The Impact of Policy Changes Restricting Late Registration in a Large Midwestern Community College

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Abstract

The focus of this study was to investigate the differences in the enrollment behaviors and academic outcomes of late-enrolling students before and after the implementation of a more restrictive late registration policy. The study was conducted at a large Midwestern community college and included 5,650 enrollments from Fall 2008 and 2,833 enrollments from Fall 2009. When the more restrictive late registration policy was implemented in Fall 2009, enrollments during the first week of class decreased by 50% and enrollments were effectively shifted to late start course options (64% in Fall 2009).

Regarding academic outcomes, there was no statistically significant difference in course means, drops without a W, or withdrawals with a W for students who enrolled during the first week of Fall 2008 vs Fall 2009. In addition, no statistically significant differences in mean course grades of specific student types (first-time-in-college (FTIC), continuing students, transfer students, students enrolling for the first time for the semester, and students who were only making a schedule change) were detected between Fall 2008 and Fall 2009. There were no statistically significant differences in academic outcomes within any group between Fall 2008 and Fall 2009.

There were statistically significant differences in academic outcomes among student types as a whole without regard to which semester they enrolled. FTIC students had a statistically lower course mean than continuing or transfer students. However, there was no statistically significant difference between the course means of continuing vs transfer students. Students who were only making a schedule change had a statistically higher course mean than students who were enrolling for the first time for the

semester during the first week of class. The lack of statistically significant differences in the course means of students who enrolled during the first week of Fall 2008 vs Fall 2009 provided evidence that requiring students to enroll before a class began did not have a significant impact on the academic outcomes of students who enrolled in the first week of the semester.

Dedication

For Christopher and Caden, the most kind, intelligent, and funny boys any mother could ask for. You are more precious to me than all the stars in the sky and all of the treasures beneath the sea. Go forward in your lives with purpose, joy, and gratitude. Let nothing stop you. Love even when you get hurt, get back up when you fall, and always find the beauty in every journey. I am beyond impressed with the phenomenal young men you are becoming and I cannot wait to watch how your lives unfold, the love you will create, the paths you will forge, and the places you will go.

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Chapter One

Introduction

Community colleges struggle to fulfill dual missions of providing open access to students while simultaneously striving to improve student success (Maalouf, 2012). As community colleges attempt to balance these scales, policies regarding late registration are often at the center of the discussion and may have an influence on student academic performance. What began as a theme emerging from advisor interviews (Freer-Weiss, 1999) has evolved into a science where researchers have attempted to determine the impact of late registration on academic persistence and success. The results of this effort have been mixed. While some researchers have shown time of enrollment had an impact on academic success or persistence (Bolt, 2013; Cornille, 2009; Ford, Stahl, Walker, & Ford, 2008; Hale, 2007; Keck, 2007; Maalouf, 2012; McWaine, 2012; Neighbors, 1996; Safer, 2009; Shriner, 2014; Smith, Street, & Olivarez, 2002; Sova, 1986; Wang & Pilarzyk, 2007), others have found no correlation between the time of enrollment and student success (Angelo, 1990; Perkins, 2002; Tompkins, 2013; Zottos, 2005).

Strong opinions have been voiced that late registration should be abolished (Crisp & Hatch, 2016; O'Banion, 2012; Roueche & Roueche, 1994). In his evaluation of late registration, O'Banion (2012) asserted "the practice, originally intended to keep the doors of opportunity open for students as long as possible, wreaks havoc on the ability of colleges to achieve the goals of the emerging completion agenda" (p. 26). Crisp and Hatch (2016) claimed that shifting away from late registration to require or encourage students to enroll before a class begins is one of the promising high-impact practices for community colleges.

However, despite the strong arguments against late registration, it is unclear whether simply limiting the lateness of enrollment is enough to make a difference in student success (Freer-Weiss, 2004). For community colleges this is an issue of particular importance as students enroll with expectations that their needs will be met at the time they are ready to enroll. Students who do enroll in advance of the first day of class may find the course they enrolled in was not what they expected and wish to change their selection. Within an open-access institution, course enrollment often occurs close to the start of the semester and it is critical for late enrollment policies to serve both student need and student success. While prior research has offered multiple perspectives on the impact of late registration, little research has been conducted to determine if a more restrictive late enrollment policy has an impact on the outcomes of late-enrolling students and what colleges can do to help late-enrolling students succeed academically.

Background

In an attempt to improve the success rates of students who enroll late (during the first seven days of the semester), administrators at a Midwest community college revised the policy regarding late registration. With approximately 20,000 students enrolled in credit-bearing courses each semester, this suburban community college is one of the largest in its region. Prior to Fall 2009, students were allowed to register for any open course during the first week of the semester. Enrollment was allowed during this 7-day period (first day of the semester and the six calendar days following) regardless of whether a particular class had started.

When the late registration policy change was implemented in Fall 2009, students were still allowed to register during the first week of the semester but only in classes that

had not yet begun. For example, students enrolling on Wednesday could only enroll in courses that began on Thursday or later. A variety of late start courses were offered to provide students with a selection of courses that started later in the semester. It was expected that preventing students from enrolling in classes that had already started and redirecting them to classes that had not yet begun would improve academic outcomes for students enrolling during the first week of the semester. Research has not been conducted to determine if this policy change had an effect on the academic outcomes of students who enrolled during the first week of the semester.

Statement of the Problem

Some researchers have shown the academic success rates of students who register on time surpass the success rates of students who register late even though the majority of late registrants still complete their courses (Keck, 2007; Smith et al., 2002). Ideally, college faculty and administrators would prefer for students to enroll well in advance of the semester, be prepared on the first day of class, and graduate on time. In reality, students often enroll late and provide unique challenges for colleges striving to improve student retention and academic success (Freer-Weiss, 1999).

Late registration policies may be one of many factors that influence the academic success of students, however student differences may also influence or mitigate the effect of enrolling late. Although some researchers have found students who enroll late have lower course grades than students who enroll earlier (Hale, 2007; Keck, 2007; Maalouf, 2012), differences among student groups including first-time-in-college (FTIC), continuing, and transfer students who enroll late have not been evaluated. In addition, differences between the academic outcomes of late-enrolling students who are enrolling

for the first time for the semester vs those who are only making a schedule change have not been explored. Further research is needed to determine if specific student types (FTIC students, continuing students, transfer students, students enrolling for the first time for the semester, and students who were only making a schedule change) are more vulnerable to the effect of enrolling after classes have begun.

Personality characteristics may also be a factor in academic success and may act as a confounding variable in determining the impact of late enrollment. Students who enroll as close to the deadline as possible may share personality traits that motivate them to wait as long as possible before taking their first step toward a higher education degree (Ford et al., 2008; Moon & Illingworth, 2005). Restricting the latency of enrollment may not be enough to assist these students and further intervention may be required to improve their academic outcomes (Freer-Weiss, 2004). Enrolling late may, in fact, be a symptom of personality or personal factors that require intervention beyond limitations in latency of enrollment.

For students who are inclined to register as late as possible, who have personal or financial factors that prevent earlier registration, or who are among minority or first generation students who enroll late in higher numbers, late registration policies may have a significant impact (Dowd & Shieh, 2014). Changing to a more restrictive late registration policy may hinder the ability of students to enroll in courses they need for their degree and to make critical schedule changes after the semester begins. Restricting late registration with no further intervention may fall short of addressing the needs of students who register closer to the registration deadline. Additional research is needed to determine if a more restrictive late registration policy has an effect on the academic

outcomes of students who enroll late and if that impact differs by student type (FTIC students, continuing students, transfer students, students enrolling for the first time for the semester, and students who are only making a schedule change).

Purpose of the Study

The focus of this study was to investigate the differences in the enrollment behaviors and academic outcomes of late-enrolling students before and after the implementation of a more restrictive late registration policy at a large Midwestern community college. The goal of this policy change was to improve the academic outcomes of late-enrolling students by restricting enrollment in courses that had already begun and shifting enrollment during the first week of the semester to late start courses that had not yet begun. The intent of this change was to ensure students were better prepared and present on the first day of each class.

The first purpose of the study was to determine to what extent there were differences in enrollment behaviors of students who enrolled during the first week of Fall 2008 vs Fall 2009. The second purpose was to determine to what extent there were differences in the academic outcomes of students who enrolled during the first week of Fall 2008 vs Fall 2009. The third purpose was to determine to what extent there were differences in the academic outcomes of specific student types (FTIC, continuing students, transfer students, students enrolling for the first time for the semester, and students who were only making a schedule change) who enrolled during the first week of Fall 2008 vs Fall 2009. The fourth purpose was to determine to what extent there were differences among the academic outcomes of each student type (FTIC, continuing students, transfer students, students enrolling for the first time for the semester, and

students who were only making a schedule change) regardless of which term they enrolled.

Significance of the Study

This study was significant to the institution as the impact of the more restrictive late registration policy implemented in Fall 2009 was examined. In an effort to increase enrollment numbers, the administrators at the Midwestern community college have reconsidered the decision to restrict late registration and are considering revision of the policy again. It is essential that the academic success rates of late-enrolling students be examined to help the college create the most effective policy for students. Policy makers, college registrars, and institutional leadership will benefit from evaluating the impact of the late registration policy change to guide decisions in the future.

Prior research primarily focused on identifying the difference in academic success rates of students who enrolled on time or early and students who enrolled late (Angelo, 1990; Bolt, 2013; Cornille, 2009; Ford, Stahl, Walker, & Ford, 2008; Hale, 2007; Keck, 2007; Maalouf, 2012; McWaine, 2012; Neighbors, 1996; Perkins, 2002; Safer, 2009; Shriner, 2014; Smith, Street, & Olivarez, 2002; Sova, 1986; Wang & Pilarzyk, 2007; Zottos, 2005). Follow up study is needed to determine the impact more restrictive late registration policies have on the academic outcomes of the students they are designed to help. As pressure mounts for colleges to increase both enrollment numbers and completion rates, it is critical that college policies balance these priorities effectively (McClenney & Waiwaiole, 2005).

The results of this study expanded the research on late registration by exploring how the implementation of a more restrictive late registration policy impacted the

academic outcomes of students who enrolled during the first week of the semester. In addition, this study expanded the research by exploring the differences among student types of late registrants (FTIC students, continuing students, transfer students, students enrolling for the semester for the first time, and students who were only making a schedule change) and evaluating the effect of a more restrictive late registration policy on each student type. This information will assist community colleges in determining the effect of restricting late enrollment and help identify student groups who may be more vulnerable to the negative effects of enrolling late. Four-year institutions may also find applications appropriate to the university setting. This study was the first of its kind as it evaluated the effect of requiring students to be enrolled no later than the day before a class began to determine if this policy change had an impact on the academic outcomes of late-enrolling students.

Delimitations

This study was conducted at one suburban community college in the Midwest with an approximate enrollment of 20,000 students enrolled in credit-bearing courses per semester. The scope of the study was limited to Fall 2008 and Fall 2009. Only students who enrolled during the first week of the semester (first day of the semester and the six calendar days that followed) were included in this study. Students who enrolled during the first week of Fall 2008 (August 14-20, 2008) could enroll in any open course regardless of whether the course had already begun. In Fall 2009, a more restrictive late registration policy was enacted. Students who enrolled during the first week of Fall 2009 (August 17-23, 2009) could only enroll in courses that had not yet begun. Students who

enrolled in or added any courses (full semester or late start courses) during the first week of the semester were included in the study.

High school students who enrolled for dual credit courses taught in their high school were excluded from the study. Students who enrolled to audit courses were also excluded from the study. Selection of students who were considered to only be making a schedule change was based on each student's initial date of registration activity for the semester. This included any attempt to enroll in a course even if the attempt did not result in actual enrollment. Initial attempts at enrollment that preceded the first week of the semester classified the student as a schedule changer for the purpose of this study.

Assumptions

Enrollment and academic data were collected from the Banner student information system. It was assumed that these data were accurate. The effectiveness of teaching was assumed comparable for students who enrolled in Fall 2008 vs Fall 2009.

Research Questions

The following research questions guided this study:

1. To what extent were there differences in the enrollment behavior (number of courses added and percentage of full semester courses vs late start courses) of students who registered during the first week of Fall 2008 and students who registered during the first week of Fall 2009?
2. To what extent was there a difference between the mean course grade (earned grade of F or higher) of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009?

3. To what extent was there a difference between the percentage of course drops of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009?
4. To what extent was there a difference between the percentage of course withdrawals of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009?
5. To what extent was there a difference between the mean course grade of FTIC, continuing, and transfer students who enrolled during the first week of Fall 2008 and/or Fall 2009?
6. To what extent was there a difference between the mean course grade of FTIC students who enrolled during the first week of Fall 2008 and FTIC students who enrolled during the first week of Fall 2009?
7. To what extent was there a difference between the mean course grade of continuing students who enrolled during the first week of Fall 2008 and continuing students who enrolled during the first week of Fall 2009?
8. To what extent was there a difference between the mean course grade of transfer students who enrolled during the first week of Fall 2008 and transfer students who enrolled during the first week of Fall 2009?
9. To what extent was there a difference between the mean course grade of students who were only making a schedule change and students who were registering for the first time for the semester during the first week of Fall 2008 and/or Fall 2009?

10. To what extent was there a difference between the mean course grade of students who were only making a schedule change during the first week of Fall 2008 and students who were only making a schedule change during the first week of Fall 2009?
11. To what extent was there a difference between the mean course grade of students who were enrolling for the first time for the semester during the first week of Fall 2008 and students who were enrolling for the first time for the semester during the first week of Fall 2009?

Definition of Terms

The following is a list of key terms and a definition of how the term was applied in this research.

Continuing student. A continuing student was defined as a student who had previously attended the Midwestern community college in a prior semester. This included students who were re-entering the college after a period of absence.

Course drop. Courses dropped early in the semester without any withdrawal (W) notation on the student's transcript were defined as course drops.

Course withdrawal. Courses dropped later in the semester and were noted on the student's transcript with a non-punitive W grade were defined as course withdrawals.

First-time-in-college (FTIC) student. A student enrolling at the Midwestern community college who had never previously enrolled in any college was considered a first-time-in-college student.

Late-enrolling students. Students who enrolled during the first seven days of the semester. Regardless of whether the class had started, students who enrolled after the

semester began were considered late-enrolling students. In Fall 2008, these students could enroll in any open class regardless of whether the class had begun. In Fall 2009 when the new late registration policy was enacted, these students could only enroll in classes that had not yet begun including late start course options.

Late registration. Any course registration that occurred during the first seven calendar days of the semester was considered late registration for the purpose of this study regardless of whether the class had started. In Fall 2008, students were allowed to enroll in any open course during the first seven days of the semester. In Fall 2009, students could only enroll in courses that had not yet begun including late start courses that began later in the semester.

Schedule change. Students with a first date of enrollment activity that preceded the first week of the semester were considered to be making a schedule change when they enrolled in a course during the first week of the semester. These schedule changes included dropping one course to enroll in another course or adding an additional course without dropping any of the original courses.

Transfer student. Students who enrolled at the Midwestern community college for the first time but had previously attended another college were considered transfer students.

Organization of the Study

This study consists of five chapters. Provided in chapter one was an introduction and statement of the problem including the significance of this study. Chapter two includes a review of the literature pertaining to late registration. Chapter three includes the research questions, hypotheses, and methods used to collect and analyze data in this

study. The results of this study are provided in chapter four. A summary of the results, implications for college policies, and recommendations for future research are provided in chapter five.

Chapter Two

Review of the Literature

Introduction

Community colleges today are juggling multiple pressures including increased demand for accountability from state and federal funding sources; increased expectations from students to provide education 'on demand' when the student is ready to undertake the challenge; and increased expectations from community stakeholders to provide a low cost, readily available alternative to four-year college options (Bueschel, 2009; Burns, 2010; Center for Community College Student Engagement, 2012). "At a time when education beyond high school is a critical need, the national attention and pressure for community colleges to increase retention and persistence rates have grown exponentially" (Burns, 2010, p. 34). Within the barrage of demands, community colleges still hold fast to the core of their mission, to provide open access education to the community it serves (Spellman, 2007).

College policy makers must balance the demands of multiple stakeholders. It is difficult to find the middle ground between the need to keep enrollment numbers high to keep the college operational and the increasing expectation that student success is the most important outcome for the college to ensure. With fiscal pressures mounting, community colleges struggle to provide the full range of support services that promote student success at a time when these services are most essential due to the rapid influx of low-income and first-generation students (Hager, 2016).

As open access institutions, community colleges have succeeded in informing students they have access to education. However, additional effort is still needed to help students understand what is required of them in order to succeed (Bueschel, 2009).

> In most states, the question of access to the community college is no longer the most significant concern (though it is still an important one). Instead, it is clear that our obligation is to help ensure that students can persist and complete their educations successfully. (Bueschel, 2009, p. 1)

Student outcomes have become a greater focus. Enrollment policies such as late registration that increase headcount but may harm student success have come under scrutiny (Dowd & Shieh, 2014). "Given continuing resource constraints, the challenge is to take a careful look at data about student persistence and success and then to discard ineffective practices and implement new strategies that will produce better results" (McClenney & Waiwaiole, 2005, p. 36).

Limiting the latency of registration alone may not be enough to change student academic outcomes. Students who register late may possess personality traits and learned behaviors that predispose them toward low academic achievement. Moon and Illingworth (2005) found behavioral measures of procrastination were predictive of academic performance. Students who procrastinated more earned lower test scores than students who procrastinated less. However, students with both high and low tendencies toward procrastination all decreased procrastination behavior as a deadline approached. Fobbs' (2015) findings supported the idea that personality or other traits may be factors in the cause of late enrollment. He evaluated the impact of expanding registration from 60 days to 120 days to determine if the number of late registrants was decreased.

Expanding the timeframe for registration to offer earlier dates for enrollment did not result in a significant decrease in the number of students who enrolled late.

Restricting late registration may serve to motivate action sooner within this population. This can benefit both students and faculty as instruction can begin on time for all students. However, this alone may not be enough to fully assist students with personal traits that tend toward procrastination behavior. Late registration behavior may be a sign that these students need guidance in developing more conscientious behaviors related to learning.

Colleges face these challenges with limited resources as they attempt to judge the most effective ways to assist late-enrolling students. Performance based funding has shifted the focus of many colleges as state funds are distributed based on key performance indicators rather than just on enrollment numbers. "Pressures are mounting for improved effectiveness in producing graduates and greater efficiency in the use of public resources" (Dowd & Shieh, 2014, p. 62). However, ending late registration has a significant impact for community colleges still funded on the census day headcount model.

When student outcomes are not tied to funding there may be a disincentive to create enrollment policies that harm headcount even if student success may be improved. In addition, questions of equity and access arise when colleges find minority and first generation students are often more likely to enroll late (Dowd & Shieh, 2014). Students value the opportunity to register in courses late and expect institutions to meet their needs as late registrants (Keck, 2007). In this confusing clash of conflicting demands,

community colleges must decide what is in the best interest of students and the college as a whole. This chapter provides a summary of research on late registration.

Quantitative Late Registration Research

Chilton (1964) compared the academic outcomes of 325 students who enrolled late and 325 students who enrolled on time. The study was conducted at Tarleton State College and included only full-time freshman and sophomore students who enrolled during the years of 1955-1962. Students who enrolled prior to the start of the semester were considered on time. Students who enrolled on the first day of class through the twelfth day of class were considered late. There was a significant difference in the number of credit hours dropped and the GPAs between these groups. Late-enrolled students dropped more credit hours and had lower GPAs than students who enrolled on time. In addition, within the late-enrolled student group, students who enrolled in the first six class days earned significantly higher GPAs than students who enrolled between the seventh and twelfth class days. Chilton also evaluated the personality adjustment of 52 students who enrolled late vs 52 students who enrolled on time using the California Test of Personality. There was no statistically significant difference in the adjustment scores of the two groups.

Parks (1974) compared the academic outcomes of students who enrolled during late registration vs regular registration at East Texas State University in Fall 1973. Only full-time students enrolled in 12 or more credit hours were selected including 158 late registrants and 393 regular registrants. Significant differences in academic outcomes existed. Late registrants were more likely to withdraw from college, dropped more

classes, earned lower GPAs, and accumulated more grades of F and X (incomplete grade that affected the GPA in the same manner as an F) than regular registrants.

Mannan & Preusz (1976) compared the academic outcomes of students who enrolled in Spring 1975 late vs on time at an urban university in the Midwest. The study included 257 students who enrolled six days after the beginning of the semester and 257 students who enrolled during regular registration. Students who enrolled on time had a higher average GPA than students who enrolled late. Full-time vs part-time status was also evaluated. Full-time students were more likely to have higher average GPAs than part-time students in both the on-time and late registration groups. The researchers also discovered the late registrant group received significantly less financial aid ($9,600) compared to the students who enrolled on time ($34,000).

Clark (1980) compared the academic outcomes of 200 students who applied on time at Reedley College and 200 students who applied late during Fall 1979. All students who applied during the week prior to the start of the semester and up to three weeks into the semester were considered late applicants. There were no significant differences in the average GPA of students who applied on time vs late. However, students who applied late were less likely to complete their courses or matriculate to the next term. In addition, students who applied late completed fewer credit hours than students who applied on time.

Stein (1984) evaluated the success rates of students who enrolled for Winter 1984 during the three days before the classes began and through the 8th day of class. The study was conducted at Minneapolis Community College and included 175 new students. There were extremes in the academic outcomes with 25.1% of students earning no grade

points and 28% earning an A. When compared to the larger student body, the late-enrolling group had a much lower retention rate. The percentage of late-enrolling students who registered again in the next quarter was 23.4% compared to 60.2% - 65.5% for the overall student body.

Peterson (1986) examined the completion rates of students who applied and registered late at Honolulu Community College. Out of 144 late applicants, 99 registered for classes. Within the group of the 99 late registrants, four students dropped all classes during the drop without a W period. Only eight students dropped all classes during the semester during any drop period. Students who enrolled in only 3 to 9 credit hours had a greater rate of course completion than students who took more than 9 credit hours. Students who took 12 or more credit hours generally dropped at least one course or received a grade of N, W, or F. Although the retention rate for late registrants was very high with only eight students dropping all courses during the semester, late registrants did not appear to be successful in completing more than 9 credit hours. In addition, late registrants in vocational programs had a higher completion rate than students who enrolled late in liberal arts courses. Many of the late registrants were found to have need for developmental education in math or English. Peterson (1986) recommended the college consider implementing a program to recruit and orient these students earlier to assist them with making the transition to college level work. In Peterson's (1986) view,

> The problem of the late applicant really may be the problem of the undecided, undirected student, who is just out of high school and undecided about career objectives. The late applicant, as evidenced by this study, is also the student who needs remediation. (p. 8)

Sova (1986) studied the academic success rates of students who enrolled in regular freshman English and developmental English classes at a community college in New York. Regular registration was defined as enrollment that occurred before a course began. Late registration was defined as enrollment that occurred on or after the day the course began. Students who changed from one section to another were excluded from the study. The pass rate of late registered students was significantly lower at 50.43% compared to the 81.10% pass rate of students who enrolled on time. In addition, the failure rate of late registered students was significantly higher at 26.92% compared to the 1.88% failure rate of students who enrolled on time. Withdrawal rates of late registered students were also higher at 19.23% compared to 15.98% for students who enrolled on time. Sova pointed out that students who registered on time were more likely to withdraw than to fail. Students who enrolled late often stopped attending without withdrawing and earned an F grade as a result.

Angelo (1990) compared the course completion rates and course grades of students who registered on time to students who registered late at a community college. Late registration was defined as enrolling in a course after the first week of instruction since enrollment during the first week of class was allowed without special permission. Only full semester course enrollments were included in the study. Registrants were randomly selected and included 390 timely registrants and 387 late registrants. No significant differences were found in the course grades of the two groups. Surprisingly, students who registered late were more likely to complete the course than students who registered on time. The completion rate of students who registered late was 5.29% higher than the completion rate of students who registered on time. Angelo (1990) suggested

late enrollment in a community college setting may be a hidden source of academic strength by affording students the opportunity to engage in “academic window shopping” (p. 327).

Diekhoff (1992) compared the final course grades of students enrolled in an introductory psychology course at a medium-sized Midwestern state university. Enrollments were collected from a 14-year period and included 123 students who enrolled late (enrolled after missing two classes) and 123 students who enrolled on time (before the class began). No difference was found in the final course grades of the two groups. In addition, Diekhoff (1992) compared course completion rates of students who enrolled late vs students who enrolled on time. There was no difference in attrition rates of the two groups in courses that did not have a restrictive attendance policy. However, in courses that included a restrictive attendance policy, students who enrolled late were more likely to drop (or be dropped by the instructor) than students who enrolled on time.

Neighbors (1996) studied the impact of registration timing of 441 students enrolled in a community college, a private college, and a public four-year college. Withdrawal rate and semester GPAs were compared for three groups: students who enrolled early during pre-enrollment, students who enrolled on time during regular enrollment, and students who enrolled late (after classes had begun). No significant differences were found in the withdrawal rates of the three groups. However, there were significant differences in semester GPAs among the groups. Student who enrolled early earned an average GPA of 3.02, students who enrolled on time earned an average GPA of 2.65, and students who enrolled late earned an average GPA of 2.046.

Snell (1996) compared the academic outcomes of students who were enrolled by the first day of class vs students who enrolled after the first day of class in four social science classes. Of the 107 students, there was no significant difference in achievement of A or B grades between the late registrants and the students who enrolled on time. Snell noted the lack of difference may be due to the fact that all students were allowed a make-up week prior to finals to complete tests and assignments missed earlier in the semester.

Danley (1998) compared the success rates of full-time, degree-seeking students who enrolled after the beginning of the semester to students who enrolled before the semester began. The study included 200 late-enrolling students and 200 students who enrolled on time at a small, public college in Fall 1994, Spring 1995, Fall 1995, or Spring 1996. There was no significant difference in the average GPA of students who enrolled late vs those who enrolled on time. However, there was a difference in rates of persistence. Students who enrolled on time were more likely to still be in attendance and in good academic standing by their third semester of enrollment.

Summers (2000) examined the academic outcomes of 1,365 first-time, full-time, degree or certificate seeking students who enrolled at a rural community college in Fall 1994, Fall 1995, or Fall 1996. Enrollment timing was found to be a predictor of semester GPA, course completion, and persistence to the spring semester. Students who enrolled earlier were more likely to complete their courses, persist to the spring term, and earn slightly higher GPAs than their later enrolling counterparts.

Perkins (2002) compared the academic outcomes of students who enrolled late (during the first week of the semester) to students who enrolled on time (before the

semester began). The records of 959 students enrolled at a community college in the Northwest were examined. Of the total, 98 students enrolled late and 861 enrolled on time. Only students who were first-time degree or certificate seeking students were included. No significant differences were found in semester GPA, course success rate, or retention to the spring semester between the groups. One possible explanation was that the college already employed some safeguards for late registration. Students could enroll in any course during the first three days after the semester began. However, beyond that point, students were required to have permission of the instructor to enroll. This allowed for faculty control over late enrollment decisions. Their expertise (i.e., knowledge of what the student had missed, the pace of the class, and judgement about the likelihood that the student could make up for lost time) may have protected students from negative outcomes.

Smith, Street, and Olivarez (2002) studied the effect of registration timing on the academic outcomes of students enrolled at a community college in Texas. A random sample of 251 students included students who enrolled during early registration (April 28-30 and May 20-21), students who enrolled during regular registration (August 24-26), and students who enrolled during late registration (August 27-September 8). Late registrants averaged lower GPAs, lower rates of persistence to spring, and higher withdrawal rates than early and regular registrants.

Freer-Weiss (2004) examined the relationship between date of admission and the success rates of 785 first-time freshmen at a two-year regional campus of a large, state university. Men, students who delayed entry to college, students who did not perform as well in high school, and part time students were found to be more likely to apply late. No

significant correlation was found between date of admission and term GPA. However, students who applied later were less likely to re-enroll in the following term than students who applied earlier.

Mendiola-Perez (2004) compared the academic outcomes of students who enrolled during three registration periods: early, regular, and late. The entire population of FTIC students who enrolled at Palo Alto College during the fall of 2001 were included in the study. The semester GPAs, completion rates, withdrawal rates, and enrollment behaviors of these students were recorded for Fall 2001, Spring 2002, Fall 2002, and Spring 2003. There was a significant difference between the semester GPAs of early registrants vs regular and late registrants. Early registrants had higher GPAs, higher completion rates, and lower withdrawal rates than regular or late registrants. Early registrants also had a significantly higher retention rate between Spring 2002 and Fall 2002. The registration behaviors of the students varied over the two-year period and students vacillated between registration groups moving from early registration to regular registration, etc. Of the original group of students who enrolled late, only two students enrolled late again in subsequent semesters.

Schmidt (2004) evaluated the effect of late registration on the academic outcomes of 172 first-time, credit-seeking students who applied for financial aid in Fall 2003. The study was conducted at Clovis Community College. Of the total 172 students, 143 registered before the first day of class and 29 registered on or after the first day of class. There was a significant difference between the academic outcomes of these groups. Students who enrolled late were less likely to complete at least one course with a grade of D or higher.

Zottos (2005) utilized a late registration index to categorize students into three groups: students who enrolled in all courses prior to each course start date; students who enrolled in all courses after each course start date; and students who enrolled in some courses before the course start date and some courses after the course start date. Late registration was defined as enrollment in a particular course after the first day of that course. The late registration index of each student was determined by using the formula: number of courses registered for on time divided by the total number of enrolled courses. Students who enrolled in all courses on time had a late registration index of 1.0. Students who enrolled in all courses late had a registration index of 0.0. Students who had a mixture of late and on-time course enrollment had late registration indexes between these two extremes. For example, a student who enrolled in one course on time and two courses late had a registration index of 0.333.

The late registration index provided a more specific measure of late registration behavior rather than only focusing on students who enrolled in all courses late or all courses on time. Out of the sample of 4,676 students, 46% enrolled in all courses on time; 11% enrolled in all courses late; and 43% enrolled in a mixture of some courses on time and others late. Successful course completion was defined as earning a grade of D or higher. Although 54% of students enrolled in at least one course late, Zottos (2005) found no significant difference in successful course completion among the three registration groups. However, he did find that males and students who had a high school GPA of B- or below were more likely to register late.

Hale (2007) examined the effect of registration timing on course completion and course grade. The study included two years (2001-2003) of enrollment data from three

community colleges in Mississippi. Early enrollment was defined as "a time when only currently registered students can sign up for the next semester" while regular registration was defined as "the time when all current and new students can register for the next semester" (Hale, 2007, p. 7). Late registration was defined as registration that occurred after the first day of the semester. Success rates of early, regular, and late registration groups were compared. Course grades of A, B, C, or D were included in the course grade comparison. Course grades for students who enrolled during early or regular registration were higher than course grades for students who enrolled late. Course grades of F, W (withdrawn), WP (withdrawn while passing), WF (withdrawn while failing) were counted as a non-completion in the course completion comparison. Students who registered during early registration had higher course completion rates compared to students who registered during regular or late registration. There was no significant difference in the completion rates of students who enrolled during regular registration compared to students who enrolled during late registration.

Keck (2007) examined the impact of late registration on successful course completion. Course grade and completion were used to measure the outcomes of students who enrolled on time and students who enrolled late. Late registration was defined as enrollment the day after a course began or later. The study included 1,424 community college students who enrolled in the 2005-2006 academic year. Students who registered on time were more likely to complete their course with a grade of C or better than students who registered late. However, Keck indicated that the majority of late registered courses were completed successfully.

Wang and Pilarzyk (2007) studied late registration from a different perspective by measuring the impact of late admission on student success. Applications for admission submitted within the week before the semester began were considered late. Students who applied late had a lower term GPA and lower course completion rate than students who applied on time. In addition, students who applied late were less likely to return the following semester. Wang and Pilarzyk (2007) found no statistically significant difference in the gender or ethnicity of late vs on-time applicants. However, late applicants were more likely to be older and applying for financial aid. Students who applied for admission on time were more likely to be coming directly from high school with no 'stop out' time.

Significant correlations were identified among the dates of program admission, financial aid application, financial aid award, and course registration.

> The earlier students apply to a program, the earlier they apply for financial aid. The earlier students apply for financial aid, the earlier it is awarded. The earlier financial aid is awarded, the earlier students register. Enrollment processing closer to the beginning of classes means that increased volume creates more bottlenecks and slows processing of program and financial aid applications which influences registrations. (Wang & Pilarzyk, 2007, p. 30)

Wang and Pilarzyk (2007) theorized that these delays in the enrollment process placed student success in jeopardy as evidenced by lower term GPAs, completion of fewer credit hours, and lower retention to the next term.

Ford, Stahl, Walker, and Ford (2008) examined the relationship of registration timing and course grade, course average, and term GPA. This study was conducted at

Stephen F. Austin State University, a mid-sized public university, and included 253 students enrolled in 1 of 5 undergraduate psychology courses in 2006. The registration dates were tracked for each student and included 88 days that ranged from the first day of pre-registration to the last day to add the class a week into the semester. The researchers found an inverse relationship between registration latency and course grade, course average, and term GPA. Students who enrolled earlier earned a higher course grade, course average (percentage of total points possible in the course), and term GPA. They also pointed out that high-performing students were also more likely to pre-register for classes showing characteristics of conscientiousness highly correlated to academic achievement (Ford, Stahl, Walker, & Ford, 2008).

Cornille (2009) compared the academic outcomes of students who enrolled early or on time to students who enrolled late (14 days before the semester began up to 21 days after the start of the term). A sample size of 7,317 first-time, degree or certificate seeking students were selected from the freshman class of a large community and technical college. Late-enrolling students included 1,132 students or 15.5% of the sample. Students who had not selected a major were excluded from the study. The mean GPA of the late registrants was 0.08 below the early or on-time registrants, showing minimal impact of registration timing on GPA. Likewise, the mean percentage of course completion was 4% lower for late-enrolling students versus early or on-time enrolling students showing a slight impact of registration timing. The most significant finding was that late-enrolling students were less likely to enroll in the following semester. Late-enrolling students persisted at the rate of 51.9% compared to 76.7% for early or on-time registrants.

Safer (2009) compared the academic outcomes of students who registered on time to students who registered late. Registration that occurred on or after the first day of class was considered late. The sample of 7,200 students enrolled at a state university included 6,388 students who enrolled on time and 812 students who enrolled late. No significant difference was found in the final course grade or withdrawal rate between these groups. However, when comparing course grade to the average grade of all students enrolled in each course, late registrants were more likely to earn grades below the average grade for the course.

Goodman (2010) evaluated the persistence rates of first-year, full-time students enrolled for Fall 2008 at a southern community and technical college system. Of the 2,159 students included in the study, 91 (4%) students enrolled late and 2,068 (96%) enrolled on time. Late enrollment was defined as enrollment that occurred on or after the first day of class. Enrollment that occurred prior to the first day of class was defined as on time. There was a significant difference in persistence rates of late vs on-time registrants. Students who enrolled on time were more likely to persist to the following semester.

Schwartz (2010) surveyed 722 public, two-year institutions to determine whether they had implemented practices in five key policy areas that were considered supportive of student persistence. Responses were received from 259 institutions representing 46 states. Of the 259 responses, 68 schools (26.3%) reported they had abolished late registration and did not allow students to register after the first class meeting. Schwartz used IPEDS data to evaluate the differences in the mean fall-to-fall retention rates of schools who allowed late registration vs schools who did not. There was a significant

difference in the mean fall-to-fall retention rates of the groups. Schools that allowed late registration had higher fall-to-fall retention rates than schools that no longer allowed late registration.

Maalouf (2012) examined the effects of late registration on student success at a multi-campus community college. The study included new and returning students who enrolled in a fall or spring semester in 2009-2011. A random sample of 12,516 regular registrants was compared to a random sample of 12,536 late registrants. Late registration was defined as enrollment in a 16-week course on or after the first day of class. The success rates of students who enrolled on time was compared to the success rates of students who enrolled late. The late registrants had a lower mean course grade and a lower mean retention rate (enrollment in the next full semester). Withdrawals and incompletes were treated the same as F grades in calculating the mean course grade of each group.

McWaine (2012) examined the impact of late registration on the success rates of African American males in a suburban community college system. Late registration was defined as registering for a course on or after the first day of the semester. The study included 5,389 African American males selected from six semesters in 2007-2009. Of that population, 422 African American males registered late. The success rates of late-enrolling students were compared to the success rates of students who enrolled on time. No significant differences were found in the persistence to the next semester of students who registered on time and students who registered late. However, McWaine (2012) found that students who registered on time had a higher end-of-semester GPA. Students

who registered on time were also more likely to complete the course with a grade of C or better.

Bolt (2013) compared the academic outcomes of students who enrolled early (prior to mid-July) to students who enrolled late (during the first week of classes). A sample size of 59 early registrants and 62 late registrants were selected from the freshman class. Students who enrolled early earned a higher GPA and were more likely to return in the spring semester than their late-enrolling counterparts. In addition, 18% of late registrants failed all of their classes compared to 7% of students who enrolled early. Bolt stated that 90% of all of the students included in the study required at least one developmental course making it difficult to generalize these results to college freshmen who enrolled without developmental course needs.

Davis, Frogge, and Reid (2013) compared the completion and retention rates of students who enrolled late vs on time at an urban community college in middle Tennessee. On-time enrollment was defined as enrollment that occurred prior to the week before the start of classes. Late enrollment was defined as enrollment that occurred during the week before classes began and beyond. Enrollment records from Fall 2008 – Fall 2011 were used for this study and included 13,565 records. There were significant differences in the completion and retention rates of the groups. Students who enrolled on time completed more of their hours attempted than their late-enrolling counterparts. Students who enrolled on time also had higher retention rates to the following spring semester and the following fall.

Tompkins (2013) examined the academic outcomes of all FTIC students who enrolled in their second semester in a large community college system. The study

included 95,458 enrollments that occurred during a spring semester in 2011-2013. Late registration was defined as enrollment that occurred on or after the first day of the semester. On-time registration was enrollment in a class prior to the first day of the semester. Successful completion of enrolled courses was defined as completion with a grade of A, B, C, P (pass), or S (satisfactory). Grades of D, F, U (unsatisfactory), R (repeat), or W (withdrawal) were considered non-successful grades. Although Tompkins (2013) found that on-time registrants were 1.82% more likely than late registrants to succeed in their courses, the effect was small. Tompkins concluded that registration timing did not provide a strong prediction of student success in courses.

Williams (2013) explored the relationship of registration timing and student engagement. The study included 315 students enrolled in one of twelve sections of an online, introductory level course at a public university in the Southeastern United States. Student engagement was measured by the number of posts each student made through the learning management system (LMS) for the course. The registration date of each student was coded for each registration day possible (36 days of registration). There was a statistically significant, weak, negative correlation between date of registration and the level of student engagement. Later enrolling students were less engaged than their earlier enrolling counterparts. Williams theorized that students who enrolled earlier may have more conscientiousness than later enrolling students and that this quality also applied to their engagement in the online course.

Mills (2014) compared the academic outcomes of transfer students who enrolled late vs on time at a regional four-year institution in Texas. Enrollment records were collected from Fall 2009-Spring 2012 and included 4,127 transfer students who enrolled

on time and 202 transfer students who enrolled late. Transfer students were defined as students who were attending the college for the first time and were transferring 30 or more credit hours. Enrollment that occurred prior to the first day of class was defined as on time. Enrollment that occurred on or after the first day of class was defined as late. There were significant differences in the term GPAs and retention rates between these groups. Students who enrolled late had lower term GPAs and were less likely to enroll again in the following semester. However, there was no difference in the frequency of dropping classes for late vs on-time registrants.

Shriner (2014) compared the academic outcomes of students who enrolled before classes began to those who enrolled during the first week of the semester at a Florida community college. Only degree-seeking students who were enrolling for college for the first time were included. Students who enrolled before classes began earned higher average GPAs, earned more credits, and persisted to the next semester at a higher rate than students who enrolled during the first week of class.

Smith (2014) compared the academic outcomes of FTIC students who enrolled at a large state university in the Southwest. A mandatory orientation session was required of all FTIC students. These sessions were offered on a variety of dates and students were permitted to enroll in classes during the orientation session. The study included 6,439 FTIC students who enrolled in Fall 2011 and 4,168 FTIC students who enrolled in Fall 2012. Registration timing was coded by the date of each student's orientation session, which included enrollment in classes. Academic outcomes were evaluated using current semester GPAs, credit hour completion rate, and rate of retention to the following semester. The results indicated there was a statistically significant difference in the

GPAs, completion rates, and retention rates of late vs on-time registrants. Students who enrolled late (during the latest orientation session held for FTIC students) earned lower GPAs, had a lower credit hour completion rate, and were less likely to return the following semester.

Fobbs (2015) evaluated the impact of expanding registration from 60 days to 120 days to determine if the number of late registrants was decreased. The study was conducted at a multi-campus community college in Virginia and included all registrants in Fall 2012 and Spring 2015. In Fall 2012, the college offered a 60-day registration period. In Spring 2015, the college adopted a new calendar which began enrollment earlier to offer a 120-day registration period. There was no statistically significant difference in the number of students who enrolled late in Fall 2012 and Spring 2015. However, the mean GPA of students enrolling in Spring 2015 was higher than the mean GPA of students enrolling in Fall 2012.

Hallawell (2015) evaluated the academic outcomes of students who enrolled in a gate-keeper, English composition course at a Midwestern community college in Fall 2012. Gate-keeper courses were described as courses that may serve as prerequisites for other courses and are required for most degree-seeking students. The sample for the study included 150 late registrants and 601 early registrants. Enrollment that occurred prior to two weeks before the first day of class was defined as early. Enrollment that occurred during the two weeks before the first day of class or later was defined as late. There were significant differences in the academic outcomes of the two groups. Late registrants earned lower course grades than their early registrant counterparts. In addition, a higher percentage of early registrants completed their courses. This finding

was true in both traditional (face to face) and non-traditional (part or all content delivered in an electronic format) courses.

Jones (2015) compared the academic outcomes of 150 students who enrolled late and 150 students who enrolled on time at a rural community college in Mississippi. A random selection of 50 students for each group was collected from enrollment records for Fall 2011, Fall 2012, and Fall 2013. Late enrollment was defined as enrollment that occurred on or after the first day of class. On-time enrollment was defined as enrollment that occurred prior to the first day of class. There were significant differences in the term GPAs, withdrawal rates, and rates of retention to the following semester. Late registrants had lower term GPAs, a higher withdrawal rate, and a lower retention rate than students who registered on time.

Tompkins and Williams (2015) provided a comprehensive review of the literature on late registration including research conducted on this subject over the last 50 years. They found these studies were not consistent in how they defined late registration. In some studies, any enrollment occurring after the semester began was considered to be late while in others, late registration was defined as enrolling in a course after the course had begun. The studies also varied in how they measured student success. Some used term GPAs while others used grades in the late-enrolled courses. Tomkins and Williams (2015) concluded that the research did not provide "a consistent association between late registration behavior and student grades, successful course completion rates, and withdrawal/attritions rates" (p. 70-71).

Qualitative Late Registration Research

In addition to the quantitative research that has been conducted on late registration, qualitative research also provides insight about the perspectives of students and advisors on this important issue. Faculty, advisors, and administrators shared the perspective that students who register late do not perform as well as students who enroll on time (Danley, 1998; Roueche & Roueche, 1994; Sova, 1986). However, students often viewed late registration as one of the important ways colleges strive to meet their needs (Keck, 2007).

While evaluating the academic outcomes of regular vs late registrants, Parks (1974) utilized a survey to determine the reasons why students enrolled late. The survey was required of 158 students who enrolled late at East Texas State University in Fall 1973. The most common reasons given for enrolling late were, "financial problems, application papers not complete, and decided late to enter" (Parks, 1974, p. 58).

After studying the academic outcomes of students who enrolled late, Mannan and Preusz (1976) conducted phone interviews with late registrants who received a low course grade. The following themes were identified in the interviews:

> I did not get the class I wanted to take. I wanted to withdraw but I did not know if I could. I didn't know there were counselors I could go to. The class was too much for me. I just did not feel like pursuing it. I did not have enough money to go to school. I took a job and school was too much. (Mannon & Preusz, 1976, p. 379)

Belcher, Patterson, and Miami-Dade Community College (1990) surveyed students to determine how many students enrolled late and the reason why students

registered late. The study was prompted by faculty dislike of the disruption late registration caused within the classroom. Late registration was defined as enrollment that occurred after classes began. In this study, 12% of students enrolled after classes began and 20% of students enrolled the week prior to the first day of classes. Results indicated one in three students enrolled close to the first day of class. Nearly 60% of the students surveyed indicated they were aware they were registering after the first day of class. The most significant reasons for late enrollment included 26% of students who had just decided to attend the college, 17% of students who had just arrived in town, 16% of students who had put things off until the last minute, and 10% who had financial barriers. Almost 75% of respondents indicated they would register earlier if a late registration fee was created and 80% of respondents indicated they would register earlier if late registration was no longer allowed.

Bryant, Danley, Fleming, and Somers (1996) interviewed six students who registered late. The motivation to advance career and financial goals was strong among the students and this theme appeared 35 times in the interviews. Although the students expressed strong motivation to attend school, their decision to enroll was often only recently made. Life challenges such as illness, family problems, and other mishaps were the primary reasons given for enrolling late. The researchers asserted that students who enroll late are unfamiliar with the pathway of college enrollment. They recommended that colleges limit late registration to one or two days and that colleges offer support to assist these students.

Freer-Weiss (1999) found that 13 of 17 advisors interviewed about late-admitted students believed that they are characteristically different from students admitted earlier.

Some advisors expressed frustration that the students who enroll late often enter with inappropriate expectations that their needs can be met in such a short timeframe.

> That's one of the great ironies too, …how a lot of these people that come in the latest are the most demanding. Because again, I don't think they understand how higher education and the system works. They come in and think it's like McDonald's; you know, be able to get what they need, when they need it, and thank you very much, and I'm on my way. (Freer-Weiss, 1999, p. 34)

Students enter late with a will to start now, when they are ready to begin, without an understanding of the limitations that late enrollment brings, "…right now all they know is that they're here, they have the money, we want students, and why can't I have my class?" (Freer-Weiss, 1999, p. 34).

Students who apply late to college are often among the neediest of students. They are entering college at the very time when faculty and staff are most overwhelmed by student demand and least able to take the time to guide students through complicated barriers to enrollment. However, many advisors felt these students would lose momentum if they were unable to enroll at the time the student found the courage or will to attempt it (Freer-Weiss, 1999). Advisors expressed concern that failing to meet these students at the moment they are ready to enroll may create a barrier they may not overcome in the future, "…you never know what little gem is out there, and everyone you hold onto is a victory. If you close the door on them this time, you just don't know that they'll ever come back" (Freer-Weiss, 1999, p. 45).

Danley (1998) interviewed 34 late-enrolling students and 19 instructors and advisors. Themes emerged in the student interviews including disappointment in their

initial college experiences, lack of preparation, and surprise at the cost associated with attending college. Many of the students complained about a lack of available course options, the challenges of the enrollment process, and the lack of readily available financial support. Instructors and advisors mirrored the sentiment that limited course options presented significant challenges for late-enrolling students. In addition, instructors and advisors expressed concern that students who enrolled late were unlikely to be successful. However, Danley observed,

> Many of the faculty considered the number one problem to be, not the students themselves, but the problems associated with and resulting from late enrollment, such as the shortage of available classes and lack of support services for the students. When pressed, the faculty looked to policy and practice as significant factors in creating the situation. (Danley, 1998, p. 208)

Keck's (2007) interviews with late-enrolled students revealed that they were generally satisfied with their performance in late registered courses. In addition, these students valued the opportunity to register in courses late and called for "institutional commitment to their academic needs as late registrants" (Keck, 2007, p. 136). However, these students also expressed feeling behind in their late-enrolled courses from the beginning and described the challenges that come with missing the important information provided on the first day of class.

Maalouf (2012) explored reasons why students enrolled late. He found late registrants were more likely to be male, non-traditional age, students of color, and students with no declared major. The most common reasons students gave for registering late included making a late decision to attend college, financial aid processing, lack of

awareness of when classes began, disrupted plans to attend another college, college procedures, procrastination, and family obligations. These themes appeared again in a later study of students who enrolled late (Jones, 2015).

After evaluating the differences in academic outcomes of students who registered on time vs students who enrolled late, Jones (2015) conducted a qualitative study of the reasons why students enrolled late. A survey was emailed to 807 students who enrolled late in Fall 2014. A total of 23 students responded. When asked for their reason for enrolling late, the most common reason given was that the decision to attend college was not made until after classes had started (17.4% of responses). The second most common reasons given were they were not aware classes had begun (13% of responses) or they were not sure they would be able to pay for college until after classes had begun (13% of responses).

Colleges Who Have Abolished Late Registration

Sinclair Community College transitioned to a new policy restricting late registration and reported an increase in both enrollment and student persistence to the next term (Dunn & Mays, 2004). However, no formal study was provided to clarify the impact of the policy change on late-enrolling students. College administrators observed that students followed what the college set out for them as the required enrollment behavior and encouraged other schools to follow in setting policies that promote student success.

When the College of Southern Nevada changed their late registration policy to require students to enroll by the night before a class began, faculty cheered (Fain, 2014). Academic departments struggled to plan when enrollment was allowed up to three weeks

after a course began. Eliminating late enrollment allowed the college to shift late-enrolling students to late start course options, which provided more time for students to be better prepared and present on the first day of class. Although no data were provided to support the effectiveness of this policy change, college administrators anticipated little impact to enrollment numbers and generally expected this policy change would be helpful to student success.

Summary

The research on late registration for college courses has provided mixed results. Much of the research has focused on comparing the outcomes of late-enrolling students to those of students who enroll on time or early. Although the variables used to define academic success have varied greatly among studies (i.e. course completion, GPA, final course grade, retention rate, etc.) the majority of researchers have found differences in the academic success of students who registered on time or early and students who enrolled late (Bolt, 2013; Cornille, 2009; Ford, Stahl, Walker, & Ford, 2008; Hale, 2007; Keck, 2007; Maalouf, 2012; McWaine, 2012; Neighbors, 1996; Safer, 2009; Shriner, 2014; Smith, Street, & Olivarez, 2002; Sova, 1986; Wang & Pilarzyk, 2007). Other researchers (Angelo, 1990; Perkins, 2002; Tompkins, 2013; Zottos, 2005) found no significant difference between the academic outcomes of students who enrolled late vs. those who enrolled on time. Faculty often perceive late-enrolling students to be disruptive to their classes and the students who were prepared on time (Belcher, Patterson, & Miami Dade Community College, 1990). In addition, advisors have expressed strong sentiments that students who enroll late are less likely to succeed (Freer-Weiss, 1999).

A few colleges reported improvements in student success when late registration was restricted (Dunn & Mays, 2004; Fain, 2014). However, formal studies to determine the specific effect of this policy change on late-enrolling students are absent. This study expanded the research by attempting to determine if a more restrictive late enrollment policy had an impact on the academic outcomes of students who enrolled during the first week of class at a large Midwestern community college. This chapter reviewed the research conducted on late registration. Chapter three will outline the methodology used for this study.

Chapter Three

Methods

The focus of this study was to investigate the differences in the enrollment behaviors and academic outcomes of late-enrolling students before and after the implementation of a more restrictive late registration policy at a large Midwestern community college. This chapter includes a description of the research design, selection of participants, measurement, data collection procedures, data analysis, hypothesis testing, and limitations of this study.

Research Design

Lunenburg and Irby (2008) described causal-comparative research design as "the most basic design for determining cause-and-effect relationships between variables" (p. 45). This causal-comparative study included a quantitative analysis of historical data from a large Midwestern community college. The differences in academic outcomes between students who enrolled during the first week of the semester in Fall 2008 and Fall 2009 were compared. In Fall 2008, students enrolling during the first week of the semester were allowed to enroll in any open course regardless of whether the course had begun. In Fall 2009, a new late registration policy was enacted and students could only enroll in courses that had not yet begun.

The number of courses added and percentages of enrollments in full semester and late start courses during the first week of each semester were used to determine if enrollment was effectively shifted to late start courses once the new late registration policy had begun. Academic outcomes were compared for courses added during the first week of Fall 2008 vs Fall 2009 utilizing mean course grade, percentage of course drops,

and percentage of course withdrawals. In addition, the mean course grade was used to measure the academic outcomes of FTIC, continuing students, transfer students, students enrolling for the first time for the semester, and students who were only making schedule changes to determine if differences existed among these groups. The mean course grade was also used to measure the academic outcomes within each group (FTIC students, continuing students, transfer students, students enrolling for the semester for the first time, and students who were only making a schedule change) in Fall 2008 vs Fall 2009 to determine the impact the policy change had on each group.

Selection of Participants

The population for this study included students who enrolled during the first week of the semester at a large Midwestern community college. The first week of the semester was defined as the first day the semester began and the six calendar days that followed. Two sample groups were selected through a non-random purposive technique using historical data. The first group included all 5,650 enrollments that occurred during the first week of the semester in Fall 2008 when students could enroll in any open course regardless of whether or not the course had begun. The second group included all 2,833 enrollments that occurred during the first week of the semester in Fall 2009 when students could only enroll in courses that had not yet begun.

Measurement

The number of courses added, percentage of full semester course enrollments, and percentage of late start course enrollments during the first week of each semester were used to determine if student enrollment behavior differed between Fall 2008 and Fall 2009. Courses that began during the first week of the semester and continued to the

end of the semester were considered full semester courses. Courses that were not full semester courses were considered late start courses. These late start courses had varying start and end dates.

Academic outcomes of students who enrolled in Fall 2008 and Fall 2009 were compared utilizing mean course grades, percentage of course drops, and percentage of course withdrawals in courses added during the first week of each semester. Grades of A, B, C, D, and F were included in the mean course grade comparison. Grades of P (pass) and I (incomplete) were excluded from the study as they carry no grade points and could not be included in a calculation of mean course grade. Course drops that occurred earlier in the semester and did not result in a W grade were considered course drops. Course withdrawals resulting in a non-punitive W grade were considered course withdrawals.

The mean course grade was used to measure the academic outcomes of FTIC, continuing, and transfer students and the academic outcomes of students enrolling for the first time for the semester vs students who were making schedule changes to determine if differences existed among these groups. In addition, the mean course grade was used to measure the difference in academic outcomes within each group (FTIC, continuing students, transfer students, students enrolling for the semester for the first time, and students who were only making a schedule change) in Fall 2008 vs Fall 2009.

Data Collection Procedures

On December 13, 2016, an Institutional Review Board (IRB) request was submitted to Baker University to request permission to conduct the study (see Appendix A). The Baker University IRB committee approved the study on December 15, 2016 (see

Appendix B). Permission to conduct the study was also obtained by completion of the IRB application at a large Midwestern community college on December 19, 2016 (see Appendix C). The Midwestern community college approved the IRB request on January 4, 2017 (see Appendix D).

After obtaining IRB permission from both Baker University and the Midwestern community college, historical data for the selected sample were provided by the Director of Enterprise Application Support at the Midwestern community college on January 6, 2017. Student type (FTIC, continuing, transfer, enrolling for the first time for the semester, only making a schedule change), course grades, course drops, and course withdrawals, course type, and enrollment dates were collected from the college's Banner student information system. Student names and ID numbers were removed by the college and no other personally identifiable information was included in the data. The data were entered into the Statistical Package for the Social Sciences (SPSS) software for analysis.

Data Analysis and Hypothesis Testing

The following section provides a description of the research questions, hypotheses, and data analyses utilized in this study.

RQ1. To what extent were there differences in the enrollment behavior (number of courses added and percentage of full semester courses vs late start courses) of students who registered during the first week of Fall 2008 and students who registered during the first week of Fall 2009?

***H1*.** There were differences in the enrollment behavior (number of courses added and percentage of full semester courses vs late start courses) of students who

registered during the first week of Fall 2008 and students who registered during the first week of Fall 2009.

Descriptive data were used to determine the difference between the frequency of courses added and enrollment in full semester courses vs late start courses that occurred during the first week of Fall 2008 vs Fall 2009.

RQ2. To what extent was there a difference between the mean course grade (earned grade of F or higher) of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009?

***H2*.** There was a difference between the mean course grade (earned grade of F or higher) of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009.

An independent samples *t* test was conducted to address RQ2. The course mean of students who enrolled during the first week of Fall 2008 was compared with the course mean of students who enrolled during the first week of Fall 2009. The level of significance was set at .05.

RQ3. To what extent was there a difference between the percentage of course drops of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009?

***H3*.** There was a difference between the percentage of course drops of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009.

Descriptive data were used to determine the percentage of course drops in each semester.

RQ4. To what extent was there a difference between the percentage of course withdrawals of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009?

***H4*.** There was a difference between the percentage of course withdrawals of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009.

Descriptive data were used to determine the percentage of course withdrawals in each semester.

RQ5. To what extent were there differences among the mean course grade of FTIC, continuing, and transfer students who enrolled during the first week of Fall 2008 and/or Fall 2009?

***H5*.** There were differences among the mean course grade of FTIC, continuing, and transfer students who enrolled during the first week of Fall 2008 and/or Fall 2009.

A one-way analysis of variance (ANOVA) was conducted to address RQ5. The categorical variable used to group the dependent variable, average course grade, was student type (FTIC, continuing, and transfer students). The level of significance was set at .05.

RQ6. To what extent was there a difference between the mean course grade of FTIC students who enrolled during the first week of Fall 2008 and FTIC students who enrolled during the first week of Fall 2009?

***H6*.** There was a difference between the mean course grade of FTIC students who enrolled during the first week of Fall 2008 and FTIC students who enrolled during the first week of Fall 2009.

RQ7. To what extent was there a difference between the mean course grade of continuing students who enrolled during the first week of Fall 2008 and continuing students who enrolled during the first week of Fall 2009?

***H7*.** There was a difference between the mean course grade of continuing students who enrolled during the first week of Fall 2008 and continuing students who enrolled during the first week of Fall 2009.

RQ8. To what extent was there a difference between the mean course grade of transfer students who enrolled during the first week of Fall 2008 and transfer students who enrolled during the first week of Fall 2009?

***H8*.** There was a difference between the mean course grade of transfer students who enrolled during the first week of Fall 2008 and transfer students who enrolled during the first week of Fall 2009.

RQ9. To what extent was there a difference between the mean course grade of students who were only making a schedule change and students who were registering for the first time for the semester during the first week of Fall 2008 and/or Fall 2009?

***H9*.** There was a difference between the mean course grade of students who were only making a schedule change and students who were registering for the first time for the semester during the first week of Fall 2008 and/or Fall 2009.

RQ10. To what extent was there a difference between the mean course grade of students who were only making a schedule change during the first week of Fall 2008 and students who were only making a schedule change during the first week of Fall 2009?

***H10*.** There was a difference between the mean course grade of students who were only making a schedule change during the first week of Fall 2008 and students who were only making a schedule change during the first week of Fall 2009.

RQ11. To what extent was there a difference between the mean course grade of students who were enrolling for the first time for the semester during the first week of Fall 2008 and students who were enrolling for the first time for the semester during the first week of Fall 2009?

***H11*.** There was a difference between the mean course grade of students who were enrolling for the first time for the semester during the first week of Fall 2008 and students who were enrolling for the first time for the semester during the first week of Fall 2009.

Six independent samples *t* tests were conducted to address RQ6 - RQ11. The mean course grades were compared for the groups in each question. The level of significance was set at .05.

Limitations

Students who enrolled during the first week of Fall 2008 were allowed to enroll in any open course regardless of whether the course had already begun. Students who enrolled during the first week of Fall 2009 were only allowed to enroll in courses that had not yet begun. Within the second group, some students may have enrolled after a class

had begun through a waiver issued by the academic department. These students could not be identified and were not excluded from the data set. Descriptive data on the percentages of full semester course enrollments vs late start course enrollments were included in this study to verify that the late registration restrictions in Fall 2009 were rigorously applied to shift enrollment to late start classes and that late registration waivers were rare.

In addition, this study focused only on the academic outcomes of students who enrolled during the first seven calendar days of the semester. It was unknown when each student began attending their course or courses. Success rates of students enrolling outside that timeframe were not included. For the purpose of determining mean course grade, P (pass) grades and I (incomplete) grades were excluded from the study as they carry no grade points and could not be included in a calculation of mean course grade.

Summary

The research design used in this study was causal-comparative. The academic outcomes of students enrolling during the first week of the semester in Fall 2008 were compared to the academic outcomes of students enrolling in the first week of the semester in Fall 2009. The focus of this study was to investigate the differences in the enrollment behaviors and academic outcomes of late-enrolling students before and after the implementation of a more restrictive late registration policy at a large Midwestern community college. This chapter included a description of the research design, selection of participants, measurement, data collection procedures, data analysis, hypothesis testing, and limitations of this study. The results of the hypothesis testing are presented in chapter four.

Chapter Four

Results

The focus of this study was to investigate the differences in the enrollment behaviors and academic outcomes of late-enrolling students before and after the implementation of a more restrictive late registration policy at a large Midwestern community college. The goal of this policy change was to improve the academic outcomes of late-enrolling students by restricting enrollment in courses that had already begun and shifting enrollment during the first week of the semester to late start courses that had not yet begun. The intent of this change was to ensure students were better prepared and present on the first day of each class.

The first purpose of the study was to determine to what extent there were differences in enrollment behaviors of students who enrolled during the first week of Fall 2008 vs Fall 2009. The second purpose was to determine to what extent there were differences in the academic outcomes of students who enrolled during the first week of Fall 2008 vs Fall 2009. The third purpose was to determine to what extent there were differences in the academic outcomes of specific student types (FTIC, continuing students, transfer students, students enrolling for the first time for the semester, and students who were only making a schedule change) who enrolled during the first week of Fall 2008 vs Fall 2009. The fourth purpose was to determine to what extent there were differences among the academic outcomes of each student type (FTIC, continuing students, transfer students, students enrolling for the first time for the semester, and students who were only making a schedule change) regardless of which term they enrolled. This study was guided by eleven research questions.

Hypothesis Testing

RQ1. To what extent were there differences in the enrollment behavior (number of courses added and percentage of full semester courses vs late start courses) of students who registered during the first week of Fall 2008 and students who registered during the first week of Fall 2009?

***H1*.** There were differences in the enrollment behavior (number of courses added and percentage of full semester courses vs late start courses) of students who registered during the first week of Fall 2008 and students who registered during the first week of Fall 2009.

Descriptive data (see Table 1) were used to determine the difference between the frequency of courses added during the first week of Fall 2008 vs Fall 2009. Table 1 provides the number of courses added, number of courses completed with a grade, and the percentage of courses completed with a grade in Fall 2008 vs Fall 2009. There was a difference in number of courses added in each term. In Fall 2008, 5650 courses were added during the first week of the semester. In Fall 2009, 2833 courses were added during the first week of the semester. Although the number of course adds decreased by 50% (-2817) from Fall 2008 to Fall 2009, course completion did not change dramatically. The percentage of added courses that resulted in a grade at the end of the semester was very similar between the two terms. In Fall 2008, 69% of courses added during the first week of the semester were completed with a grade. In Fall 2009, 68% of courses added during the first week of the semester were completed with a grade.

Descriptive data (see Table 2) were used to determine the difference between enrollment in full semester vs late start courses during the first week of Fall 2008 vs Fall

2009. Table 2 provides the number and percentage of full semester courses and late start courses added in Fall 2008 vs Fall 2009. As Table 2 illustrates, enrollment during the first week of the semester shifted toward a greater percentage of late start courses in Fall 2009. In Fall 2008, courses added during the first week of the semester included 79% full semester courses and 21% late start courses. In Fall 2009, courses added during the first week of the semester included 36% full semester courses and 64% late start courses. These data confirmed that enrollment during the first week of the Fall 2009 shifted to a greater percentage of late start courses. H1 was supported by the data summarized in Tables 1 and 2. There were differences in the enrollment behavior of students who registered during the first week of Fall 2008 and students who registered during the first week of Fall 2009 as the number of courses added decreased and course enrollment was shifted to late start classes in Fall 2009.

Table 1

Courses Added and Courses Completed Frequency Table

Term	*N of Courses Added*	*N Completed With Grade*	*% Completed With Grade*
Fall 2008	5650	3872	69%
Fall 2009	2833	1939	68%
Difference	-2817	-1933	-1%

Table 2

Full Semester vs Late Start Courses Added Frequency Table

Term	*N of Full Semester Courses Added*	*%*	*N of Late Start Courses Added*	*%*
Fall 2008	4466	79%	1184	21%
Fall 2009	1018	36%	1815	64%

RQ2. To what extent was there a difference between the mean course grade (earned grade of F or higher) of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009?

***H2*.** There was a difference between the mean course grade (earned grade of F or higher) of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009.

An independent samples *t* test was conducted to address H2. The course mean of students who enrolled during the first week of Fall 2008 was compared with the course mean of students who enrolled during the first week of Fall 2009. The level of significance was set at .05. The results of the independent samples *t* test indicated no statistically significant difference between the two group means ($t = .711$, $df = 5809$, $p = .477$). Table 3 provides a summary of the course means for H2. The course mean for the Fall 2008 group ($M = 2.48$, $SD = 1.48$) was not significantly different from the course mean for the Fall 2009 group ($M = 2.45$, $SD = 1.50$). Hypothesis 2 was not supported as there was no statistically significant difference between the course means of students who enrolled during the first week of class in Fall 2008 and Fall 2009.

Table 3

Descriptive Statistics for the Course Means for H2

Term	*M*	*SD*	*N*
Fall 2008	2.48	1.48	3872
Fall 2009	2.45	1.50	1939

RQ3. To what extent was there a difference between the percentage of course drops of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009?

***H3*.** There was a difference between the percentage of course drops of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009.

RQ4. To what extent was there a difference between the percentage of course withdrawals of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009?

***H4*.** There was a difference between the percentage of course withdrawals of students who enrolled during the first week of Fall 2008 and students who enrolled during the first week of Fall 2009.

Descriptive data (see Table 4) were used to determine the percentage of course drops and withdrawals for each semester. Table 4 provides the number and percentage of dropped and withdrawn courses as well as the combined percentage of all courses dropped or withdrawn in Fall 2008 vs Fall 2009. Of the courses added during the first week of the semester, 946 (17%) resulted in a drop without a W in Fall 2008 and 517 (18%) resulted in a drop without a W in Fall 2009. Of the courses added during the first

week of the semester, 791 (14%) resulted in a withdrawal with a W in Fall 2008 and 349 (12%) resulted in a withdrawal with a W in Fall 2009. In Fall 2008, a total of 31% of courses were dropped or withdrawn. In Fall 2009, a total of 32% of courses were dropped or withdrawn. Both H3 and H4 were not supported as the percentage of course drops and withdrawals were very similar for Fall 2008 and Fall 2009.

Table 4

Courses Dropped and Courses Withdrawn Frequency Table

Term	*N of Courses Dropped*	*% Courses Dropped*	*N of Courses Withdrawn*	*% of Courses Withdrawn*	*% of Total Drops/ Withdrawals*
Fall 2008	946	17%	791	14%	31%
Fall 2009	517	18%	349	12%	32%

RQ5. To what extent were there differences among the mean course grade of FTIC, continuing, and transfer students who enrolled during the first week of Fall 2008 and/or Fall 2009?

***H5*.** There were differences among the mean course grade of FTIC, continuing, and transfer students who enrolled during the first week of Fall 2008 and/or Fall 2009.

A one-way analysis of variance (ANOVA) was conducted to test RQ5. The categorical variable used to group the dependent variable, average course grade, was student type (FTIC, continuing, and transfer students). The level of significance was set at .05. The results of the analysis indicated a statistically significant difference between at least two of the means, $F = 48.742$, $df = 2, 5808$, $p = .000$. Table 5 provides the means and standard deviations for each student type. A follow-up post hoc was conducted to

determine which pairs of means were different. The Tukey's Honestly Significant Difference (HSD) critical value was .05. The differences between the means had to be greater than this value to be considered statistically different ($\alpha = .05$). Two of the differences were greater than this value. The course mean for FTIC students ($M = 2.06$, $SD = 1.53$) was statistically significantly lower than the course mean for continuing students ($M = 2.57$, $SD = 1.44$), $p = .000$. The course mean for FTIC students was also statistically significantly lower than the course mean for transfer students ($M = 2.52$, $SD = 1.53$), $p = .000$. H5 was supported as FTIC students had a statistically significantly lower course mean than continuing students or transfer students. There was no statistically significant difference between the course means of continuing vs transfer students.

Table 5

Descriptive Statistics for the Course Means for H5

Student Type		*M*	*SD*	*N*
Student Type	FTIC	2.06	1.53	1028
	Continuing	2.57	1.44	3674
	Transfer	2.52	1.53	1109

RQ6. To what extent was there a difference between the mean course grade of FTIC students who enrolled during the first week of Fall 2008 and FTIC students who enrolled during the first week of Fall 2009?

***H6*.** There was a difference between the mean course grade of FTIC students who enrolled during the first week of Fall 2008 and FTIC students who enrolled during the first week of Fall 2009.

An independent samples *t* test was conducted to address H6. The course mean of FTIC students who enrolled during the first week of Fall 2008 was compared with the course mean of FTIC students who enrolled during the first week of Fall 2009. The level of significance was set at .05. The results of the independent samples *t* test indicated no statistically significant difference between the two course means ($t = -.935$, $df = 1026$, $p = .350$). Table 6 provides a summary of the course means for H6. The course mean for FTIC students in Fall 2008 ($M = 2.03$, $SD = 1.52$) was not statistically different from the course mean for FTIC students in Fall 2009 ($M = 2.13$, $SD = 1.56$). Hypothesis 6 was not supported as there was no statistically significant difference between the course means of FTIC students who enrolled during the first week of class in Fall 2008 and Fall 2009.

Table 6

Descriptive Statistics for the Course Means for H6

Term	*M*	*SD*	*N*
FTIC in Fall 2008	2.03	1.52	677
FTIC in Fall 2009	2.13	1.56	351

RQ7. To what extent was there a difference between the mean course grade of continuing students who enrolled during the first week of Fall 2008 and continuing students who enrolled during the first week of Fall 2009?

H7. There was a difference between the mean course grade of continuing students who enrolled during the first week of Fall 2008 and continuing students who enrolled during the first week of Fall 2009.

An independent samples *t* test was conducted to address H7. The course mean of continuing students who enrolled during the first week of Fall 2008 was compared with

the course mean of continuing students who enrolled during the first week of Fall 2009. The level of significance was set at .05. The results of the independent samples *t* test indicated no statistically significant difference between the two course means ($t = 1.476$, $df = 3672$, $p = .140$). Table 7 provides a summary of the course means for H7. The course mean for continuing students in Fall 2008 ($M = 2.60$, $SD = 1.43$) was not statistically different from the course mean for continuing students in Fall 2009 ($M = 2.52$, $SD = 1.46$). Hypothesis 7 was not supported as there was no statistically significant difference between the course means of continuing students who enrolled during the first week of class in Fall 2008 and Fall 2009.

Table 7

Descriptive Statistics for the Course Means for H7

Term	*M*	*SD*	*N*
Continuing in Fall 2008	2.60	1.43	2465
Continuing in Fall 2009	2.52	1.46	1209

RQ8. To what extent was there a difference between the mean course grade of transfer students who enrolled during the first week of Fall 2008 and transfer students who enrolled during the first week of Fall 2009?

***H8*.** There was a difference between the mean course grade of transfer students who enrolled during the first week of Fall 2008 and transfer students who enrolled during the first week of Fall 2009.

An independent samples *t* test was conducted to address H8. The course mean of transfer students who enrolled during the first week of Fall 2008 was compared with the course mean of transfer students who enrolled during the first week of Fall 2009. The

level of significance was set at .05. The results of the independent samples *t* test indicated no statistically significant difference between the two course means (t = -.213, df = 1107, p = .832). Table 8 provides a summary of the course means for H8. The course mean for transfer students in Fall 2008 (M = 2.51, SD = 1.53) was not statistically different from the course mean for transfer students in Fall 2009 (M = 2.53, SD = 1.54). Hypothesis 8 was not supported as there was no statistically significant difference between the course means of transfer students who enrolled during the first week of class in Fall 2008 and Fall 2009.

Table 8

Descriptive Statistics for the Course Means for H8

Term	*M*	*SD*	*N*
Transfer in Fall 2008	2.51	1.53	730
Transfer in Fall 2009	2.53	1.54	379

RQ9. To what extent was there a difference between the mean course grade of students who were only making a schedule change and students who were registering for the first time for the semester during the first week of Fall 2008 and/or Fall 2009?

***H9*.** There was a difference between the mean course grade of students who were only making a schedule change and students who were registering for the first time for the semester during the first week of Fall 2008 and/or Fall 2009.

An independent samples *t* test was conducted to address H9. The course means of students who were only making a schedule change and students who were registering for the first time for the semester during the first week of Fall 2008 and/or Fall 2009 were

compared. The level of significance was set at .05. The results of the independent samples *t* test indicated there was a statistically significant difference between the two course means ($t = -4.635$, $df = 3429.227$, $p = .000$). Table 9 provides a summary of the course means for H9. The course mean for students who were only making a schedule change in Fall 2008 and/or Fall 2009 ($M = 2.54$, $SD = 1.45$) was statistically significantly different from the course mean for students who were registering for the first time for the semester during Fall 2008 and/or Fall 2009 ($M = 2.34$, $SD = 1.55$). Hypothesis 9 was supported as there was a statistically significant difference between the course means of students who were only making a schedule change and students who were registering for the first time for the semester during the first week of Fall 2008 and/or Fall 2009.

Table 9

Descriptive Statistics for the Course Means for H9

Student Type		*M*	*SD*	*N*
Student Type	Schedule Change	2.54	1.45	3949
	First time enrolling for semester	2.34	1.55	1862

RQ10. To what extent was there a difference between the mean course grade of students who were only making a schedule change during the first week of Fall 2008 and students who were only making a schedule change during the first week of Fall 2009?

***H10*.** There was a difference between the mean course grade of students who were only making a schedule change during the first week of Fall 2008 and students who were only making a schedule change during the first week of Fall 2009.

An independent samples *t* test was conducted to address H10. The course mean of students who were only making a schedule change during the first week of Fall 2008 was compared with the course mean of students who were only making a schedule change during the first week of Fall 2009. The level of significance was set at .05. The results of the independent samples *t* test indicated no statistically significant difference between the two course means ($t = 1.234$, $df = 3947$, $p = .217$). Table 10 provides a summary of the course means for H10. The course mean for students who were only making a schedule change during the first week of Fall 2008 ($M = 2.56$, $SD = 1.44$) was not statistically different from the course mean for students who were only making a schedule change during the first week of Fall 2009 ($M = 2.50$, $SD = 1.47$). Hypothesis 10 was not supported as there was no statistically significant difference between the course means of students who were only making a schedule change during the first week of Fall 2008 and students who were only making a schedule change during the first week of Fall 2009.

Table 10

Descriptive Statistics for the Course Means for H10

Term	*M*	*SD*	*N*
Schedule Change in Fall 2008	2.56	1.44	2548
Schedule Change in Fall 2009	2.50	1.47	1401

RQ11. To what extent was there a difference between the mean course grade of students who were enrolling for the first time for the semester during the first week of Fall 2008 and students who were enrolling for the first time for the semester during the first week of Fall 2009?

H11. There was a difference between the mean course grade of students who were enrolling for the first time for the semester during the first week of Fall 2008 and students who were enrolling for the first time for the semester during the first week of Fall 2009.

An independent samples *t* test was conducted to address H11. The course mean of students who were enrolling for the first time for the semester during the first week of Fall 2008 was compared with the course mean of students who were enrolling for the first time for the semester during the first week of Fall 2009. The level of significance was set at .05. The results of the independent samples *t* test indicated no statistically significant difference between the two course means ($t = .024$, $df = 1860$, $p = .981$). Table 11 provides a summary of the course means for H11. The course mean for students who were enrolling for the first time for the semester during the first week of Fall 2008 ($M = 2.34$, $SD = 1.55$) was not statistically different from the course mean for students who were enrolling for the first time for the semester during the first week of Fall 2009 ($M = 2.34$, $SD = 1.57$). Hypothesis 11 was not supported as there was no statistically significant difference between the course means of students enrolling for the first time for the semester during the first week of Fall 2008 and students who were enrolling for the first time for the semester during the first week of Fall 2009.

Table 11

Descriptive Statistics for the Course Means for H11

Term	*M*	*SD*	*N*
Enrolling for the term late in Fall 2008	2.34	1.55	1324
Enrolling for the term late in Fall 2009	2.34	1.57	538

Summary

Chapter four included the results of hypothesis testing for eleven research questions. The findings included:

1. Enrollment behavior differed in Fall 2008 and Fall 2009. Course adds were decreased by 50% and enrollment was shifted to a greater percentage of late start courses in Fall 2009.
2. There was no statistically significant difference in course means, drops without a W, or withdrawals with a W for students enrolling during the first week of Fall 2008 vs Fall 2009.
3. There were statistically significant differences in academic outcomes among student types as a whole without regard to which semester they enrolled. FTIC students had a statistically significantly lower course mean than continuing or transfer students. However, there was no statistically significant difference between the course means of continuing vs transfer students. Students who were only making a schedule change had a statistically significantly higher course mean than students who were enrolling for the first time for the semester during the first week of class.
4. There were no statistically significant differences in academic outcomes within any group (FTIC, continuing, transfer, schedule change only, or enrolling for the first time for the semester during the first week of class) between Fall 2008 and Fall 2009. Within each group, the course means in Fall 2008 and Fall 2009 were not statistically significantly different.

Chapter five presents interpretation of the results, implications for future research, major findings, conclusions, and recommendations for future research.

Chapter Five

Interpretation and Recommendations

This study consisted of five chapters. Provided in chapter one was an introduction and statement of the problem including the significance of this study. Chapter two included a review of the literature pertaining to late registration. Chapter three included the research questions, hypotheses, and methods used to collect and analyze data in this study. The results of this study were provided in chapter four. Chapter five will provide a summary of the results, implications for college policies, and recommendations for future research.

Study Summary

Overview of the problem. Some researchers have shown the academic success rates of students who register on time surpass the success rates of students who register late even though the majority of late registrants still complete their courses (Keck, 2007; Smith et al., 2002). Ideally, college faculty and administrators would prefer for students to enroll well in advance of the semester, be prepared on the first day of class, and graduate on time. In reality, students often enroll late and provide unique challenges for colleges striving to improve student retention and academic success (Freer-Weiss, 1999).

Late registration policies may be one of many factors that influence the academic success of students, however student differences may also influence or mitigate the effect of enrolling late. Although some researchers have found students who enroll late have lower course grades than students who enroll earlier (Hale, 2007; Keck, 2007; Maalouf, 2012), differences among student groups (FTIC, continuing, and transfer students) who enroll late have not been evaluated. In addition, differences between the academic

outcomes of late-enrolling students who are enrolling for the first time for the semester vs those who are only making a schedule change have not been explored. Further research is needed to determine if specific student types are more vulnerable to the effect of enrolling after classes have begun.

Personality characteristics may also be a factor in academic success and may act as a confounding variable in determining the impact of late enrollment. Students who enroll as close to the deadline as possible may share personality traits that motivate them to wait as long as possible before taking their first step toward a higher education degree (Ford et al., 2008; Moon & Illingworth, 2005). Restricting the latency of enrollment may not be enough to assist these students and further intervention may be required to improve their academic outcomes (Freer-Weiss, 2004). Enrolling late may be a symptom of personality or personal factors that require intervention beyond limitations in latency of enrollment.

For students who are inclined to register as late as possible, who have personal or financial factors that prevent earlier registration, or who are among minority or first generation students who enroll late in higher numbers, late registration policies may have a significant impact (Dowd & Shieh, 2014). Changing to a more restrictive late registration policy may hinder the ability of students to enroll in courses they need for their degree and to make critical schedule changes after the semester begins. Restricting late registration with no further intervention may fall short of addressing the needs of students who register closer to the registration deadline. Additional research is needed to determine if a more restrictive late registration policy has an effect on the academic outcomes of students who enroll late and if that impact differs by student type (FTIC,

continuing students, transfer students, students enrolling for the first time for the semester, and students who are only making a schedule change).

Purpose statement and research questions. The focus of this study was to investigate the differences in the academic outcomes of late-enrolling students before and after the implementation of a more restrictive late registration policy. The goal of this policy change was to improve the academic outcomes of late-enrolling students by restricting enrollment in courses that had already begun and shifting enrollment during the first week of the semester to late start courses that had not yet begun. The intent of this change was to ensure students were better prepared and present on the first day of each class. This study was guided by eleven research questions.

Review of the methodology. This causal-comparative study included a quantitative analysis of archival data from a large Midwestern community college. Included in the study were 5,650 enrollments that occurred during the first week of Fall 2008 and 2,833 enrollments that occurred during the first week of Fall 2009. Descriptive data, independent samples *t* tests, and a one-way ANOVA were used to test eleven hypotheses.

Major findings. The first purpose of the study was to determine to what extent there were differences in enrollment behaviors of students who enrolled during the first week of Fall 2008 vs Fall 2009. Enrollment behavior did differ in Fall 2008 and Fall 2009. Course adds were decreased by 50% from 5,650 in Fall 2008 to 2,833 in Fall 2009. Enrollment during the first week of the semester was shifted from 21% late start courses in Fall 2008 to 64% late start courses in Fall 2009. This finding was important to the college as it illustrated that the new policy enacted in Fall 2009 was followed. In Fall

2009, students were not allowed to enroll in courses that had already begun. Instead, they were required to enroll in full semester courses that had not yet started or late start courses that began later in the semester. The decrease in course enrollments and shift to a greater percentage of late start classes demonstrated that the policy was enforced and waivers of the policy by academic departments were rare.

The second purpose was to determine to what extent there were differences in the academic outcomes of students who enrolled during the first week of Fall 2008 vs Fall 2009. There was no statistically significant difference in course means, drops without a W, or withdrawals with a W for students who enrolled during the first week of Fall 2008 vs Fall 2009. There was no statistically significant improvement in the academic outcomes of students who enrolled during the first week of class after the policy change was enacted.

The third purpose was to determine to what extent there were differences in the academic outcomes of specific student types (FTIC, continuing students, transfer students, students enrolling for the first time for the semester, and students who were only making a schedule change) who enrolled during the first week of Fall 2008 vs Fall 2009. There were no statistically significant differences in academic outcomes within any group between Fall 2008 and Fall 2009. Within each group, the course means in Fall 2008 and Fall 2009 were not statistically significantly different.

The fourth purpose was to determine to what extent there were differences among the academic outcomes of each student type (FTIC, continuing students, transfer students, students enrolling for the first time for the semester, and students who were only making a schedule change) regardless of which term they enrolled. There were

statistically significant differences in academic outcomes among student types as a whole without regard to which semester they enrolled. FTIC students had a statistically lower course mean than continuing or transfer students. However, there was no statistically significant difference between the course mean of continuing vs transfer students. Students who were only making a schedule change had a statistically higher course mean than students who were enrolling for the first time for the semester during the first week of class.

Findings Related to the Literature

This study was the first of its kind in that it examined the differences in academic outcomes of late-enrolling students before and after implementation of a more restrictive late registration policy. Much of the research on late registration (Angelo, 1990; Bolt, 2013; Cornille, 2009; Ford, Stahl, Walker, & Ford, 2008; Hale, 2007; Keck, 2007; Maalouf, 2012; McWaine, 2012; Neighbors, 1996; Perkins, 2002; Safer, 2009; Shriner, 2014; Smith, Street, & Olivarez, 2002; Sova, 1986; Wang & Pilarzyk, 2007; Zottos, 2005) has focused on differences between the academic outcomes of students who enrolled on time or early vs those who enrolled late. Some studies (Angelo, 1990; Perkins, 2002; Tompkins, 2013; Zottos, 2005) found no differences between these groups. However, many studies (Bolt, 2013; Cornille, 2009; Ford, Stahl, Walker, & Ford, 2008; Hale, 2007; Keck, 2007; Maalouf, 2012; McWaine, 2012; Neighbors, 1996; Safer, 2009; Shriner, 2014; Smith, Street, & Olivarez, 2002; Sova, 1986; Wang & Pilarzyk, 2007) found there were differences between these groups and that students who enrolled late earned lower course grades, achieved lower GPAs, completed fewer credit hours, or persisted at a lower rate than their counterparts.

Based on these findings, researchers have recommended the abolishment of late registration as a best practice to promote student success (Crisp & Hatch, 2016; O'Banion, 2012; Roueche & Roueche, 1994). However, if a correlation does exist between time of enrollment and academic outcome, it is not confirmed that it is causative. If late registration is a cause of poor academic performance, then it should be expected that abolishing the practice of allowing students to enroll after a class has begun would result in improved academic outcomes for students who enroll during the first week of the semester. That was not the finding in this study.

Tompkins and Williams (2015) called for studies to be conducted to evaluate the effect of eliminating late registration. This study added to the research by responding to that need. There were no statistically significant improvements in the mean course grades of students who enrolled during the first week of Fall 2008 vs Fall 2009 when the new policy was implemented. An examination of academic outcomes for specific student types (FTIC, continuing students, transfer students, students enrolling for the first time for the semester, and students who were only making a schedule change) yielded no statistically significant differences in the mean course grades for Fall 2008 and Fall 2009 within any group in the current study. Personality traits of procrastination may influence the academic outcomes of students who enroll late with greater impact than the latency of enrollment. As Tompkins and Williams (2015) suggested, providing additional support services to late-enrolling students may be needed to improve the academic outcomes of students who enroll after the semester begins.

Maalouf (2012) suggested academic outcomes of late-enrolling students may vary by student type and recommended future research evaluate the differences between the

academic outcomes of new vs continuing students who enroll late. Angelo (1990) asserted that late enrollment in a community college setting may be a hidden source of academic strength by affording students the opportunity to engage in "academic window shopping" (p. 327). Tompkins (2013) suggested permitting late registration for some students may promote student success by allowing them to make necessary schedule changes. The findings in this study supported these assertions. Late-enrolling students did differ by student type when considering enrollments in both Fall 2008 and/or Fall 2009. FTIC students had statistically significantly lower mean course grades than continuing and transfer students. Students who were enrolling for the first time for the semester had statistically significantly lower mean course grades than students who were only making a schedule change. These findings supported the assertion that differences in the outcomes of late-enrolling students may vary by student type and that colleges should "develop policies that accommodate students for whom late registration is likely beneficial but that deter late registration when the outcomes are likely to be negative" (Tompkins & Williams, 2015, p. 72).

Conclusions

The primary purpose of this study was to investigate the differences in the enrollment behaviors and academic outcomes of late-enrolling students before and after the implementation of a more restrictive late registration policy. Enrollment behavior did differ between Fall 2008 and Fall 2009. Enrollment during the first week of class was effectively shifted to late start course options. In Fall 2008, 21% of enrollments were in late start courses compared to 64% in Fall 2009. However, course enrollments during the first week of the semester also decreased from 5,650 in Fall 2008 to 2,833 in Fall 2009

representing a decrease of 50% (-2,817 enrollments). What happened to these enrollments? It is plausible to theorize that these enrollments moved to an earlier registration timeframe in response to the college's extensive communication to students that enrollment after a course began would no longer be permitted. If so, it would be informative to determine if the students who moved their registration to an earlier timeframe showed any improvement in their academic outcomes. It is also possible that some of the enrollments were lost if students did not find viable options in full semester classes that had not yet begun or in late start course offerings. It would be informative for the college to further evaluate the factors that resulted in decreased enrollment during the first week of class.

Regarding academic outcomes, no statistically significant differences in mean course grades were detected between Fall 2008 and Fall 2009 in the current study. No statistically significant differences in mean course grades of specific student types were detected between Fall 2008 and Fall 2009. There were no statistically significant differences in the academic outcomes of students who enrolled during the first week of class after implementation of a more restrictive late registration policy.

Implications for action. Students value the opportunity to register in courses late and expect institutions to meet their needs as late registrants (Keck, 2007). However, both students and advisors have observed that creating a full-time schedule of courses relevant to the student's goals is often difficult when courses have already begun (Danley, 1998). In addition, many late registrants have need for developmental coursework and are often undecided in their choice of major (Peterson, 1986). The findings of the current study are important for community college decision makers. If

limiting the latency of enrollment does not improve the academic outcomes of students, then other interventions must be created. Recommendations are provided below:

1. Create late start course schedule options that have been coordinated among departments to afford the best opportunity for students to enroll in courses appropriate to their skill level and fit together in a coherent full-time schedule for students enrolling during the first week of the semester.
2. Create late start learning communities for students enrolling during the first week of the semester to provide additional engagement and support of these students.
3. If late registration continues to be restricted, consider only restricting enrollment for students who are new registrants for the term. Allow students who are already enrolled to make necessary schedule changes with instructor permission after classes have begun.
4. Require advising and orientation for late-enrolling students to provide a more robust understanding of college policies, a more appropriate selection of courses, and an opportunity to explore options for majors that support their career goals.
5. Provide follow up touch points with these students to check on their progress and offer information on available resources (tutoring centers, counseling, financial aid, etc.).

Recommendations for future research. Schwartz (2010) found community colleges allowing late registration had higher fall-to-fall retention rates than schools no longer allowing late registration. This is an interesting finding and stands in direct

opposition to the strong opinions that late registration is harmful to student persistence (Crisp & Hatch, 2016; O'Banion, 2012; Roueche & Roueche, 1994). This study found no statistically significant differences in the academic outcomes of students who enrolled during the first week of class before the implementation of a more restrictive late registration policy vs after the implementation of a more restrictive late registration policy. However, this study did not evaluate the persistence of these students to the following semester. Future research should evaluate this aspect of student success with regard to abolishing late registration.

Much research has been collected on the differences between students who enroll late vs on time or early (Angelo, 1990; Bolt, 2013; Cornille, 2009; Ford, Stahl, Walker, & Ford, 2008; Hale, 2007; Keck, 2007; Maalouf, 2012; McWaine, 2012; Neighbors, 1996; Perkins, 2002; Safer, 2009; Shriner, 2014; Smith, Street, & Olivarez, 2002; Sova, 1986; Wang & Pilarzyk, 2007; Zottos, 2005). This study was the first of its kind in that it examined the differences in academic outcomes of late-enrolling students before and after implementation of a more restrictive late registration policy. It would be beneficial for more studies of this nature to be conducted in a variety of college settings including public, private, four-year, and community colleges. Implementation of a more restrictive late registration policy may yield different outcomes within different college settings.

It is also recommended that future research focus on evaluating specific interventions designed to improve the academic outcomes of students who enroll late. Future researchers may explore interventions for late-enrolling students such as requiring a student success course, advising, orientation, or follow up counseling. More intensive interventions may offer improved academic outcomes for late-enrolling students. In

addition, as this study did find statistically significant differences in academic outcomes of late registrants by student type, future research may be warranted to determine if certain student types may be more vulnerable to the effects of late registration.

Concluding remarks. Considering there are benefits and drawbacks to allowing students to enroll late, colleges have a difficult decision to make in balancing student demand, enrollment counts, and student success. This study found no statistically significant differences in the academic outcomes of students who enrolled during the first week of class before the implementation of a more restrictive late registration policy vs after the implementation of a more restrictive late registration policy. However, the policy change may still have provided benefits to the college. Enrollment during the first week of class was shifted to a greater percentage of late start courses and enrollments during the first week of class were reduced by 50%. Assuming the missing enrollments moved to an earlier registration timeframe, this may have promoted earlier registration action for students and decreased the strain on college personnel during the busy first week of the semester.

The decision to allow or abolish late registration is an important one for colleges to make. While many have depicted late registration as a barrier to student retention and success (Crisp & Hatch, 2016; O'Banion, 2012; Roueche & Roueche, 1994), it is possible that late registration may be an important tool that supports student needs and offers opportunity for necessary schedule changes to be made after classes are in session (Tompkins, 2013). Late registration may be a symptom of other variables that impact academic success rather than the cause of poor academic outcomes. As this study found no improvement in the academic outcomes of late-enrolling students following the

implementation of a more restrictive late registration policy, more research is required to determine what interventions may offer the best opportunity for improving the academic outcomes of late-enrolling students.

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Appendices

Appendix A: Baker University IRB Form

BAKER UNIVERSITY

SCHOOL OF EDUCATION
GRADUATE DEPARTMENT

Date: 12-13-16
IRB PROTOCOL NUMBER _____
(IRB USE ONLY)

IRB REQUEST
Proposal for Research
Submitted to the Baker University Institutional Review Board

I. Research Investigator(s) (Students must list faculty sponsor first)

Department(s) **School of Education Graduate Department**

	Name	Signature	
1.	Dr. Tes Mehring		Major Advisor
2.	Dr. Li Chen-Bouck		Research Analyst
3.			University Committee Member
4.	Dr. Randy Weber		External Committee Member

Principal Investigator: Leslie Quinn
Phone: 913-633-3105
Email: lquinn2@jccc.edu
Mailing address: 9616 W. 121 Ter., Overland Park, KS, 66213

Faculty sponsor: Dr. Tes Mehring
Phone:
Email: Tes.Mehring@bakeru.edu

Expected Category of Review: ___Exempt ___ Expedited ___Full

II: Protocol: (Type the title of your study)

The Impact of Policy Changes Restricting Late Registration in a Large Midwestern Community College

Summary

In a sentence or two, please describe the background and purpose of the research.

The focus of this study is to investigate the impact of a late registration policy change on the success rates of students enrolling during the first week of the semester at a large, suburban, Midwestern community college. The goal of this policy change was to improve the academic outcomes of late-enrolling students by restricting enrollment in courses that had already begun and shifting enrollment during the first week of the semester to late start courses that had not yet begun. The purpose of this study is to determine if there was a difference in the academic outcomes of students who enrolled during the first week of class in Fall 2008 (when students could enroll in any open course) and Fall 2009 (when the more restrictive late registration policy was implemented).

Briefly describe each condition or manipulation to be included within the study.

This study includes no manipulations. Archival data will be used to determine if there were differences in the academic outcomes of late-enrolling students after a more restrictive late registration policy was implemented in Fall 2009.

What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.

This study utilizes only archival data. The number of course adds, number of course drops, percentage of full semester course enrollments, and percentage of late start course enrollments during the first week of each semester will be used to determine if student enrollment behavior differed between Fall 2008 and Fall 2009.

Academic outcomes of students who enrolled in Fall 2008 and Fall 2009 will be compared utilizing mean course grades, percentage of course drops, and percentage of course withdrawals in courses that were added during the first week of each semester.

The mean course grade will be used to measure the difference between the academic outcomes of new and continuing students and the difference between the academic outcomes of students enrolling for the first time for the semester and students who were making schedule changes to determine if differences existed between these groups. In addition, the mean course grade will be used to measure the academic outcomes within each group (new students, continuing students, students enrolling for the semester for the first time, and students who were only making a schedule change) in Fall 2008 vs Fall 2009. No personally identifiable information will be included in the data set.

Will the subjects encounter the risk of psychological, social, physical, or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.

No, this study utilizes only archival data.

Will any stress to subjects be involved? If so, please describe.

No, this study utilizes only archival data.

Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.

No, this study utilizes only archival data.

Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.

No, this study utilizes only archival data and all personally identifiable information will be excluded from the data set.

Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.

No, this study utilizes only archival data.

Approximately how much time will be demanded of each subject?

None, this study utilizes only archival data.

Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.

The subjects in this study are students who enrolled in classes during the first week of the semester in Fall 2008 and Fall 2009. This study utilizes only archival data.

What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?

This study utilizes only archival data. There will be no inducement offered to subjects for participation.

How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.

This study utilizes only archival data.

Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.

No, this study utilizes only archival data and all personally identifiable information will be excluded from the data set.

Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.

No, this study utilizes only archival data and all personally identifiable information will be excluded from the data set.

What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with it after the study is completed?

This study utilizes only archival data and all personally identifiable information will be excluded from the data set. The data collected from the college will be secured on a college owned electronic drive (OneDrive) accessible only to the researcher, not on a personal computer. It will be stored until the dissertation is complete and then deleted after 3 years. The college may choose to retain the data in the Institutional Research Office or the Records Office.

If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?

There is no risk to individual students. This study utilizes only archival data and all personally identifiable information will be excluded from the data set.

Will any data from files or archival data be used? If so, please describe.

Yes. Enrollment information will be collected from the Banner Student Information System including student type (new, continuing, enrolling for the first time for the semester, only making a schedule change), course grades, course drops, and course withdrawals, course type, and enrollment dates. Student names and ID numbers will be removed by the college and no other personally identifiable information will be included in the data.

Appendix B: Baker University Approval Letter

Baker University Institutional Review Board

December 15, 2016

Dear Leslie Quinn and Dr. Mehring,

The Baker University IRB has reviewed your research project application and approved this project under Exempt Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.

Please inform this Committee or myself when this project is terminated or completed. As noted above, you must also provide IRB with an annual status report and receive approval for maintaining your status. If you have any questions, please contact me at EMorris@BakerU.edu or 785.594.7881.

Sincerely,

Erin Morris PhD
Chair, Baker University IRB

Baker University IRB Committee
Joe Watson PhD
Nate Poell MA
Susan Rogers PhD
Scott Crenshaw

Appendix C: Midwestern Community College IRB Form

[redacted]

Research Participant Protection Program
Application for Exempt Research Involving Human Subjects

A. GENERAL INFORMATION

1. Principal Investigator(s): Leslie Quinn
2. College/University: [redacted]
3. Department/Program: Records Office
4. Campus Address: Box 41
5. Phone Number: ext. 2332
6. E-mail Address: lquinn2@[redacted].edu
7. Faculty Supervisor (if student project):
8. Title of Project: The Impact of Policy Changes Restricting Late Registration in a Large
9. Type of Project: Dissertation

   Faculty/Staff Research ☑

   Student Research ☑

   Class Project (Please specify class)

   Other (Please explain)

10. Expected Project Start Date: 1/2/17
11. Expected Project Completion Date: 5/5/17
12. Is this a funded project? ☐ Yes ☑ No

    If yes, please specify:

    Funding Source:

    Duration of Funding:

Are there any potential financial conflicts of interest which need to be declared? In other words, are you, any other project personnel, or family members of you or project personnel in the position to gain financially from the results of the research?
☐ Yes ☑ No

If yes, please explain:

13. Has this project been submitted and/or reviewed by another Human Subjects Protection Program (HSPP) or Institutional Review Board (IRB)? ☑ Yes ☐ No

If yes, please specify: Baker IRB

Name of HSPP or IRB and its decision: Pending review.

Please include a copy of approval letter if applicable.

14. Will this project take place at [redacted] or on [redacted] property? ☑ Yes ☐ No

15. Will your subjects include [redacted] students, faculty or staff? ☑ Yes ☐ No

Please be aware that if your project includes the collection of personal information, you may be subject to the Family Educational Rights and Privacy Act (FERPA) and/or the Health Insurance Portability and Accountability Act (HIPAA) guidelines as well. Failure to comply may result in the revocation of your right and ability to conduct research at [redacted] and/or with [redacted] students, faculty and/or staff, as well as make you liable for local, state and/or federal civil and criminal penalties.

B. PROPOSED RESEARCH

Please indicate by checking the appropriate box(es) the reasons you believe your proposed research is exempt. If your research is not within one of the categories listed below, you will need to complete the appropriate application for either Expedited or Full Review.

1. ☐ Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as:
   (i) Research on regular and special educational instructional strategies, or
   (ii) Research on the effectiveness of or the comparison among instructional techniques, curricula or classroom management methods.

2. ☐ Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
   (i) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
   (ii) Any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal liability; or be damaging to the subjects' financial standing, employability or reputation.

3. ☐ Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement) survey procedures, interview procedures or observation of public behavior that is not exempt under category (b) of this section, if:
   (i) The human subjects are elected or appointed public officials or candidates for public office; or
   (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

4. ☑ Research involving the collection or study of existing data, documents, records, pathological specimens or diagnostic specimens, if these sources are publically available or if information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.
   (Please be aware that in order to qualify for this exemption, the date, documents, records or specimens must be in existence before the project begins.)

5. ☐ Research and demonstration projects which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate or otherwise examine:
   (i) Public benefit or service programs;
   (ii) Procedures for obtaining benefits or services under those programs;
   (iii) Possible changes in or alternatives to those programs or procedures; or
   (iv) Possible changes in methods or levels of payment for benefits or services under those programs.

6. ☐ Taste and food quality evaluation and consumer acceptance studies:
   (i) If wholesome foods without additives are consumed; or
   (ii) If a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

C. RESEARCH PROJECT

Project Summary

Please provide a summary of the proposed research project using language that is understandable by those not in your field/discipline. Be sure to include statements addressing your hypothesis, methodology and any expected outcomes. In addition, include an explanation as to why you believe the proposed research should be classified as "Exempt."

The focus of this study is to investigate the impact of a late registration policy change on the success rates of students enrolling during the first week of the semester at a large, suburban, Midwestern community college [redacted]. The goal of this policy change was to improve the academic outcomes of late enrolling students by restricting enrollment in courses that had already begun and shifting enrollment during the first week of the semester to late start courses that had not yet begun. The purpose of this study is to determine if there was a difference in the academic outcomes of students who enrolled during the first week of class in Fall 2008 (when students could enroll in any open course) and Fall 2009 (when the more restrictive late registration policy was implemented).

This study will utilize only archival data and personally identifiable information will not be included in the data set.

Research Personnel

Please provide the names, titles, roles and affiliations of investigators, research assistants or grant personnel who will be involved with the proposed research.

Leslie Quinn, Registrar (principal investigator)
Data extraction from Banner will be conducted by Del Lovitt, Dir. Admin. Comp. Services and/or Natalie Alleman Beyers, Director of Inst. Planning and Research.

D. CERTIFICATIONS

As the Principal Investigator:

1. I agree that this application reflects the proposed research in an accurate and truthful manner.
2. I agree to report any problems with the research to the [redacted] RPPP immediately.
3. I agree to report any changes in the research protocol to the [redacted] RPPP immediately.
4. I comprehend and agree to follow all [redacted] RPPP guidelines and protocols.
5. I am familiar with and agree to follow the ethical guidelines and standards for research and the treatment of human subjects associated with my particular discipline.
6. I agree not to begin the proposed research until action is taken on this application and I am notified of this action by the [redacted] RPPP.

Signature *Leslie Quinn* Date *12/14/16*

As Department Chair, Program Facilitator, Assistant Dean and/or an Official Representative of the Principal Investigator's Department, Division or Program, I approve the submission of this application and certify that the Principal Investigator (or Faculty Supervisor in the case of a student application) is capable and qualified to conduct and/or supervise this research.

Signature _____ Date *12/19/16*

E. [redacted] **RPPP *ONLY***

Exempt ☐ **Yes** ☐ **No**

Signature_____

Date _____

Recommendations/Comments_____

_____

_____

Appendix D: Midwestern Community College Approval

Exemption Date: 01/04/2017

Leslie Quinn Box 41
Ext. 2332

RE: Protocol # 161219 – The Impact of Policy Changes Restricting Late Registration…

Dear Investigator:

Thank you for submitting your research protocol. Your study was reviewed through the RPPP's exempt review process and has been granted exemption under Category 4.

The RPPP does not grant approval for exempt studies but instead issues a determination that a study meets the criteria for exemption in at least one of the federal exempt categories. Please read and observe the guidelines below regarding continuation of your study:

1. Exempt research does not require continuing review from the RPPP. However, in order to keep our files current, we ask that you inform the RPPP chair if you plan to continue your study beyond January 4, 2018. *Unless you request an extension, your study will terminate on this date.* Please contact the RPPP chair if you have questions about this.

2. *Changes to your research design may result in re-classification of your study as non-exempt.* If you want to make *any change* to the study, you must obtain the RPPP's prior approval of the change, including alterations of selection and recruitment methods, changes to consent form, changes in research personnel, or changes in instruments used.

3. If a participant in your study is injured *in connection with their participation,* you must inform the RPPP immediately regarding this adverse event.

Please inform the RPPP when you complete your research. If the RPPP can be of assistance, do not hesitate to contact Eve Blobaum, RPPP Chair, at [redacted]

Best wishes for a successful study. Thanks,

Chair, Research Participant Protection Program
Phone: [redacted]

Email: [redacted]

The Research Participant Protection Program at [redacted] (IRB # - IRB00006437) is registered with the U.S. Department of Health and Human Services,
Office for Human Research Protections.