THE INFLUENCE OF A NEW STUDENT INTRODUCTION PROGRAM ON FRESHMAN STUDENT RETENTION AT A RURAL,

TWO-YEAR COMMUNITY COLLEGE

By

BETH JAN SMITH

A dissertation submitted in partial fulfillment of the requirements for the degree of

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The members of the Committee appointed to examine the dissertation of BETH JAN SMITH find it satisfactory and recommend that it be accepted.

Paul E. Pitre, Ph.D., Chair

Gene C. Sharratt, Ph.D.

David R. Holliway, Ph.D.

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ON FRESHMAN STUDENT RETENTION AT A RURAL,

TWO-YEAR COMMUNITY COLLEGE

Abstract

By Beth Jan Smith, Ed.D. Washington State University May 2010

Chair: Paul E. Pitre

Challenging economic conditions, changing student demographics, and heightened levels of accountability may require community colleges to address student retention more strategically. Community colleges must cope with external forces while at the same time attempting to meet their mission of open access. Retention is also important when community colleges rely on student enrollments for economic survival. There is a need to study programs that increase student retention, and new student orientation programs are the most promising in addressing the problem of student attrition. This quantitative, retrospective study examines a first year orientation program (FYO) at a rural 2-year community college and its influence on the term-to-term retention of first year, degree seeking students.

Enrollment data for the two years prior to the program's inception were compared to the first two years the FYO program became mandatory for all freshman, degreeseeking students enrolled in at least one college-level course. Chi-square tests for

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categorical data were calculated to find significant differences in returning versus nonreturning student totals. The overall influence of the program on retention was significant. Implications for practice are discussed and examples of application are included in the appendix.

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Dedication

This dissertation is dedicated to my wonderful husband,

Kelly, for his help and patience; and second,

to our amazing children, Ian, Zak, Eric, Janel and Cori.

CHAPTER ONE

INTRODUCTION

Retaining students is a primary concern for 2-year public community colleges. Six years after their initial enrollment in 1995-96, 55% of 12,085 students in a national sample failed to transfer to a 4-year institution or earn a certificate or degree (Bailey, Jenkins and Leinbach, 2005). Although some of these students may not have had 4-year college transfer or degree attainment as a goal, it is still clear that many community college students do not persist toward an educational credential (O'Gara, Karp & Hughes, 2009). Challenging economic conditions, changing student demographics, and heightened levels of accountability may require community colleges to address student retention strategically. Community colleges must cope with external forces while at the same time attempting to meet their mission of open access. Retention is also important when community colleges rely on student enrollments for economic survival. There is a need to study programs that increase student retention, and new student orientation programs are the most promising to address the problem of student attrition. This quantitative, retrospective study examines a first year orientation program (FYO) at a rural 2-year community college and its influence on the term-to-term retention of first year, degree seeking students.

The Problem

For some colleges, the need to increase enrollment has become a matter of economic survival (Summers, 2003), and often community college funding is determined by enrollment numbers. At the institution where this study takes place, approximately

40% of its general operating funds come from state first-time enrollment (FTE) formula resources and 16% from tuition. The remainder is generated from local property taxes (20%), federal sources (11.5%) and other sources (Center for Community College Policy, 2000). With over 56% of general operating funds directly generated from student attendance, it is imperative that this college—and other colleges with similar funding formulas—recruit and retain as many students as possible.

In order to retain new freshman students, community colleges may need to intervene early and often. Thirty-two percent of new college students attending 4-year public colleges drop out during their freshman year, and 46% of 2-year public community college students leave before their sophomore year (ACT, 2009). Kidwell (2006) points out that "Most will survive the first-year at college and go on to graduate, but all too many drop out before the freshmen year is over" (as cited in Marina & McGuire, 2008, p. 20). Kay McClenney identified the first fifteen weeks as the make-or-break retention time for community colleges (National On-Campus Report, 2005). Blanc, Debuhr, and Martin observed that student attrition is the highest during the first six weeks of the semester (1983). Marina & McGuire believe the first few moments that an individual ascertains a relationship with a college or university are critical and influence academic success and persistence among first year students (2008). Derby (2007) asserts "Initial introduction to the college environment is a major factor that influences student involvement, commitment, and retention (p. 883). A possible strategy for decreasing attrition is development and implementation of a new student transition program that identifies resources and support systems available to students and facilitates a student's

social and academic integration into the college. Upcraft and Schuh (1996) state that student retention is positively associated with student participation in an orientation course at 4-year institutions. Derby and Smith (2004) report similar findings at 2-year institutions. Marina & McGuire state that "First-Year-Experience programs remain an essential part of ensuring the success of freshmen, promoting retention, and further developing the strength of American higher education" (2008, p. 19).

Over the past two decades, college student retention has received increased attention and grown in importance; however, the majority of retention research has been dominated by 4-year college studies, and the research on community colleges is sparse (Walters & McKay, 2005). In Pascarella and Terenzini's second volume of *How College Affects Students*, they cite over 2,600 studies on the subject of student retention in higher education (Vander Schee, 2007); Tinto's integration theory alone has been cited over 7775 times (Braxton, Hirschy, & McClendon, 2004). The majority of retention research focuses on traditional-age students in the residential settings of 4-year universities (Bailey & Alfonso, 2005). This is particularly problematic for community colleges. Accountability and budget restraints have made this topic increasingly important; colleges and their funding sources are measuring effectiveness in relation to student turnover (Wild & Ebbers, 2002).

The Study

This is a study of a first year orientation program at a rural, 2-year community college in the Pacific Northwest and its influence on the retention of first year, degree seeking students. The workshop design was the result of the college (referred to as the

pseudonym, Rural College) receiving a Title III grant to improve the persistence of entering freshmen. The goals of this program were to help first-year college students understand their responsibilities, facilitate their academic and social integration into college culture, identify barriers that may exist during their educational journey and devise strategies to overcome those hurdles, and introduce academic planning. Tinto and Astin's integration and involvement theories were used as roadmaps in the development of the study's FYO program. A new theory—anticipating and overcoming hurdles theory—was also used in the FYO's development. Tinto's Theory of Integration "suggests that students progress through stages as they make the transition from being a first time in college student to being a mature student. These stages are influenced by academic and social integration; working together, both lead to the student's decision to remain in or to leave college" (Fike & Fike, 2008, p. 69). Astin's Student Involvement Theory states that as "students increase their physical and emotional investment on their college campus, their rate of retention increases" (Derby & Smith, 2004, p. 765). The third theory used in the program's development was an "anticipating and overcoming hurdles theory" developed by the author. This theory posits freshman retention increases when students anticipate potential hurdles, brainstorm ideas to overcome these challenges, and seek necessary resources. The institutional goals were improving student persistence and helping students toward degree completion. Every effort was made to apply Tinto, Astin and "overcoming hurdles" theories in the development of the program.

Rural College piloted the FYO for incoming freshman students in the fall of 2006-07. Two sessions were offered that included six hours of face-to-face activities and

assignments. Attendance and completion of assignments during the pilot was optional. Three significant changes were made to the program the following fall of 2007-08: the FYO was made mandatory for all first year students, an online FYO course was offered, and attendance was required for the face-to-face session. Quizzes were included in the online course to ensure participation. Students were able to select either the online or face-to-face course. The face-to-face content was duplicated, wherever possible, in the online course.

This study examines the term-to-term retention of Rural College students that completed the FYO compared to students that did not complete the FYO. Four years were examined: the two years prior to the pilot program (2004-05, 2005-06) and the first two years the program became mandatory (2007-08, 2008-09). Six cohorts are investigated:

- 1) 2004-05 untreated students
- 2) 2005-06 untreated students
- 3) 2007-08 FYO completers (treated)
- 4) 2007-08 FYO non-completers (untreated)
- 5) 2008-09 FYO completers (treated)
- 6) 2008-09 FYO non-completers (untreated)

The Fall 2004-05 and 2005-06 new student cohorts were not enrolled in a FYO because none existed; the college's FYO was not created until Fall 2006-07. For this pilot year, students self-selected the program and enrollment was optional. The pilot program is not included in this study because students motivated to participate in the pilot—independent

of a mandatory requirement—may possess educational, motivational or risk-taking attributes that account for increased retention. The following Fall 2007-08, the FYO was mandatory for all degree-seeking students, both full and part-time. Students that had previous credits at Rural College were not required to enroll. If a student had 30 or more transfer credits from another college or university, he or she was not required to enroll. In order to determine participant continuity, the mandatory criterion (degree-seeking, no previous credits at Rural College or less than 30 transfer credits) was used to select the 2004-05 and 2005-06 students.

Methods

This study is designed to examine the retention rates between students that completed a FYO course versus students that did not complete the course. It also attempts to identify whether or not there is a relationship between a FYO and new student retention at Rural College. Participants are from the freshman class at a rural college in the Pacific Northwest. Four years have been studied: 2004-05, 2005-06, 2007-08 and 2008-09. Chi-square tests for categorical data were calculated to find significant differences in returning versus non-returning student totals.

Significance of the Study

In his recent remarks to Macomb and Hudson Valley Community Colleges, President Obama described community colleges as the county's most unappreciated and unrewarded asset noting that they receive far less funding per student than typical 4-year colleges and universities (Obama, 2009a, 2009b). But funding is not the only area where community colleges come up short; there needs to be more focus on researching this

valuable asset. President Obama emphasized the critical role of community colleges in educating and training students and adults for jobs needed to keep the United States economically competitive when he outlined his plans for the American Graduation Initiative (Badolato, 2010). However, because there is a paucity of research specific to community colleges, attention must be given to studying these 2-year institutions and determining what is needed to reach President Obama's goal for an additional five million community college graduates by 2020 (Jenkins & Bailey, 2009). Just as community colleges are crucial for America's economic stability, retaining these students is crucial for community colleges' stability. This study is significant because it examines the influence of a first-year orientation program's impact on student retention, and according to Jenkins and Bailey, a college success course—which provides clearer guidance and pathways for students—is a specific change that will help meet the president's goal (2010).

Derby and Smith (2004) researched a FYO and discovered a significant association between an orientation program and student degree completion, retention and persistence at a community college. They found that students enrolled in orientation classes experience a higher rate of retention than students who are not enrolled. They also discovered that students are more likely to obtain a degree within the predetermined amount of time and be retained at a community college when they take an orientation course than students who do not take an orientation course. Derby and Smith believe Astin's Student Involvement theory provides answers to how a potential relationship might exist between an orientation course and student retention (2004). Astin stated that

"as students increase their physical and emotional investment on their college campus, their rate of retention increase" (p. 765). McClenney and Waiwaiole (2005) conducted focus groups on the campuses of eight winners of the MetLife Foundation Initiative on Student Success and found six strategies to promote student success: 1) provide student success courses, 2) create learning communities, 3) offer effective advising, 4) foster collective responsibility and teambuilding, 5) facilitate learning support, and 6) hire the right people. The first strategy was implementation of student success courses. McClenney and Waiwaiole (2005) discovered that helping students succeed can't be an afterthought:

Colleges must provide appropriate support and guidance for students from the earliest days (even hours!) of their higher education experience. Institutional data suggest the value of orientation and student success courses that equip students with the knowledge and skills necessary to succeed in college. (p. 36)

The FYO examined in this study is based on research that supports the association between orientation programs, retention and persistence at a community college.

First Year Orientation Program

In 2003, Rural College applied for a Title III federal grant that would help create a seamless learning environment for student success. According to the college grant proposal, the overall persistence rate for Fall to Fall—non-credit and credit students combined—was only 28%, compared to 48% for U.S. 2-year colleges. The proposal stated that too many of Rural College's students were failing to return term to term and

year to year. At least 72% of students, non-credit and credit combined (67% of credit students), are failing to persist fall to fall, compared to 51.8% for 2-year colleges in the U.S. (ACT, 2001). The grant's focus was on student success and retention. One of the key grant objectives stated that the persistence of at-risk students participating in the transition program will be 7% higher than the persistence rate of at-risk students in the 2003-2004 academic year. The key component of the transition program was creating a comprehensive, organized, orientation program. Based on research and another successful community college orientation program located in the Pacific Northwest, a first year orientation program was created to increase freshman student persistence and meet the Title III objectives.

In addition to meeting the grant objective to raise at-risk persistence 7% by 2006, the FYO established a number of student goals based on retention research including Tinto, Astin and overcoming barriers' theories: make connections with other new students, understand institution policies and procedures, get to know the college campus, faculty and staff, discover the resources available to students, accept personal responsibility for academic success, anticipate potential hurdles and barriers that can hinder success, and brainstorm ideas and identify resources to overcome potential hurdles. The FYO operated on the premise that when students are introduced to the above goals, they will begin to acquire the necessary skills to navigate and negotiate their way through their first term of college. This successful navigation and negotiation will lead to increased retention. These goals were incorporated into a number of sessions that took place over a six hour timeframe. The first FYO session was held in September

2006. Support persons were invited to the first two hours of the program. (A support person was usually a parent; however, spouses, grandparents, significant others and friends also attended.) The six hours included large group, seminar and module sessions. A copy of the agenda is found in Appendix A.

Session Delivery System

The FYO was delivered in four session types: large group presentation, seminar groups, modules and sample classes. Each session had a different number of attendees and specific purposes. The large group presentation was given to everyone in attendance. It occurred at the beginning of the FYO and set the mood for the remainder of the orientation. Key college personnel (college president, associated student body president and department directors) were given an opportunity to greet the participants and give them key information about their respective areas. At the large group session, each student was assigned to a seminar group that contained a maximum of fifteen students. During the seminars, students participated in individual group activities and then were dismissed to attend a module. Modules addressed different areas of the college, for example library skills, distance learning, or financial aid. Students had a choice of the module they would attend. Next, they reported to an assigned sample class taught by a college instructor. These classes gave the students an opportunity to interact with instructors in an informal setting. Each class included an overview of note taking, test taking tips, syllabus introduction and instructor expectations. An outline of the four sessions is shown in Appendix B.

Other than making the FYO mandatory for all new degree-seeking freshman, creating an online course, and requiring attendance for the face-to-face sessions, there were only slight modifications from the pilot course to the 2007-08 and 2008-09 courses (such as opening the bookstore to capture potential sales, offering an all-day session to accommodate those traveling long distances, and decreasing the length of the sample classes by ten minutes). The goals, nature and scope of the FYO remained consistent with the course piloted in 2006-07.

Definition of Terms

Cohort – A specific group of students established for tracking purposes (NCES,
2008). For the purpose of this study, six primary cohorts have been established:

- Fall 2004-05 freshman meeting the mandatory FYO attendance requirements established by Rural College for Fall 2007-08 (untreated)
- Fall 2005-06 freshman meeting the mandatory FYO attendance requirements established by Rural College for Fall 2007-08 (untreated)
- Fall 2007-08 freshman meeting the mandatory FYO attendance requirements established by Rural College for Fall 2007-08 who *completed* the FYO (treated, completers)
- Fall 2007-08 freshman meeting the mandatory FYO attendance requirements established by Rural College for Fall 2007-08 who *did not complete* the FYO (untreated, non-completers)

- Fall 2008-09 freshman meeting the mandatory FYO attendance requirements established by Rural College for Fall 2007-08 who *completed* the FYO (treated, completers)
- Fall 2008-09 freshman meeting the mandatory FYO attendance requirements established by Rural College for Fall 2007-08 who *did not complete* the FYO (untreated, non-completers)
- 3) FYO The First Year Orientation program at Rural College
- 4) Governing Body The president and vice presidents of Rural College.

5) Mandatory Attendance Requirement – Established by Rural College for Fall 20077-08 FYO: degree/certificate seeking freshman with zero previous credits earned at Rural College and less than thirty transfer credits from another higher education institution.

6) Non-Completers – Students that were required to enroll in the mandatory FYO course that did not enroll or did enroll, but did not complete the course.

Retention – The continued enrollment of a student in a subsequent quarter (Sydow & Sandel, 1998). For the purposes of this study, retention is defined as reenrollment in winter quarter following the completion of fall quarter classes.

8) Treated Students – Students that enrolled and completed the FYO course

9) Untreated Students – Students that were not enrolled in a FYO course (either pre-FYO or choosing not to enroll) and students that enrolled in a FYO but did not complete the course.

Limitations

While a potential relationship appears to exist between the FYO and student retention, concrete cause and effect cannot be inferred or formally determined due to possible alternative influences. However, every attempt was made to establish that all students in the study came from the same community, attended the same institution, took same classes from the same instructors and have the same general demographic backgrounds. Since this study used a single institution sample, the results will not necessarily generalize to other higher education settings with the exception of other 2-year, public, rural colleges with similar headcounts and selectivity.

Although all degree-seeking students were required to enroll in the FYO during 2007-08 and 2008-09, students meeting the enrollment requirement—for a number of reasons—did not enroll. The two primary reasons for non-enrollment were 1) students being unaware of the program and 2) faculty waiving students from the requirement. This explains the population differences between the total populations in first two and last two years of the study (2004-05, N=370; 2005-06, N=403; 2007-08, N= 294; 2008-09, N=297).

Also, this study did not differentiate between students who withdrew winter term to attend another institution or withdrew from higher education altogether. This study was ex post facto design, so controlling, intervening and establishing a concrete cause and effect relationship was not possible; however, the study does attempt to establish the strength of a positive relationship.

CHAPTER TWO

REVIEW OF THE LITERATURE

The purpose of this review is to provide a context for the proposed study related to an orientation course and its affect on first-year community college students. This literature review will focus on first-year experience research, with a particular focus on recent research related to the study's primary focus, the need for community college retention studies, and theories on retention development.

First-Year Experience Course Research

Colleges have been teaching college success courses for decades in a variety of forms, and orientation-type programs for first-year students have a variety of names. According to Gardner (1986), "Boston College pioneered the first Freshman Orientation class in 1888...Reed College became the first institution to schedule an orientation course for credit when, in 1911, they offered a course separated into men-only and women-only sections that met two hours per week for the year (as cited in Bigger, 2005, para. 5). In an interview with Charles Schroeder, John Gardner—a University of South Carolina faculty member whose name is synonymous with the first-year experience—defined first year experiences as "a national and international effort to improve the first-year, the total experience of students – and to do this intentionally and by rethinking the way the first-year was organized and executed" (Schroeder, 2005, p. 10). These programs are designed to meet the needs of entering students and are interchangeably referred to as first-year seminars, first-year orientations, first-year workshops, new student seminars,

student life skills course and/or first-year initiatives. Hunter and Linder (2005) offer this definition for first-year seminars:

At its core, the first-year seminar is centered on and concerned with the individual needs of entering students, as well as the expectations of the particular institution. While there are many variations among first-year seminars, every seminar aims to assist students in their academic and social development and in their transition to college. (p. 275)

First-year orientation programs at community colleges tend to reflect the nature of the students they serve; they vary from college to college, and most are a half-day in length (Mullendore & Banahan, 2005). According to Pascarella's and Terenzini's (1991) research on orientation courses, "the most consistently effective program format appears to be a first-semester freshman seminar that meets as a regular class with an assigned instructor. The purpose of this type of seminar is to orient the student to the institution and its programs and to teach important academic survival skills" (p. 403). "Carstens found that students who attended a first-semester orientation course earned more credit hours per semester...than their peers in a matched sample who had not taken the course" (Kuh, et.al. 2006, p. 59). Muraskin and Wilner (2004) concluded after a review of institutional practices that a freshman-year program is effective (although they acknowledged that participation in the program was voluntary). Barefoot (2000) has shown that carefully designed, coherent first-year programs result in greater overall student success and fulfillment and improved retention. "First year seminars have become a common approach adopted by higher education institutions in their efforts to

ease the transition to college for new students, and to systematically address unacceptable rates of student attrition" (Hunter & Linder, n.d.). Research indicates that "programs designed to target first year students increase their likelihood of success during that year and their chances of completing an undergraduate education" (Noble, Flynn, Lee & Hilton, 2007). The results of Schnell and Doetkott's study of first year seminars indicate "significantly greater retention over a period of four years for students enrolled in the seminar" (2002). In 2007, a research team at the Florida Department of Education compared the outcomes of students who completed a student success course with those who did not take or complete such a course. "They found that [student success] course completers were more likely than non-completers to achieve one of the following three indicators of success: earning a community college credential, transferring to the state university system, or remaining enrolled in college after five years...Specifically, for all students, enrollment in [a student success course] is associated with an 8% increase in the chances of persisting in school" (Zeidenberg, Jenkins, & Calcagno, 2007). O'Gara, Karp and Hughes recently examined student success courses in two urban community colleges. After analysis of student interview data, they found that student success courses "are an essential resource for students, in large part because the various benefits reinforce one another and magnify their influence. These benefits include learning about the college, classes, and study skills. In addition, students build important relationships with professors and peers" (2009, p. 195). Green and Miller found "higher grade point averages and increased retention rates among 2-year college students who enrolled in a first-year seminar compared with those who did not take the course" (as cited in

Mullendore & Banahan, 2005). Holmes, Ebbers, Robinson, and Mugenda report that "orientation programs can help reinforce to students that they matter to the institution and will be supported as they proceed toward completion of their degrees. This validation connects the student to the institution and helps build institutional and goal commitment as well as social support networks" (as cited in Lotkowski, Robbins, & Noeth, 2004). *Community College Retention Studies*

Prior to the 1970's, the emphasis on retention research was descriptive rather than theory-based (Pascarella & Terenzini, 1980). There was a wealth of statistically reliable student retention data, but little was known about predicting the dropout process (Tinto, 1975). Current models of retention have been built on the work of Spady (1971), Astin (1975) and Tinto (1975). These models are based on academic and social integration of traditional students in 4-year universities. Although there are numerous studies in student persistence and academic development, the studies are primarily focused on 4-year colleges. The research for community colleges is sparse (Walters & McKay, 2005). Relatively little research focuses on institutional policies at community colleges that influence student retention. Townsend, Donaldson and Wilson performed a content analysis of five higher-education journals published between 1990-2003. They found only 8% of articles published in four major higher education journals during this period mentioned community colleges. These authors state, "Similarly, the articles focusing on student attrition/persistence/retention that used a conceptual framework utilized Tinto's model of student departure, a model developed for 4-year college students" (p. 133).

How student retention is measured is a problem for community colleges because the primary models for studying student retention are based on traditional-age students enrolled full-time in the residential settings of universities. Most of the research on retention is limited to 4-year universities. A recent national study of community college students found that most are enrolled part time (63%), 57% of community college students work more than 20 hours per week, and 34% spend 11 or more hours per week caring for dependents (Community College Survey of Student Engagement, 2007). Also, "because of their convenient location, open access, and low cost, community colleges tend to enroll students who are more academically, economically, and socially disadvantaged than do other post-secondary institutions (O'Gara, Karp, & Hughes, 2009, p. 196). Nearly 30% of community college students are Black or Hispanic compared to 20% at 4-year institutions (Horn & Nevill, 2006). Almost one fourth of community college students come from families in the lowest income level (earning 125%, or less, of the federal poverty level) compared to one fifth of students enrolled in 4-year colleges (Horn & Nevill, 2006). "Despite the prevalence of [student success] courses at community colleges, little research has been conducted on their effectiveness" (Zeidenberg, Jenkins, & Calcagno, 2007). New research initiatives should be targeted directly at community colleges (Wild & Ebbers, 2002) and their unique student bodies. Wild and Ebbers state that three main issues need to be addressed before college community retention can be understood: 1) definitions of student retention; 2) theoretical models for student retention; and 3) current research and analysis of student retention in the community college context. This study addresses Wild and Ebber's third main issue:

research and analysis of student retention in the community college context by analyzing the retention of freshman students participating in a first-year orientation program. *Retention Theory Development*

Based on Durkheim's (1951) suicide model which posits that individuals commit suicide due to a lack of social links, Spady (1971) paralleled Durkheim's work to the college student dropout process. Durkheim theorized that suicide is a result of a person breaking social ties

because he or she lacks integration into society. The possibility of suicide increases when moral consciousness and friendship support are low. Spady likened this type of integration directly to student persistence or withdrawal. When students drop out, it is a result of not being integrated into the college environment. Spady proposed five variables that contribute to social integration—academic potential, normative congruence, grade performance, intellectual development, and friendship support—that link to dropout decisions. A student is fully integrated when he or she meets the demands of a college's social and academic systems (1971).

By applying the exchange theory to Spady's student dropout model and Durkheim's suicide theory, Vincent Tinto created his "Interaction Theory." The exchange theory states that humans avoid painful behavior and seek rewarding status, relationships, interactions, and emotional states. Tinto applied this theory to students determining their academic and social "interaction" with college. This interaction is influenced by family background, individual attributes, and pre-college schooling. Integration's success is measured by grade performance and the frequency of positive interaction with students and faculty. This model posits that the interaction between the student and the college's academic/social system is vital (1975). Tinto outlined three stages that students move through in their college matriculation: separation, transition and incorporation. First, students go through a separation from their home environment. This phase can be quite traumatic, although most eventually move to the second stage, transition. During this stage, students are torn between their old environment and their new college environment; they feel they no longer belong to their old environment but haven't totally found their place in the new one. Finally the students move to incorporation when they feel totally acclimated into the academic and social environment of the college (1993). Tinto's later work (2006) states that where it was once argued that retention required students to break

away from past communities, it is now known that for many students the ability to remain connected to their communities, family, church, or tribe is essential to their persistence. Studies have shown that the impact of external events on student lives and the importance of involvement in the classroom are critical to student retention. If involvement does not occur there, it is unlikely to occur elsewhere. Most importantly, involvement—also known as engagement—matters most during the critical first year of college. Faculty involvement in institutional retention efforts is often critical to the success of student persistence (Tinto, 2006).

While many institutions tout the importance of increasing student retention, not enough have taken student retention seriously (Tinto, 2006). Too few are willing to commit needed resources and address the deeper structural issues that ultimately shape

student persistence. Tinto discusses that retention is not the job of student affairs professionals; it is the faculty's job. Faculty must focus on the ways their actions enhance student education. If faculty commit to increasing student retention, the number of students that remain in college will increase on its own accord. Colleges must bring to the study of student retention the extensive body of research on student learning and demonstrate the multiple connections between faculty efforts to improve student learning to that of improved student retention. He adds that education and retention of students should be rewarded. Tinto calls for more research that sheds light on the types of program and institutional practices that lead to successful implementation of programs that endure over time. Retention programs have to provide empirical evidence that resources committed to them are an investment that yields long-term benefits to the institution (Tinto, 2006). Tinto's integration theory continues to be the predominate model for retention theory and research. It has been thoroughly tested, analyzed, and adapted for retention programs for the past two plus decades.

Expanding on Tinto's model, Pascarella and Terenzini (1998) developed a student/faculty interaction model that emphasized the importance of students interacting with faculty members. They proposed that informal contact with faculty and other college experiences impact a student's satisfaction with the university and his or her persistence from the first to second year at the institution. They demonstrated that consistently positive interactions with other college members beyond the classroom setting are a leading predictor of college retention. However, they state that many of the studies focus on the traditional student (such as Tinto's original studies with 18-22 year

old white, full-time students at a university), instead of today's diverse student demographics. It is likely that those samples no longer fit today's student body makeup. For example, between 1995 and 2005 the majority of post secondary growth was in female enrollment. The number of females enrolled rose 27%, while the number of males rose 18%. For 2-year colleges between 1995 and 2005, female enrollment rose 21% compared to a 15% increase in women attending degree-granting institutions of higher education was 57%. For 2-year colleges, 58% were women (NCES, 2008). Pascarella and Terenzini demonstrate the increasing diversity of undergraduate students, particularly ethnic minorities (1998). In 1990, 20% of all students attending degree-granting institutions were ethnic minorities. By 2005, that number had risen to 31%. For 2-year colleges, the number of ethnic minorities increased from 23% in 1990 to 37% in 2005 (NCES, 2008). According to Gardner, "the majority of first-year students are now and will increasingly be in nonresidential institutions" (Schroeder, 2005, p. 11). The manner in which research is conducted must change. As many variables as possible must be included in future research.

Alexander Astin (1985) stressed that students learn and develop when they become involved in their college experience. Astin (1999) defined student involvement as "the amount of physical and psychological energy that the student devotes to the academic experience" (p. 518). He also found that a student's chances of dropping out were substantially greater at a 2-year college than at a 4-year college (p. 524). Astin posits dropout rates are higher for community colleges where the involvement of both faculty and students seems to be minimal. Astin continues that "most (if not all) students

are commuters, and a large proportion attend college on a part-time basis (thus, they presumably manifest less involvement simply because of their part-time status)" (p. 524). Astin's Student Involvement Theory suggests answers to how a potential associate relationship might exist between an orientation course and student retention: as students increase their physical and emotional investment on their college campus, their rate of retention increases (Astin, 1999). Upcraft expanded on Astin's theory when he stated, "The greater the quantity and quality of involvement, the more likely the student will succeed in college" (as cited in Bigger, 2005, p. 18). One of the main goals of the FYO program in this study was to increase the quality and quantity of student involvement at Rural College. Student orientation can affect the way students spend their time and the amount of effort they devote to academic pursuits (Astin, 1999, p. 523), and Astin believes the effectiveness of any educational policy or program (including orientation programs) is correlated to that program's ability to increase the level of student involvement (as cited in Chaves, 2006). Chaves notes that Astin's work on student involvement focused on traditional-age, residential students attending 4-year colleges and universities (2006). More research is needed on the relationship between Astin's model of student involvement and community colleges.

CHAPTER THREE

METHOD

This study investigates the influence of a first year orientation (FYO) program on student retention by examining term-to-term enrollment data. The students in this study are freshman attending a rural, 2-year, Pacific Northwest community college (referred to as the pseudonym, Rural College) and enrolled in a first-year introduction program. This study is designed to examine the retention rates between students that completed a FYO course versus students that did not complete the course. It also attempts to identify whether or not there is a relationship between a FYO and new student retention at Rural College.

Site

The college in this study is located in the Pacific Northwest. The college is an open access institution serving 1782 students in 2006-07 (NCES, 2008). Forty nine percent of the undergraduate students are 24 years of age or younger; 51% are twenty-five years or older. Fifty two and a half percent of the students are part-time; forty-seven and a half percent are full time. Women account for just over 60% of student population. Eleven percent of the student population is Hispanic, 1% each is African American and Asian/Pacific Islander, 2% is Native American, 77% is White, and 8% is unknown. Seventy eight percent of the students receive aid, and over half receive federal Pell grants (NCES, 2008).
Participants

The students participating in this study are from the freshman class for each of the four years identified: 2004-05, 2005-06, 2007-08 and 2008-09. Comparisons for all four years are only for those students that were degree/certificate seeking, did not have previous credits at the college, enrolled in one or more college credits, or less than thirty college-level transfer credits. This population was considered for a number of reasons. First, the selection focused on defining which groups of students would profit most from a FYO course. Degree/certificate students were chosen to differentiate from those students taking classes for personal enrichment. Students that were taking college-level courses—as opposed to developmental-only and GED students—were selected. If a student had less than thirty college-level transfer credits, they were still considered freshman and new to Rural College. Next, the selection criteria created a clear, comparable data source for the study. The criteria for selecting pre-FYO students were the same for FYO completers. Students who were waived by their advisors are not included in the study. If an advisor felt that his or her student did not need the FYO (primarily transfer students with less than thirty credits, non-traditional, older students or those requiring long distance travel), the advisor was given the authority to "waive" the student from mandatory attendance. No student was denied enrollment in the FYO. There were students that enrolled in course that were not required to attend. For example, they may have not been degree seeking students or had previous credits at Rural College. These students were excluded from the study.

The student population for the 4-year period is divided into treated and untreated groups. For the two years prior to the FYO's implementation, the students that would have been required to enroll (but did not because no FYO existed) are considered untreated. Students that were required to enroll in the mandatory FYO (2007-08 and 2008-09) but did not—for whatever reason—are considered untreated (non-completers). The students that enrolled in FYO (2007-08 and 2008-09) but did not complete the program are considered untreated (non-completers). Students that enrolled and completed the FYO are considered treated (completers). For the 2004-05 and 2005-06 pre-FYO school years, all students meeting the mandatory criteria (degree/certificate seeking, zero previous credits at the institution, registered for one or more college credits and less than thirty college-level transfer credits) are categorized as untreated, non-FYO students.

Measures

This study focuses on freshman students that successfully completed the first year orientation program. The measures used to determine term-to-term retention are fall enrollment totals and continuous enrollment for the next winter quarter each of the four years.

Study Design

Although this study does not attempt to establish a concrete cause and effect, it parallels the description of a causal-comparative analysis because the data has one independent variable and one dependent variable, two or more groups are being compared, the activity has already taken place, and the independent variable cannot be

changed. For this study, the independent variable is the FYO participants; the one dependent variable is enrollment in the following winter term; the FYO has already taken place; and FYO participants (independent variable) cannot be changed. Schenker & Rumrill (2004) explanation of causal-comparative design provides an excellent explanation of why a causal-comparative design was chosen for this study:

Because causal-comparative designs lack control of most extraneous variables that may also influence between group differences, they provide a limited indication of cause and effect relationships. In experimental studies, manipulation of the independent variable, and controlling for extraneous variables through random assignment to groups, allows the researcher to conclude, with some degree of certainty, that the effect the independent variable had on the dependent variable was causative. Without the ability to manipulate the independent variable or randomly assign participants to groups, the causal-comparative researcher cannot conclude with certainty what effect the independent variable had on the dependent variable. The research can only conclude that the groups differ with respect to that variable...he or she cannot conclude that [the independent variable] "caused" this difference. This limitation by no means implies that causal-comparative designs are not useful; rather, they provide a structure for examining group differences when causal inference is not the primary purpose of the study...The most common method of selecting participants for casual-comparative research studies is to choose

participants who already belong to the groups that the researcher is

interested in studying. (p. 118-119)

For this study, there were extraneous variables (such as mandatory advising) could not be controlled that may have influenced between-group differences. It also lacked the ability to manipulate the independent variable (FYO) or randomly assign students to groups; therefore, the study could not conclude that the FYO "caused" the increase in retention. But a causal-comparative design does give a structure to show the relationship strength between a FYO and retention. Also, "causal-comparative studies…provide broad hints concerning cause and effect relationships which, when pursued, may produce significant new understandings in education" (University of Wisconsin, 1973).

Educational researchers frequently use chi-square for nonparametric tests of significance and when data are categorical (Borg & Gall, 1989; Gall, Gall, & Borg, 1999), and chi-square is used to compare frequencies or proportions in two or more groups (Dawson & Trapp, 2004). For significant chi-square results, the contingency coefficient is computed as an effect size to show practical significance. The main research hypothesis—that there was a difference in the retention rate between students that completed a FYO course and students that did not complete in a FYO course—are tested using chi-square calculations to determine if there is a statistical significance between these two cohorts. Chi-square analysis was also used because the Pearson chi-square test is the most widely used method in association analysis (Yang, He & Ott, 2009).

Data was obtained from the two years prior to the 2006-07 pilot and for the first two years the program was mandatory (2007-08 and 2008-09). This established control of the population and environment as the students came from the same district population, attending the same college, and taking the same basic sequence of courses taught by the same general population of instructors. Participants were selected if they are degree/certificate seeking, have zero previous credits at Rural College, are registered for one or more college credits, and have less than thirty college-level transfer credits. Enrollment frequency counts were obtained for these four years. Data from the pilot year (2006-07) was not included as these students self-selected the course. Students motivated to participate in the pilot—independent of a mandatory requirement—may possess educational, motivational or risk-taking attributes that account for increased retention. No students were mandated to take the pilot course.

Procedure

Raw data for each of the eight terms (fall and winter for 2004-05, 2005-06, 2007-08 and 2008-09) were be requested from the institutional researcher at Rural College. Students were coded and personally identifiable information was removed. Non-degree seeking students, students with one or more college credits from Rural College, students taking non-credit courses, students transferring with 30 or more credits, and students waived by their advisors from attending the FYO were removed. The data included initial student enrollments for fall and reenrollment for winter term for each of the aforementioned years. The retention rates for the overall student population were calculated.

Data Analysis

Raw data was be received in Microsoft Excel format. The data was analyzed using Statistical Package for the Social Science Release 16.0. Enrollment frequencies were calculated for each term. The data used in this study was non-continuous and nonparametric. Therefore, the chi-square test for categorical data was calculated to find significant differences in output data (Borg & Gall, 1989; Gall, Gall, & Borg, 1999). Chisquares were used to calculate significant differences in retuning versus non-returning student totals. Contingency coefficients were calculated to establish an effect size and reveal practical significance. To further strengthen the chi-square analysis, overall retention percentages for all cohorts and a one-way ANOVA test for preference differences were included.

CHAPTER FOUR

RESULTS

This chapter details the results of the study. Analysis was completed to address the influence of a FYO on freshman students at a rural, 2-year community college. Specifically, the retention of six cohorts was analyzed based on whether or not students were retained from fall to winter terms. Chi-square analyses were performed using SPSS statistical analysis software. The study sought to determine the significant relationship between completing a FYO and increased retention.

Student Demographics

Rural College is made up of a predominately Caucasian student body. Over the course of the study, the participants averaged 78% Caucasian. The remaining other ethnic groups remained constant with the exception of Hispanic students. Table 1 illustrates that Hispanic student population decreased and Unknown/Not Reported increased in the last two years of the study, 2007-08 and 2008-09, from the first two years of the study, 2004-05 and 2005-06. A conversation with the Institutional Reporter/Researcher at Rural College revealed that the college went to a mandatory ethnicity reporting between 2005 and 2007. The Reporter believes this change resulted in a number of Hispanic students designating "Unknown/Not Reported" in lieu of "Hispanic." With this exception, the ethnicity percentages remained fairly consistent for the four years analyzed.

Due to the high number of Caucasian/Unknown/Not Reported students and low number of minority students, the study is unable to make relationships between ethnicity

and retention. A larger minority sample is necessary to analyze the influence of a FYO

on the retention of this population.

Table 1

Cohort distribution by ethnicity

	2004-05	2004-05	2005-06	2005-06	2007-08	2007-08	2008-09	2008-09
	N=	%	N=	%	N=	%	N=	%
Caucasian	298	81%	308	76%	235	80%	226	76%
Hispanic	32	9%	43	11%	8	3%	9	3%
African								
American	9	2%	9	2%	6	2%	1	0%
Native								
American								
/Native								
Alaskan	10	3%	15	4%	10	3%	18	6%
Asian								
American								
/Pacific								
Islander	3	1%	5	1%	4	1%	5	2%
Multi-								
Racial	2	1%	2	0%	6	2%	4	1%
Unknown								
/Not								
Reported	16	4%	21	5%	25	8%	34	11%
Total	370	100%	403	100%	294	100%	297	100%

Note: Students that did not pass the FYO course (2007-08, N=25; 2008-09, N=73) or did not enroll (200708, N=79; 2008-09, N=152) were not included in 2007-08 and 2008-09 cohorts; these groups are considered untreated, non-completers. The retention percentages of all treated versus untreated groups are depicted in Figure 1.

Over the course of the study, females averaged 58% of each cohort versus an average of 42% males. Table 2 reveals the cohort divided by gender and further demonstrates that the demographic of the cohorts remained essentially constant during the four years examined.

Table 2

	2004-05	2004-05	2005-06	2005-06	2007-08	2007-08	2008-09	2008-09
	N=	%	N=	%	N=	%	N=	%
Male	142	38%	165	41%	144	49%	126	42%
Female	228	62%	238	59%	150	51%	171	58%
Total	372	100%	403	100%	294	100%	297	100%

Cohort distribution by gender

Approximately 75% of the students in this study were 24 years or younger, and the age distribution of the participants in this study remained fairly consistent throughout the study.

Changes in Retention over the Four Cohorts Studied

The first step in computing the chi-squared analysis was simultaneously presenting the observed, retained frequencies versus the observed, not retained frequencies in a contingency table. The observed, retained frequencies represent students that persisted from fall to winter term in 2004-05 and 2005-06 (considered pre-FYO) that would have been mandated to enroll in a FYO if one existed and students completing a FYO course in 2007-08 and 2008-09. Next, the expected frequencies were computed for the retained and not retained students. The observed and expected frequencies for each group are given in Table 3. Using this table, the chi-square was calculated using the formula chi-square = the sum of all the $(f_0 - f_e)^2 / f_e$. A chi-square of $X^2(6) = 74.99$ was determined for this analysis. Because the 74.99 chi-square value exceeds the 12.59 critical value found in the chi-square distribution table, retention is found to be significantly different between the two variables measured. This chi-square value indicates that a significant change has occurred between the years measured. A

chi-square value of 12.39 or less would have indicated that there is no significant difference between the years analyzed. Follow-up analyses are needed to determine where the change in retention actually occurred. In order to make this determination, there needs to be analyses of successive pairs of cohorts.

Table 3

Observed and expected frequencies for pre-FYO students and students completing a FYO course ($F_o = f$ requencies observed, $F_{e} = f$ requencies expected)

	Retained	Retained	Not Retained	Not Retained
	Fo	Fe	Fo	Fe
Pre-FYO				
2004-05	261	280	109	90
Pre-FYO				
2005-06	258	305	145	98
FYO				
Completers				
2007-08	257	223	38	72
FYO				
Completers				
2008-09	257	225	40	72

If the retention for students completing a FYO course is significant, then the retention comparison between the two pre-FYO cohorts—that did not attend a FYO because one did not exist—should *not* be significant. This was found to be the case. The chi-square for 2004-05 and 2005-06 was $X^2(1) = 3.37$ (Table 4). The critical value found in the chi-square distribution table is 3.84. This indicates a low practical significance between the two, pre-FYO cohorts. Again, if the retention for students completing a FYO course is significant, then there should be a significant difference between the pre-FYO retention rate and retention rate of the students completing the program in the first year it was mandated. After a contingency table is created (Table 5) and chi-square analysis

performed on these two cohorts (pre-FYO 2005-06 and FYO Completers 2007-08), the chi-square for this comparison is $X^2(1) = 74.41$. When compared to the critical value of 3.84, this result indicates a significant change in retention rates that occurred between 2005-06 and 2007-08. Finally, a comparison of retention rates for the two years of students who completed a FYO—similar to the comparison of the two pre-FYO years—should show *no* significant difference. Again, this is the case. A chi-square analysis of the contingency table (Table 6) for the 2007-08 and 2008-09 FYO treated years resulted in a chi-square of $X^2(1) = .06$. This result is statistically non significant and indicates little or no significant change in retention between these two cohorts. Because there were no significant program changes between 2007-08 and 2008-09, no significant change is expected. These series of chi-square analyses demonstrate a positive relationship between completing a FYO course and increased term-to-term retention.

Table 4

Observed and expected frequencies for pre-FYO students ($F_{\rho} =$ frequencies observed, $F_{\psi} =$ frequencies expected)

	Retained	Retained	Not Retained	Not Retained
	Fo	Æ	Fo	Fe
Pre-FYO				
2004-05	261	280	109	90
Pre-FYO				
2005-06	258	305	145	98

The chi-square for 2004-05 and 2005-06 was $X^2(1) = 3.37$. Again, there is no significance difference between the two pre-FYO years.

Table 5

Observed and expected frequencies for pre-FYO students and students completing a FYO course ($F_o = f$ requencies observed, $F_{e_o} = f$ requencies expected)

	Retained	Retained	Not Retained	Not Retained
	Fo	Fe	Fo	Fe
Pre-FYO				
2005-06	258	305	145	98
FYO Completers				
2007-08	257	223	37	71

The chi-square for comparing 2005-06 Pre-FYO students and 2007-08 FYO completers is $X^2(1) = 74.41$. Again, this indicates a significant difference in the retention between the untreated and treated cohorts.

Table 6

Observed and expected frequencies for 2007-08 and 2007-08 students completing a FYO

course $(F_o = frequencies observed, F_{e_o} = frequencies expected)$

	Retained	Retained	Not Retained	Not Retained
	Fo	Fe.	Fo	Fe
2007-08	257	223	37	72
2008-09	257	225	40	72

The chi-square for 2007-08 and 2008-09 was $X^2(1) = .06$. Again, there is no significance difference between the two years students completed a FYO course.

The overall retention percentage for 2004-05 and 2005-06 cohorts (all untreated), 2007-08 and 2008-09 students (untreated and treated) are depicted in Figure 1. These percentages reinforce the chi-square results that indicate a relationship between students completing a FYO course and increased term-to-term retention.

Figure 1

Overall reenrollment by cohort



Percentages indicate that retention was found to be significant related to treated versus non-treated groups.

To further strengthen the relationship between completing a FYO and student retention, a one-way ANOVA was used to test for preference differences among four untreated (2004-05, 2005-06) and treated populations (2007-08, 2008-09). Retention for untreated and treated populations differed significantly across the four years, *F* (3, 1360) = 26.82, *p* < .000. The null hypothesis, H_o = all population means are equal, is rejected. There is a significant difference between the retention of the four populations. Next, a Bonferroni adjustment was made using SPSS to control for a Type I error (Abdi, 2007). Bonferroni post-hoc comparisons of the four years indicate that untreated populations (2004-05 *M* = .71, 95% CI [.66, .75] 2005-06 *M* = .64, 95% CI [.59, .69]) gave significantly different retention rates than treated populations (2007-08 *M* = .87, 95% CI

[.84, .91] 2008-09 M = .87, 95% CI [.83, .90]). Again, the null hypothesis H_o = population means between treated and untreated are equal, is rejected. When the untreated populations are compared against themselves (2004-05 M = .71, 95% CI [.66, .75] 2005-06 M = .64, 95% CI [.59, .69]), there was no statistically significant difference at p < .181. The null hypothesis H_o = population means between untreated are equal, is accepted. Comparisons between the treated populations (2007-08 M = .87, 95% CI [.84, .91] 2008-09 M = .87, 95% CI [.83, .90]) were not statistically significant at p = 1. The null hypothesis H_o = population means between treated are equal, is accepted.

These ANOVA comparisons reinforce the chi-square analyses: if there is a significant relationship between completing a FYO and retention, then the most significant change should occur between the last year when there was no FYO offered (2005-06) and the first year that the program was implemented (2007-08). Both the chi-square and ANOVA analyses indicate a significant change between these years. Also, there should be no significant difference in retention between the first two years when no program existed and between the first two years the program was mandated. Again, both the chi-square and ANOVA analyses indicate no significant changes between these comparisons.

CHAPTER FIVE

DISCUSSION

Introduction

Within a year after Rural College held its fall 2008-09 FYO, President Obama proposed the American Graduation Initiative. This 12 billion dollar federal investment will substantially expand the capacity of the nation's community college system. Included in the initiative is the College Access and Completion Fund. This fund supplies 2.5 billion dollars that will go to innovative programs that increase student success (Baime & Kent, 2009). In addition to analyzing the influence of a FYO and contributing to the much-needed community college research arena, the author is offering a template for community colleges could use to develop an innovative student success program that coincides with President Obama's College Access and Completion Fund. Coupled with President Obama's philosophical and financial support of community colleges, the timing for this study could not be better.

Discussion

Under the auspices of a Title III grant, Rural College piloted a comprehensive First Year Orientation program in the fall of 2006-07 to improve the retention of freshman students. Although mandatory orientations are unusual for community colleges, the following fall of 2007-08, Rural College mandated the program for all freshman seeking degrees or certificates at the college. The program was designed to involve and integrate students to the academic and social culture of the college and was based on the retention theories of Tinto (1975, 2003, 2006), Astin (1975, 1999), and the author. The author posits that students who anticipate potential hurdles in their college journey, devise strategies to overcome them, and identify support systems will have a higher retention rate than those students that are essentially clueless to the inevitable challenges they might face.

Purpose of the Study

The study was designed to determine the overall influence of the First Year Orientation program on term-to-term retention of freshman students at Rural College. The analysis of the results demonstrated a statistical significance in the retention of students completing the program, presented a justification for a mandatory attendance requirement, and advocated the replication of the program at similar community colleges. From its inception, the study was never intended to establish a definitive cause and effect relationship. However, in the current economic climate it is important for colleges to focus their attention and resources on programs that demonstrate a statistical significance and relationship for improving retention. In addition to establishing the significance of a FYO and retention, this study provides background and practical application of the program. It is the author's hope that the program and similar studies will be replicated at other community colleges across the nation.

Findings

For the first two years that Rural College mandated a FYO for its incoming freshman, there was a substantial increase in the term-to-term retention of the students that completed the course compared to students that did not participate and/or complete the course. There were also significant increases in retention for students completing a

FYO when compared to similar students that were not offered the course during the two, pre-FYO fall terms (2004-05, 2005-06). The findings of this study concur with the theories of Tinto and Astin. Tinto suggests that students progress through stages as they make the transition from being a first time in college student to being a mature student. These stages are influenced by academic and social integration; working together, both lead to the student's decision to remain in or to leave college" (Fike & Fike, 2008, p. 69). During the FYO, students were given numerous opportunities to become integrated into Rural College's campus and culture. From tours to faculty interaction, students were introduced to the college community. This corresponds with Tinto's theory. Astin's Student Involvement Theory states that as "students increase their physical and emotional investment on their college campus, their rate of retention increases" (Derby & Smith, 2004, p. 765). Introducing college support programs, such as tutoring and TRiO was a key proponent of the FYO course. Students were also encouraged to join clubs and participate in extracurricular activities. These efforts lined up with Astin's theory and were designed to increase the students' investment in Rural College.

Anticipating and Overcoming Hurdles Theory

One of the key theories in developing Rural College's FYO was that freshman retention increases when students anticipate potential hurdles, brainstorm ideas to overcome these challenges, and seek necessary resources for help. Whenever possible, this theory was integrated into every aspect of the program. For example, students were given a seminar assignment entitled "Barriers to Success" at the beginning of the session. *From the very beginning, students were exposed to the fact they will, not might,*

encounter hurdles in their academic journey. On their own, they were to anticipate what might be a barrier to their success and brainstorm strategies on how to overcome each barrier. All sessions were designed to integrate the students to the college (Tinto), to involve them in areas that would help them be successful (Astin) and to develop a mindset of overcoming inevitable barriers. In conjunction with the FYO and using the barriers theory as a catalyst, the Enrollment Management Unit attempted to improve the student-centered culture of the college. Each area, beginning with Enrollment Management, was encouraged to predict its barriers to student success and brainstorm how to become a more student-friendly campus. For example, enrollment and placement testing became streamlined; the website was redesigned; and an early alert system was designed for students having academic difficulties. At the conclusion of this study, two math instructors were piloting a program that measured student success strategies. These strategies included contacting students after their first absence and offering exam options for students with excellent attendance along with completed assignments. At the beginning of the FYO at the large group session, students were given a "pep talk" by the Student Success Specialist that gave the background to the barrier theory and linked the process of overcoming hurdles to job success. A key point of the speech was, "Employers know that if you have been able to successfully go through college and get around all the barriers that come up against you, then you are not going to quit the first time you encounter problems on the job." A transcription of the talk is found in Appendix D.

Student Voice

At the end of the 2006-07 pilot program, anonymous surveys—approved by Rural College's IRB—were given to students that participated in the FYO. The primary purposes of the survey were to give students a voice in improving the program and to use a qualitative measure to gauge students' attainment of the program goals. As West states, 'Voice' in this context is 'not simply about the opportunity to communicate ideas and opinions; it is about having the power to influence change' (as cited in Manefield et. al, 2007). Students understood that their suggestions would be used to improve future FYO sessions. More importantly, in regards to this study, the majority of the survey responses supported the attainment of program goals. The first goal was for students to make connections with other new students. When asked what students liked best about the FYO, students repeatedly stated that getting to know new people was a highlight. Regarding the goal of understanding institution policies and procedures and getting to know the college campus, faculty and staff, many students commented on "learning about the campus." Several noted that their confidence level had increased. "I got more information on my resources. It made me feel like I 'belong'" and "I feel much more confident & comfortable with starting school Monday" indicated an increased confidence level absent prior to the FYO. One student could "feel the vibe and how different it is than high school." Students also indicated that they were more aware of their academic responsibility and where to go for much-needed resources; responses included "I learned what is expected," "pointing out resources," and "I learned more about my college Future." A list of the students' verbatim answers is found in Appendix F.

Eighty-seven percent (87%) of the respondents agreed or strongly agreed that they felt more comfortable with their transition to college; ninety-four percent (94%) strongly agreed or agreed that they know where to find support services when necessary; and ninety-six (96%) strongly agreed or agreed that they were aware of their responsibilities as a student. These percentages reinforced that the goals of the program were being met.

Implications

Implications for Policy

As noted earlier, 46% of 2-year community college students leave before the end of their freshman year (ACT, 2009). For community colleges that rely on operating funds generated from student attendance, this creates a tremendous challenge to retain as many students as possible. The focus of student retention efforts must be on policies and programs that give "the most bang for their buck." Derby and Smith (2004) found a significant association between an orientation program and student degree completion, retention and persistence at a community college. This study demonstrates that an orientation program may be the best effort a college can undertake to increase the retention of freshman students. First, a FYO gives students a "running start" in their academic journey. They learn how to navigate through a confusing—and often intimidating-academic system. Community colleges have an open access policy, and 43% of their students require remediation (Roueche & Waiwaioli, 2009) research indicates that most and come unprepared for college-level courses. Colleges need to intervene early and often, and a new student introduction course is an excellent program to help these unprepared students succeed in their academic journey.

Unfortunately, there are no clear national, state or local policies that support first year orientation programs. Although there are non-governmental organizations such as University of South Carolina's "National Resource Center for The First-Year Experience and Students in Transition" that have a mission dedicated "to support and advance efforts to improve student learning and transitions into and through higher education" (National Resource Center, 2010) and John Gardner's "Policy Center on the First Year of College" (Policy Center, 2010) which "places particular emphasis on special efforts to improve the success of beginning college students," a one-size-fits-all nationally organized first-year program does not exist. In fact, the goal of creating a national—or even a statewide program is counterproductive to Barefoot, Schroeder, Gardner, Morris, & Schwartz' definition of an excellent first year project. They state the first criterion to achieving and sustaining institutional excellence for the first year of college as "evidence of an intentional, comprehensive approach to improving the first year that is appropriate to an institution's type and mission" (2005, p.6). The first-year experience must be specific to each institution, its mission and students. Although this study takes place at a rural, 2year community college, the goals and theories that were used to develop the program are universal to most community colleges and not limited to rural colleges in the Pacific Northwest. These goals and theories can be adopted simultaneously with a college's specific type, mission and students to achieve Barefoot et. al's definition of sustainability and excellence.

Often programs developed with grant funds are discontinued after the funding ceases. From the beginning of Rural College's FYO inception, all attempts were made to

make the program cost-effective. In the face of increased budget deficits, keeping the program financially sustainable was paramount. Too often working with first year students "may be considered by some to be a black hole into which the institution is unnecessarily pouring vast sums of money" (Barefoot as cited in Keup, 2007). To combat this notion, Rural College used exempt staff that included FYO activities as "other duties as assigned" and classified staff that received "comp time-off" in lieu of payment. Faculty members teaching Sample Classes were compensated according to their bargaining agreement. There was also a \$10 fee charged to each student to cover the cost of supplies, lunch and faculty stipends. The program "broke even" with the \$10 fee. Communicating the cost versus benefits to the governing body at Rural College was a key to securing the mandatory FYO requirement. Noel, Levitz and Richter (1999) point out through their Retention Saving Worksheet (Appendix E) that the "savings that would occur if the dropout rate were reduced by 10 or 20 percent... the marginal cost of educating each additional unit of enrollment is far less than the average cost of all enrollment unit. What is evident in the examples is that even the most modest reduction in attrition rate of 10 percent, meaning a reduction in attrition from 30 to 27 percent, would result in saving of hundreds of thousands of dollars even at a very small institution" (p. 32). Their research shows that by reducing the number of freshmen dropouts by a single student, a 4-year institution will, on average, "save" \$15,000 to \$25,000 in gross revenue over four to five years. Savings are accrued through the net revenue saved when students continue from their first-year to graduation. It is conceivable that the same holds true for 2-year institutions: "investing in retention

programming is good business. Few, if any, other institutional investments will yield such a high return" (Noel, Levitz & Richter, 1999, p. 48). Rural College mandated the program when the cost versus benefit ratio became apparent, especially after the increased retention was realized in the pilot program.

Implications for Practice

Hunter and Linder (2005) offer several recommendations for implementing a first-year experience: 1) involve faculty, students, student affairs staff, and academic administrators in creating new first-year seminars, 2) anticipate possible opposition to seminars, 3) design seminars with specific goals in mind, 4) incorporate assessment of seminars, 5) develop seminars that reflect the needs of a particular campus and its students, 6) design first-year seminars to include elements commensurate with the norm of academic credibility on campus, 7) incorporate significant academic content into seminars, 8) include upperclass students in planning and implementing first-year seminars, 9) provide preparatory and ongoing training for seminar instructors, 10) provide instructors with access to resource materials, and 11) reconsider seminar viability on a systematic basis. Rural College implemented these recommendations in the following manner.

Involve faculty, students, student affairs staff, and academic administrators in creating new first-year seminars

At Rural College, a Design Team consisting of the recruiter, financial aid director, student success specialist (Title III position), classified staff and two faculty members met ten times prior to presenting the program to the college's governing body. Each

Design Team member was tasked with informally asking his or her colleagues the following question: "What do you feel is the most important information or skill that our new students need to be successful?" Team members reported the responses they received and every effort was made to include the suggestions in the program. It is interesting to note that faculty overwhelmingly felt that students need to understand their responsibilities as students. This became one of the key outcomes of the program and was evident in the majority of the activities.

Anticipate possible opposition to seminars

In the year prior to the FYO pilot, a mandatory program was attempted at Rural College that could be considered, at the very least, a disaster. Students that did not meet the requirement were blocked from registering for classes. This created a deluge of problems for the admissions department including an overall negative attitude towards future implementation of "mandatory" programs that had negative consequences for students (in this case, blocking students to register). Because the creators of the FYO program understood that students needing the orientation the most are the least likely to self-register register for the program, making the program mandatory was in the best interest of the students and institution. Realizing the current campus atmosphere regarding mandatory programs and that the college would need "proof" of a successful program, the designers were able to pilot the program in 2006-07. Students self-selected the program, and participation was optional. Data indicating a substantial retention increase (20% overall term-to-term) was then presented to the governing body and communicated across the campus. Also, the Design Team outlined a detailed, systematic

process that foresaw and addressed potential problems that could arise with blocking students.

Design seminars with specific goals in mind

As stated earlier, Rural College developed its FYO with specific goals in mind: make connections with other new students, understand institution policies and procedures, get to know the college campus, faculty and staff, discover the resources available to students, accept personal responsibility for academic success, anticipate potential hurdles and barriers that can hinder success, and brainstorm ideas and identify resources to overcome potential hurdles.

Incorporate assessment of seminars

Quantitative and qualitative evaluations were designed to evaluate whether or not specific goals were being met. During the last fifteen minutes of the six hour orientation, the anonymous student survey was distributed (Appendix C). The first nine Likert scale questions were designed to assess whether the program was meeting its goals. The next ten questions were specific to activities: questions asked how helpful individual activities were to the student's transition to college. The last three open-ended questions solicited comments regarding the likes, dislikes and overall impression of the course. Responses for the first seventeen questions were tabulated based on percentages of the answers. The responses to the last three questions, with duplications eliminated, are listed in Appendix F. The results were published and distributed to the Design Team at a debriefing session held the week following the pilot. The following suggestions were made by the Design Team based on the evaluations, observations and campus feedback: offer one day, sixhour sessions, whenever possible, incorporate fun activities, schedule more time for tours and make the tours earlier in the day, be sure the bookstore is open for business during the [FYO], include a diversity activity, involve more faculty, make the [time management activity] a large group activity, have a discussion on academic honesty/dishonesty, and decrease sample class length from one hour to fifty minutes.

Develop seminars that reflect the needs of a particular campus and its students

This suggestion corresponds with Barefoot et. al's definition of an excellent first year project (2005): programs must be appropriate to an institution's type and mission. Although Rural College's FYO was developed with theories and goals that can be applied to every institution, activities were developed with Rural College's specific campus and students in mind. As mentioned earlier in question #1, the campus community was asked to give input on the specific needs of Rural College's students. Obtaining this input not only met the particular issues Rural College students were facing, but also gave college stakeholders a personal interest in the program. For example, Rural College has a number of branch centers. The associate vice president of one branch stated that her student demographic was made up of older, more mature/responsible students that did not necessarily need a FYO or did not have the means to travel to the main campus where the program was being held. She was concerned that her class registration numbers would drop because students would be blocked for not enrolling or completing the course. Although the creators of the FYO did not want to give advisors the option of waiving students from the program, it became

necessary to grant advisors the authority to do so—particularly those at branch campuses—in order to mandate the program. Also, a hybrid course was designed (two hours face-to-face at the branch center, four hours online) to accommodate the students at branch centers. Although the theories and goals used in developing the program had not changed, specific implementation was tailored to the specific needs of the college and its students.

Design first-year seminars to include elements commensurate with the norm of academic credibility on campus

Unfortunately, the designers of the program were not able to obtain academic credit for the course. All academic courses qualifying for reimbursement by Rural College's state funding system must be accepted by the state board, and orientations are not considered transferrable credit courses. Therefore, the FYO would not qualify for credit status.

Incorporate significant academic content into seminars

Due to the short length of the course (six-hours), extensive reading and writing requirements were not included. However, there was an "Academic Plan" assignment (Appendix G) that exposed students to the concept of course planning. The students were encouraged to use the catalog to "map out" as many of their community college courses as possible. Students were not expected to complete the plan (although many did) but were instead encouraged to use the plan as a springboard when meeting with their advisors. Research indicates that there is a clear relationship between poor advising and retention. Metzner found that students who reported having "good advising" dropped out

at a rate that was lower than students who received "poor advising" (25% lower) and 40% lower than students who received no advising at all (1989). The FYO course was not created to take the place of advising; however, it did incorporate an academic plan that exposed students to the importance of academic planning and advising. Students were encouraged to research the course selection process in line with their education/career pathway and "self-advise." To make the most of their mandatory advising sessions, they were instructed to do as much as they could on their own prior to seeing their advisor. Introducing an education plan at the FYO ensured that each student was given a consistent exposure to academic planning. Advisors knew their freshman students had this exposure, and advisors were encouraged to use this exposure and planning sheet as a tool to enhance the advising process.

Include upperclass students in planning and implementing first-year seminars

Student ambassadors were responsible for giving the campus tours during the FYO. Prior to hosting the tours, each ambassador was given a three-ringed notebook detailing where they were to go along with pertinent information regarding each place on campus. They were given a sample tour by FYO staff developers and encouraged to take notes to be used on their FYO tours. The goal was to be sure each tour group received consistent information, help with student integration, and locate support areas on campus. There were also student "helpers" who were strategically placed around the campus to answer questions and give directions to FYO students in need. Clubs on campus were encouraged to have a student present during the tour schedules. All student assistants were given t-shirts with the FYO logo and were easily identified.

Provide preparatory and ongoing training for seminar instructors

A 24 page seminar leader's guide was created and distributed to each of the seminar leaders. It contained detailed lesson plans that included the activity, timeframe, prompts and props. The seminar leader's guide was designed to train leaders in as short a period as possible prior to their sessions; the intent was that they only needed to be familiar with the guide to lead the course. The guide gave detailed instructions on how to "run" each session. The goal of specific instructions was to ensure continuity in the activities and information presented during the FYO. Leaders were given copies of their seminar rosters along with a master roster. The master roster was supplied so leaders could direct "lost" students to the correct seminar group. Each seminar groups was assigned a color, and seminar leaders wore t-shirts corresponding to his or her group. Although this seemed like a good idea during the planning process, the FYO organizers decided not to use colors for future groups as colors could inadvertently reference ethnic groups.

Provide instructors with access to resource materials

In addition to the Seminar Leader's guide, leaders were given a "tool box" with necessary supplies including markers, post it notes, name tags, emergency contact numbers, white board erasers, pens, pencils for each student, etc. They were also given information on college resources such as TRiO, library services, clubs, disability services, Student Learning Center, etc.

Reconsider seminar viability on a systematic basis

The week following the pilot program, the Design Team held a debriefing session which included feedback from participants. Although a participant survey was developed, approved by the IRB and distributed to every person involved (Appendix H), none of the surveys were returned. It became apparent that part of the college's culture was giving verbal feedback; individuals preferred to verbalize their opinions and suggestions. Fortunately, the Design Team solicited and received a rich amount of verbal feedback, and the response was overwhelmingly positive. It was determined that the surveys were not the best way to receive responses from the participants. However, surveys would be given in the future along with an incentive to return them.

Implications for Future Research

Research for community colleges is sparse, especially in comparison to 4-year colleges and universities. This study has several implications for both qualitative and quantitative FYO-related research.

Qualitative research

For this study, students were surveyed at the end of their FYO session regarding the effectiveness of the program. Students attending the FYO should also be surveyed at the end of their first term to determine how the FYO—in hindsight—impacted their success. Also, qualitative research that investigates reasons why freshman community college students drop out after their first term in college would be beneficial to planning and implementing a FYO. Davig and Spain (2004) found campus tours, required group activities, information regarding [curriculum planning], advising, and study skills as the topics most strongly correlated to student persistence at the 4-year, public university they studied. A future qualitative study of which FYO topics are correlated to student retention at a 2-year, public college would be beneficial to implementing new FYO courses.

Quantitative research

Quantitative term-to-term retention studies on various demographics in relation to FYO attendance would help FYO planners to include specific focus areas in their program. Demographics investigated could include part-time versus full-time students, students receiving financial aid, traditional versus non-traditional students, gender, ethnicity, students requiring remedial courses, COMPASS scores, and high school diploma versus GED earners. Once the barriers and hurdles are identified for each demographic, planners can develop strategies to overcome these hurdles. In addition, researching degree/certificate completion rates of FYO completers versus non-completers would be helpful in determining the long-term benefits of a FYO program. For urban community colleges with similar FYO programs, term-to-term retention can be compared to that of a rural college. Another future quantitative study could be comparing the retention of a "front-loading" intensive FYO (similar to the FYO in this study) to a success course offered for an entire term. Using the retention savings worksheet found in Appendix E, the cost of implementing a FYO versus the savings benefits should be investigated; this research would be especially timely based on the nation's current economic situation. Schnell and Doetkott (2002) recommend future longitudinal studies of 4-year institutions using matched comparison groups. Similar longitudinal studies

using matched comparison groups over two to three years at community colleges could have positive implications for future research.

Conclusion

Unlike 4-year universities with specific enrollment requirements, very few students are turned away from a community college with an open access policy. Both 4year and 2-year institutions can be compared to mail delivery systems. A 4-year institution resembles FedEx® and delivers only to specific locations; these colleges and universities can be selective and "deliver" their education goals only to those that meet their enrollment requirements. Community colleges, on the other hand, act more like the United States Postal Service[®]; they "deliver" their education goals to anyone with a GED or high school diploma. Due to the challenge of serving an open and diverse student population, community colleges must address student retention strategically. In addition, 2-year colleges face uncertain economic conditions, funding sources tied to enrollment numbers, a lack of community college research and heightened levels of accountability. These challenges require community colleges to be deliberate in their program delivery and focus on retention programs that increase retention. Research has shown that carefully a designed, coherent first-year program—including the one outlined in this study—results in greater overall student success and improved retention (Barefoot, 2000). This study demonstrates the influence of a first-year orientation program on freshman student retention and offers practical guidance for creating or improving FYO's at other community colleges. With the onset of future funds available through President Obama's efforts, this study can serve as a catalyst for improving student success and

stimulating future community college retention research. It would behoove states, institutions and board members to take advantage of this funding window and focus their attention on new student orientation programs.

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APPENDIX A

First-Year Orientation Agenda

First two hour session:

6:00 – 6:45 p.m.	Large Group
6:45 – 7:15 p.m.	Support Persons' Tour & Student Large Group
7:15 – 7:45 p.m.	Support Large Group & Students' Tour
7:45 – 8:00 p.m.	Refreshments

Second four hour session – (following day):

8:00 – 8:55 p.m.	Seminar Groups	
9:00 – 9:25 a.m.	Modules	
9:35 – 10:00 a.m.	Modules	
10:00 – 10:10 a.m.	Break	
10:10 – 11:10 a.m.	Sample Class	
11:15 – 11:30 a.m.	Return to Seminar Groups	
11:30 – 12:00 p.m.	Lunch/Mix with students	

APPENDIX B

Outline of FYO Sessions

Large Group:

- Welcome (ASG President and/or College President)
- Advising (Advising Director discussed advising issues)
- Language of Responsible Learners
- Assign Campus Awareness Activity/ Campus Tours
- Introduction to Rural College's Academic Planning course
- Time Management (PowerPoint presentation)

Seminar Groups:

- College and Student Expectations (students completed a quiz and then discussed expectations of both the college and students)
- Education Planning (students were asked to chart the classes for their next six terms)
- Tutoring (students were informed of the tutoring offered at Rural College)
- Diversity (students participated in a group activity that focused on tolerance and acceptance of others)
- Differences Between High School and College Sheet (students used a chart to explore how college differs from high school)
- Case Study on Late Paper (or other case study)
- Characteristics of Successful Students (activity)
- Rural College Policies (discussion or activity):
 - Warning/Probation/Suspension
 - Academic Honesty
 - College Terminology

Module Choices:

- Student Finances (student employment, financial aid, scholarships, loans)
- Library and Computer Survival
- Online/Distance Learning
- Involvement (clubs, Associated Student Government (ASG), choir, Ambassadors, athletics)

Sample Classes:

There were three classes offered:

- English or Speech
- Mathematics and Science
- Humanities or Social Sciences

APPENDIX C

Student Survey

- Overall, I feel more comfortable in my transition to college. Stongly Agree Agree Slightly Agree Slightly Disagree Disagree Stongly Disagree
- My knowledge about college terminology and vocabulary has increased. Stongly Agree Agree Slightly Agree Slightly Disagree Disagree Stongly Disagree
- The content of the modules were applicable to my college success.
 Stongly Agree
 Agree
 Slightly Agree
 Slightly Disagree
 Disagree
 Stongly Disagree
- I know where to find different support services when necessary.
 Stongly Agree
 Agree
 Slightly Agree
 Slightly Disagree
 Disagree
 Stongly Disagree
- I established relationships with peers.
 Stongly Agree
 Agree
 Slightly Agree
 Slightly Disagree
 Disagree
 Stongly Disagree

- I established relationships with [Rural College] faculty and/or staff. Stongly Agree Agree
 Slightly Agree
 Slightly Disagree
 Disagree
 Stongly Disagree
- I feel comfortable accessing the library to conduct basic research. Stongly Agree Agree Slightly Agree Slightly Disagree Disagree Stongly Disagree
- My knowledge about diversity in the college environment has increased. Stongly Agree Agree Slightly Agree Slightly Disagree Disagree Stongly Disagree
- 9. I am more aware of my responsibilities as a student. Stongly Agree Agree Slightly Agree Slightly Disagree Disagree Stongly Disagree
- 10. Overall, how helpful were the skits in assisting your transition to college? Helpful Neutral Unhelpful
- 11. Overall, how helpful was the [FYO] Binder in assisting your transition to college?
 Helpful
 Neutral
 Unhelpful

- Overall, how helpful was the campus tour in assisting your transition to college?
 Helpful
 Neutral
 Unhelpful
- 13. Overall, how helpful was the [case study exercise] in assisting your transition to college?
 Helpful
 Neutral
 Unhelpful
- 14. Overall, how helpful was the [Rural College expectations exercise] in assisting your transition to college?
 Helpful
 Neutral
 Unhelpful
- 15. Overall, how helpful was the [responsibility activity] in assisting your transition to college?
 Helpful
 Neutral
 Unhelpful
- 16. Overall, how helpful was the Educational Planning Activity in assisting your transition to college?
 Helpful
 Neutral
 Unhelpful
- 17. Overall, how helpful was the [differences between college and high school] activity in your transition to college?
 Helpful
 Neutral
 Unhelpful
- 18. What did you like most about your [FYO] SEMINAR?
- 19. What did you like least about your [FYO] SEMINAR?
- 20. Please list any suggestions you have for future [FYO's].

APPENDIX D

Transcript of Welcome Address to FYO Attendees

Rural College

September 21, 2006

Welcome to [Rural College]. We are go glad you're here.

A few years ago I asked my friend who had her doctorate in chemistry from Purdue University and I asked her, "What do students need to do to be successful?" I knew that she had made it; she had reached the top in education. And she told me told me the strangest thing. She said, "Being successful in college is being able to get up after you've been kicked down." I thought it was rather odd, but after I had some time to think about it, I realized she was right. Being successful in college is the ability to get around all the barriers that come your way...and they will come.

So right now at the beginning of your education, you need to understand that there will be barriers in your college experience. Right now, make up your mind that when you come up against a problem, you're going to find an answer, go around the barrier and not quit.

I got to thinking about going around barriers: this is what employers want. This is one reason why college degrees are so valuable. Employers know that if you've been able to successfully go through college and get around all the barriers that come up against you, then you're not going to quit the first time you encounter problems on the job.

So I really want to encourage that while you're here at [Rural College] and if you have a problem or can't get around a problem or you're frustrated, seek help. We are here to help you. We want you to be successful.

I encourage you to ask the questions and not quit. We're so glad you're here! Stay with it and finish your education!

APPENDIX E

Retention Savings Worksheet: Calculating the Dollar Value of Reducing Your First-to-Second-Year Dropout Rate Sample of Sample of Public Private Institution

I. Determine the number of students you are losing from first to second year.

A. Enter the number of full-time, first-year students you enrolled

B. Enter your first-to-second-year dropout rate (express as a percentage)

C. Total number of students not returning

II. Calculate the dollar value on average of retaining one full-time, first-year dropout to graduation.

A. Enter your tuition (excluding room and board)

B. Enter your average annual per student/district appropriation (if any)

C. Calculate your annual gross revenue per student

D. Enter your average annual tuition discount (unfunded institutional financial aid)

E. Calculate your average annual net revenue per first-year student

F. Now calculate the value on average of retaining one full-time, first-year dropout to graduation:

1. Enter your earnings for the freshman year

Assumes that, on average, you will gain some tuition revenue by saving a few freshmen who would have dropped out the first term and who instead continue enrollment (and pay tuition) for second or third term of the freshman year.

Estimated tuition saved by additional term(s) of enrollment during freshman year

2. Enter your earnings for the sophomore year

Assumes 90 percent of the saved freshmen* will complete the sophomore year.

Two-year institutions, skip to G; four-year institutions, please continue.

3. Enter your earnings for the junior year

Assumes 80 percent of the saved freshmen will complete the junior year.

4. Enter your earnings for the senior year

Assumes 70 percent of the saved freshmen will complete the senior year.

G. Total net revenue on average gained by retaining one full-time, first-year dropout to graduation:

(Two-year institutions, four-year institutions)

III. Calculate the dollar value of reducing your first-to-second-year dropout rate.

A. Enter the number of first-year students you are losing to attrition

B. Enter the total net revenue gained by retaining one such student to graduation

C. Total dollar value of reducing your first-to-second-year dropout rate by 10, 20, or 30 percent:

10 percent reduction

20 percent reduction

30 percent reduction *Saved freshmen refers only to that group of freshmen who were *prevented* from dropping out as freshmen.

APPENDIX F

Student Survey Answers to Question 18, 19 & 20*

- 18. What did you like most about your [FYO] SEMINAR?
 - [speaker at large group] class
 - Information they provided
 - Tour
 - It was very informative about what to expect As A student At [Rural College]
 - Time management module
 - They were infomated on a lot of questions I had.
 - The free meal
 - Speakers
 - Time managing.
 - Getting familar w/ campus
 - I got more information on my resources. It made me feel like I "belong".
 - Get to know more people.
 - Friendly
 - The tour of campus
 - people information
 - Campus Tour
 - I feel much more confident & comfortable with starting school Monday.
 - The tour was very helpful as well as the module.
 - the introduction to college from H.S.
 - The fact that they were willing to answer questions
 - Learning the campass & skits
 - It was fun
 - The tour, and the sample class.
 - That I met other students
 - Learning about expectations and meeting new people
 - meeting New people and getting more comfortable with the campus
 - Getting to know [Rural College]
 - The lady talking about how our brains work under stress.
 - that I learned more about my college Future.
 - financial aid
 - The seminars
 - Tours
 - the knowledge
 - I liked that we weren't stuck in one classroom the entire time
 - pointing out resources for help
 - The exercise where we sat in a class and the english teacher talked about expectations
 - the food and the campus tour

- Taking an example class because I could feel the vibe and how different it is than high school.
- That I met people
- Seeing the campus + meeting new people. The food
- Speaker
- Helped me understand more
- The binders and the people who were here to help us
- Attention to my concerns.
- The module
- Offered in parts; one part in evening
- Free food
- I learned what is expected.
- 19. What did you like least about your [FYO] SEMINAR?
 - I can't think of anything I didn't like
 - None
 - [sessions were split]
 - Skits
 - Nothing.
 - It was 2 days.
 - Demonstration
 - How long it was.
 - Was kinda boring
 - I liked it all
 - Nothing?
 - I was confused as to where the second session was because the schedule didn't have a room number
 - Long
 - [large group special speaker]
 - all fine
 - N/A
 - Ø
 - the skits
 - Too long
 - Nothing
 - I dont know
 - The part before lunch it would have been better with visuals.
 - The second group session. felt it was point less
 - Skits
 - I only went to one "mock class"
 - Brain function before didn't seem to apply especially as an older adult student
 - Nothing really
 - the expectations exercise
 - Too many case studies.

- Too long
- The Expectations Exercise
- to early in the morning
- It was a little boaring.
- Length of theater talk
- You need to pay attention if you have handicapped people before you go on campus tours
- I had nothing to dislike
- some pointless exercises
- Session 2 material could have been covered in session1, then, see #13*
- It was too long
- Too drawn out and long
- 20. Please list any suggestions you have for future [FYO's].
 - Put sessions together and have it [at branch campus]
 - funding module
 - make it more exciting
 - Not so many examples.
 - Play games.
 - Make it a one day thing as opposed to two days.
 - Guest speakers need to address everyone, not just the younger crowd
 - I think it was fine
 - More time on campass tour
 - None
 - do it again it was fun
 - In the future I think that you should schedule more time for at least 2 module's.
 "<u>the College Finance</u>" should be the main one every goes to. the let them choose another class.
 - maybe use fun skits
 - more hands on things
 - None for now
 - The Math guy is wonderfull, more of Him.
 - More of [name] math guy He's great.
 - Prizes and pizza
 - more exciting
 - Prizes and fun games
 - ?
 - *Perhaps eliminate group session #2 and allow to go to one of the other modules.
 I.e. two modules, 1 group session with the same topics in module 2
 - n/a
 - Can't think of any

*Transcribed verbatim with punctuation, grammar and spelling errors. Duplicated responses were removed.

APPENDIX G

Four-to-Six Quarter Educational Plan

Instructions: This exercise is to assist you in brainstorming your education plan. In the first box, write the classes that you are registered for this quarter. Use the most current catalog on the [Rural College] website at [web address] to fill in classes in the remaining boxes. In order to complete the assignment, plan at least four quarters. *Note: this sheet is for planning; it does not register you for classes.*

Quarter:	Year:	Quarter:	Year:
Class:	Credits:	Class:	Credits:
Quarter:	Vear	Quarter:	Vear
Class:	realized for the second	Class:	Credits:
Ouarter:	Year:	Ouarter:	Year:
Class:	Credits:	Class:	Credits:

APPENDIX H

[FYO] Participant Evaluation

1. During [FYO] 2006, how were you involved? As a (circle all that apply)

Seminar Leader Module Leader Sample Class Leader Other____

- Did you feel well prepared for your participation in [the FYO]? (circle one)
 Very Unprepared 1 2 3 4 5 6 7 8 9 10 Very Prepared
- Overall, hw do you feel about the [FYO] 2006 experience? (circle one)
 Not Good 1 2 3 4 5 6 7 8 9 10 Awesome
- 4. What did students seem to respond to?
- 5. In what ways was [the FYO] effective?
- 6. In what ways could [the FYO] be improved?
- 7. What activities, classes, modules, etc. would you like to see at [the FYO] next year?