Predictors of Participation and the Effects of Undergraduates' Involvement in a First-Year Emerging Leadership Program

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Predictors of Participation and the Effects of Undergraduates' Involvement in a First-Year Emerging Leadership Program

by

Brent Papson

A Thesis

Presented to the Faculty of
Bucknell University
In Partial Fulfillment of the Requirements for the Degree of
Master of Science in Education

Approved:

Advisor

Department Chairperson

April 2016
I, Brent A. Papson, hereby grant permission for my thesis to be copied.
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ABSTRACT

Greater involvement has been linked to higher satisfaction rates in students’ experiences (Astin, 1993b), and the greater the level of a student’s social and academic involvement has been linked to the greater likelihood for persistence (Tinto, 1975). Involvement in educationally purposeful activities during the first year of college had a statistically significant effect on student persistence from first to sophomore year (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). Educationally purposeful activities, such as a leadership program developing socially responsible leadership, has been found to influence persistence from first to sophomore year (Wolniak, Mayhew, & Engberg, 2012). The purpose of the current study was to examine the effect of a leadership program based on the Social Change Model of Leadership Development (HERI, 1996), on students’ leadership and persistence. A sample of 139 first-year traditional-aged undergraduate students at a small, private liberal arts institution in the Northeast was used in the study. No significant differences among the different demographic characteristics were found based on participation in the leadership program. Additionally, no significant difference was found between the number of membership in student organizations and participation in the program. However, significant differences were found on the number of leadership positions obtained in student organizations, and the number of weeks persisted based on the students’ level of participation in the first stage of the leadership program.
Chapter 1

Introduction

The benefits of a Bachelor’s over a high school degree include greater earnings, a higher percentage of employment, healthier lifestyles, increased job satisfaction, and greater civic involvement (Baum, Ma, & Payea, 2013).

Over the past decade, postsecondary certificates have increased from 550,000 in 2001-02 to almost 1.1 million in 2011-12 (Baum et al., 2013). However, a little more than half of students will complete their Bachelor’s degrees at the institutions where they started their studies (Berkner, He, & Cataldi, 2002). Among fulltime, traditional-aged college students who enrolled in college in 2006, 78% completed their degree six years later (Baum et al., 2013). Attrition among 2003-04 first-year, first-time students seeking a Bachelor’s degree at four-year private non-profit institutions was 14.5 percent. The rate of attrition for these students was higher than in other academic years (NCES, 2011). As a result of ineffective efforts to improve student retention rates, it has emerged as the primary goal for institutions of higher learning (Reason, 2009). As a means to aid institutions in their retention and persistence efforts, numerous theories and research studies have explored attrition factors and intervention strategies. The terms “retention” and “persistence” are complex in definition and measurement, and researchers have often used them interchangeably (Hagedorn, 2012). The National Center for Education Statistics (2003) defines “retention” as an institutional measure and “persistence” as a student measure.
Students entering higher education do so with a variety of characteristics including prior academic preparation and experiences, social and personal dispositions, sociodemographic traits, and personal and social experiences (Reason, 2009). These characteristics can impact students’ persistence. Elkins, Braxton and James (2000) found that first-generation college students and minority students without an adequate support system possessed an obstacle in terms of persistence. While colleges have increased their enrollment of minority students (Baum et al., 2013), and there is a growing focus on recruiting students of color and international students, there is simultaneously an increased need for institutions to focus on engagement and retention efforts (Leveille, 2006; Pitt, 2010). Varying theoretical frameworks can guide these efforts.

**Theoretical Frameworks for Examining College Student Development**

There are a number of theoretical frameworks that can be used to both inform and guide efforts of collegiate institutions to increase student engagement and persistence. They include theories related to student engagement and involvement; transition, especially during the first year; student development; and the development of leadership skills.

**Involvement Theory**

Empirical research on student engagement and retention builds on the foundation of Astin (1984), who examined overall student involvement on college campuses, and Tinto (1993), who focused on student involvement as it relates to retention. Astin (1993b) suggested that greater involvement resulted in higher satisfaction rates in students’ experiences. Tinto’s (1975) model of college student
departure asserted that the greater the level of a student’s social and academic involvement, the greater likelihood for persistence at that institution.

Astin (1984) defined student involvement as the physical and psychological energy in the overall college experience. In Astin’s five basic postulates, he explains that a student’s development is proportional to the quality and quantity of involvement in an activity. The quantitative component results from the amount of time a student devotes, and the qualitative refers to the productivity of time invested. Astin (1984) suggested that learning and development is related to the level of involvement, and the effectiveness of an institution is related to its capacity to increase student involvement.

Purposeful co-curricular involvement has been found to promote personal learning and development and prepare the students for career and civic responsibilities beyond their undergraduate experience (Dunkel & Schuh, 1998; Pascarella & Terenzini, 1991, 2005). Kinzie and Kuh (2004) cite that student “engagement has been shown to be the best predictor of student success, after controlling for past academic performance and preparation” (p. 2). Their research focused on twenty institutions who have a higher than predicted graduation rates after accounting for student and institutional characteristics. In a shared effort, these institutions created collaborative opportunities for student interaction with faculty and staff, supportive environments, and learning experiences (Kinzie & Kuh, 2004). Fenzel (2001) found that engagement should occur early in their college experience as students who got involved early in co-curricular activities reported higher estimated grade-point-averages, better class attendance, and lower amounts
of binge drinking. Even after their first-year, sophomores reported greater
development in academic autonomy and lifestyle planning than less involved
students (Foubert & Grainger, 2006). Institutions are therefore challenged with the
process of transitioning students as early as possible into co-curricular involvement.

**Transition Theory**

In order to involve students early in co-curricular programs, institutions
should first understand transition theory as it applies to first-year students
beginning their college experience. Levinson (1986) defined transitioning as a
period between two periods of stability. Schlossberg's (1989) transition theory,
built on Levinson’s work, provided a psychosocial framework for college student
development theory, describing students letting go of former roles and learning new
roles (Evans, Forney & Guido-DiBrito, 1998). Schlossberg (1989) described the
following factors influencing one's ability to transition: personal demographic and
psychological resources, support systems, and coping strategies (Evans, Forney &
sense of mattering, or affiliation with the institution and peers, in order to become
involved in programs and activities that facilitate learning and development.

Tinto (1993) went on to study the process of social and academic integration
that occurred when students successfully navigated the stages of separation,
transition and incorporation. First-year students enter the process of separating
themselves from the norms of their pre-college environment with the adopted
norms and behaviors of their new environment. During this transitioning period,
students must combat incongruence, the sense of mismatch between the student
and their environment, as well as isolation, the lack of personal connection to their new environment (Tinto, 1993). A successful transition requires that students integrate both intellectually, adjusting to the academic demands, and socially, or connecting with groups within the campus. Institutions can assist students’ transitions in these areas by creating programs for building relationships and support systems as well as providing tools to manage stress. Pascarella (2005) found that purposeful interactions between peers during the first-year significantly influenced intellectual growth. Tinto (1993) claimed those who successfully transitioned from the norms and behaviors of their past environments were more likely to persist in their new setting. According to Friedlander, Reid, Shupak and Cribbie (2007), social support, which is often experienced through co-curricular involvement, assisted students in transitioning to the university.

One key concept within social support is “mattering.” Researchers have stressed the need for students to feel a sense of mattering, a sense of community, and a sense of fitting in (Berger 1997; Nora 2004; Schlossberg, 1989). Hoffman, Richmond, Morrow and Salomone (2002) later defined sense of belonging as a subjective sense of affiliation with the university community. Students tend to be most sensitive to feelings of marginality during the first six weeks (Tinto, 1988). These findings reinforce Tinto’s (1993) research that relationships that integrate students into the academic and social components of the college community are critical to students’ first-year persistence. As a result, early support systems that encourage involvement are important for creating a sense of belonging and mattering within students.
As a part of feeling a sense of community and fitting in, Hurtado, Carter, and Spuler (1996) found that peer support also factored into making the transition to college. Further research by Milem and Berger (1997) supported social integration factoring into students’ persistence more than academics, and results from their study stressed the importance of early social engagement. Additionally, participation in co-curricular activities and membership in subgroups contributed to a sense of belonging (Hurtado & Carter, 1997). Later, a study by Braxton and Lee (2005) concluded that there is a link between social integration, institutional commitment, and student persistence. The creation of early integration programs to encourage an increased sense of belonging, community and fitting in are therefore important.

In addition to connecting with others, DeBerard, Scott, Spielmans, and Julka (2004) found that level of social support was a significant independent predictor of academic achievement. Further research, conducted by Foubert and Grainger (2006), claimed that students with higher levels of involvement in student organizations had greater levels of psychosocial development, which is a cornerstone of student development theory.

**Student Development Theory**

Institutional programs designed to integrate first-year students into student organizations and help them socialize with faculty, staff, and peers may assist overall transition into the campus community academically, as well as socially. In order to do this effectively, these institutional initiatives should be informed by student development theory.
In his psychosocial development theory, Chickering (1969) outlined developmental issues faced by college students. Chickering's widely used foundation proposed that traditional-aged college students move through seven vectors of psychosocial development (Chickering & Reisser, 1993). Movement through the stages is not linear; students move through them at different rates and often deal with more than one vector at the same time. The first vector consists of developing intellectual and interpersonal competence. The second, managing emotions, involves learning to understand and express emotions such as aggression, sexual desire, anxiety, guilt, caring, inspiration and much more. In the third vector, moving through autonomy toward interdependence, students gain awareness of interconnectedness with others, problem-solving ability, and self-direction. The next vector, developing mature interpersonal relationships, consists of building intercultural and interpersonal tolerance and appreciation. Within the fifth vector, individuals establish identity including body and appearance, gender and sexual orientation, self-acceptance, and more. Developing purpose follows, as individuals develop vocational goals, interests, and vocational direction. Within the final vector, developing integrity, individuals affirm personal core values as well as beliefs of others (Chickering & Reisser, 1993).

First-year undergraduate students typically fall within the developing competence vector, in which the primary concerns of students include augmenting individual skills as well as effectively interacting with others (Chickering & Reisser, 1993). Astin (1993a) asserted that peer influence and interaction impact leadership development more than any other factor. Therefore, it is not surprising that the
developing competence vector (Chickering & Reisser, 1993) aligns with the “congruence of self” (p. 22) stage of the Social Change Model of Leadership (HERI, 1996). According to Komives, Longerbeam, Owen, Mainella, and Osteen (2005), psychosocial development contains stages that are congruent with building leadership identity. For example, within the “congruence of self” stage of the Social Change Model of Leadership, students develop an awareness of personal beliefs, values, attitudes, and emotions. Self-awareness, conscious mindfulness, introspection, and continual personal reflection are foundational elements of the leadership process (HERI, 1996).

The intersection between psychosocial development and relational leadership (Komives et al., 2005) provides an understanding to how leadership programs designed to develop leadership qualities, known within Higher Education as emerging leadership programs, could help first year students transition into higher education.

**Leadership Programs in Institutions of Higher Education**

According to the Council for the Advancement of Standards in Higher Education (CAS, 2009), Higher Education has made it a priority to develop better leaders as well as more leaders. Institutions often promote leadership initiatives through their mission statement, and foster leadership development through co-curricular programming, such as student groups, clubs, and organizations since past research has established that collegiate involvement influences leadership development (Dugan, 2011). Harper (2006) defined college leadership programs as opportunities to increase students’ knowledge, skills, and values. Kolb (1984)
suggested that skills should be taught as early as possible and practiced often for learning to occur. Introducing leadership skills to first-year college students enables them to integrate these skills within future campus leadership positions.

Roberts and Ullom (1989) claimed that leadership programs have a responsibility to demonstrate their impact and effectiveness. Training, education, and developmental experiences are the three dimensions of formal leadership programs (Roberts & Ullom, 1989). Roberts and Ullom (1989) defined training as improving or learning a skill; education as theories, principles and approaches for broad settings; and development as “an ordered hierarchical sequence of increasing complexity” (p. 68). Roberts and Ullom (1989) further suggested that leadership programs should include a broad range of faculty and staff, consider the needs of the student, be evaluated on an ongoing basis, and meet the needs of specific populations representative of the institution. Post-industrial leadership development is process oriented, value-centered, and collaborative (Rogers, 2003). Leadership programs can take on a variety of formats including, formal and informal, workshops, trainings, for-credit, retreats, and series (Zhang, 2011).

Designing a program from a well-researched leadership model with a theoretical framework can lead to an effective program with multiple benefits.

**Social Change Model of Leadership Development.** More recently, much of the higher education leadership programs have utilized the framework of the Social Change Model of Leadership Development (HERI, 1996). This model was created specifically for college students as an emerging leadership program (Dugan, 2011). Due to its applicability to individuals, groups, communities or organizations, it is the
most widely used student leadership model among student affairs professionals in higher education (Schuh, Jones & Harper, 2011).

The Social Change Model of Leadership Development focuses on the development of eight-core values that target enhancing self-awareness and ability to work with others. These values include consciousness of self, congruence, commitment, common purpose, collaboration, controversy within civility, and citizenship (HERI, 1996, p. 12). The first stage of the model focuses on development of the individual, which includes consciousness of self, congruence, and commitment. Part of the purpose of this stage of the model is “developing the self as an essential first step in enhancing group relationships” (HERI, 1996, p. 12).

The goals of the Social Change Model of Leadership Development focus on enhancing student learning and developing leadership competence to facilitate positive social change (HERI, 1996). Komives, Lucas, & McMahon (1998) claimed, “leadership is a relational process of people working together to accomplish change or to make a difference that will benefit common good” (p. 9). An emerging leadership program, a program that engages participants with the goal of developing leadership qualities, that utilizes the Social Change Model of Leadership Development can provide students with a platform to develop relationships and leadership skills during a critical time of transition. According to the CAS (2009) Self-Assessment Guide for Student Leadership Programs, a comprehensive leadership program should include developing self-awareness, understanding others, as well as establishing purpose and working collaboratively (CAS, 2009).
Campus leadership programs have expanded exponentially over the past 20 years (Dugan & Komives, 2007). Students involved in clubs and organizations have demonstrated higher levels within the Social Change Model of Leadership Development values (Dugan & Komives, 2007). Past research has shown the impact of involvement on student development and persistence (Astin, 1993a; Foubert & Grainger, 2006; Gellin 2003; Guardia and Evans, 2008; Harper & Quaye, 2007; Martin, 2000), leadership (Astin, 1993a; Dugan & Komives, 2010; Kezar & Moriarty, 2000; Posner, 2004). Researchers need to further explore ways to involve student into organizations, and transition them into positions of leadership.

Predictors of Persistence and Involvement

Student persistence is beneficial to both students and their institutions. As noted previously, “retention” and “persistence” are often used in research interchangeably; the National Center for Education Statistics (2003) states that institutions “retain” and students “persist”. There are a number of factors that can be examined to guide institutions about persistence rates. These factors include personal characteristics of the student. As institutions seek to increase persistence rates, they first must understand the predictors that put students at risk for withdrawal.

Predictors of Persistence

Tinto (1975), who examined persistence as enrollment until degree completion, asserted that it is dependent on assimilation between academic and social systems. Further, demographic attributes (e.g., sex, race, ability), precollege experiences (e.g., grade-point averages, academic ability), and family backgrounds
(e.g., social status) influence educational expectations and commitment to the institution. Tinto (1975) suggested that these are important predictors of personal experiences, including disappointments and satisfactions, within the institution.

**Demographic and Performance Characteristics.** There are many demographic and performance variables such as race, sex, first-generation status, high school GPA and SAT scores that are used when examining student success, or persistence rates, in college. Research supports that background characteristics and pre-college performances are associated with first-year outcomes (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). While DeBerard et al. (2004) found that high school GPA and SAT scores demonstrated predictive power for academic achievement, research showed that high school GPA was a stronger predictor of college graduation than SAT score (Zwick & Sklar, 2005).

**Social and Academic Integration.** Studies have shown that higher academically performing students are more likely to persist than low academically performing students (Kirby & Sharpe, 2001). While important in itself, Fenzel (2001) found students involved early in co-curricular experiences reported a higher estimated grade-point-average, better class attendance, and lower binge drinking. Additionally, the work of DeBerard, Scott, Spielmans, and Julka (2004) has supported that level of social support was a significant independent predictor of academic achievement. This research built on Hackman and Dysinger’s (1970) findings that students with solid academic achievement but low commitment tended to withdraw voluntarily; students with low academic achievement and solid commitment tended to persist until completion or were forced to withdraw; and
students with low academic achievement as well as involvement tended to withdraw and not re-enroll or transfer to another institution. Kuh et al. (2008) claimed that engagement in purposeful first-year programs had a positive, statistically significant effect on persistence between first and second year of college, even when controlling for background characteristics. This research supports Tinto’s (1993) claim that persistence is dependent on congruency between social and academic integration.

**Predictors of Involvement**

Considering that student involvement contributes to development and persistence (Astin, 1984, 1993b; Pascarella & Terenzini, 1991; Tinto, 1987, 1993), it is necessary to then examine the predictors of involvement as well. Research has suggested multiple predictors of involvement in co-curricular programs, including socioeconomic status, gender, race, and parent education level.

**Socioeconomic Status.** Students who participated in organized co-curricular programs tended to be younger and from higher socioeconomic backgrounds (Chapman & Pascarella, 1983). Low socioeconomic students spent less time in student organizations than their high socioeconomic students (Walpole, 2003). Additionally, researchers have found that students from low socioeconomic status have lower persistence rates than their peers from high socioeconomic backgrounds during college (Astin, 1993a; DiMaggio & Mohr, 1985; Lareau, 1993; MacLeod, 1987; McDonough, 1997; Pascarella & Terenzini, 1991; Tinto, 1987, 1993).
**Gender.** While male students were less likely than female to participate in active and collaborative learning activities, males were more inclined to be as independent workers and participate in co-curricular programs (Kinzie, Gonyea, Kuh, Umbach, Blaich, Korkmaz, 2007). One explanation for this disparity can be found going back to Gilligan (1982), who claimed that men value autonomy and focus on academic achievement, whereas achievement for females depends on social relationships that are found by attending events.

In a study on predictors of involvement in community service, Marks and Jones (2004) found that females were more likely than males to volunteer in college. However, the study found that women who had not volunteered prior to college, were less likely to begin volunteering while in college. This research supports the importance of initiating early development programs that initiate involvement and leadership. Additionally, participation in leadership programs have been found to benefit female students’ perception of leadership ability. Kezar and Moriarty (2000) claimed that for women, participation in a leadership class or program was a strong predictor of self-reported leadership ability.

**Race.** Race is another demographic characteristics factored into involvement. Hoffman (2002) found that co-curricular involvement had a strong positive effect on academic achievement and retention for students of color. Additionally, he found that students with leadership involvement had a strong, positive effect with student satisfaction for students of color. Kuh et al.’s (2008) study supported this research showing students of color benefited more than White students from increased engagement in educational activities. Research on gender
and race has supported Kezar and Moriarty's (2000) call for leadership programs that enhance women’s' and minorities’ ability to see themselves as leaders.

**First-Generation.** Another cohort to consider is the first-generation college student population, a group found to be at a high risk of departure during their first year of college (Ishitani, 2003). In one study of first-year students, Holahan, Valentiner, and Moos (1995) discovered students with lower perceived levels of parental support were more distressed and not as well adjusted as students with higher perceived parental support. Often, first-generation students do not understand their roles as learners and are less engaged in college (Pike & Kuh, 2005). Dennis, Pinney, and Chuateco (2005) claimed that first-generation college students would benefit from initiatives that helped them build social support. Programs designed to develop first-generation students should focus on collaboration and skills that foster participation (Lundberg, Schreiner, Hovaguimian & Miller, 2007). Further, Lundberg et al. (2007) suggested that programs that built social capital, generated involvement and fostered engagement would be beneficial to first-generation students in particular.

**Chapter Summary**

Based on previous research, a leadership program should be grounded in student development theory (Komives et al., 2005), focus on a theoretical model (HERI, 1996), and consider demographic characteristics of target participants (Tinto, 1975). Additionally, a first-year emerging leadership program should purposefully work to involve students’ co-curricularly and broaden their interactions with various faculty and staff (Kinzie & Kuh, 2004; Roberts & Ullom,
As previously discussed, an emerging leadership program for first-year students based on the Social Change Model of Leadership Development should focus first on the individual (HERI, 1996). Within this component of the Social Change Model of Leadership Development, the program should develop interpersonal relationships between students (HERI, 1996).

**The Current Study**

Given the previous information, there is a need to examine the differences in level of involvement and persistence among undergraduate first-year students after their participation in an emerging leadership program in order to examine the relationships between participation, involvement, and persistence. When taking into consideration the research that was previously cited, it is also important to look at relevant demographic characteristics that would examine for co-curricular involvement, specifically students’ participation in an emerging leadership program, in order to account for outlying factors.

The purpose of the current study was to examine the effect of an emerging leadership program entitled Leadership Passport, a program based on the Social Change Model of Leadership Development (HERI, 1996), on students’ leadership and persistence at a small private university. The social change model, as previously noted, is comprised of three progressive values, which include individual, group, and community components. The first stage of Leadership Passport program focuses on the individual level of the Social Change Model of Leadership Development. A supporting outcome of the first stage of the program is to transition students into student organization leadership positions during their sophomore,
junior, and/or senior years at the institution. The current study sought to determine if demographic characteristics, previously identified in the literature, would relate to participation in the leadership program; if there was a positive relationship between level of participation and involvement in student organizations or leadership positions; and if there was a positive relationship between level of participation and persistence from first to sophomore year.

**Conceptual Framework**

Figure 1: Conceptual Framework Linking Participation to persistence and involvement

![Conceptual Framework](image)

This framework, adapted from Terenzini and Reason's (2006) model, guided the examination of the research questions in this study. In this framework, pre-collegiate achievement and background characteristics, and involvement in educationally purposeful activities contribute to levels of involvement and persistence among undergraduate college students. The leadership development
component is an independent variable of the model and was conceptualized using the social change model (HERI, 1996).

It was hypothesized that engagement in the program would result in greater persistence since previous research (e.g., Braxton & Lee, 2005; Tinto, 1993; Titus, 2004; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008) has found that involvement in such programs contributes to a sense of belonging and commitment to the institution. Additionally, it was hypothesized that students who attended a higher number of workshops within the program would be more likely to be involved in a student organization and leadership position during their sophomore year.

For the purposes of this study, first-year, full-time, traditional college-aged students were classified into three categories: non-participants or those student who received an invitation but did not attend any sessions; non-completers, those who attended at least one and up to five sessions; and completers or those who attended at least six of the eight sessions. This classification facilitated a secondary purpose of this study, to identify demographic predictors of participation in Leadership Passport.

The research questions for this study were:

1.) What is the effect of demographic characteristics (gender, race/ethnicity, first-generation) on the number of workshops attended in the leadership program?

2.) What are the differences in the number of student organization memberships during the fall semester of their sophomore year based on the level of students’ participation in the first stage of the leadership program?
3.) What are the differences in the number of leadership positions held during the fall semester of their sophomore year based on students' level of participation in the first stage of the leadership program?

4.) What are the differences in program invitees' persistence within the institution from first to second year based upon their level of participation in the leadership program?
Chapter 2

Literature Review

This chapter examines the current literature on integration, involvement and persistence of first-year undergraduates, those student background characteristics that predict persistence, and the impact of leadership development on persistence. First, it will consider the need to examine the impact of co-curricular involvement among first-year students. Second, it will identify student background characteristics that are predictors of persistence. Finally, operating under the assumption that student involvement in co-curricular programs is a contributor to persistence (e.g., Astin, 1975, 1984; Kuh et al., 2008; Tinto, 1975, 1993), it will review involvement after participation in a leadership program based on the Social Change Model (Buschlen & Dvorak, 2011; Dugan, 2011; Wolniak, Mayhew, & Engberg, 2012). The Social Change Model of Leadership Development is the most widely used student leadership model within higher education (Schuh, Jones, & Harper, 2011). It provides a framework to enhance student learning and develop leadership (HERI, 1996). Participation in the Social Change Model leadership program will ultimately be linked to persistence.

Involvement of First-Year Students

As noted in the first chapter, the foundational understanding of student persistence and involvement is grounded in the work of both Astin (1984) and Tinto (1975, 1993). Both viewed students’ social and academic integration within the institution as the essential determinants of college completion. Further research
(e.g., Berger & Milem, 1999; Kuh et al., 2008) has since built supportive models from Astin and Tinto’s work.

As previously discussed, Tinto (1975, 1993) claimed that students become integrated within the college academic and social systems when they successfully navigate the stages of separation and transition to their new environment. Once separated from their past community, students encounter new norms, values and behaviors.

Berger and Milems’ (1999) work built on previous work (e.g., Astin, 1984; Tinto, 1993) examining college students’ persistence by looking at the relationship between their behaviors and integration perceptions. Studies on organizational characteristics of colleges that affect student outcomes stemmed from this research (Terenzini & Reason, 2005). Berger and Milems’ (1999) study proposed that a cycle of behavior, perception and behavior, resulted in student integration within the college environment. They argued that students invest varying amounts of energy in their college experience, and in turn, these behaviors influence their perceptions of the institutional support of their experiences. As a result, their perceptions influence future energy invested in continued involvement with faculty and peers as well as persistence at that institution.

Berger and Milem (1999) conducted a longitudinal study with 718 first year students. The sample was from a highly selective, private research institution and relied on voluntary participation. Data was collected three times. All first-year students were administered a Student Information Form (SIF; Berger & Milem, 1999), a form used to collect student background information, at the end of
orientation. The Cooperative Institutional Research Program (CIRP) survey program annually collects a broad array of student background information using the Student Information Form (SIF; see Astin, Panos, & Creager, 1966). Midway through the fall semester, the Early Collegiate Experiences Survey (ECES) was issued to assess student behaviors and perceptions. This survey was developed by the researchers based on their conceptual model to measure faculty teaching behaviors, student involvement, perceptions of campus environment, response to stress, and satisfaction (Berger & Milem, 1999). The researchers did not provide data related to the reliability and validity of the survey. Halfway through the spring semester, the institution administered the Freshman Year Survey (FYS) to measure aspects of involvement. This survey was developed from instruments used in previous models (Pascarella & Terenzini, 1980 as cited in Berger & Milem, 1999). The study also used a measure of student persistence as the dependent variable and had seven independent variables: 1. Student background characteristics, 2. Initial level of commitment to the institution, 3. Mid-fall behavior/involvement measures 4. Mid-Fall perception measures, 5. Spring behavior/involvement measures, 6. Academic and social integration, and 7. Mid-Spring commitment to the institution. The researcher conducted a path analysis (a multivariate statistical procedure) to measure persistence, resulting in standardized partial regression coefficients, which provide an estimate of the effects of each construct within the model.

While the study found that students with higher high school GPA’s were less likely to be involved with faculty ($\beta = -.09, p < .05$), these students perceived high
levels of institutional support ($\beta = .11, p < .05$) during their fall semester at college. Females were more likely to be involved with peers during their first semester ($\beta = .15, p < .01$), have higher perceived levels of institutional support ($\beta = .20, p < .01$), and were more likely to be socially integrated ($\beta = .13, p < .01$) by the end of the fall semester than their male counterparts. Students from a higher income level ($\beta = .20, p < .01$) were more likely to have higher levels peer involvement by the end of the fall semester than students from lower income levels. Overall, all three measures of fall involvement had statistically significant direct effects on students’ perceptions of peer and institutional support. Early involvement with peers had a significant direct effect on future involvement with peers ($\beta = .51, p < .001$).

Additionally, each measure of fall involvement had a statistically significant direct effect on the following outcome variables: 1. The extent to which students reported a supportive peer environment; 2. The extent to which students perceived a supportive institutional environment; and 3. Persistence. The study found that first semester fall noninvolvement positively predicted future noninvolvement during the spring semester ($\beta = .43, p < .001$) as well as negatively predicted persistence ($\beta = -.15, p < .01$). Early involvement among peers and with faculty has significant indirect effects on social integration, academic integration, institutional commitment, and persistence (Berger & Milem, 1999). These findings support the need for institutional initiatives to engage student in peer interactions early in their college experience.
While Berger and Milem (1999) proposed a persistence model examining how students’ perceptions and behaviors influenced academic and social integration, Kuh et al. (2008) researched the relationship between student engagement and persistence, thereby expanding work in this area. Kuh et al. (2008) conducted a study using multi-institutional data sets. Utilizing data from first-year respondents on the National Survey of Student Engagement (NSSE), the sample of 6,193 students came from 18 colleges. The NSSE, an annual survey of undergraduate students at four-year institutions, is based on Pace’s (1984) concept of quality of student effort, Chickering and Gamson’s (1987) “Seven Principles of Good Practice in Undergraduate Education,” and Astin’s (1984) theory of student involvement. The study focused on results from NSSE that measured student participation in educationally purposeful activities, which included time spent studying, time spent in co-curricular activities, and a global measure of engagement in effective educational practices. Each of the measures contributed equally to the overall measure of student development. The independent variables were: 1. Student background characteristics, 2. Student engagement data, and 3. Student academic and financial aid.

In the first stage of data analysis, logistical regression estimated separate models for first-year students on the effects of time in educationally purposeful activities on GPA and persistence to sophomore year. The second stage of analysis examined conditional effects to the extent that the influence of study time and engagement on GPA and persistence differed by student background characteristics. Adding student engagement measures to the first model with student demographic
characteristics, pre-college experiences, and prior academic achievement, accounted for 42% of the variance on first-year GPA. When background characteristics of college experiences during the first college year, academic achievement, and financial aid were controlled, student engagement in educationally purposeful activities during the first year of college had a positive, statistically significant effect on first-year GPA and persistence into the sophomore year ($\beta = 0.154, p < 0.001$).

Additionally, involvement of 6 to 20 hours per week in co-curricular activities and 21 or more hours per week in co-curricular activities had a positive, statistically significant effect on first-year GPA and persistence into the second year of college. This study was consistent with the large body of research indicating that student engagement and involvement impact student success (Kuh et al., 2008).

**Summary**

The key findings from these two studies align with the overall direction of research on student involvement (Astin, 1984; Kinzie & Kuh, 2004; Tinto, 1975, 1993). Berger and Milem (1999) claimed that students invest varied amounts of energy in involvement, and in turn, these behaviors influenced their perceptions of institutional support. Their perceptions, in turn, influenced future energy invested in continued involvement and persistence at that institution (Berger & Milem, 1999). They found a significant negative relationship between uninvolved students and persistence. Further, they found that involvement during the fall semester positively predicted future involvement, social integration, and persistence. Kuh et al. (2008) built on this research, finding that student involvement in educationally
Purposeful activities, as well as co-curricular activities, during the first year had a positive effect on persistence into sophomore year.

After considering these findings, questions remain about what types of interactions generate perceptions of peer and institutional support, and what types of specific educational programs have an effect on persistence. Institutions utilize first-year seminars, orientation programs, and living-learning communities to involve first-year students in educationally purposeful activities. Future research should continue to examine such programs. While research has asserted that involvement predicts persistence (e.g., Astin, 1975, 1984; Berger & Milem, 1999; Kuh et al., 2008; Tinto, 1975, 1993), institutions must also consider group characteristics that make some students less likely to become involved in co-curricular programs and persist within the institution.

**Predictors of Persistence**

Institutions must understand the factors that put students at risk for withdrawal in order to develop initiatives to increase persistence rates. Tinto (1975) argued that personal attributes or characteristics (gender, race), precollege experience (GPA, high school achievement) and family background (socioeconomic status, parental education level) contributed to student persistence. As most students withdraw during their first year, Noel and Levitz (1997) claimed that retaining students beyond the first year is the most efficient way to boost graduation rates. Reason (2009) suggested that variables related to first to second year retention should be of particular interest to higher education professionals. Reason suggested that although researchers are moving away from examining
personal characteristic variables as predictors of student persistence, these variables provide the best understanding of the effect of interventions designed to increase student persistence (Reason, 2009). The following sections will examine research related to high school achievement, cumulative GPA, race, gender and parent education since these are variables commonly examined when looking at persistence.

**High School Achievement**

High school GPA and SAT scores are often used as predictors of academic performance in the first year of college (Kuh et al., 2008; Zwick & Sklar, 2005). Kuh et al. (2008) included demographic characteristics, pre-college experience, and prior academic achievement as predictors of GPA in the previously described study. The researchers found that high school academic achievement had the strongest influence on first-year GPA when compared to demographic characteristics and pre-college experiences. While Kuh et al. (2008) used ACT scores to measure prior academic achievement in high school, Zwick and Sklar (2005) predicted college grades and degree completion using high school grades and SAT scores.

Zwick and Skylar (2005) utilized data from 14,825 students who completed the High School Beyond longitudinal survey produced by NCES: High School and Beyond: Sophomore Cohort (NCES 95-361). Variables for the study included first-year GPA; cumulative first-year GPA; SAT, combined Math and Verbal scores; high school GPA; cumulative GPA in high school; and postsecondary enrollment data. A regression analysis model that included academic predictors, group membership variables, and the interaction of the group membership with the academic
predictors was used to determine the influence of SAT scores and high school grades on degree attainment. They found that high school GPA was a stronger predictor of college graduation than SAT scores. The median co-efficient for high school GPA was .34, indicating that after holding SAT scores constant, an increase in one standard deviation in high school GPA leads to an increase of about a third of a standard deviation in predicted first-year GPA. The median co-efficient for SAT was only .154, and was only statistically significant for the White/English cohort (Zwick & Skylar, 2005). Considering this research, studies should focus on high school GPA as a pre-college academic achievement measure when predicting and controlling for persistence.

Race

Race and ethnicity are other variables examined in studies related to persistence. However, when examining racial predictors for persistence, it is important to remember that race/ethnicity has been classified in different ways. Some studies have classified the groups as White and non-White (Berger & Braxton, 1998; Edwards & McKelfresh, 2002; Monro, 1981). Others, such as Kuh et al. (2008), have used multiple racial categories.

Race and ethnicity are particularly important factors in predominantly White institutions. For example, higher levels of social support and more comfort in the university are positively associated with persistence for undergraduate African American students (Gloria, Robinson Kurpius, Hamilton, & Willson, 1999). Gloria et al. (1999) conducted a study at a large, predominately White, institution. A total of 98 African American students from more than 20 general studies classes completed
the following surveys: the Perceived Social Support Inventory—Family and Friends
(Procidano & Heller, 1983), the Mentoring Scale (Gloria, 1993), the University
Environment Scale (Gloria & Robinson Kurpius, 1996), the College Environmental
Stress Index-Modified (Gloria & Robinson Kurpius, 1996), the Cultural Congruity
Scale (Gloria & Robinson Kurpius, 1996), the College Environmental Stress Index-
Modified (Muñoz, 1986), College Self-Efficacy Inventory (Solberg, O'Brien, Villareal,
Kenner & Davis, 1993), the Educational Degree Behaviors Self-Efficacy Scale, the
Rosenberg Self-Esteem Scale (Rosenberg, 1965), and the Persistence/Voluntary
Dropout Decision Scale (Pascarella & Terenzini, 1980). The Educational Degree
Behaviors Self-Efficacy Scale was developed for the study based on Lent, Brown, and
Larkins’ (1986) work (Gloria & Robinson Kurpius, 1999).

A two-step linear regression was conducted. The researchers found that
African American students who were more likely to persist reported more positive
perceptions of the university environment and higher social support from peers.
University comfort and social support were the strongest predictors of persistence
among African American undergraduate students in a predominately White
institution. Limitations of the study included self-reported responses and the lack of
observed behaviors, a much higher response rate among female students, and the
fact that responses were only obtained from a single institution. Collectively,
studies on race were limited due to fluid operational classifications of race (Berger

In Kuh et al.’s (2008) study, four racial/ethnic group classifications were
used: African American, White, Hispanic, and Asian. The researchers found that
African American students at predominately White institutions had lower levels of engagement and were less likely to persist than White students. However, by measuring the impact of educationally purposeful activities on the probability of returning as sophomores by race, the study found that as the number of activities increased, African American students were more likely than White students to return for their second year (Kuh et al., 2008). This research, along with Gloria et al.’s (1999) study of African American Students’ persistence at a predominantly White university, reinforced the need for institutions to find ways to engage African American students in educationally purposeful activities as well as work to build social and university support for African American students.

**Parent Educational Attainment**

Researchers have consistently drawn connections between the educational attainment of parents and persistence of children (Pascarella & Terenzini, 2005). Ishitani (2006) used the National Education Longitudinal Study, a study supported by the National Center for Educational Statistics (NCES), to research persistence among first-generation students using a longitudinal design. The national data sets included 4,427 students enrolled in public and private four-year institutions. Studies define first-generation students differently, such as students whose parents never attended college (NCES, 2001) and students whose parents did not graduate from college (Ishitani, 2006). This study divided first-generation students into the following groups: 1. Students with parents whose highest educational attainment was a high school diploma or less, and 2. Students with at least one parent having attended college but never attaining a Bachelor’s degree. After identifying the
highest education attainment between the two parents, Ishitani (2006) broke the parent education variable into five labels: 1. First-generation (n = 651), 2. Parent with some college (n = 1,539), 3. One parent with a BA (n=1,153), 4. Both parents with BA's (n = 1,056), and 5. Unknown (n = 28) to use descriptive statistics on each label. The Kaplan-Meier method, a nonparametric measure, showed that first-generation students were more likely to depart college than students whose parents were both college-educated. An exponential model using regression coefficient found a significant effect on first-generation students leaving the institution. Essentially, “first-generation students were about 1.3 times more likely to leave their institution than students whose parents were college educated” (Ishitani, 2006, p. 871). As a cohort with lower levels of persistence, first-generation students account for another group institutions should attempt to engage in early involvement programs.

**Gender**

The research on gender has found that women earn higher grades than men (Spitzer, 2000), and some have found higher persistence rates (Feldman, 1993). However, other studies have found no consistent relationship between gender and persistence (Fredda, 2000; Liu & Liu, 1999; Wlodkowski, Mauldin, & Gahn, 2001).

Fredda’s (2000) study examined first to second year persistence at a private, four-year institution. All 280 incoming students were included in the study, and data was obtained through the institutional records. The researcher used Chi-square tests to determine differences in persistence rates based on gender, race, status, and change in academic major. Using an alpha level of 0.10 to determine
significance, the Chi-square tests did not find a statistically significant difference between males’ and females’ persistence rates.

Although Fredda’s (2000) findings on gender is limited by sample size, the overall research either suggested higher levels of persistence among women (Feldman, 1993), or no consistence relationship (Fredda, 2000; Liu and Liu, 1999; Wlodkowski et al., 2001). Based on these findings, researchers should avoid using gender as a predictor of persistence.

**Summary**

This subsection examined some predictors of persistence from first to second year in college. Engaging non-White students (Kuh et al., 2008) and first-generation students (Ishitani, 2006) in educationally purposeful activities may help increase persistence among these cohorts. Gloria et al. (1999) indicated African American students were more likely to persist when they perceived higher social support from peers and comfort within the institution. Collectively, the studies reviewed shared a consistent finding that first-generation and African American students were less likely to persist in college (e.g., Gloria et al, 1999; Ishinti, 2006; Kuh et al., 2008). However, other literature suggested that not all demographic factors are consistent predictors of college outcomes (Chartrand, 1992; Fredda, 2000; Wlodkowski et al., 2001). For example, there were inconsistent findings on the relationship between gender and persistence (Fredda, 2000; Liu & Liu, 1999; Wlodkowski et al., 2001). Other limitations include varying definitions of variables. For example, there were variations in what constitutes first-generation students (Ishitani, 2006) and how race was classified (Berger & Braxton, 1998; Edwards &
McKelfresh, 2002; Kuh et al., 2008; Monro, 1981). Given the limitations of varying classifications of at-risk variables, there is a need for additional studies examining persistence using these variables. Other studies examining persistence have also used the following variables: socially economic status (SES), social support, and coping ability (Arthur, 1998; Brown & Cross, 1997; Titus, 2006). While previous research has linked the connection of SES, social support, and coping ability to persistence, the current study will not pursue these variables as data was not provided.

Cruce, Wolniak, Seifert, and Pascarella (2006) have suggested that institutions should find ways to funnel students toward educationally effective activities, especially first-year students with two or more risk factors. Those risk factors included being academically underprepared (Zwick & Sklar, 2005), a member of an under-represented group (Gloria et al, 1999), or a first generation student (Ishitani, 2006).

However, research by Kuh et al. (2008) supported that engagement in purposeful first-year programs had a positive, statistically significant effect on persistence between the first and second years of college, even when controlling for background characteristics. One of those purposeful programs often found in first year programs involves leadership training.

**Leadership Programs and Persistence**

Previous studies have researched cohorts at-risk of not persisting within higher education (Ishitani, 2006; Kuh, 2008;). It has been found that involvement in co-curricular programs contributes to persistence (Tinto, 1993). Further, Astin
(1993a) linked leadership development to involvement, operationally defining it as the psychosocial and physical energy students devote to their college experience. The challenge at institutions is finding ways to purposefully involve students in co-curricular activities, ultimately contributing to persistence. The following subsection will examine studies focused on leadership programs and their effects on leadership development and persistence.

**Leadership Development**

Kezar and Moriarty (2000) examined the impact of college experiences and student background characteristics on leadership development. Their study surveyed 9,731 students representing 352 four-year institutions. Participants completed the Follow-Up Survey of College Freshmen collected by the Cooperative Institutional Research Program (CIRP) (Astin, 1966). The study merged survey results with data from the Integrated Post-Secondary Education Data System-U.S. Department of Education (IPEDS). Regression analysis was used to explore developmental differences in leadership and predictors of leadership-related qualities. The dependent variables included entering leadership ability self-rating and self-rating of leadership-related qualities, communication skills, self-confidence, and ability to influence others.

Kezar and Moriarty (2000) found that, for Caucasian men and women participating in a leadership class or program served as the strongest predictor of self-rating on leadership ability ($\beta = 0.13, p < 0.05$). It was also one of the strongest predictors for African American men ($\beta = 0.12, p < 0.05$) and women ($\beta = 0.16, p < 0.05$), suggesting that leadership programs increase perceived leadership ability.
From their findings, the researchers recommended that practitioners engage students in the development of leadership skills out-of-the classroom from the time they enter college. Additionally, these programs should meet the varying development needs of student with varying characteristics (Kezar & Moriarty, 2000).

The limitations of this study included the sample size of only 564 African American students out of 9,731 total respondents. Additionally, the CIRP data set examined leadership-related skills but it was not specifically designed as a leadership instrument (HERI, 2016). Finally, a study that measured actual change and influence rather than student perceptions would have contributed to the growing body of research.

**Social Change Model of Leadership Development**

While studies have linked involvement to persistence (e.g., Astin, 1975, 1984; Berger & Milem, 1999; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Tinto, 1975, 1993), it appears that research has not specifically examined the relationship between involvement in a leadership program based on the Social Change Model and student persistence. Recently, studies have examined the effectiveness of leadership programs modeled on the Social Change Model by utilizing the Social Responsible Leadership Scale (SRLS) (e.g., Buschlen & Dvorak, 2011; Dugan, 2006a; Dugan, 2006b). This self-report instrument is comprised of eight separate scales, each measuring a particular value associated with the Social Change Model (Tyree, 1998). The SRLS contains a total of 103 items, which participants rank using a 5-point Likert-type scale. Negative items are reverse-scored.
Buschlen and Dvorak’s (2011) study applied the Socially Responsibility Scale (SRLS) (Tyree, 1998) to assess undergraduate leadership growth within a 16-week for-credit class based on the Social Change Model. A pre/post test design was used with 260 students. There was an experimental group (n = 108) and a control (n = 152) group. A t-test revealed that mean post-test scores were significantly different at the end of the intervention ($t = 4.647, p = 0.001$), with the experimental group ($M = 4.202$) having higher mean scores than the control group ($M = 3.998$). The study did not indicate effect sizes. Results of an ANOVA revealed a statistically significant difference between the experimental and control group, indicating that students developed values of the Social Change Model. As a result of their study, Buschlen and Dvorak (2011) recommended student affairs professionals utilize the Social Change Model as a thematic framework for co-curricular leadership programs.

Outside the classroom, Dugan (2006) utilized the Socially Responsibility Scale (SRLS) to assess leadership development within co-curricular programs. Dugan’s (2006) study used the scale to link empirical research the Social Change Model of Leadership to a theoretical framework used to inform programmatic design. Utilizing the Social Change Model as a framework, Dugan (2006) examined a random sample of 859 undergraduate students at a large four-year research university. Students surveyed included first-years (n=90), Sophomores (n=135), Juniors (n=257), Seniors (n=341) and other (n=31). Descriptive statistics compared means and standard deviations across the eight scales of the Socially Responsibility Scale (SRLS). A multivariate analysis of variance (MANOVA) was used to examine the mean differences. The dependent values included the eight scales of leadership
values, and involvement was the independent variable. Independent samples $t$-tests explored differences between types of leadership (community service, positional leadership roles, student organization membership, and formal leadership programming).

Dugan (2006) found significant mean differences between uninvolved and involved students. Participants from formal leadership programs scored significantly higher than uninvolved students on common purpose ($t=2.60, p<0.05$) and citizenship ($t=-6.33, p<.005$). The dramatic difference in means on the citizenship scale between involved and uninvolved students suggested that involved students’ understood the need to connect with the community. Dugan (2006) suggested that professionals implementing formal leadership programs focus on developing the ‘consciousness of self value’ within the individual level of the Social Change Model. The ‘consciousness of self’ value of the Social Change Model is defined as “being aware of the beliefs, values, attitudes, and emotions that motivate one to take action” (HERI, 1996, p. 22). Overall, the study revealed developmental advantages on the Social Responsibility Leadership Scale (SRLS) that involved student have over non-involved students.

Research has shown that leadership programs have contributed to learning and development, specifically the Social Change Model, both inside and outside the classroom. However, there is limited research linking development along the Social Change Model and student persistence. Recently, Wolniak et al. (2012) conducted a study that suggested a relationship between socially responsible leadership and persistence.
Wolniak et al. (2012) used data collected in 2006-07 as part of the Wabash National Study of liberal Arts Education (WNSLAE), which included a sample size of 2,439 students among 16 four-year institutions. The researchers sought a relationship between student learning and persistence from the first to second year of college after controlling for academic and social integration. Their model measured student learning within four dimensions: Socially Responsible Leadership (Tyree, 1998), Intercultural Effectiveness (Fuertes, Miville, Mohr, Sedlacek, & Gretchen, 2000; Miville, Gelso, Pannu, Liu, Touradji, Holloway, & Fuertes, 1999), Inclination to Inquire and Lifelong Learning (Cacioppo & Petty, 1982), and Moral Reasoning (Rest, Narvaez, Bebeau & Thomas, 1999).

The Socially Responsible Leadership dimension assessed students on the seven key measures in the Social Change Model of leadership (i.e., consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship). The fifth measure of student learning captured overall Content Mastery (GPA) at the end of the students’ first year. Persistence was a dichotomous independent measure based on institution enrollment records. To measure social integration the study used an eight-item factor scale on interactions with peers and a single-item indicator on participation in co-curricular activities. For academic integration, it measured perceptions of teaching and a four-item indicator of frequency of student interaction with faculty.

The researchers found that students who reported higher levels of academic and social integration, within the area of peer interactions and co-curricular involvement during their first year, were more likely to persist from first to second
After controlling for demographic variables, the study found a positive and significant influence of socially responsible leadership ($\beta = 0.149$, Delta-$p = 0.010$, $p < 0.05$) on returning for their sophomore year. Positive peer interactions yielded the greatest influence on second year persistence ($\beta = 0.816$, Delta-$p = 0.044$, $p < 0.01$). The study also found that the number of hours per week spent in co-curricular activities positively increased the likeliness of persistence. Based on the findings on impact of peer interactions, social integration, and socially responsible leadership on persistence, Wolniak et al. (2012) recommended further research to examine collegiate practices for spurring gains in socially responsible leadership. However, the study was limited by the conceptualization of learning and it’s measurement based on the Wabash National Study of Liberal Arts Education (WNSLAE) project and defined by the notions of student success as outlined in the Association of American Colleges and Universities (AAC&U). It is possible other dimensions of learning not assess may have impacted persistence. Additionally, the study was limited by the use of self-reported GPA for first-year students.

**Summary**

Considering these findings on leadership programs, institutions interested in increasing student retention should engage students in the development of leadership skills out-of-the classroom from the time they enter college (Kezar & Moriarty, 2000) and consider utilizing the Social Change Model as a framework in co-curricular leadership programs (Buschlen & Dvorak 2011). Specifically, they should consider the individual level of the Social Change Model (Dugan, 2006b). One common weakness among these studies is the use of self-reported data through
the SRLS (Tyree, 1998) and the Follow-Up Survey of College Freshmen (Astin, 1966). Based on this research, along with Wolniak et al. (2012), it seems that the ability to find a link between socially responsible leadership and persistence, would be improved if future studies examine institutional records to examine if participation in a co-curricular leadership program based on the Social Change Model effects further involvement and persistence.

**Chapter Summary**

This chapter examined the literature on integration, co-curricular involvement and persistence of first-year undergraduates, the predictors of persistence among student background characteristics, and the impact of leadership development on persistence. Student integration into the college environment is positively related to their perception of peer and institutional support (Berger & Milem, 1999). Expanding on this work, Kuh et al.’s (2008) study claimed that engagement in educationally purposeful activities had a positive influence on students’ first to second year persistence. When considering background characteristics as a factor in persistence, research suggested that institutions consider race (Gloria et al., 1999; Kuh et al., 2008), first generation (Ishitani, 2006), and high school GAP (Zwick & Skylar, 2005). Finally, the research suggested that participation in leadership programs based on the Social Change Model positively influenced persistence (Buschlen & Dvorak, 20011; Wolniak et al., 2012).
Chapter 3

Methodology

Design

A quantitative, quasi-experimental design was used for this study. The
institution previously collected demographic data as part of the University “Fact
Book”, which collects demographic data on enrolled students. This institutional
data is available to faculty, staff and students on an internal website, and some of it
was used in the current study. The Office of Student Activities provided data for the
Leadership Passport program.

Demographic and academic background characteristics were measured by
the following variables: race/ethnicity (White and non-White), first-generation
status, and precollege academic achievement (high school GPA, SAT scores). In
addition to the demographic information, matched institutional records provided
enrollment status and registered student organization involvement during the fall
semester of their sophomore year.

Written permission to use institutional data in this study was obtained from
the Office of the Provost (See Appendix A).

The purpose of the current study was to examine the effect of Leadership
Passport, a program based on the Social Change Model of Leadership Development
(HERI, 1996), on students’ leadership and persistence at a small private university.
Variables used in the study are defined in the following section.

Definitions of Variables

Gender. This variable was defined as two categories, male or female.
**Race/Ethnicity.** This variable was dichotomized into categories, White and non-White, due to the small numbers in the different non-White groups.

**First Generation.** First generation students were defined in this study as students whose parents did not graduate from college. Non-first generation students had at least one parent with a Bachelor’s degree.

**Persistence.** This outcome variable was defined as the number of weeks the student enrolled at the institution until the census date of their sophomore year (Fall, 2015). It came from institutional records of enrollment.

**Student Organization Involvement.** This outcome variable was operationally defined as the number of memberships in registered student organizations during the fall semester of their sophomore year (Fall, 2015). This came from the Office of Student Activities.

**Leadership Position.** This outcome variable was the number of leadership positions held in registered student organizations during the fall semester of their sophomore year (Fall, 2015) at the university. This data comes from the Office of Student Activities.

**Number of Workshops Attended.** This outcome variable was the number of leadership workshops attended. This came from the Office of Student Activities.

**Level of Participation.** This independent variable categorized the number of leadership workshops attended into three categories of participation: Non-participants, Non-completers, and Completers. Non-participants were invited to attend the program but choose to attend no workshops. Non-completers attended
one to five workshops. Completers attended six to eight workshops. This data comes from the Office of Student Activities.

**Dependent Variables**

A number of dependent variables were used in this study: the number of leadership workshops attended during the first stage of the program, the number of student organizations joined by sophomore year, the number of leadership positions obtained by sophomore year, and student persistence from their first to second year as measured by the number of weeks enrolled at the university. Students invited to the program who did not persist from first to second year were enrolled less than 32 weeks, while students enrolled after the census date of their sophomore year were coded with the value of 32 weeks. The institution utilizes this census date as a benchmark for their annual “Fact Book”.

**Independent Variables**

Of the sets of independent variables, the demographic characteristics that were derived from previous research as predictors of persistence included high school GPA, gender, Race/ethnicity, first generation status (e.g., Gloria et al, 1999; Ishitani, 2006; Kuh, 2008; Zwick & Sklar, 2005). The other independent variable was the students’ level of participation in the leadership program.

Building on past research, the analyses of this study addressed the following questions:

1.) What is the effect of demographic characteristics (gender, race/ethnicity, first-generation) on the number of workshops attended in the leadership program?
2.) What are the differences in the number of student organization memberships during the fall semester of their sophomore year based on the level of students’ participation in the first stage of the leadership program?

3.) What are the differences in the number of leadership positions held during the fall semester of their sophomore year based on students’ level of participation in the first stage of the leadership program?

4.) What are the differences in program invitees’ persistence within the institution from first to second year based upon their level of participation in the leadership program?

Descriptive statistics were used to examine the effects of participation in a leadership program, Leadership Passport, based on the Social Change Model of Leadership. The current study used a one-way analysis of variance (ANOVA) to test the effect of demographic characteristics on the number of workshops attended in the leadership program. Additionally, one-way analysis of variance (ANOVA) tests were conducted to determine the effect of students’ level of participation in the first stage of the leadership program on the membership in student organizations; the number of leadership positions obtained in student organizations; and the number of weeks persisted. Tukey post hoc tests were used when significant differences were found among groups. Partial eta squared was used to determine the magnitude of the difference (effect size) of the significant differences found.

Participants

Among of 575 incoming first-year students at a small, private university in the northeast, a purposive sample of 139 (24.2%) students received a personalized
electronic invitation and a typed letter delivered by their student Resident Assistant (See Appendix B). The electronic invitation and letter invited the student to participate in the leadership program, which was comprised of eight workshops during the Fall semester (See Appendix C). A total of 68 (48.9%) students responded to this invitation and attended one of the two time offerings for the opening workshop.

A purposive sample is where the researcher purposely specifies characteristics of a population of interest (Vogt & Johnson, 2016). This purposive sample selection attempted to reflect demographic variables of the incoming first-year class of the institution. Invitations to the program slightly favored non-White students, which previous studies have shown to have demonstrated lower levels of persistence than White students (e.g., Gloria et al., 1999; Kuh et al., 2008; Ramist, 1981). The sample also included a higher percentage of females than males, although previous research has found no consistent relationship between gender and persistence (Fredda, 2000; Liu & Liu, 1999; Wlodkowski et al., 2001).

Out of the 139 students invited to participate in the program (non-participants), 68 students chose to attend in at least one workshop (non-completers), and 40 attended at least six out of eight, the minimum number required for completion of the program (completers).
Table 1: Comparison of Demographic Characteristics of Incoming Class and Study Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Incoming First Year Class N=572</th>
<th>Sample n=139</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-generation</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>Non-White</td>
<td>17%</td>
<td>27%</td>
</tr>
<tr>
<td>Male</td>
<td>45%</td>
<td>35%</td>
</tr>
<tr>
<td>Female</td>
<td>55%</td>
<td>65%</td>
</tr>
<tr>
<td>High School GPA Mean</td>
<td>NA</td>
<td>3.39</td>
</tr>
<tr>
<td>SAT Score Mean</td>
<td>NA</td>
<td>852</td>
</tr>
</tbody>
</table>

Leadership Passport

Leadership Passport, the emerging leadership program examined in this study, was designed to provide students with opportunities to engage in educational programming intended to enhance concrete skills related to community impact and involvement, cultural awareness, personal development and self-awareness, peer education and leadership. Aligning with the individual component of the Social Change Model of Leadership (HERI, 1996), it was designed to foster and develop personal qualities. The first stage of the program, based on the individual component of the Social Change Model of Leadership, consisted of eight workshops during the first academic semester. To complete the first stage of the program, students needed to attend at least six of eight workshops. The learning goals specific to the first stage of the program, as well as the individual component of the Social Change Model of Leadership, included developing an understanding of
1. Personal beliefs and values that motivate action; 2. How to think and behave with consistency; and 3. How to find motivation to serve a cause or organization (HERI, 1996).

Workshops, following the opening session, focused on the following themes: leadership styles, time management, student organizations, social justice, wellness, core values, and vision (See Appendix C). A faculty/staff member or student within the institution led each workshop. The Office of Student Activities within the institution developed learning goals based on those from the Social Change Model.

During the opening leadership workshop, participants participated in an interactive group activity to envision the attributes of a college graduate. The groups then recapped their small group activity with the group at large. Additionally, an overview of the program was provided and participants were informed verbally that registration for the program did not mean that attendance was required; participants could withdraw at any time (See Appendix D). They were informed verbally, and within the program overview, that attendance at the workshops would be recorded and maintained by the Office of Student Activities (See Appendix D). Students also received a handout of the program requirements.

The requirements for the following stages of Leadership Passport, which were not a part of the current study, included taking at least one leadership role in a registered student organization and either 20 hours of community service complemented by a project promoting positive social change, or 20 hours of service-learning complemented by a journal or reflection of the project. These requirements could occur during the following academic years before graduation.
Procedure

The university routinely collects demographic data on incoming first-year students. This data was used with approval from the Provost’s office for the purpose of the current study. Data collected by the Office of Student Activities was also used. A sample was selected and electronic and written invitations were sent. A hard copy was hand delivered to each invitee by a student Resident Assistant. Participants accepted the invitation by attending the opening workshop, and attending, at varying degrees, the eight workshops Leadership Passport workshops on a series of topics. Additionally, for all students who received an invitation, a staff member recorded persistence within the institution from first to second year, as well as co-curricular involvement within registered student organizations.

It is hoped that this study will help expand the knowledge of the effectiveness of a co-curricular leadership program based on the Social Change Model of Leadership (HERI, 1996) on first-year, traditional-aged students. Also it is hoped to gain a better understanding of predictors of participation and completion of the emerging leadership program.
Chapter 4

Results

The purpose of the current study was to examine the effect of Leadership Passport, a program based on the Social Change Model of Leadership Development (HERI, 1996), on students’ co-curricular involvement and persistence. Using descriptive statistics, the current examined the effects of participation in a leadership program. The study used a one-way analysis of variance (ANOVA) to test the effect of demographic characteristics on the number of workshops attended in the leadership program. Additionally, one-way analysis of variance (ANOVA) tests were conducted to test the effect of students’ level of participation in the first stage of the leadership program on memberships in student organizations, the number of leadership positions obtained in student organizations, and the number of weeks.

Effect of Demographic Characteristics on the Number of Workshops Attended

The first research question was: what is the effect of demographic characteristics (gender, race/ethnicity, first-generation) on the number of workshops attended in the leadership program?

A frequency table (Table 2) shows the percentage of males and females invited to participate in the program. As can be seen from the table, more females than males were invited to participate in the leadership program. This was the result of the purposive sample. Previous research has found no consistent relationship between gender and persistence (Fredda, 2000; Liu & Liu, 1999; Wlodkowski et al., 2001).
Table 2: Frequency Table for Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>49</td>
<td>35.3</td>
<td>35.3</td>
<td>35.3</td>
</tr>
<tr>
<td>Female</td>
<td>90</td>
<td>64.7</td>
<td>64.7</td>
<td>64.7</td>
</tr>
<tr>
<td>Total</td>
<td>139</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

A one-way analysis of variance (ANOVA), with Gender as the independent variable and the number of workshops attended as the dependent variable, was conducted. Partial eta squared values was calculated as a measure of effect size for mean group differences (Cohen, 1988; Miles & Shevlin, 2001). The results showed that there was no significant difference, and a small effect size, between males and females on the number of workshops attended; $F(1, 137) = 2.10, p > .05$, partial $\eta^2 = .02$. The full results can be seen in Table 3.

Table 3: The Effect of Gender on Total Workshops Attended

<table>
<thead>
<tr>
<th>Tests of Between-Subjects Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
</tr>
<tr>
<td>Corrected Model</td>
</tr>
<tr>
<td>Intercept</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Error</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Corrected Total</td>
</tr>
</tbody>
</table>

a. R Squared = .015 (Adjusted R Squared = .008)
A frequency table (Table 4) shows the percentage of first-generation students invited to participate in the program. As can be seen, approximately a third of the students in the study invited to participate in the leadership program were first generation college students.

**Table 4: Frequency Table First Generation Students**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-First Generation</td>
<td>93</td>
<td>66.9</td>
<td>66.9</td>
<td>66.9</td>
</tr>
<tr>
<td>First Generation</td>
<td>46</td>
<td>33.1</td>
<td>33.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>139</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

A one-way analysis of variance (ANOVA), with first generation status as the independent variable and the number of workshops attended as the dependent variable, was conducted. The partial eta squared values was calculated as a measure of effect size for mean group differences. As can be seen in Table 5, there were no significant differences between first-generation and non-first generation students, with a negligible effect size, on the number of workshops attended; F(1, 137) = 0, p>.05.
A frequency table (Table 6) showed the percentage of White and non-White students invited to participate in the program. As can be seen, approximately a fourth of the students invited to participate in the leadership program were non-White. As a result of a purposive sample, invitations to the program slightly favored non-White students. Previous studies have shown that non-White students have demonstrated lower levels of persistence than White students (e.g., Gloria et al., 1999; Kuh et al., 2008; Ramist, 1981).

**Table 6: Frequency Table of Race/Ethnicity**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>102</td>
<td>73.4</td>
<td>73.4</td>
<td>73.4</td>
</tr>
<tr>
<td>Non-White</td>
<td>37</td>
<td>26.6</td>
<td>26.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>139</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

A one-way analysis of variance (ANOVA), with Race/Ethnicity as the independent variable, having two conditions (White and non-White), and the
number of workshops attended as the dependent variable, was conducted. The partial eta squared values was calculated as a measure of effect size for mean group differences. The results show that there was no significant difference, and a small effect size, between White and non-White students on the number of workshops attended; \( F(1, 137) = 1.95, p > .05, \) partial \( \eta^2 = .01 \).

**Table 7: Test between Race/Ethnicity (White and non-White) and Total Workshops Attended**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>17.111 ( ^a )</td>
<td>1</td>
<td>17.111</td>
<td>1.953</td>
<td>.165</td>
<td>.014</td>
</tr>
<tr>
<td>Intercept</td>
<td>676.046</td>
<td>1</td>
<td>676.046</td>
<td>77.144</td>
<td>.000</td>
<td>.360</td>
</tr>
<tr>
<td>Non_White</td>
<td>17.111</td>
<td>1</td>
<td>17.111</td>
<td>1.953</td>
<td>.165</td>
<td>.014</td>
</tr>
<tr>
<td>Error</td>
<td>1200.587</td>
<td>137</td>
<td>8.763</td>
<td>1.953</td>
<td>.165</td>
<td>.014</td>
</tr>
<tr>
<td>Total</td>
<td>1959.000</td>
<td>139</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>1217.698</td>
<td>138</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( a. \ R \text{ Squared} = .014 (\text{Adjusted } R \text{ Squared} = .007) \)

**Difference in Number of Student Organizations and Level of Participation in Program**

The second research question was: what are the differences in the number of student organizations joined by invitees during the fall semester of their sophomore year based on their level of participation in the first stage of the leadership program? Participation in this stage of the leadership program took place during the first semester of the students first year.

For this question, level of participation in the leadership program was the independent variable, with three levels (non-participant, non-completer,
completer), and the number of student organizations joined was the dependent variable. A one-way analysis of variance (ANOVA) was conducted. The partial eta squared values was calculated as a measure of effect size for mean group differences. The results showed that there was no significant difference, and a small effect size, in the number of student organizations joined by level of participation in the program; F(2, 112) = 2.04, p>.05, partial η² =.04.

Table 8: Tests Between Number of Student Organizations Joined and Level of Participation in the Program

<table>
<thead>
<tr>
<th>Tests of Between-Subjects Effects</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>18.377a</td>
<td>2</td>
<td>9.189</td>
<td>2.038</td>
<td>.135</td>
<td>.035</td>
</tr>
<tr>
<td>Intercept</td>
<td>881.223</td>
<td>1</td>
<td>881.223</td>
<td>195.414</td>
<td>.000</td>
<td>.636</td>
</tr>
<tr>
<td>Level_of_Participation</td>
<td>18.377</td>
<td>2</td>
<td>9.189</td>
<td>2.038</td>
<td>.135</td>
<td>.035</td>
</tr>
<tr>
<td>Error</td>
<td>505.066</td>
<td>112</td>
<td>4.510</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1511.000</td>
<td>115</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>523.443</td>
<td>114</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .035 (Adjusted R Squared = .018)

Difference in Number of Leadership Positions and Level of Participation in the Leadership Program

The third research question was: what are the differences in invitees’ number of leadership positions obtained during the fall semester of their sophomore year based on their level of participation in the first stage of the leadership program? Participants would have completed the first stage of the program after the first semester of their first year.
The mean total score of number of leadership positions held for students invited to participant in the leadership program was .48. As can be seen in the following table, the mean and median score for the completers (M = .74) was higher than those for the non-participants (M = .32).

**Table 9: Descriptive Statistics for Number of Leadership Positions Obtained by Level of Participation in the Program**

<table>
<thead>
<tr>
<th>Level of Participation in the Program</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-participants</td>
<td>53</td>
<td>.32</td>
<td>.00</td>
<td>.64</td>
</tr>
<tr>
<td>Non-completers</td>
<td>23</td>
<td>.39</td>
<td>.00</td>
<td>.58</td>
</tr>
<tr>
<td>Completers</td>
<td>39</td>
<td>.74</td>
<td>1.00</td>
<td>.88</td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>.48</td>
<td>.00</td>
<td>.74</td>
</tr>
</tbody>
</table>

A one-way analysis of variance (ANOVA) with level of participation (non-participants, non-completers, completer) within the leadership program as the independent variable and the number of leadership positions held as the dependent variable was conducted. A significant difference was found among the levels of participation in the program; F(2, 112) = 4.06, p<.05, partial η² = .07.
Table 10: One-Way Analysis of Variance between Number of Leadership Positions Obtained and Level of Participation in the Program

![Table 10](image)

A Tukey HSD post hoc tests were done to determine the nature of the difference between levels of participation. This analysis revealed that students who did not participate in the program held significantly fewer leadership positions ($M=.32$, $sd=.64$) than students who completed the first stage of the leadership program ($M=.74$, $sd=.88$). Students who participated, but did not complete the first stage of the program were not significantly different from either of the other two groups.
Table 11: Tukey HSD between Number of Leadership Positions Obtained and the Level of Participation in the Program

Multiple Comparisons
Dependent Variable: Number of Leadership Positions

<table>
<thead>
<tr>
<th>I Level of Participation in Program</th>
<th>J Level of Participation in Program</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>NonParticipant</td>
<td>Noncompleter</td>
<td>-.07055</td>
<td>.18040</td>
<td>.919</td>
<td>-.4990 - .3579</td>
</tr>
<tr>
<td>Noncompleter</td>
<td>Completer</td>
<td>-.42284*</td>
<td>.15242</td>
<td>.018</td>
<td>-.7849 - .0608</td>
</tr>
<tr>
<td>Noncompleter</td>
<td>NonParticipant</td>
<td>0.07055</td>
<td>.18040</td>
<td>.919</td>
<td>-.3579 - .4990</td>
</tr>
<tr>
<td>Completer</td>
<td>NonParticipant</td>
<td>-.35229</td>
<td>.18994</td>
<td>.157</td>
<td>-.8035 - .0989</td>
</tr>
<tr>
<td>Completer</td>
<td>Noncompleter</td>
<td>.42284*</td>
<td>.15242</td>
<td>.018</td>
<td>.0608 - .7849</td>
</tr>
<tr>
<td>Completer</td>
<td>Completer</td>
<td>.35229</td>
<td>.18994</td>
<td>.157</td>
<td>-.0989 - .8035</td>
</tr>
</tbody>
</table>

*. The mean difference is significant at the 0.05 level.

Difference in Persistence from First to Second Year and Participation in the Leadership Program

The fourth research question was: what are the differences in persistence from first to second year (as measured by weeks at the institution) and students’ level of participation in the first stage of the leadership program?

The mean total score of number of weeks attended at the institution for invitees of the leadership program was 30.25. As can be seen in the following table, the mean score for the completers (M = 32) was higher than those for the non-participants (M = 29.34).
Table 12: Descriptive Statistics for Number of Weeks Persisted and the Level of Participation in the Program

<table>
<thead>
<tr>
<th>Level of Participation in the Program</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-participants</td>
<td>71</td>
<td>29.34</td>
<td>5.70</td>
</tr>
<tr>
<td>Non-completers</td>
<td>28</td>
<td>30.21</td>
<td>5.03</td>
</tr>
<tr>
<td>Completers</td>
<td>40</td>
<td>31.90</td>
<td>.63</td>
</tr>
<tr>
<td>Total</td>
<td>139</td>
<td>30.25</td>
<td>4.77</td>
</tr>
</tbody>
</table>

A one-way analysis of variance (ANOVA) with level of participation (non-participant, non-completer, completer) in the leadership program as the independent variable and persistence from first to second year (number of weeks attended institution) as the dependent variable was conducted. A significant difference was found among the levels of participation in the program; F(2, 136) = 3.84, p<.05, partial η² =.05.

Table 13: One-Way Analysis of Variance between Number of Weeks Persisted and Level of Participation in the Program.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>167.985a</td>
<td>2</td>
<td>83.993</td>
<td>3.843</td>
<td>.024</td>
<td>.053</td>
</tr>
<tr>
<td>Intercept</td>
<td>111813.646</td>
<td>1</td>
<td>111813.646</td>
<td>5116.294</td>
<td>.000</td>
<td>.974</td>
</tr>
<tr>
<td>Level_of_Participation</td>
<td>167.985</td>
<td>2</td>
<td>83.993</td>
<td>3.843</td>
<td>.024</td>
<td>.053</td>
</tr>
<tr>
<td>Error</td>
<td>2972.202</td>
<td>136</td>
<td>21.854</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>130349.000</td>
<td>139</td>
<td>3140.187</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>3140.187</td>
<td>138</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .053 (Adjusted R Squared = .040)
Tukey HSD post hoc tests were done to determine where the significant differences were between levels of participation. This analysis revealed that students who did not participate in the program persisted fewer weeks (M=29.34, sd=5.70) than students who completed the first stage of the leadership program (M=31.90, sd=.63). Students who participated, but did not complete the first stage of the program were not significantly different from either of the other two groups.

**Table 14: Tukey HSD between Number of Weeks Persisted and the Level of Participation in the Program**

<table>
<thead>
<tr>
<th>(I) Level of Participation in Program</th>
<th>(J) Level of Participation in Program</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>NonParticipant</td>
<td>Noncompleter</td>
<td>-0.87626</td>
<td>1.04323</td>
<td>.679</td>
<td>-3.3483 - 1.5958</td>
</tr>
<tr>
<td></td>
<td>Completer</td>
<td>-2.56197*</td>
<td>.92421</td>
<td>.017</td>
<td>-4.7520 - 1.3719</td>
</tr>
<tr>
<td>Noncompleter</td>
<td>NonParticipant</td>
<td>0.87626</td>
<td>1.04323</td>
<td>.679</td>
<td>-1.5958 - 3.3483</td>
</tr>
<tr>
<td></td>
<td>Completer</td>
<td>-1.68571</td>
<td>1.15190</td>
<td>.312</td>
<td>-4.4153 - 1.0439</td>
</tr>
<tr>
<td>Completer</td>
<td>NonParticipant</td>
<td>2.56197*</td>
<td>.92421</td>
<td>.017</td>
<td>.3719 - 4.7520</td>
</tr>
<tr>
<td></td>
<td>Noncompleter</td>
<td>1.68571</td>
<td>1.15190</td>
<td>.312</td>
<td>-1.0439 - 4.4153</td>
</tr>
</tbody>
</table>

*The mean difference is significant at the 0.05 level.

**Summary**

Of the four research questions, number one and two showed no significant relationships. Question number three, addressing the differences in number of leadership positions held by invitees’ up to the fall semester of their sophomore year based on their level of participation in the first stage of the leadership program, found a significant difference among the levels of participation in the program. Results from question number four found a significant difference among the levels
of participation in the program (non-participants and completers) and the number of weeks persisted at the institution.
Chapter 5

Conclusions

This study examined the impact of demographic characteristics on first-year students’ participation in the first stage of a leadership program, called Leadership Passport, and the impact of that program on students’ memberships and leadership positions in campus organizations, as well as their persistence. The first stage of the leadership program involved participation in at least six of eight workshops during the first semester. These workshops sequentially focused on the individual value of the Social Change Model of Leadership, which concentrated on the development of self-awareness, congruence, commitment, understanding others, establishing purpose, and working collaboratively with others (HERI, 1996; CAS, 2009).

The research questions for this study were:

1.) What is the effect of demographic characteristics (gender, race/ethnicity, first-generation) on the number of workshops attended in the leadership program?
2.) What differences exist in the number of student organization memberships held during the fall semester of their sophomore year based on the level of students’ participation in the first stage of the leadership program?
3.) What differences exist in the number of leadership positions held during the fall semester of their sophomore year based on students’ level of participation in the first stage of the leadership program?
4.) What differences exist in program invitees’ persistence within the institution from first to second year based upon their level of participation in the leadership program?
The following sections of this chapter examine each of these, and conclude with limitations and recommendations for future research.

**Demographic Characteristics and Leadership Workshop Attendance**

This section will first discuss gender, then race/ethnicity, and conclude with first-generation status as it relates to the number of workshops attended in the first stage of the leadership program.

No significant relationships were found between targeted demographic characteristics (gender, race/ethnicity, first-generation) and the number of workshops attended in the first stage of the leadership program. This finding is counter to previous research regarding student background characteristics (i.e., race and first-generation status; Ishitani, 2003; Kuh et al., 2008) influence on involvement with peers and faculty, as well as in educationally purposeful activities (e.g., Berger & Milem, 1999; Kuh et al., 2008). While Kinzie et al. (2007) found that males are more inclined to engage as independent workers and participate in co-curricular programs, in this study, there were no significant differences between males and females in their involvement in the leadership program. It should be noted that this finding does not consider invitees’ involvement in co-curricular programs other than the leadership program in this study. This finding may also be influenced by the sample, which included more female (n=90) invitees than male (n=49). If more males were invited, results may have revealed a significant relationship between gender and the number of workshops attended in the program.
Another possible explanation the difference been this study and previous studies is that, collectively, studies involving race/ethnicity as a variable were limited due to fluid operational classifications of race/ethnicity. Some studies have classified the race/ethnicity as White and non-White (Berger & Braxton, 1998; Edwards & McKelfresh, 2002;). Others, such as Kuh et al. (2008), have used multiple racial categories: African American/Black; Asian/Pacific Islander; Hispanic/Latino; other race. Kuh et al. (2008) found that African American students at predominately White institutions had lower levels of engagement in co-curricular programs than White students.

In the current study, race/ethnicity was classified as White and non-White due to the limited sample size. Out of 139 invitees, 18 were African American students, 13 of which participated in the leadership program, and nine of whom completed the first stage. There was no relationship between race/ethnicity, classified as White and non-White, and the number of workshops attended in the leadership program. These findings may have been the result of a small sample size, which did not allow the study to adequately examine the differences.

Regarding first-generation, there was no relationship with the number of workshops attended in the leadership program. Out of 139 invitees, 46 were first-generation students; 21 of which participated in the leadership program, and 13 completed the first stage. As a cohort considered as being high risk of departure during their first year of college (Ishitani, 2003), first-generation students are less engaged in college (Pike & Kuh, 2005). As a result, it was expected that first-generation students would have attended less workshops in the leadership program.
than non-first-generation students. However, the reason why there was no relationship between first-generation student status and the number of workshops attended in the program is unclear.

**Student Organization Membership Based on Leadership Program Participation**

There were no significant differences found in the number of student organizations joined based on the level of students’ participation in the first stage of the leadership program. Invitees who did not participate in the program, on average, joined the same number of organizations as students who participated in some or all of the program workshops. This runs counter to Berger and Milem’s (1999) study where first semester non-involvement positively predicted future non-involvement. Based on their finding, it would seem that students who did not participate in the program would join fewer student organizations. However, simply because an invitee did not participate in the leadership program, it does not mean that student was not involved in another student organization during their first semester.

When considering the workshops within the leadership program, the lack of a relationship between the number of organizations joined by invitees and their level of participation the leadership program was not necessarily surprising. The “Core Values” and “Vision” workshops, offered as the final two sessions within the first stage of the leadership program, focused on helping participants discover their passions, and how to envision change within that particular interest. Additionally, portions of other workshops cautioned against over-involvement, encouraging high
impact versus volume. Messages given in some of the workshops could have resulted in students exercising caution in joining multiple student organizations. Future research should examine the percentage of students involved in at least one student organization across the three levels of participation in the leadership program. Level of participation in the leadership program was defined in three categories: Non-participants (invited, did not participate), Non-completers (attended one workshop), and Completers (attended six to eight workshops). The current study looked at the number of student organizations joined, as opposed to the percentage of students who joined at least one student organization based on their level of involvement in the leadership program. Additionally, a qualitative survey regarding reasons for intent to join/not join student organizations might reveal differences not detected in the current study.

**Student Leadership Positions Based on Leadership Program Participation**

Research question number three examined the difference in the number of leadership positions held by invitees up through their fall sophomore semester based their level of participation in the first stage of the leadership program. There was a significant difference in the number of leadership positions held and the level of participation in the program. Students who did not participate in the program held significantly fewer leadership positions than students who completed the first stage of the leadership program (at least six of the eight workshops). Students who participated, but did not complete the first stage of the program were not significantly different from either of the other two groups.
Kezar and Moriarty (2000), previously found that participating in a leadership class or program served as the strongest predictor of self-rating of leadership ability. This suggested that leadership programs increased perceived leadership ability, which would presumably lead to a greater likelihood of participants holding a leadership position. Participants in the leadership program within the current study might have perceived a growth in their leadership abilities, which could have influenced their interest in leadership positions. However, this linkage is uncertain because the current sample is small, and the number of leadership positions held is also small. Most importantly, the current study did not measure perceived leadership ability among the participants. The addition of a measure of perceived leadership ability should be added to future studies.

**Persistence Based on Leadership Program Participation**

A major focus of the current study was to examine the relationship between participation of first-year students in the leadership program and their persistence at the institution from their first to second year. The current study built on the foundation of Astin (1984), who examined overall student involvement on college campuses, and Tinto (1993), who focused on student involvement as it relates to retention. The current study found a significant difference among the levels of participation in the program (non-participants and completers) and the number of weeks attended at the institution with completers persisting longer.

This finding supports the work of Milem and Berger (1999) who found that involvement in campus programs during their first year predicted future involvement and institutional integration, commitment, and persistence. It also
supports the work of Kuh et al. (2008) who showed that students’ engagement in educationally purposeful activities during the first year of college had a statistically significant effect on persistence from first to sophomore year. Finally, the results of the current study align with Wolniak et al.’s (2012) study, which found a significant influence from socially responsible leadership on persisting from first to sophomore year.

The leadership program in the current study was based on the Social Change Model of Leadership (HERI, 1996), which the Socially Responsible Leadership Scale (SRLS) was designed to measure (Tyree, 1998). It was expected that participation in the leadership program examined in this study would generate learning within socially responsible leadership. It is recommended that future research on this leadership program utilize the Socially Responsible Leadership Scale (SRLS; Tyree, 1998) to measure learning along the Social Change Model of Leadership (HERI, 1996).

Limitations

There were several limitations to this study, one of which included the setting. This study was conducted at a single institution, a private liberal arts university in the northeast. In addition, the sample was limited to 139 out of 572 first year students, the number invited to participate in the program. Previous theorists (e.g., Feldman & Newcomb, 1994) have found that institutional size effects the student experience, so further research should consider examining the program at institutions of varying sizes.
Another limitation was the sample used for the study. The study used a purposive sample, so it would better approximate the incoming group of first year students. Future research should consider using a random sample to ensure invitees are reflective of the class. The sample in the current study contained higher percentages of non-White students, which previous studies have shown to demonstrate lower levels of persistence than White students (e.g., Gloria et al., 1999; Kuh et al., 2008; Ramist, 1981). The sample in this study also included a higher percentage of females than males. Previous research found no consistent relationship between gender and persistence (Fredda, 2000; Liu & Liu, 1999; Wlodkowski et al., 2001).

Additionally, participation in this leadership program may have been limited by a number of factors. First, different staff and faculty presented the workshops. This meant there might not have been uniformity in content or presentation style. Future research should attempt to standardize the workshop presentations. Second, students’ availability to attend programs as well as when they were invited may have affected participation. Program offerings may have conflicted with athletic obligations or class schedule, thereby limiting the participation of athletes and students from certain majors. Invitees received an email on their first day of class, in addition to a letter containing the same information delivered by their student Resident Assistant. First-year students may have been focused on the start of classes and could have felt overwhelmed by the prospect of doing one more thing. Perhaps some invitees did not even check their email, or ignored it. It was also
likely that some Resident Assistants simply delivered the invitation while other
Resident Assistants encouraged the invitee to participate in the program.

Although the study showed some significant differences between levels of
participation in the first stage of the leadership program, it is possible that the
students who completed the program had higher levels of motivation to begin with
that would have helped them to persist regardless of the program or other
environmental factors. They may have also come to the university with a greater
desire to assume a leadership position. Since no pre-test was done to determine if
there were other factors, this is just speculative. This leads to an additional
limitation. There was a failure to measure students’ learning, specifically of
leadership skills. Utilizing the Socially Responsible Leadership Scale (SRLS; Tyree,
1998) in future studies would create an opportunity to assess participants’ growth
within the Social Change Model of Leadership (HERI, 1996).

**Further Research**

This study created a platform for further research on leadership programs
based the Social Change Model of Leadership (HERI, 1996). A similar study
examining the accumulation of students invited to the leadership program would
benefit from a larger sample size. As previously noted, a larger sample size may
clarify some of the results found in this study that contradicted previous research.
The use of the Socially Responsible Leadership Scale (SRLS; Tyree, 1998) would also
allow for a greater understanding of the development of leadership skills among the
students who participated in the program. Such research would address limitations
of the current study.
Additionally, future research could examine the requirements of the leadership program beyond the first stage. Specifically, it could measure student growth along the Social Change Model of Leadership (HERI, 1996). In addition, invitees who choose not to participate in the program could be interviewed using a qualitative methodology to determine reasons for a lack of participation. Finally, a qualitative study could also examine participants of the program to discover implications of completing the program, or the overall implementation of the program. Studies investigating these and other problems could expand the existing knowledge base on involving first-year students in educationally purposeful co-curricular programs.

A broader picture of all the issues could lead to better-targeted programs to encourage students' leadership and persistence in institution of higher education.
References


Appendices
Appendix A

Letter of Permission to Use Data
July 6, 2015

Brent Papson  
Director of Student Activities  
Susquehanna University

Dear Brent,

Please consider this letter written approval from Susquehanna University to use university data for your master's thesis.

Your project using demographic and academic data to help inform the development of emerging leadership programs at Susquehanna University sounds very interesting. I hope you will be willing to share the results of your work with us.

Sincerely,

Colleen Flewelling  
Assistant Provost and Director of Institutional Research and Assessment  
Susquehanna University
Appendix B

Invitation to the Leadership Program
Doe, John  
Residence Hall  
Room Number  

Dear John:  

You are invited to participate in a leadership program titled Leadership Passport (SULP).  

Congratulations!  

SULP is designed to develop leadership skills and enhance your personal and professional leadership skills, and to introduce you to community of student leaders.  

To enroll in the program, you **must attend ONE of the following introduction workshops in the campus center meeting rooms** (located next to the Student Life Office):  

- Wednesday, August 27 from 4:30 to 5:45 p.m.  
- Wednesday, August 27 from 7:30 to 8:45 p.m.  

At the completion of this first session, you can decide whether or not you wish to enroll in the program. Please note that SULP will continue to meet bi-weekly at the times listed above. More information will be available at the first session.  

An RSVP is not required, but it is appreciated. You will also receive an email with this information.  

Sincerely,  

Brent Papson  
Director of Student Activities  
Office of Student Activities  
papson@university.edu
Appendix C

Leadership Program Schedule
Leadership Passport Schedule
*Meetings are held in the SDRs*

Week One
August 27

- Opening workshop

Week Two
September 10

- DISC

Week Three
September 24

- Time management

Week Four
October 8

- Student Organization Panel

Week Five
October 22

- Social Justice

Week Six
November 5

- Wellness: mindfulness

Week Seven
November 19

- Core Values

Week Eight
December 3

- Vision/Closing Session

*Topics and locations are subject to change.*
Appendix D

Leadership Program FAQ’s Handout
Leadership Passport

Description

Leadership Passport is a comprehensive leadership-training program that supports the university’s commitment to co-curricular learning. It is designed for any and all current students at the university. The program is designed to provide students opportunities to engage in educational programming intended to enhance concrete skills related to community impact & involvement, cultural awareness, personal development & self-awareness, and peer education & leadership. Aligning with the Social Change Model, students who successfully complete the program will:

Year One

- Register for the SU Leadership Passport program by coming to the opening workshop
- Attend a minimum of SIX of the ten bi-weekly leadership seminars during the first academic semester
- Attend a minimum of TWO designated programs on campus during the first academic year
- Sign your name on the attendance sheet provided at each session you attend
- Complete an assessment sheet on your experience and intended learning goals at the end of the year
- Join and actively participate in at least one student organization recognized by university

Year Two

- Take on one leadership role in a student organization recognized by the university
- OR enroll in and successfully complete one of the following classes: The Theory and Practice of Peer Education or Residential Leadership for Social Justice and Community Development

Year Three/Four

- Write a proposal for a legacy project intended for positive social change
- Complete 20 hours of community involvement through a service project or a student organization
- Complete a legacy project that promotes positive social change and demonstrates an understanding of the learning goals outlined through the Social Change Model

OR

- Complete a minimum of 20 hours of service-learning by journaling and writing a reflections during a service project
- Submit a reflections paper on how the experience changed you
- Present during an open session how your service-learning promoted positive social change and demonstrates an understanding of the learning goals outlined through the Social Change Model

Those students who successfully complete the program will receive the Leadership Passport Certificate and graduation chords.
Learning Goals
After meeting the requirements of the program, students can articulate the following as outlined through the Social Change Model:

1.) Personal beliefs and values related to personal, professional and educational goals (consciousness of self)
2.) What it means and looks like to demonstrate behaviors related to personal beliefs and values (congruence)
3.) How personal beliefs and values can apply to advancing a specific cause or organization (commitment)
4.) The student’s personal leadership style and how these skills compliment others in a group (collaboration)
5.) How a student’s personal beliefs, values, and goals align with others in a group (common purpose)
6.) Understand different viewpoints of others in a group based on their beliefs, values, and goals (controversy with civility)
7.) How intentionally acting as a positive citizen and leader dedicated to positive change based on personal beliefs, values, and goals can impact a community (citizenship)

FAQ’S

How long is each workshop?
Each workshop will be approximately 60-90 minutes long. If you do not show up on time or if you leave early, you will not receive credit for attending the workshop.

How do I receive credit for attending a workshop?
During each session, you should fill out the workshop sign-in sheet. The Office of Student Activities will keep a record of your attendance at each program.

Do I have to be in the Passport program in order to attend a Passport to Leadership workshop?
Yes, but you can recommend a friend to the program.

What kind of commitment am I making by registering for the program?
While we encourage you to complete the program, registration for the program is simply for the purpose of tracking. It does NOT mean you must complete Leadership Passport. Participants can discontinue the program at any time.

I forgot how many sessions I have attended, is there a way to find this information?
Yes, you can find this out from the Office of Student Activities. Student Activities will have records on every workshop you have attended within one week of the each event.