure. The DL program is thus a team effort, bringing together faculty, instructional designers, curriculum coordinators, technical specialists, student services staff, and administrators to implement DL initiatives. An important member of this team mentioned by all four DL administrators is the information systems (IS) staff due to the amount of technology required to support online education. Common terms used by the five administrators interviewed in to describe this role included collaboration, coordination, cooperation, advocacy, and communications.

The lines of responsibility for handling online programs were clearly demarcated in all four colleges among faculty, instructional administrators, and the DL staff. All four DL administrators emphasized the role faculty had in identifying courses to be taught online, leading the development of these courses and participating in a peer review approval process upon its completion. Program chairs’ and deans’ responsibilities included selecting faculty to teach online, approving courses for development, participating in the course approval process, and in evaluating and managing the course and faculty once the course is deployed in the college’s schedule. The DL administrator’s role was to oversee the DL program’s execution district-wide, supply evaluation rubrics and training for the instructional administrators for quality assurance, and advocate for the availability and accessibility of student services for the online student.
All four DL administrators interviewed agreed that a crucial element to the success of their DL initiatives was the support and authority their institution’s senior administrators give them in managing their programs. This support included the adoption an institutional standard for online course development, ensuring all faculty are properly trained, the provision of resources and staff to build the necessary DL support structures, the move to single LMS systems, and the inclusion of the DL program in institutional strategic plans and policies. All four colleges highlighted their use of national and/or standards such as Quality Matters and the Texas Higher Education Coordinating Boards Principles of Good Practice for Academic Degree and Certificate Programs and Credit Courses Offered Electronically (1999) to guide in building their DL programs. These standards were used to build online course development programs, faculty certifications, and course evaluation rubrics. Further, senior administrators in all four college systems had made student persistence a priority, creating retention councils and programs at the institutional level, and including the DL administrators in these initiatives.

A fifth similarity among the four colleges was that all have a development and certification process online courses. In all four cases, the DL office offered course design standards, instructional and technical specialists, and LMS support to aid faculty in developing and certifying their courses. Furthermore, in all four course development programs, the faculty member drove the process be it in the design of a new course or in customization of a master course or template. Moreover, in all four college systems, the final review and approval of an online course required faculty, program chair/dean, and DL instructional staff input to ensure the course was instructionally ready.
Another common theme throughout this study was the need to train and certify faculty for teaching online. This is important as the online environment requires faculty to develop technical skills, adapt to new pedagogical practices used in the online environment, and build in faculty-student interaction that is not required in traditional F2F classroom. The senior leadership at all four institutions seemed to recognize this fact and to give the DL administrators the authority and resources to build and implement faculty certification programs, professional development opportunity, and peer-mentoring programs. Further, faculty certification is required in all institutions before an instructor can develop and/or teach an online course. To quote one of the DL administrators, this provides the institution with faculty who “regardless of whether faculty are going to become stars or not, they have demonstrated a certain level of competence and a certain amount of dedication to getting through.”

Preparing new student for the online environment was a common concern among the five administrators interviewed for the study. All four college systems had some form of online orientation for new students that they felt students should complete before proceeding into their coursework. However, how this orientation was deployed differed as did making it mandatory for all students. All four institutions did provide students additional information and interactive tutorials to help those new to online education learn about the online environment and the college’s LMS. All four institutions subscribe to the READI (SmarterMeasure) assessment service and made it available to students to use in determining their readiness for the online environment. College System C also offered this online tool for faculty new to the online environment and was using it in their faculty training program. Moreover, all agreed that with the
growing use of technology in all class formats these initiatives to prepare and orient online students were now also being used increasingly by students in F2F classes.

An eighth area of agreement among the administrators was the importance of expanding the number and availability of student services to meet the online student’s needs. All four colleges had a number of initiatives ongoing such as online counseling, tutoring, advising, and testing services, dedicated web portals with interactive communications links, and dedicated electronic library resources and information. All offered a technical and course help desk serving both students and faculty. Those help desk services were available 24/7 provided by contractors. Wimba and other online interactive services were mentioned in all colleges offering students and faculty multiple means of communication and collaboration. However, all interviewees mentioned they continued to work with their student services counterparts to identify and expand services to meet the unique requirements of their online communities. Moreover, all recognized that student services offered to online students are increasingly serving both online and F2F communities due to the changing expertise and expectations of all students.

The role of assessment was yet another common theme. All four drew from a variety of data sources to manage their online programs and to track student persistence, a major concern at all four institutions. They all felt it was important to make this data available to both instructional and student services organizations to use in evaluating the effectiveness of online courses, faculty, and student services and their impact on student success. With online student persistence lagging behind that of the F2F students, the DL administrators were all actively seeking new support structures
and student services to help encourage student success in the online environment. All
interviewees agreed that an early alert system was important to help faculty track
student progress in their online classes but the degree of deployment and use of these
systems varied by college.

Finally, all interviewees agreed that there was no one program or process that
can, on its own, improve student persistence online. All agreed that the student
persistence in online environment at community colleges is a complex issue and
requires a systematic approach addressing faculty preparation and interaction, student
preparation for the online environment, availability of student services where and when
the student needs them, course design that incorporates proven design principles, and
developing a pedagogy that best adapts to instruction to distance learning.
Furthermore, these initiatives should be tracked as there is a need for longitudinal data
to properly assess their effectiveness in improving student persistence and success.

Differences between the College System Distance Learning Programs

The four college systems did differ in a number of areas. One way was how they
define online education and how they assess their programs based on these definitions.
All four offered fully online courses, hybrid, and F2F courses supplemented by web or
alternative media. However, how these are defined and how they are accounted for
varied by college. For one, differentiating between hybrid and online courses varied
based on the percent of the course offered online and that offered in F2F class. With
the increasing use of technology in the classroom, these lines are beginning to blur.
Additionally, in the case of College System C, hybrid programs are handled by a
different area, complicating the comparison of DL initiatives. Furthermore, two of the
college’s DL programs include other media like instructional television and two way interactive video. Three of the colleges measure a student successfully completing a course based on a grade of A, B, or C while the fourth college system included a grade of D in their calculation. All four also varied on where to measure student withdrawal. All four had policies that do not allow faculty to withdraw students for non participation but one DL administrator did state that policy was up for review. These differences complicate efforts to compare online programs among colleges and evaluate their effectiveness in addressing student persistence.

Though all college system DL administrators were responsible for the oversight and quality assurance of online programs in their districts, the actual role they played varied by institution. In two of the colleges all course development had to go through the DL office, while in two systems the DL office only provided support. In some colleges, the DL administrator had more direct input on whether an online course was ready to deploy district-wide while in others the DL administrator had little say over the process. In one college system the DL office included a student services staff dedicated to online students, but in another the DL administrator served mostly as a consultant as student services were handled by individual campuses in the system. Another area where the DL administrator’s role varied was in managing the online course schedule. In all colleges, the scheduling was the responsibility of the deans from the various campuses. The role of the DL administrator varied from actively compiling and tracking the schedule for online classes to merely serving as a consultant in the process.
The use of master courses or templates was another area where institutional DL programs varied. In two colleges, the DL administrator had an active role in identifying and developing these courses to meet high student demand and/or provide flexibility and scalability to the college. Both DL administrators agreed that the master courses or templates provided faculty with materials and resources to quickly customize and deploy a course. In the other two colleges, faculty developed their courses and were averse to using a premade course because they feared it would impede their “academic freedom”. This can be an issue as the DL administrators balance their role in ensuring quality assurance among classes, streamlining course development and still maintaining faculty support of these initiatives.

All four institutions defined their programs as faculty driven but diverged on how this was accomplished. One college system relied on committees and councils led by faculty to review and approve all course development and faculty training programs. In another, the whole course development process was left to faculty with the DL office providing little more than support. Another difference was in how the DL administrators gained the approval of the faculty and administrators from the different college campuses in their system. One college system added a step requiring faculty from the course discipline from across the district to approve any new course before proceeding with its development. All colleges used veteran faculty and an instructional administrator as part of the course design process so as to ensure peer review. Two colleges used their master course/template development process to bring together teams of faculty from different campuses to develop courses in order to receive district-wide acceptance.
A fifth area of differences among institutions was the availability of incentives and stipends for faculty to take online training, develop online courses, and teach online. The availability and amount changed by institution based on the degree of development required. In some colleges, making course materials and templates available to the faculty was considered its own compensation. Some of the colleges offered special incentives for faculty to complete the online teaching certification, while others offered the training as part of the faculty member’s required professional development.

Class sizing and the amount of courses a faculty could teach online also varied among the four colleges. Class sizing in three of the four colleges had derived from research into a national standard of 25 students per class. All three DL administrators shared this allowed faculty to build in more faculty-student interaction into their courses. One institution chose a larger class size rationalizing that it was comparable to the average F2F class within the system. This helped maintain equity among faculty teaching loads. All stated that their institutions allowed for smaller class sizes based on discipline requirements such as time and/or equipment intensive labs. In all cases, the deans made the final decision on class size. As to the number of courses faculty are allowed to teach online, the standard appeared to be 60% online and 40% F2F though this varied by college. One administrator mentioned the concern that this limits faculty who excel in teaching online classes and impacts faculty who have tried online teaching and found they do not like it or are more gifted in the F2F classroom. Two of the DL administrators stated that their academic councils and/or retention councils were reviewing this decision at the time of the interview.
Though all five administrators agreed on the importance of tracking online courses to ensure they provide students with a quality education and positively impact student persistence, the type and availability of data varied and was often limited. All four of the DL administrators mentioned their system was either undergoing or had just undergone a major change in data systems. This complicated access to the data they needed for their assessments. Further, each institution measured student withdrawal from online classes at different points and with slightly different criteria; again, this makes it difficult to compare college programs and initiatives. Finally, two DL administrators mentioned the need for more longitudinal data to effectively measure the effectiveness of their initiatives.

Summary

The four case studies provide a number of perspectives into the online programs at college systems with a long history in distance learning. The next and final chapter discusses the both the quantitative and qualitative findings from the study and provides conclusions and recommendations for further research and practice.
CHAPTER 6
SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

This chapter provides a summary of the findings, and the conclusions derived from the study. It proposes a structure for analyzing institutional online programs and offers a number of promising practices in promoting online student persistence. This chapter also provides recommendations for further research and application.

Summary of the Study

This study set out to determine the impact that institutional policies and practices at community and technical colleges in Texas had on online student persistence. Studies show that online courses are the fastest growing area in higher education especially at community colleges (Allen, 2008; ITC 2009). This growth is due to the many advantages online education offers both students and institutions. For one, the flexibility and convenience of online education give students greater access to postsecondary courses, as they can pursue their educational pursuits with their varied life demands such as work, family, and other societal commitments (Dykman, 2008a). This is especially true of community and technical colleges whose student population consists of large number of commuter and nontraditional students (Allen, 2008; Cohen, 2003) with differing educational and career goals (Cohen, 2003; Kember, 1989; Rovai, 2003). For the community college administrators, online education offers a scalable means of meeting growing student enrollments and increasing access to a geographically dispersed student population at lower costs (Allen, 2008; Colms, 2008; Howell, 2003). However, these benefits come at a cost, and this cost is reflected in the
higher attrition rates of online students in community colleges (Aragon, 2008; Carr, 2000; Wild & Ebbers, 2002). These attrition rates are due in part to the large percent of at risk and non-traditional students attending community colleges who are not prepared for the challenges of online education (Cohen, 2003, Diaz, 2002; Horn, 1995; Fikes, 2008). These challenges demand that faculty and the colleges adjust traditional learning methodologies to this new environment (Kember, 1989; Meyer, 2002; Palloff, 2003).

The study addressed three research questions. The first considered the impact institutions have on student persistence. The second question expanded on the first by exploring the role assessment played in driving these policies and practices. Finally, the third research question sought to identify the most effective practices in place to promote student persistence in online courses. The findings were to then provide a comprehensive list of best practices to share with community and technical colleges in Texas.

A review of the literature highlighted the important role institutions play in promoting student persistence (Bean, 1985; Braxton, 2000/2001; Kuh, 2005; Tinto, 1975, 1993). The literature revealed that the institution’s greatest impact is in five major categories: building a culture supportive of online programs with an emphasis on student persistence (Chickering, 1991; Kuh, 2005); screening and preparing students for the online environment (Bean, 1985; Kuh, 2005; Tinto, 1975, 1993); providing academic support mechanisms that guide in the selection, training and empowering of faculty and their courses for the online environment (Astin, 1975, 1993; Bean, 1985, 1993; Kember, 1989; Palloff, 2003; Pascarella, 1980; Tinto, 1975); ensuring student
services are accessible to online students when and where they need them (Kuh, 2005; Meyer, 2002; Oblinger, 2001; Palloff, 2003; Tinto, 1993); and using proper assessment tools to track student progress, evaluate online initiatives, and adapt online programs to promote student persistence (Astin, 1975, 1993; Braxton, 2000-2001; Chickering, 1991; Kuh, 2007; Tinto, 1993). These five categories served as a model that was used to frame the study’s research methods and to analyze the online education programs at community and technical colleges in Texas.

Findings

The theoretical model derived from the literature and used in this study provided an effective framework to address the research questions and identify institutional practices that impact online students. Moreover, this framework helped shed light on a number of successful practices, procedures, and activities for distance learning programs at the community and technical colleges. It also help described the complexity of addressing the online education and pointed to the need for a systematic approach, a point all administrators agreed on in the case studies.

Research Question 1: How do institutional policies and programs in community and technical colleges in Texas impact online course persistence?

Results from the survey and the case studies present a description of online programs at community and technical college in Texas; however, the data to measure the impact of each college’s programs against their student persistence rates and compare institutions was incomplete for this study. Of the 32 respondents to the survey, only 22 provided data with which to do any quantitative analysis. Further, of these 22 only 19 provided a complete data set. Reasons given for the limited or lack of
data included the institution not disaggregating data by online programs, the college transitioning data systems, the data were not easily accessible or located across different parts of the institutions, and the college did not collect data on online programs at the time of the survey. Further, based on answers to the survey, colleges differed on how they defined successful student completion of a course, when and who could initiate online student withdrawals, and what was considered an online course. Additionally, some institutions provided student enrollment while others offered class enrollment numbers. This lack of consistent and reliable data on student demographic and withdrawal rates for online courses made efforts to quantify the institutional impact limited for this study.

Though the study could not quantify the institution’s impact, it did provide a rich description of ongoing or pilot online education initiatives and programs. A summary of the results framed by the theoretical model is as follows:

Institutional culture supportive of online programs. An important finding in the study emphasized by all four case studies was the crucial role an institution’s senior leadership has in establishing a culture that promotes in student persistence. The literature highlights this role as building a positive environment that communicates high expectations and promotes student success (Chickering, 1991; Kuh, 2005). Building this positive environment includes senior leadership’s support for distance learning programs, both in their recognition of the unique requirements of online education teaching and learning, and in their provision of resources, funding, and organizational commitment to their online programs. All four institutions covered in the case studies highlighted the support they received from their senior administrators and emphasized
how important it was to their work. Additionally, all four mentioned an office or committee at the system-level that focused on student persistence for both their online and F2F students.

Both the survey and case study provided extensive information on how institutions developed and fielded distance education programs and their focus on improving student persistence. Of the 32 institutions who responded to the survey, all considered distance education an important aspect of their mission and all were experiencing positive growth in their online programs. All 32 had designated a senior administrator as the distance education advocate for the college and had incorporated distance education in their institutional policies, practices, and administrative structures. Twenty-eight of the 32 institutions offered some form of online degree, certificate or award.

The role and influence of online programs varied at each institution. Some colleges operated from a centralized structure where the system or district office had direct management of online programs while others were decentralized with the district office serving mainly as a consultant. A number of colleges noted that they were following a systematic approach to address student persistence in their online programs. This systematic approach entailed initiatives in all five categories explored by the study. Other colleges identified initiatives and pilot programs but did not have a comprehensive plan.

Organizational, all but one of the surveyed institutions had identified a distance education administrator. The distance education administrator served under the senior instructional administrator at the college system-level yet worked with administrators
from across the institution using a matrix management structure. All four college systems in the qualitative study stated that their institutions had opted not to create a separate distance education college but instead they had integrated online education as part of the existing course management process.

The role of the distance education administrator and his/her office were to set the standards for quality for the online environment for the college. This entailed serving as the institution’s advocate for online education, overseeing the design and fielding of online courses, preparing online faculty, advising instructional administrators on how to evaluate online courses and faculty performance, promoting student services in support of online students, and working with supporting organizations to ensure the online programs received the resources and visibility necessary. The distance education administrators served on major instructional and student services committees and provided advice, information, and support.

Institutional efforts to screen and prepare online students. Preparing students for the online environment was a second major area covered in the study. The literature stresses the importance of freshman orientations in preparing students for the transition to higher education (Bean, 1985; Kuh, 2005; Tinto, 1975, 1993). This preparation includes helping students adapt to technology challenges of the online environment, move from a teacher centric to a learner centric environment, learn how to communicate through various technologies, and develop time management skills to be effective in their courses (Dykman, 2008b; Meyer, 2002; Palloff, 2003). These researchers call for institutions to establish a pre-selection process and course orientation programs to help students develop clear expectations of what they will encounter in their online courses.
and prepare them with the necessary skills to be successful (Aragon, 2008; Milligan, 2008; Liu, 2007; Rovai, 2003; Schuetz, 2005). How best to orient students to the online environment was a concern raised by institutions surveyed; some stated in their comments on best practices that they were developing online orientation programs focused on the distance learning environment to help students develop the skills they need to be successful and to develop realistic expectations of both the college and the online experience. Several institutions listed the use of online tutorials and trial online courses available both before and early in each semester so students could to explore the environment and the LMS before taking an online class. All four of the colleges in the case studies offered web-based assessment tools to help students set realistic expectations for their online experience. Further, some institutions noted that this preparation could expand to include students in hybrid and web enhanced courses because they are exposed to more technology in all their classes. All five college administrators interviewed in the case studies noted that they continue to wrestle with requiring students new to the online environment to complete these orientation sessions before accessing their courses. At the time of the survey, though, few colleges had a mandatory college-wide online orientation. Remediation requirements like reading, math and writing were handled based on course specific requirements. Two colleges were running pilot programs to address freshman student success that require higher reading rates for the online portion of the program. Finally, only 42% of the participating colleges screened for computer literacy. Online education is very technology intensive and the literature identified computer literacy as a major concern in successful engaging
an online course (Palloff, 2003). It appears that most institutions assume their online students are computer literate.

Institutional academic support of online courses. The area mentioned the most in both the surveys and the case studies was how the institution supported the development and deployment of online courses. The literature points out that the online environment offers unique challenges for both faculty and students; these need to be addressed in how courses are designed and presented (Liu, 2007; Maddux, 2004; Milligan, 2008; Palloff, 2003). Preparing faculty for the online environment calls for specialized training in both pedagogy and technology that goes beyond the traditional F2F classroom (Meyer, 2002; Palloff, 2003). In all four case studies and in the majority of the surveyed institutions, faculty selection, training, and certification were important functions of the distance education administrator’s responsibilities.

Online faculty training programs did vary by institution. All four colleges in the case studies noted that their faculty training programs included instruction on the LMS and related technologies, exposure to pedagogical practices for the online environment, use of communication tools for student interaction, and support in structuring online courses to best serve the student’s learning needs. Most institutions included this training as part of the faculty member’s professional development requirements. These classes were open for both faculty preparing for the online environment and those who were curious and might consider teaching online in a future time. One institution used the READI™ (now SmarterMeasure™), a web-based assessment tool (SmarterServices, LLC., www.readi.com), for their faculty to help identify needed skills they would need in adapting to distance education.
A common theme that emerged in both the survey and the case studies was the importance of faculty “driving” the course selection, design, and evaluation process. The degree of faculty involvement varied by institution, but all four of the colleges covered in the case studies emphasized how the important role faculty had in their online course development process. This role included faculty identifying courses to be taught online, leading the course design effort with the support of instructional designers and curriculum specialists, and participating in peer review of courses for approval (new) or recertification. All four institutions in the case studies stressed that the faculty and their instructional administrators (program chairs and deans) were responsible for course selection, deployment, and evaluation. All interviewees agreed that the role of distance education administrator was to providing oversight, advice, and support. They highlighted the importance of faculty “drive” the course design and approval process.

The administrators interviewed in the case studies all agreed on the important role faculty have in integrating online students in a community college. This finding agrees with the research on the student integrative process in an online course (Astin, 1975, 1993; Bean, 1985, 1993; Kember, 1989; Palloff, 2003; Pascarella, 1980; Tinto, 1975). This integration requires greater effort by the online faculty member both in time spent in contacting students in their classes and in learning new technologies on how better to reach the student. Institutions surveyed identified ways in which they promote this interactivity by setting class size limits lower than traditional F2F classes and limiting the number of online classes a faculty can teach a semester to allow faculty more time to dedicate to their students. These colleges also equipped faculty with tools and technologies to facilitate this interaction. The four institutions in the case studies
pointed out how this interaction was included as a primary consideration in course
design and faculty evaluation processes. However, the pressures of rising demand and
shrinking budgets had led some institutions to raise the class sizes and increase online
course loads to meet the increase in student demand for distance education courses.

The incentives offered to online course instruction varied by institution. Meyer
(2002) argued that institutions have a major role in encouraging and preparing faculty
for the online environment. Among the surveyed colleges this encouragement was
often in the form of stipends for faculty development of new courses and for completing
online instruction training. Most of these stipends were limited to full-time faculty, and
most were paid only when the faculty member developed and taught a new course for
the first time.

Online course development was another area in which colleges were actively
addressing student persistence. All four of the college systems in the case studies had
established national and state quality measures as institutional standards for course
design. Three of the four college systems relied on the national quality standards set by
Quality Matters™ (QM) (MarylandOnline, Inc., www.qualitymatters.org) while the fourth
college system used a design standard based on an earlier state standard. Both quality
standards were based on research into effective practices and provide guidance on
both course design and faculty roles in an online course. In all four case studies the
distance education office was responsible for setting the course standards and
providing the support structures to help faculty develop their courses. Most online
course development programs relied on a team effort led by a faculty member(s)
supported by instructional designers, technical specialists, and curriculum experts.
Faculty developing courses were given access to course materials, library resources, and the LMS to develop their course. Some institutions included the course development as part of the faculty training process while others handled it as a separate process.

Formal approval and certification of a course combined peer review (faculty led), instructional administrator approval, and distance education office coordination. One of the interviewed college systems had a formal recertification process every five years in which the online course underwent a review by the college’s online course approving board. All the rest left follow-up evaluation of courses to the instructional administrators at the individual college campus offering the course. In all four case studies, the distance education office provided these administrators with an evaluation rubric based on the college’s accepted online course standard. All also offered instructional administrators training on how to evaluate online courses and the faculty teaching them. Finally, in all cases, the distance learning administrator and her/his office served as consultants as needed.

Two of the four institutions in the case studies used course templates or master courses for faculty interested in teaching new sections of existing certified online courses. These templates or master courses were developed by teams of faculty experts and instructional designers. These courses were approved through a peer review process that included faculty and instructional administrators representing a cross-section of campuses within the college system. The actual review process, though, varied by college system. Once approved, these courses were made available to faculty members who were free to customize them to their unique teaching approach.
without having to go through a new course design process. These courses offer the college scalable options as different faculty can take the same master course, quickly adapt it to their teaching style, and field new course sections to meet student demand without impacting the faculty’s academic freedom. It also saves on developmental costs as faculty do not have to create a new course but simply customize an existing one.

One distance education administrator stated that it provides the college with a means to respond quickly to unforeseen disasters that might impact a college campus by providing F2F faculty an option to quickly move their courses online if needed. The distance education administrators at both these institutions highlighted the advantages of these templates or master courses as they:

- Ensure that all course development and approval is done by faculty and represent a wider perspective both of the discipline and from across the college system instead of the unique teaching approach of one faculty member
- Provide students and faculty with a common course design to help them focus on the course content without the complication of having to learn a new course layout each time they engage an online course
- Provide a readymade course for faculty throughout the institution to meet student demand
- Ensure that a level of quality is maintained by all faculty members teaching the same course as courses are built according to a national proven standard and incorporate the best practices submitted by experienced professionals
- Provide district-wide acceptance of the course as all master courses must be reviewed by department chairs, peers, and instructional designers before they are approved.

Institutional student support for online programs. A fourth area explored by the study was student support services provided by each institution to their online students. The literature points out how important it is to provide students with support services such as library resources, advising and counseling, tutoring, help desks, financial aid services when and where they are needed (Meyer, 2002; Oblinger, 2001; Palloff, 2003) to help them succeed in their course work (Kuh, 2005; Tinto, 1993). All institutions surveyed recognized this need and offered a variety of these services to their students. Many had implemented support service areas through videos, animated tutorials, Internet chat, and/or audio files available to students at all hours of the day and night with follow up notification sent to the appropriate organization the following work day. Some institutions used various third party and LMS hosted services (self-assessment, tutoring, counseling, exam preparation, technical support, and help desk) to offer their online students real-time access. Provision of support services for online students that administrators reported as most effective included online tutoring, counseling and advising, financial aid services, technical and course help desk, and library support. In many cases, these services were accessible through a web site accessible through the institution’s web portal and/or linked into the LMS so students can find and quickly access services they need. Some institutions had dedicated support staff and offices focused on the special needs of the online student. Moreover, all four of the four colleges in the qualitative study had also discovered that with the
increased use of technology in the classroom, the student services considered for the online student were now in demand by the F2F students.

Research Question 2: Use of Assessment Data in Online Program Decision Making

All surveyed colleges identified assessment tools they used in managing their online programs, and all the college administrators interviewed for the case studies noted the importance of data and assessment in managing their instructional programs. The availability and completeness of this data, however, varied by institution. For instance, all of the surveyed colleges tracked student withdrawal rates but less than half recorded why students dropped their online classes. Additionally, as mentioned previously, institutions differed on what they included in their distance learning programs (what is online versus hybrid course), how they defined student success, and how they managed their student withdrawals making it difficult to do comparative studies among colleges. Further, online data were not easily accessible in many colleges surveyed as it was either not disaggregated from the overall college statistics, was held by a different organization within the college system (institutional effectiveness office), or was not tracked at the time of the survey. Three of the four college systems in the case studies were undergoing major data system transitions which further complicated their getting the required data. The distance learning administrators from these colleges were optimistic that the data would be more easily available once the new system was operational.

Surveyed colleges identified a variety of assessment tools used in managing their online courses, such as student course evaluations, student withdrawals, faculty performance evaluation, and enrollment statistics. Colleges interviewed in the case
studies used additional data sources including grade distribution statistics and student services surveys. Surveyed colleges identified key stakeholders how often they accessed this data: academic administrators (97%), faculty (73%), student services (63%), advisors and counselors (57%), distance education office, governing boards (43%), students (20%) and community members (7%). The data were in turn used to manage the distance education programs and to evaluate the effectiveness of online course design and faculty, student persistence, and the distance education administrator and his/her initiatives. Of all the data used, enrollment statistics and faculty availability were the primary data sources to manage the deployment of online courses and course sizing.

About half the colleges had an early warning system to track student progress in online courses. The literature pointed out the importance of having early warning systems and data to track students’ progress through their courses (Astin, 1975, 1993; Braxton, 2000-2001; Chickering, 1991; Kuh, 2007; Tinto, 1993). The case studies revealed that these early warning systems were built into the LMS software and alerted the student via email when he/she failed to achieve a college or faculty established threshold. One of the institutions in the case study also set up the early alert system to also notify counselors so as to render additional assistance and resources in support of the student. The distance learning administrators in all four case studies agreed that the early warning system had been effective in reaching and retaining students who previously would have simply dropped out of the online course.
Research Question 3: Most Effective Practices in Promoting Student Persistence

The results of this study highlight the complexity of meeting the needs of online students in community colleges and the importance of a systematic approach in addressing these in promoting student persistence. The survey results identified many programs, policies, and initiatives ongoing at the participating colleges addressing student persistence. All administrators interviewed for the case studies provided a deeper understanding of how their programs were promoting student persistence through the learning experience in the online environment. Though the data were not available to quantify the impact of these programs and initiatives on student persistence, both the survey results and case studies identify provide a list of institutional policies and practices that colleges administrators found effective in promoting student persistence in online courses. These practices emerge in all five categories of the theoretical framework and help describe the comprehensive nature of distance education programs. The following is a summary of these promising practices:

The institution plays a role in promoting student persistence by establishing a college culture that promotes student success and recognizing distance education as a valid course delivery system. This culture requires that senior administrators who understand of the unique requirements and challenges of online education. It also calls for the institution’s senior administration to commit to providing the necessary support and resources for students, faculty, and staff to build and maintain a comprehensive distance education program dedicated to student persistence. Moreover, distance learning programs and student persistence should be included in the institution’s planning policies, processes, and organizational structures. Furthermore, building an
effective online education program does not require the creation of a separate college or online campus. It was clear in all four case studies that having a distance education advocate empowered to work across the institution was effective in maintaining the quality of the online program while leaving instructional decisions to faculty and instructional administrators.

A second area in which institutions play a major role in promoting student persistence is in providing courses that meet quality standards taught by faculty trained and equipped for the online environment. This entails selecting faculty who are willing to teach online, preparing them with the pedagogy and technical skills they need, equipping them with the technological means required for their course, and certifying them to teach online. It also includes establishing a process to design and certify distance education courses. Key to this process is establishing quality standards built on educational research and practice. These standards should then serve as the foundation for faculty training programs, course design, and assessment measures used in evaluating faculty and certifying online courses. Additionally, institutions can promote faculty-student interaction in online courses through the use of interactive technologies, course design, and proper training. Institutions can also encourage this interaction by how they size online classes and how they configure the course load they assign to faculty. In all four case studies, faculty “drove” this process in selecting, developing and certifying online courses. The distance education staff’s role is to provide the course design support, course and teaching quality standards, and resources to aid faculty in this process. The greater the role faculty had in the process,
the more supportive they were of the program and better informed on how to reach students in the online courses.

A third area in which institutions impact student persistence online is in preparing them for the online environment. The preparation includes helping students develop the technical and personal skills they need to be effective online, and working with them to gain a realistic expectation of what will be required of them in their courses. Numerous initiatives surfaced from the study on how institutions are preparing students through online orientations, web based assessment tools, practice course shells, advising, and other prerequisites. Providing this support helps students make informed decisions in selecting online courses and frees faculty to teach instead of having to train students who are not ready for the challenges of the online environment.

The literature highlights the importance of student services in promoting student persistence in their classes. This support includes access to services such as tutoring, counseling and advising, financial aid, library services, course and technical help desks, and student activities. For the online student, they need to access these services where and when they engage their courses. The study highlighted a number of innovative approaches taken by participating colleges to make these services more accessible to the online student by using commercial service providers, animated tutorials, videos, varied communications systems (Internet chat, email, web links), and message systems. There were a few institutions that had an established support staff dedicated to online students that were having a positive impact in improving student persistence. College systems in the case studies pointed out that the support services developed for
distance education programs were increasingly in demand by the F2F and hybrid course student.

Tracking the right assessment data and providing it for stakeholders for decision making in the online process was a major goal of institution in addressing student persistence. Participants in both the survey and the case studies identified a number of valuable assessment tools they used such as student evaluations and satisfaction surveys, faculty evaluations, grade distributions, retention and withdrawal rates for both online and F2F classes so as to compare the effectiveness of faculty, course design and online program initiatives. Early warning systems embedded within the LMS was yet another data system to notify faculty, counselors, advisors and service personnel when students missed key course milestones in order to send out the needed support and make the necessary contacts with the student before he/she drops out.

Lessons Learned in Methodology

A number of lessons were learned in implementing the survey instrument. First was in how to increase survey response rate. In the interviews various administrators shared they receive numerous surveys weekly by non-profit, college, government, and business organizations, and reply when they have the time or find the survey of value to their organization. An approach that would have been helpful in providing more credibility to the survey request would be to seek the endorsement of a distance education professional organization such as the Texas Association Community College (TACC), Texas Community College Instructional Administrators (TCCIA) and/or the Texas Distance Learning Association (TX DLA). Endorsement by a professional
A second lesson learned was how the letter of introduction and paper survey elicited the most complete responses versus the electronic form. Sending a paper copy in advance allowed administrators to read and evaluate surveys in advance and select who best could answer the questions. As administrators receive so many survey requests both electronically and by mail, a paper copy allowed them to determine the validity of this survey and of the request and to determine who best to route the survey to ensure a better, more comprehensive response.

Another lesson learned in the survey distribution process was the need to take into account the administrative delays in routing a survey through a community college. By sending an advance letter, the senior administrators were aware the survey was coming but even that led to delays in their processing the request, if they processed it at all. Based on conversations with survey participants, this processing time took up to two weeks for some of the surveys based on conversations and/or replies by the survey participants. Additionally, addressing emails to senior administrators using a distribution list was a problem as college spam filters can slow or stop emails with multiple addresses. This may have been the problem with the first follow-up email. The list of email addresses were split into smaller groupings which helped correct for this problem in second and third emails which yielded better responses. However, the length of email address listings must be taken into account as spam becomes more prevalent and the number of online survey requests increase.
Addressing the survey to multi-campus institutions proved a challenge. Community college systems in Texas vary structurally from centrally managed to loosely associated colleges campuses within a district. The Texas Association of Community Colleges listing used to mail the surveys reflected this as some college systems listed all their college campus separately while others only provided the address to the district office. Additionally, in two of the college systems, the district office and the college campus responded to the survey, one responding for the college system and the other for the campus. Further, identifying what administrator responded to the survey within each college system also proved a challenge. In some systems, the various college campus administrators replied to survey requests, while others were referred to as the distance education administrator/office. The diversity in identifying the correct office to provide the statistical data proved problematic as the survey responses ranged from data provided by individual campuses to district-wide data supplied by the college system’s institutional research office. Future studies need to be more specific in stating at what level of a college system to request the data.

Another lesson learned was the difficulty of fielding a multi-part survey. The survey in this study was divided into two sections, the first intended for the academic administrator over the college’s online programs, and a second requesting data. The two sections were designed so they could be answered separately they could be routed to the office(s) that had best access to the data requested. In analyzing the return rates, the highest response rate was for the first part of the survey as the targeted administrators had the information at their disposal. The response rate for Section II was much lower as it requested data that many administrators did not have readily
available. This meant they would have had to coordinate with other parts of the college to access the data. This caused delays in returning the survey, and in some cases non-responses, as participating administrators either did not have time or the interest in doing the additional research and coordination in finding the data requested in the second part of the survey.

Conclusions

This study set out to determine the impact community colleges institutional policies and practices have on online student persistence. The literature fully supports the role institutions play in setting a culture that promotes student persistence. Moreover, the study described the institution’s role in addressing online education and student persistence as a comprehensive task involving academic, student support, and institutional programs. Of special note was the importance of assessment mechanisms to track student progress through an online course and to evaluate the effectiveness of college programs in supporting and encouraging students along the way. However, the type, availability, and use of these assessment mechanisms varied by college system. The study found that colleges systems differed in how they defined and tracked student attrition and persistence. These differences made evaluating programs within colleges and comparing them with other institutions difficult for me and for many of the surveyed administrators.

The study also sought to provide a list of “best practices” to share with community and technical colleges in Texas. The lack of data made it difficult for to quantify the effectiveness of the finding of this study. However, the results from the survey and the case studies provide a detailed perspective of institutional practices that
individual college administrators identified as effective in stemming student attrition and working towards promoting persistence in their online programs.

The study offers a theoretical model to explore the complex nature of providing support for online programs and in addressing student persistence. The model served as a framework to explore institutional policies and practices as they address the complexity of online programs. The model offers community colleges a way to study their efforts in supporting online programs and addressing student persistence.

Limitations of the Study

Though the response rate to the survey included representation from 24 of the 51 public two-year community and technical college systems, the lack of consistent student withdrawal data to use in comparing the college online programs limited the study’s ability to access a quantitative measure of their impact on student persistence. As college differ on how they define and measure student attrition, withdrawal data alone is not enough to measure student persistence. Instead, the data collection would need to include student course grades and the college's parameters for student successfully completing the course. Another limitation was that the data collected in the survey were self-reported by senior administrators, lending a degree of subjectivity to the results. The literature review provided a theoretical framework to analyze the survey results and the qualitative case studies helped confirm many of the responses and provided more depth into distance education programs in four institutions. Though the study did not confirm the effectiveness of a specific online programs or policies, it did document a list of practices identified by the college systems surveyed and those interviewed that show promise in promoting student persistence in their online courses.
Recommendations for Research

The lack of consistent data from the various institutions studied made assessing college distance learning initiatives difficult at this time. Though a standard data set has been established by the federal and state governments, and accrediting bodies to evaluate overall college instructional programs and student persistence, these standards are still lacking for online programs. An area for future research is to identify and recommend a set of common metrics to assess student persistence in online courses for use in community and technical colleges. This research could entail working with a state wide professional organization and/or state agency to standardize and extract data for future studies. As the demand for online programs grows along with the call for greater accountability of colleges, it is important for college administrators to have a common set of assessment tools to evaluate their programs and benchmark them against other colleges within the state and the nation.

In the process of this study, institutions emphasized problems accessing data on their online students and programs. All institutions surveyed highlighted their interest in accessing this type of data but most stressed their frustration in getting the data in a form that would support their online programs. Recognizing this problem, another area for future study would involve a meta-analysis of the research ongoing within individual college systems, where the researcher is part of the institution and has the necessary access to the institution’s data.

The theoretical model that emerged in this study from the literature review provides a systematic framework that addresses the complexity of online educational programs that promote student persistence. This framework can be used by community
colleges to explore their institutional policies and practices to better understand their impact on student persistence in the online environment. A recommendation for further study is to explore the five individual categories in more detail using both quantitative and qualitative methods so as to assess the impact each has on student persistence and what an institution can do to be more effective in structuring their online programs.

Recommendations for Practice

Improving student persistence in online courses in community colleges is a complex issue that requires a systematic approach involving a wide cross section of the institution. College systems should take this into account in institutional planning for their distance education programs to ensure they address the various areas and stakeholders involved in fielding online programs with an emphasis on promoting student success. This plan should address how the college will select, prepare, and support students and faculty for the unique challenges of the online environment. This comprehensive planning process can help the institution identify the various programs and initiatives it has in place in support of online education as well as highlight areas it needs to address. This planning process can also serve to help educate administrators about the issues and guide the institution in structuring a comprehensive effort that will serve online students and faculty.

The survey identified differences in definitions and measures used by community colleges in accessing their online programs and student persistence. To identify and quantify the effectiveness of online education, a common set of definitions, standards, and metrics is essential for community college administrators to use in tracking trends within their online programs. Further, the data could also be used in benchmarking
college distance education programs against those in the state and the nation to better evaluate program performance.

Closing Remarks

Institutions play an important role in creating a supportive college culture and building comprehensive programs to address student persistence. With the rapid growth in demand for online education, it is important for community and technical colleges to recognize their role in promoting student persistence. Though the data was not available to confirm the findings, the study offers a list of promising initiatives identified by senior academic administrators as their “best practices”. The study also offers a theoretical model that can be used in community colleges to address the comprehensive needs of students in online programs and how they impact student persistence.
APPENDIX A

PUBLIC COMMUNITY COLLEGE DISTRICTS IN TEXAS, 2009
<table>
<thead>
<tr>
<th>College</th>
<th>Address</th>
<th>City</th>
<th>Zip</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALAMO COLLEGES</td>
<td>201 West Sheridan</td>
<td>San Antonio</td>
<td>78204-1429</td>
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<tr>
<td>Northeast Lakeview College</td>
<td>1201 Kitty Hawk Road</td>
<td>Universal City</td>
<td>78148</td>
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<td>NorthWest Vista College</td>
<td>3535 North Ellison</td>
<td>San Antonio</td>
<td>78251</td>
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<td>Palo Alto College</td>
<td>1400 West Villaret</td>
<td>San Antonio</td>
<td>78224</td>
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<tr>
<td>San Antonio College</td>
<td>1300 San Pedro Avenue</td>
<td>San Antonio</td>
<td>78212</td>
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<tr>
<td>St. Philip's College</td>
<td>1801 Martin Luther King</td>
<td>San Antonio</td>
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<td>ALVIN COMMUNITY COLLEGE</td>
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<td>AMARILLO COLLEGE</td>
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<td>AUSTIN COMMUNITY COLLEGE</td>
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<td>Austin</td>
<td>78752</td>
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<td>BLINN COLLEGE</td>
<td>902 College Avenue</td>
<td>Brenham</td>
<td>77833</td>
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<td>BRAZOSPORT COLLEGE</td>
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<td>Lake Jackson</td>
<td>77566</td>
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<td>1200 Amburn Road</td>
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<td>LONE STAR COLLEGE SYSTEM</td>
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Lone Star College-Montgomery
3200 College Park Drive
Conroe, Texas 77384

RANGER COLLEGE
College Circle
Ranger, Texas 76470

Lone Star College-North Harris
2700 W. W. Thorne Drive
Houston, Texas 77073

SAN JACINTO COLLEGE
4624 Fairmont Parkway
Pasadena, Texas 77694

Lone Star College-Tomball
30555 Tomball Parkway
Tomball, Texas 77375-4036

Central Campus
8060 Spencer Highway
Pasadena, Texas 77695

MCLENNAN COMMUNITY COLLEGE
1400 College Drive
Waco, Texas 76708

North Campus
5800 Uvalde Street
Houston, Texas 77049

MIDLAND COLLEGE
3600 North Garfield
Midland, Texas 79705

South Campus
13735 Beamer Road
Houston, Texas 77089

NAVARRO COLLEGE
3200 West 7th Avenue
Corsicana, Texas 75110

SOUTH PLAINS COLLEGE
1401 College Avenue
Levelland, Texas 79336

NORTH CENTRAL TEXAS COLLEGE
1525 West California Street
Gainesville, Texas 76240

SOUTH TEXAS COLLEGE
P.O. Box 9701
McAllen, Texas 78692-9701

NORTHEAST TEXAS COMMUNITY COLLEGE
P.O. Box 1307
Mt. Pleasant, Texas 75456-1307

SOUTHWEST TEXAS JUNIOR COLLEGE
Garner Field Road
Uvalde, Texas 78801

ODESSA COLLEGE
201 West University
Odessa, Texas 79764

TARRANT COUNTY COLLEGE
1690 Houston Street
Fort Worth, Texas 76102

PANOLA COLLEGE
1109 West Panola Street
Carthage, Texas 75633

Northeast Campus
828 Harwood Road
Hurst, Texas 76054

PARIS JUNIOR COLLEGE
2400 Clarksville Street
Paris, Texas 75460-6298

Northwest Campus
4801 Marine Creek Parkway
Fort Worth, Texas 76179
South Campus
5301 Campus Drive
Fort Worth, Texas 76119

Southeast Campus
2100 Southeast Parkway
Arlington, Texas 76018

TEMPLE COLLEGE
2600 South First Street
Temple, Texas 76694-7435

TEXARKANA COLLEGE
2690 N. Robison Road
Texarkana, Texas 75599

TEXAS SOUTHWEST COLLEGE
80 Fort Brown
Brownsville, Texas 78520

TRINITY VALLEY COMMUNITY COLLEGE
100 Cardinal Drive
Athens, Texas 75751

TYLER JUNIOR COLLEGE
P.O. Box 9020
Tyler, Texas 75711

VERNON COLLEGE
4400 College Drive
Vernon, Texas 76384-4092

(V)ICTORIA COLLEGE
2200 E. Red River
Victoria, Texas 77901

WEATHERFORD COLLEGE
225 College Park Dr.
Weatherford, Texas 76086

WESTERN TEXAS COLLEGE
6200 South College Avenue
Snyder, Texas 79549

WHARTON COUNTY JUNIOR COLLEGE
911 Boling Highway
Wharton, Texas 77488

TEXAS STATE TECHNICAL COLLEGE SYSTEM
3801 Campus Dr.
Waco TX 76705

Texas State Technical College
Waco
3801 Campus Dr.
Waco TX 76705

Texas State Technical College
West Texas
650 E. Hwy 80
Abilene TX 79601

Texas State Technical College
Harlingen
1902 Loop 499
Harlingen TX 78550

Texas State Technical College
Marshall
2400 East End Blvd., South
Marshall TX 75672
APPENDIX B

INTRODUCTORY LETTER TO THE SURVEY FOR SENIOR ACADEMIC OFFICERS AT EACH COLLEGE
(Date)

(Senior Academic Officer’s Name and Address)

Dear (insert actual name)

I am a candidate for the PhD at the University of North Texas. I am conducting a study of the role institutions play in student retention and promoting student persistence in online courses. The study will use a questionnaire to better understand the different programs and processes used in community colleges in Texas in addressing online student retention with the aim of highlighting best practices so as to improve student persistence and success rates in this rapidly growing area.

The survey consists of three sections. The first consists of a series of questions on your institutional practices in support of online education and will only take 10 to 15 minutes to complete. The second section requests statistical data and, though not lengthy or in-depth, it requests that data they may take someone with working access to your institutional database to complete. It is set so you may forward it to your institutional research office to expedite the completion of the process. The last section is a contact card will be enclosed so you can designate a contact point should there be any questions with the data in your institution’s submission and spare you further follow up contacts for your participation. It will also indicate your desire for an executive summary of the results.

The questionnaire should arrive at your institution in the next week. Completion of the survey is voluntary and you may discontinue participation at any time. I would greatly appreciate your completing the questionnaire by February 20. It is structured so you can respond electronically or by returning the paper copy of the survey in the enclosed stamped and addressed envelope.

Confidentiality of this survey will be maintained. It has been designed to so individual institutional information and contributions will remain anonymous in the analysis and presentation of the study findings. If you have questions concerning this research project, you may contact me, Fred Hills (University of North Texas Doctoral Candidate) or Dr. Marc Cutright, University of North Texas Dissertation
Committee Chair. This project has been reviewed and approved by the University of North Texas Committee for the Protection of Human Subjects (940) 565-3940.

Thank you for your participation and helping me with the valuable research opportunity.

Sincerely,

Fred W. Hills
PhD Candidate
University of North Texas
APPENDIX C

INTRODUCTORY LETTER TO THE SURVEY FOR COLLEGE DISTRICT ACADEMIC OFFICERS
Dear (insert actual name)

I am a candidate for the PhD at the University of North Texas. I am conducting a study of the role institutions play in student retention and promoting student persistence in online courses. The study will use a questionnaire to better understand the different programs and processes used in community colleges in Texas in addressing online student retention with the aim of highlighting best practices so as to improve student persistence and success rates in this rapidly growing area. I am sending an invitation letter and a survey package to all the chief academic officers at public community and technical colleges in Texas to include those colleges in your district. I will also forward an informational package to your office for your review.

The survey consists of three sections. The first consists of a series of questions on your institutional practices in support of online education and will only take 10 to 15 minutes to complete. The second section requests statistical data and, though not lengthy or in-depth, it requests that data they may take someone with working access to your institutional database to complete. It is set so you may forward it to your institutional research office to expedite the completion of the process. The last section is a contact card will be enclosed so you can designate a contact point should there be any questions with the data in your institution’s submission and spare you further follow up contacts for your participation. It will also indicate your desire for an executive summary of the results.

The questionnaire is should arrive at your institution in the next week. Completion of the survey by participating colleges is voluntary and they may discontinue participation at any time. I would greatly appreciate the completion of the questionnaire by February 20. It is structured so participants can respond electronically or return the paper copy of the survey in the enclosed stamped and addressed envelope.

Confidentiality of this survey will be maintained. It has been designed so individual institutional information and contributions will remain anonymous in the analysis and presentation of the study findings. If you have questions concerning this research project, you may contact me, Fred Hills (University of North Texas Doctoral Candidate) or Dr. Marc Cutright, University of North Texas Dissertation
Committee Chair. This project has been reviewed and approved by the University of North Texas Committee for the Protection of Human Subjects (940) 565-3940.

Thank you for your participation and helping me with the valuable research opportunity.

Sincerely,

Fred W. Hills  
PhD Candidate  
University of North Texas
Dear (insert actual name),

In a few days you will be receiving a questionnaire from Fred Hills, doctoral candidate at the University of North Texas. As chair of Mr. Hills' dissertation committee and a faculty member of the University of North Texas, I ask that you participate in this important research. Doctoral candidate Hills will be sending you an anonymous survey that will adhere to the strictest guidelines of confidentiality. This survey should only take a few minutes of your time and a postage paid envelop will be included.

Again, thank you in advance for your participation in this important study.

Sincerely,

Marc Cutright. EdD
Associate Professor of Higher Education
University of North Texas
APPENDIX E

SURVEY PACKAGE INTRODUCTORY LETTER
Dear (insert actual name)

Please find attached the survey I mentioned in my introduction letter sent last week. I am a Doctoral Candidate at the University of North Texas and I'm conducting this survey to study the impact institutional practices have on online student retention in Texas two-year public community and technical colleges. This survey is directed to senior administrators overseeing online education at each institution. The goal of this study is to identify the most effective practices used in promoting online student persistence to share with all colleges within Texas. Your input is very important to this study.

The survey package contains an Informed Consent Form from the University of North Texas explaining the survey and your rights as a participant. The survey instrument itself consists of two sections. The first addresses your institution's policies, administrative processes, support structures and assessment mechanisms in support of online education programs. The second section requests specific retention and demographic data to be used in correlating the survey findings to retention as well as in comparing the results with other public two-year community colleges in Texas. The first section of the survey should take 10 to 15 minutes to complete depending on the depth of your response to the questions. The second section is short but may require more time depending on the availability of the data. Your institutional research office should have the data requested. Finally, the packet includes a card on which to list a point of contact at your institution that I can contact to follow up on your institution's response as well as request additional information in completion of this survey.

The survey can be completed either by filling out the enclosed paper survey or via an electronic version over the Internet. If you opt for the paper version, please enclose both sections of the survey in the self-addressed envelope and mail it to me. If you choose the electronic option, the link to the survey is: Section I at Xxxxxxxx and Section II at Xxxxxxxx. In either case, please return the Point of Contact card in the envelope provided. I request you complete the survey and mail back the materials by February 26.
To maintain confidentiality of participating colleges, I have assigned a randomly generated control number for each institution. Please use the following four digit identifier on your survey so as to maintain the anonymity of your reply.

XXXX

Thank you for taking the time in participating in this study and completing this survey.

Fred Hills  
PhD Candidate

4 - Enclosures:  
1 – Informed Consent Form from the University of North Texas Institutional Research Board  
2 – Survey Instrument  
3 – Institutional Point of Contact card  
4 – Prepaid return envelope
APPENDIX F

SURVEY PACKAGE
Survey of Institutional Role in Student Retention in Online Courses

UNIVERSITY OF NORTH TEXAS

Program in Higher Education

This survey is conducted by Fred Hills, Doctoral Candidate at the University of North Texas. Please return the completed survey and the contact card by **February 26** in the enclosed addressed envelope to:

Fred Hills  
PhD Candidate

Thank you for your participation.
Title of Study: Tackling Online Course Attrition in Community Colleges: Developing an Institutional Model for Best Practices.

Principal Investigator: Fred Hills, PhD student at the University of North Texas (UNT) Department of Higher Education.

Purpose of the Study: You are being asked to participate in a research study of the role institutions play in student retention and promoting student persistence in online courses. The study will seek to better understand the different programs and processes used in community colleges in Texas in addressing online student retention. The aim of the study is to recommend a model a best practice model to improve student persistence and success rates in this rapidly growing area.

Study Procedures: You will be asked to complete a survey. The survey consists of two sections. The first consists of a series of questions on your institutional practices in support of online education and will only take 10 to 15 minutes to complete. The second section requests statistical data and, though not lengthy or in-depth, it requests data that may take someone with working access to your institutional database to complete. The survey can be completed either by filing out the enclosed paper survey or electronically. If you opt for the paper version, please enclose both sections of the survey in the self addressed envelope and mail it to the survey administrator. If you choose the electronic option, the links to the survey are: XXXXXXXX for Section I and XXXXXXXX for Section II.

Foreseeable Risks: There are no foreseeable risks are involved in this study.

Benefits to the Subjects or Others: We expect the project to benefit you by recommending a model of best practices to improve course retention and promoting greater persistence of online students at your and other community colleges across Texas.

Compensation for Participants: You will receive a full report of the final results of this study that will be shared with all participating colleges. It will identify trends among institutional practices, how they correlate to student retention, and the recommended model of best practices

Procedures for Maintaining Confidentiality of Research Records
Confidentiality of this survey will be maintained. It has been designed so
individual institutional information and contributions will remain anonymous in the analysis and presentation of the study findings. The confidentiality of your individual information will be maintained in any publications or presentations regarding this study.

**Questions about the Study:** If you have questions concerning this research project, you may contact me, Fred Hills (University of North Texas Doctoral Candidate) at or Dr. Marc Cutright, University of North Texas Dissertation Committee Chair.

**Review for the Protection of Participants:** This research project has been reviewed and approved by the UNT Institutional Review Board (940-565-3940). Contact the UNT IRB with any questions regarding your rights as a research subject.

**Research Participants’ Rights:** Before proceeding, please make sure that you have read or and confirm all of the following:

Fred Hills has explained the study to you and answered all of your questions. You have been told the possible benefits and the potential risks and/or discomforts of the study.

You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.

You understand why the study is being conducted and how it will be performed.

You understand your rights as a research participant and you voluntarily consent to participate in this study.

You have been told you will receive a copy of this form.

You may keep a copy of this form for your records.
Survey Package

Survey Package to consist of introductory letter, instructions, and survey instrument.

Survey of Institutional Role in Student Retention in Online Courses

UNIVERSITY OF NORTH TEXAS

Program in Higher Education

This survey is conducted by Fred Hills, Doctoral Candidate at the University of North Texas. Please return the completed survey by February 20 in the enclosed addressed envelope to:

Fred Hills
PhD Candidate

Thank you for your participation.
Survey of Institutional Role in Student Retention in Online Courses

Instructions:

Thank you for taking the time to complete this research survey on the role of community colleges in increasing student persistence in online courses. The survey has been sent to all public community colleges in Texas and is directed to administrators involved in overseeing online education.

For the purpose of this survey an online course is one in which the instructor, course material and student are separated by time and place, and 80% or more of the course takes place over the Internet through a web site or web-based learning management system (LMS) such as Blackboard®, Moodle™, etc. Traditional classes are denoted as being “face-to-face” (F2F) to differentiate them from online courses throughout the survey. Hybrid or blended class formats will not be considered in this survey as part of the instruction is in class and the survey’s focus is on the online instruction.

The survey itself consists of two sections. The first consists of seven subsections, six that address your institution’s policies, administrative processes, support structures and assessment mechanisms in support of online education programs, and a seventh that offers you an opportunity to identify your own institution’s successful practices. The section requests specific retention and demographic data to be used in correlating the survey findings to retention as well as in comparing the results with other public two-year community colleges in Texas. The first section of the survey should take 15 minutes to complete depending on the depth of your response to the questions. The second section is short but may require longer depending on the availability of the data. Your institutional research office should have the data requested.

The survey can be completed either by filling out the enclosed paper survey or the electronic version. If you opt for the paper version, please enclose both sections of the survey in the self-addressed envelope and mail it to the survey administrator. If you choose the electronic option, the link to the survey is at: XXXXXXXX.

Your responses will be correlated with other community colleges in Texas in an effort to compare and contrast different institutional approaches and how they impact online student retention. Ultimately, the goal of this study is to identify the most effective practices used in promoting online student persistence to share with all colleges within Texas. Therefore, any information you provide is appreciated. The final results of this study will be shared with all participating colleges.

Confidentiality is very important and will be strictly followed. All findings from this survey will be addressed in general terms and results will be reported without mention of college system, institution, or administrator. Further the results of the survey will not provide any other descriptor that would allow anyone to identify a specific respondent unless previously agreed upon between an institution and the survey administrator.
Thank you in advance for your participation.
Section I. Institutional Programs in Support of Online Education

Instructions:

This survey is the first of two sections. This section consists of seven subsections. The first six address your institution’s policies, administrative processes, support structures and assessment mechanisms in support of online education programs. The seventh subsection offers you an opportunity to share your institution’s most effective practices in promoting student retention. This first section is designed to be completed in 15 minutes.

For the purpose of this survey an online course is one in which the instructor, course material and student are separated by time and place, and 80% or more of the course takes place over the Internet through a web site or web-based learning management system (LMS) such as Blackboard®, Moodle™, etc. Traditional classes are denoted as being “face-to-face” (F2F) to differentiate them from online courses throughout the survey. Hybrid or blended class formats will not be considered in this survey as part of the instruction is in class and the survey’s focus is on the online instruction.

Please mark your answers with either a check mark or ‘X’ in the boxes provided with every questions. When you are done, please put both sections of the survey into the enclosed postage paid envelop along with the Point of Contact card and put it in the mail.

Thank you for your participation in this survey.

Please enter your four digit identifier provided for you in the cover letter. This will be used to track your response while maintaining the confidentiality of your reply:
A. Defining Student Success and Retention in Online Courses.

1. When did your college start its online program?
   - Before 1990
   - 1990 to 1994
   - 1995 to 1999
   - 2000 to 2004
   - 2004 to the Present
   - Do not have an online program at this time

2. Does your institution offer certificates/degrees that are fully online? (Choose all that apply)
   - Online certificate(s)
   - Online associate degree(s)
   - Online marketable skill award(s)
   - No fully online certificate and/or degree offered
   - Other: __________________________

3. How do you define student success in an online course? (Choose the one that most applies)
   - Student completing an online course with a grade of A, B or C
   - Student completing an online course with a grade of A, B, C or D
   - Student completing an online course with any grade
   - Other: __________________________

4. Is this the same criteria for defining student success for face-to-face (F2F) courses?
   - Yes
   - No  If No, what is the difference? __________________________

5. Which of the following actions would result in a student being withdrawn from an online course? (Choose the one that most applies)
   - Failure to present any work in the class over a specified period of time (i.e., three weeks)
   - Failure to participate in a course’s collaborative assignment(s) over a specified period of time (chat, discussion forum, email, etc.)
   - Failure to contact the instructor over a specified period of time
   - Decision left to individual instructor
   - No policy in place
   - Other: __________________________
6. At what point is a student withdrawal counted against a class retention rate? (Choose the one that most applies)
- □ After the first day of class
- □ After the official census date
- □ After census date but before the 60% completion date of the class
- □ After census date through the end of the class
- □ Other: ______________________

B. Institutional Policies & Practices in Support of Online Education

1. How much do you agree or disagree with the following statements?  

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<th>Strongly Agree</th>
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<td>Student retention is an important factor in institutional decision making</td>
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<td>Online education is less rigorous than F2F formats</td>
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<td>Faculty teaching online courses put in more effort than those teaching in F2F formats</td>
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2. What policies do you have in place in support of online education at your institution? (Choose all that apply)
- □ Strategic plan for online education programs
- □ Institutional policy on the development, implementation, and execution of online programs
- □ Institutional administrative structure in support of online programs
- □ Course approval and review process for online courses and degrees
- □ Faculty selection and training/certification requirements to teach online
- □ Technology requirements for online programs (i.e., required use of an LMS like Blackboard)
- □ Course development certification and standards for online programs
- □ Required assessment standards and data collection processes for online programs
- □ Other: ______________________
Survey of Institutional Role in Student Retention in Online Courses

3. What level administrator heads the institution’s online education program?
(Choose the one that most applies)
☐ District Assistant Chancellor
☐ Vice President
☐ Assistant to the Chief Academic Officer
☐ Dean
☐ Assistant to the Dean
☐ Director
☐ Program Director or Coordinator
☐ No designated online program administrator
☐ Other: _____________________

C. Student Selection, Preparation and Expectations for Online Programs

1. What prerequisites, if any, must first-time online students fulfill before being allowed to take an online class? (Choose the column option that most applies for each row)

<table>
<thead>
<tr>
<th>Prerequisite</th>
<th>Campus Wide</th>
<th>Course Specific</th>
<th>Optional</th>
<th>Not Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Reading Proficiency</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>College Math Proficiency</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>College Writing Proficiency</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Computer literacy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Student must have completed a college semester before taking an online course</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>College Orientation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Online Course Orientation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Technical proficiency exam</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Advisor permission</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other: _____________________</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
D. Academic Support for Online Programs

1. How many online courses are faculty allowed to teach each semester? (Choose the one that most applies)

<table>
<thead>
<tr>
<th>Online Course Maximum Load</th>
<th>Full-time faculty</th>
<th>Adjunct faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>One to two courses per semester</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Two to four courses per semester</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Full load online</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Overload only</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>No specific rule in place</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Other: _______________________________</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

2. What incentives are offered to faculty to teach online? (Choose all that apply).

<table>
<thead>
<tr>
<th>Incentive</th>
<th>Full-time faculty</th>
<th>Adjunct faculty</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Stipend to develop the online course</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>• Release time to develop the online course</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>• Stipend to teach the online course the first time</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>• Release time to teach the online course the first time</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>• Additional equipment/software for course development</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>• Other: _______________________________</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>
Survey of Institutional Role in Student Retention in Online Courses

3. Who is the primary decision maker for the following online course issues? (Choose all that apply)

<table>
<thead>
<tr>
<th>Course Decision</th>
<th>Level of Decision Making</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dean</td>
</tr>
<tr>
<td>Identification of courses to offer in online format</td>
<td>❑</td>
</tr>
<tr>
<td>Selection of faculty for online courses</td>
<td>❑</td>
</tr>
<tr>
<td>Design of online courses</td>
<td>❑</td>
</tr>
<tr>
<td>Final approval to offer online courses</td>
<td>❑</td>
</tr>
<tr>
<td>Class size</td>
<td>❑</td>
</tr>
</tbody>
</table>

4. What is the enrollment maximum set for online courses at your institution? (Choose all that apply)

<table>
<thead>
<tr>
<th>Maximum Students per Class</th>
<th>All online classes sized the same</th>
<th>Discipline Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Technical classes</td>
<td>Natural Science Classes</td>
</tr>
<tr>
<td>10 to 14</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>15 to 19</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>20 to 24</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>25 to 29</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>30 or More</td>
<td>❑</td>
<td>❑</td>
</tr>
</tbody>
</table>
### E. Student Support and Services for Online Programs

1. What is the availability of the following support services at your institution? (Choose all that apply)

<table>
<thead>
<tr>
<th>Service offered to Students</th>
<th>Not Available</th>
<th>Available for on campus use</th>
<th>Available through the Internet</th>
<th>Available 24 hours/7 days a week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Application Process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registration Process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Counseling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tutoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advising</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student enhancement programs (i.e., time management training, health and wellness training, motivation and goal setting training; conflict management training, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Office Services (payment)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Aid Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library Orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic Reserves</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic Books</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library Help Desk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Help Desk (i.e., hardware/software issues)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Support Help Desk (i.e., learning management system support)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Testing Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing Lab</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math Lab</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading Lab</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bookstore Services (i.e., textbook listings, purchasing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information On Student Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic/Social Clubs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Newspaper Or Publication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others ___________________________________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### F. Data Tracking and Analysis for Online Programs

1. What online retention data does your institution track? (Choose all that apply)
   - Number of student withdrawals
   - Source of student withdrawal (self-initiated or faculty-initiated)
   - Date of student withdrawal
   - Reason for individual student withdrawal
   - Demographic data on student withdrawal
   - Other: ____________________

2. Does your institution have an early alert system in place to identify and alert students who are struggling in their courses? (Choose the one that most applies)
   - Yes, the system is used in all institutional courses
   - Yes but the system is not available for online classes
   - Yes but the system is available only for online courses
   - No, the institution has no early alert system
   - Other: ____________________

3. Who has access to the data on student retention in online courses? (Choose all that apply)
   - Faculty
   - Academic administrators
   - Institutional Governing Board/Board of Trustees
   - Academic advisors and/or counselors
   - Student Services administrators
   - Students
   - Other: ____________________

---

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4. What assessment data does your institution use in making the following decisions for online courses? (Choose all that apply)

<table>
<thead>
<tr>
<th>Actions Taken with Online Courses</th>
<th>Assessment Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student Evaluations of Faculty</td>
</tr>
<tr>
<td>- Adjusting course sizing</td>
<td>☐</td>
</tr>
<tr>
<td>- Faculty selection or retention</td>
<td>☐</td>
</tr>
<tr>
<td>- Number of online sections</td>
<td>☐</td>
</tr>
<tr>
<td>- Keeping a course online</td>
<td>☐</td>
</tr>
<tr>
<td>- Evaluating student learning outcomes measures</td>
<td>☐</td>
</tr>
<tr>
<td>- Allocation of institutional resources</td>
<td>☐</td>
</tr>
<tr>
<td>- Other:</td>
<td>☐</td>
</tr>
</tbody>
</table>

If Other, please explain: ________________________________________________________________

__________________
G. Most Promising Practices

A. What institutional program(s)/initiative(s) have been most effective in improving your online student’s retention/persistence? 

B. How have you measured and documented this effectiveness?
Section II. Demographic Information

Instructions:

This survey is the second of two sections. This section asks for retention statistics at your institutions. It is designed so that it can be completed by your Institutional Research office if the data is not readily available. This second section is designed to be completed in 5 minutes depending on the availability of the data.

For the purpose of this survey an online course is one in which the instructor, course material and student are separated by time and place, and 80% or more of the course takes place over the Internet through a web site or web-based learning management system (LMS) such as Blackboard, WebCT, Moodle, etc. Traditional classes are denoted as being “face-to-face” (F2F) to differentiate them from online courses throughout the survey. Hybrid or blended class formats will not be considered in this survey as part of the instruction is in class and the survey’s focus is on the online instruction.

Please mark your answers with either a check mark or ‘X’ in the boxes provided with every questions. When you are done, please put both sections of the survey into the enclosed postage paid envelop along with the Point of Contact card and put it in the mail.

Thank you for your participation in this survey.

Enter your four digit identifier provided for you in the cover letter. This will be used to track your response while maintaining the confidentiality of your reply:
1. Please provide the following data (percent of students in the 2008-09 academic year):

<table>
<thead>
<tr>
<th>Gender:</th>
<th>All Classes</th>
<th>Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity:</th>
<th>All Classes</th>
<th>Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian/White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>International</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>All Classes</th>
<th>Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 18 years old</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 24 years old</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 to 29 years old</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 to 39 years old</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 years or older</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Please provide the following data (number of students):

<table>
<thead>
<tr>
<th>All Classes</th>
<th>Fall 2008</th>
<th>Spring 2009</th>
<th>Summer 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawal Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Online Classes</th>
<th>Fall 2008</th>
<th>Spring 2009</th>
<th>Summer 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawal Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Have you experienced growth or losses in online courses over the last 5 years
   □ Growth    □ Loss

How much growth or loss?
   □ 0 to 9%
   □ 10 to 19%
   □ 20 to 29%
   □ 30 to 34%
   □ 35% or greater
Section III. Follow Up

Please list the appropriate individual the survey administrator can contact to follow up on questions from your institution’s response as well as request additional information in completion of this survey. The individual will remain anonymous in the reporting survey results.

Name: ____________________________
Position in the Institution: ____________________________

Address: ____________________________
Phone number: ____________________________
Email: ____________________________

Do you want a final copy of the survey results? ☐

(Card to be included with questionnaire)
APPENDIX G

SCORING CRITERIA USED IN EVALUATING SURVEY RESULTS
<table>
<thead>
<tr>
<th>Category</th>
<th>Survey Question</th>
<th>Rationale</th>
<th>Answer Given</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Culture Supportive of Online Programs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Institutional commitment to online programs and student persistence and success</td>
<td>A2</td>
<td>Mature online program</td>
<td>1 – 3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>• Developed definition of student persistence in online courses consistent with community college environment and student goals</td>
<td>A5</td>
<td>Withdrawal policy for online courses in place</td>
<td>1-4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>• Integration of online programs in campus planning and policies</td>
<td>B2</td>
<td>Integration of online programs in campus planning and policies</td>
<td>1-8</td>
<td>.5 point each</td>
</tr>
<tr>
<td>• Institutional structure and resources in place in support of online programs</td>
<td>B3</td>
<td>Institutional senior administrative position advocating online programs</td>
<td>1-7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

Maximum Points = 12
<table>
<thead>
<tr>
<th>Category</th>
<th>Survey Question</th>
<th>Rationale</th>
<th>Answer Given</th>
<th>Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutional Efforts to Screen and Prepare Online Students</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Maximum Points = 9</strong></td>
</tr>
<tr>
<td>• Pre enrollment preparation/screening</td>
<td>C1</td>
<td>Screening and preparing students to be successful in online courses</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>• Freshman orientation and transition assistance through counselors and advisors to help students build skills for academic and social adjustment</td>
<td></td>
<td></td>
<td>2</td>
<td>.6</td>
</tr>
<tr>
<td>•</td>
<td></td>
<td></td>
<td>3</td>
<td>.3</td>
</tr>
<tr>
<td>•</td>
<td></td>
<td></td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td><strong>Institutional Academic Support of Online Courses</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Maximum Points = 12.5</strong></td>
</tr>
<tr>
<td>• Recognition and reward system in place for faculty teaching online</td>
<td>D1</td>
<td>Policy in place to track faculty balance of online/face-to-face teaching load</td>
<td>1-4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>•</td>
<td>D3</td>
<td>Shared decision making in online course development and deployment at the appropriate institutional level</td>
<td>1-7</td>
<td>.2 point each</td>
</tr>
<tr>
<td>• Equipping and encouraging full time and adjunct faculty in developing and fielding online courses that promote interactivity with students</td>
<td>D2</td>
<td>Equipping and encouraging full time and adjunct faculty in developing and fielding online courses</td>
<td>1-5</td>
<td>.5 point each</td>
</tr>
<tr>
<td>• Ensuring the proper class size to maximize learning in an online course</td>
<td>D4</td>
<td>Ensuring the proper class size to maximize learning in an online course</td>
<td>1-6</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Varied by discipline</td>
<td>Add 0.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not Applicable</td>
<td>0</td>
</tr>
<tr>
<td>Category</td>
<td>Survey Question</td>
<td>Rationale</td>
<td>Answer Given</td>
<td>Point Value</td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
<td>-----------</td>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Institutional Student Support for Online Programs</td>
<td>E1</td>
<td>Student support services available to online students when and where needed</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>.3</td>
</tr>
<tr>
<td>Institutional Use of Data in Tracking Student Success in Online Courses</td>
<td>F1</td>
<td>Tracking comprehensive data on student withdrawals in online programs</td>
<td>1-5</td>
<td>.5 point each</td>
</tr>
<tr>
<td></td>
<td>F4</td>
<td>Use of varied sources of data in making decisions within online programs (Six Actions)</td>
<td>1-5</td>
<td>.5 point each</td>
</tr>
<tr>
<td></td>
<td>F2</td>
<td>Early Alert system in place to track online student progress</td>
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<td>F3</td>
<td>Open access to online student retention data to online program stockholders</td>
<td>1-5</td>
<td>.5 point each</td>
</tr>
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APPENDIX H

ONLINE PERSISTENCE INTERVIEW FORM
Introduction: My name is Fred Hills and I am a doctoral candidate in the Department of Higher Education at the University of North Texas. I am conducting a study of the role institutions play in student retention and promoting student persistence in online courses at community colleges in Texas. Your institution was one of five community colleges selected for this telephone interview due to its demonstrated success in student retention in online courses. This interview is a follow up to the survey completed by your institution in February.

Before agreeing to participate in this interview, it is important that I read you the purpose, benefits and risks of the study and how it will be conducted.

This study is part of my ongoing research titled “Tackling Online Course Attrition in Community Colleges: Developing an Institutional Model for Best Practices.”

Purpose of the Study is to examine the role institutions play in student retention and in promoting student persistence in online courses. The study will seek to better understand the different programs and processes used in community colleges in Texas in addressing online student retention. The aim of the study is to recommend a model of best practices to improve student persistence and success rates in this rapidly growing area.

Study Procedures: You will be asked to participate in an interview. The interview is designed to better understand the different programs and processes used in your colleges in addressing student retention. The findings from this interview will be used to confirm the survey data findings and help in the development of a best practice model to improve student persistence and success rates in online courses. Final results of the study including the best practice model will be shared with you and all participating public community colleges in Texas.

This interview should take 15 minutes depending on the length of your responses. The interview will be recorded. The audio recording will be used to create transcripts to be used in the study. You can choose to end the interview at any time as it is voluntary.

Foreseeable Risks: There are no foreseeable risks to you or your institution involved in this study.

Benefits to the Subjects or Others: I expect the project to benefit you by recommending a model of best practices to improve course retention and promoting greater persistence of online students at your and other community colleges across Texas.
Compensation for Participants: You will receive a full report of the final results of this study that will be shared with all participating colleges. It will identify trends among institutional practices and how they correlate to student retention as well as the recommended model of best practices.

Procedures for Maintaining Confidentiality of Research Records Confidentiality of this interview will be maintained. It has been designed so individual institutional information and contributions will remain anonymous in the analysis and presentation of the study findings. All audio recording materials and transcripts will be kept in a secure location. Furthermore, the confidentiality of your individual information will be maintained in any publications or presentations regarding this study.

Questions about the Study: If you have questions concerning this research project, you may contact me, Fred Hills (University of North Texas Doctoral Candidate) or Dr. Marc Cutright, University of North Texas Dissertation Committee Chair.

Review for the Protection of Participants: This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

You may receive a copy of this informed consent notice at any time.

Research Participants’ Rights:

In summary, it is important that you understand your rights in this research before I proceed. Please acknowledge the following with either a “Yes” or a “No”:

I, Fred Hills, have explained the study to you and answered all of your questions. You have been told the possible benefits and the potential risks and/or discomforts of the study.

You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.

You understand why the study is being conducted and how it will be performed.

You understand your rights as a research participant and you voluntarily consent to participate in this study.

You have been told you will receive a copy of this form.

[If the replies are all “Yes”] - Let’s proceed to the interview.

[If the replies are all “No”] – Thank you for your time.
Online Persistence Interview Form

Institution: _______________ Date of interview:______________

Name: _______________ Interviewer: _______________

Position in the Institution: ______

Contact Information:
Phone number: _________
Email: ________________

Interview Questions:

1. What is your position at the college and what role do you play in the online education program of your institution? How long have you been at the college?

2. How does your institution define persistence in an online course? What does the institution consider a successful persistence rate? On what does the college base this decision?

3. Is there a difference in how your institution supports an online course over the traditional face-to-face classes? If so, why? What are these differences?

4. To what do you attribute your institution’s retention rate in online courses? What specific program(s) at [institution] have had the greatest impact on improving student persistence in online courses? How do you measure and document this improvement?

5. Where does online education and student success fit in the college’s mission statement, strategic planning process and institutional goals?

6. How does your institution track data on student persistence rates in online courses? Who has access to the data once collected and how is it used in making decisions on your efforts to improve online course retention?

7. Do students require special preparation for online courses? If so, what type of support and/or preparation do you see as important? What role does the institution have in ensuring students are prepared for the online environment? What does your institution do to prepare students for the online environment?
8. What role does the institution have in providing academic support structures and how does this impact online course design and deployment? Does this have an impact on student success in online courses? What does your institution do to prepare faculty for the online environment? Are online course design face more stringent criteria than F2F courses? If so, what and why?

9. What role does the institution have in providing student support structures and availability how does this impact online course design and deployment? Does this have an impact on student success in online courses?

10. Does your college have a “dashboard” system or early warning system to alert decision makers to potential problems with students in your online community? If so, how is the data collected, who has access to the warning, and how is it used in your institution?

11. Did your institution’s current efforts at improving retention rates in online courses start as an institutional plan or did it evolve over time from different initiatives by various groups on campus?
12. If from an initial plan, who were the originators of the plan and who were the supporters of the plan? What were lessons learned from this experience that could be shared with others contemplating the same effort?

13. If evolved from various efforts, how did you integrate these different groups into a system wide plan? What were lessons learned from this experience that could be shared with others contemplating the same effort?

14. From the experience you’ve gained in dealing with student retention in online courses, what else could be done beyond what your institution is doing currently?
APPENDIX I

QUALITATIVE CODING LIST
<table>
<thead>
<tr>
<th>Code</th>
<th>Code definition</th>
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<tbody>
<tr>
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<td>Qualitative Coding List</td>
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<td>Institutional policy</td>
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<tr>
<td>POST</td>
<td>Institutional governance structure</td>
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<td>Institutional attitudes</td>
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<td>Student Preparation (SP)</td>
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<td>Student preparation testing</td>
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<td>Student orientations</td>
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<td>Student advising and counseling</td>
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<td>Academic Support (AS)</td>
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REFERENCES


Texas Higher Education Coordination Board Distance Education Advisory Committee (1999). Principles of good practice for academic degree and certificate programs and credit courses offered electronically. Retrieved from http://www.thecb.state.tx.us/reports/PDF/0206.PDF


