

**PLACE OF RESIDENCE: UNDERSTANDING THE IMPACT ON
INTERACTIONS AND RELATIONSHIPS WITH PEERS, FACULTY,
AND DIVERSE OTHERS AMONG SENIOR STUDENTS**

by

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DEDICATION

I dedicate this work to the memory of

Shannon Marie Delaney
July 3, 1977 – November 9, 2012

I will always be inspired by your nature to appreciate others individually and unconditionally. Your love for students and energy for this work were contagious. I am a better person and a better professional for having had you as a friend and a colleague.

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ABSTRACT

The purpose of this study was to develop empirical research leading to the understanding of the effect of place of residence on senior student interactions and relationships and the differences in this effect by race and gender. The framework for this study is based on Astin's Theory of Involvement and Input-Environment-Output Model. The data set used in this study is from the National Survey of Student Engagement (NSSE) and includes first-year student responses from 2002 and 2005 responses from the same students in their senior year.

The results suggest that when compared to living on campus, living within driving distance of campus is negatively associated with quality relationships with peers. Living within walking or driving distance of campus is negatively associated with frequency of co-curricular related peer interactions. Living in a fraternity or sorority houses is positively associated with frequency of co-curricular related peer interactions when compared to living on campus. The effect of living driving distance from campus on quality of relationships with peers is more negative for male students than for female students. The effect of living within driving distance of campus on frequency of academic related peer interactions is more positive for female students than male students. Living driving distance from campus has less negative effect on frequency of co-curricular interactions for students of color than for white students.

The findings of this study contribute empirical research to the forty year gap in research on place of residence and provide perspective specifically on senior students. The study supports institutional practices that encourage students to live on campus, even in their senior year, but

also highlights ways in which the on-campus experience can be improved – particularly through increased connection with academics and interactional diversity. The study also supports the need to develop support initiatives for off campus students, specifically initiatives to assist them in developing quality peer relationships and in engaging co-curricularly. Finally, the study supports the need for more comprehensive research on place of residence utilizing statistical methods for estimation of relationships.

CHAPTER 1

Introduction

Since the early founding of American higher education institutions, residence halls have been central to the college experience. The term “Collegiate Way”, which was coined by a Massachusetts scholar, Cotton Mather and most notably used by Rudolph (1990), is the idea that academics do not, by themselves make a college, but rather that it is the residential model that makes the college experience whole. The residential model was brought to America by the founders of Harvard University who had, themselves, experienced residentially based education at Oxford and Cambridge where students and faculty lived and learned together. Additionally, Harvard, like other early American universities, was built in the countryside where there was not housing available for students. The Collegiate Way also served the practical purpose of providing students with a place to live. The founders of American higher education built colleges to be “a large family, sleeping, eating, studying, and worshipping together under one roof” (Rudolph, 1990, p. 87). By the time universities were built in urban areas, the Collegiate Way was so engrained in American higher education, that residence halls were built on these campuses as well (Rudolph, 1990; Brubacher & Rudy, 2004).

Recent Trends

Even as recently as the 1950s and 1960s, spurred by low interest federal loans, we saw a huge boom in the building of on-campus residence halls and a dramatic increase in the on-campus housing options available to students. In recent decades, however, colleges and

universities have faced inflation and rising cost, a deceleration of federal and private support, and decreasing tax incentives. These relatively recent challenges have led to a significant decrease in the construction of on-campus residences, which has brought about an increased number of students living off-campus (Kim & Rury, 2011; Chickering, 1974).

The decision to create non-residential approaches to higher education began as an answer to a lack of available funds on the part of the colleges and universities (Chickering, 1974). However, as time has gone on, it has served to meet another need as well. Higher education in this country has diversified dramatically in the last 75 years. Where the college experience was once only available to students from the most affluent families, because of increased federal financial aid, higher education is now open to students from more diverse socioeconomic backgrounds. As these new groups of students began to enter American higher education, they did not always have the same needs and wants as the students who had come before them. With these new students has come an increased focus not only on quality, but also on value. Many more students today, when compared with students 75 years ago are looking for less expensive options for education. One way to make a college education less expensive for a student is to remove the residential component in favor of continuing to live with family. As schools began to decrease the number of residence halls they built, they also met the needs of students not interested in or able to afford the residential experience (Kim & Rury, 2011; Chickering, 1974; Schroeder & Mable, 1994).

The decrease in the building of residence halls has occurred in two primary ways. First, there has been a dramatic increase in the creation of colleges and universities that do not offer a residential experience at all. The growth of the purely commuter college has been substantial in the last 50 years. These non-residential colleges and universities have taken two forms. There

has been an increase in the number of two year community colleges but also the birth of non-residential four year colleges (Chickering, 1974). Second, there has been a dramatic shift in the experience offered at the traditional four-year residential college. While the student population at four-year residential institutions has increase steadily for decades, many of these institutions have made the decision not to build additional residence halls to keep up with the growth of the student body. This means that a smaller percentage of students at residential colleges can actually live in residence halls (Chickering, 1974). Consequently, where there used to be strict policies requiring all students to live on-campus for all four years, most of these schools have begun allowing, or even requiring their upper class students to move off campus. In some cases, these institutions even allow first-year students to live off campus (Pascarella & Terrenzini, 2005; Schroeder and Mable, 1994).

2004 data collected by the National Center for Education Statistics on the percent of students at public and non-profit private four-year colleges and universities that live on campus is available in Table 1.1 (U.S. Department of Education Institute of Education Sciences National Center for Education Statistics [NCES], 2004).

Table 1.1
Percent of students at public and non-profit private four year colleges and universities who live on campus by year in school

Year in School	Percent Live On Campus
First-Year	51.0%
Second-Year	38.9%
Third-Year	26.2%
Fourth-Year	18.3%
Fifth-Year	11.9%
Unclassified	6.5%
Total	25.6%

Note. From U.S. Department of Education Institute of Education Sciences, National Center for Education Statistics. (2004). *2003-2004 National Postsecondary Student Aid Study*. Retrieved October 5, 2012 from <http://nces.ed.gov/datalab>.

The most significant challenge presented by the decrease in on-campus housing available to students is that “these decisions were made in the light of clear and detailed evidence concerning the costs of building, maintaining, and staffing college residences, but without analysis of the educational benefits that accrue from those facilities” (Chickering, 1974, p. 2). Even as time has gone on and we have continued in the direction of increasing numbers of commuter students at all types of higher education institutions, our focus has been on making the best of our direction and less on understanding whether our direction is positive or not (Schroeder & Mable, 1994).

Existing Knowledge

For generations, students lived on campus because doing so was simply an inherent part of the college experience. As the landscape of college and university housing began to change in the 1960s and 1970s, and the study of higher education began to grow, many researchers focused their studies on the benefits of living on campus. Of the most notable researchers, both Chickering (1974) and Astin (1977) have written extensively about the benefits to living on campus. The benefits of living on campus found in these studies such as student transition, persistence, degree attainment, and development were found to be so universally accepted that researchers stopped conducting studies in this area. Consequently, very little notable research has been conducted in this area in recent decades. This has created a juxtaposition between the wealth of historical knowledge pointing to extensive benefits of students living on campus and a lack of current literature to inform the field of residence life as it has trended away from increasing or even maintaining the residential component on college campuses.

In recent years, both researchers and administrators have been extremely interested in student engagement and persistence, which has led to countless studies on effective educational

policies and practices that contribute to positive student outcomes. One effective educational practice that researchers have pointed to is the importance of increasing students' interactions and relationships with their peers and faculty. Interactions with peers and faculty have been found to improve adjustment, psychosocial development, cognitive development, attitudes and values, and achievement and persistence in college (Pascarella & Terenzini, 2005). Additionally, researchers have found that students interacting with peers and faculty who are different from themselves also has tremendous benefits, such as more positive intergroup attitudes, higher moral reasoning, increased cognitive development, better academic self confidence, and improved critical thinking skills (Denson & Chang, 2009).

The understanding of the importance of interactions and relationships with peers, faculty and diverse others has led both researchers and practitioners to begin to ask what role residence halls play in facilitating these connections. This is in turn beginning to renew interest in the benefits of living on-campus. Though the research on the connections between living on-campus and interactions with peers, faculty, and diverse others is relatively dated, there is proof of a strong connection. Chickering (1974), Chickering & Reisser (1993), Astin (1977), and Pascarella & Terenzini (2005) all document the benefits of living on-campus and find links between on-campus living and interactions and relationships with peers and faculty.

There has also been a strong connection documented between living on-campus and interactions with diverse others. Derryberry and Thoma (2000) found that students are more likely to interact with diverse others when they have a strong but "low density" friendship network. They characterized low density friendship networks as those in which friends are independent from one another and where there is a wide variety of different types of people.

Derryberry and Thomas noted that an on-campus residence hall is one of the best places to experience a low density friendship network (2000).

Shortcomings of Existing Knowledge

One of the largest gaps in our knowledge is the significant length of time that has passed since much research was done linking on-campus living to interactions and relationships with peers, faculty, and diverse others. So much has changed in our campus environments since the bulk of this research was done that many question whether it is still relevant.

A second gap in knowledge exists in understanding the experiences of the majority of students who live on campus. In the last decade, most residence hall based research has focused on living learning communities. Though this research is extremely important, as living learning communities strive to enhance the connections between on-campus living and peer and faculty interactions, there are still a limited number of students living in learning communities. Most campuses do not have plans to house all students in living learning communities and current literature does not provide a clear understanding of whether there are connections between living on campus and interactions and relationships with peers, faculty, and diverse others for non-learning community students.

A third limitation in our knowledge relates to the extensive research focused on first-year students. A key point at which students drop out of college is before their second year of college, therefore, researchers have focused largely on studying first year students and practitioners have subsequently created programs that cater to first year students (Pascarella & Terenzini, 2005). The increased focus on first-year students has proven beneficial in increasing their persistence rates. However, there is now a lack of knowledge related to upper-class students, who still have specific needs related to growth, learning, and development (Gardner &

Van der Veer, 1998). While current campus strategy increasingly limits the number of upper-class students that live on-campus, there is a lack of understanding about the true impact this strategy has on student success.

Purpose of the Study

The purpose of this study is to begin to fill the gaps in existing knowledge. First this study aims to provide a more current perspective on the benefits of on-campus living for all students. It seeks to contribute to a current understanding of the connections between on-campus living and student interactions with peers, faculty, and diverse others for all students – not just those that participate in living learning communities.

The second purpose of this study is to develop a more clear understanding of the importance of living on-campus for upper-class students. Specifically, this study considers senior level students and seeks to understand whether living on-campus leads to increased interactions with peers, faculty, and diverse others, as it does for first-year students.

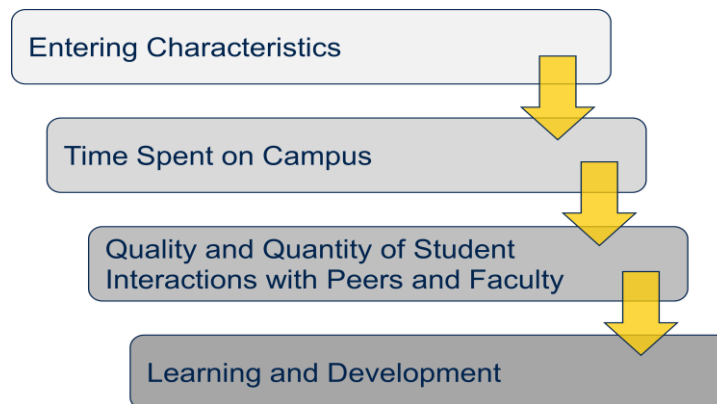
General Framework

This study seeks to understand whether place of residence, specifically living on campus has benefits as it relates to student interactions and relationships with peers, faculty, and diverse others. The reason that interactions and relationships with peers, faculty, and diverse others are important is because they have been found to lead to the positive student outcomes noted above and explored in depth in Chapter 2. It is common to see research focused on exploring the role that mediating factors play in student outcomes and certainly, interactions and relationships with peers, faculty, and diverse others are mediating factors in other student outcomes. However, in this study the mediating factor at the center of this study is place of residence and interactions

and relationships with peers, faculty, and diverse others are the focus of this analysis as outcome variables.

A complete Conceptual Framework will be explained in Chapter 2. However, Figure 1.1 provides a general framework for this study.

Figure 1.1
General framework for the study



Scope of the Study

The data used for this study came from the National Survey of Student Engagement (NSSE). NSSE is a nationally administered survey designed to assess student engagement in college and is administered through the Indiana University Center for Postsecondary Research. The survey, which is administered to first-year and senior students at four-year colleges and universities, asks students to respond to questions about the frequency with which they engage in activities and experiences (that are believed to be part of good educational practice). For the purposes of this study, a random sample from first year students in 2002 and the same students as seniors in 2005 is used. The three outcomes that are the focus of this study are: student-peer interactions/relationships, student-faculty interactions/relationships, and student interactions with diverse others.

Contributions of the Study

This study seeks to expand our knowledge of the connections between place of residence and students' interactions and relationships with peers, faculty, and diverse others in the senior year. This study begins to bridge the gap between the older empirical research currently available and the critical decisions being made by practitioners without a true understanding of the impact. This study helps give residence life practitioners a clearer understanding of the connections between living on-campus and interactions and relationships with peers, faculty, and diverse others. Specifically, by focusing on senior level students, this study also provides practitioners one area of knowledge about the benefits seniors may get from living on campus. The contribution of this study will assist practitioners in making better decisions about the future of their housing programs. Where it is not possible to allow students to live on-campus, this study sheds light on whether colleges and universities need to find alternate ways for students to increase their interactions with their peers, faculty, and diverse others.

Additionally, this study will contribute to the discussion on whether additional research is needed in the field of residence life. The findings of this study will increase the conversation around other areas in which place of residence may impact students and will encourage researchers to explore other aspects of the residential experience.

CHAPTER 2

Literature Review

Relationships and interactions experienced with both faculty and peers have been shown to have positive effects on student outcomes such as student learning, academic self esteem, and retention, among others (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Chickering & Gamson, 1987; Tinto, 1975, 1987, 1993; Astin, 1985, 1993, 1999). In addition to general interactions, a number of researchers have documented the importance of interactions with diverse others – peers and faculty who hold different social identities than ones self (Denson & Chang, 2009).

Pascarella (1980) utilized the perspective of colleges and universities as “socializing organizations” in considering the importance of student interactions with both their peers and their faculty. He noted, “student behaviors, attitudes, and educational outcomes are influenced not only by the institution’s structural factors (e.g., organizational size, living arrangements, administrative policies, academic curriculum), but also through interactions with the important agents of socialization (peers, faculty, administration)” (p. 546). There are many student outcomes that have been found in existing research to be associated with interactions and relationships with peers, faculty and diverse others that are explored in this chapter. The primary reason that interactions and relationships with peers, faculty, and diverse others have significant impact on student outcomes is because peers, faculty and diverse others serve as agents of socialization. As Pascarella noted: “effective social learning of normative attitudes and values in college is strongly influenced by informal interaction with the agents of socialization” (1980, p.

546). The success with which students learn these normative attitudes and values is directly related to their student outcomes and ultimate success in college (Pascarella, 1980).

For the purposes of this study, it is important to understand the positive student outcomes associated with relationships and interactions between students and their peers, faculty, and diverse others. It is also important to review the existing literature connecting place of residence with relationships and interactions and to understand the ways demographics, specifically race and gender, may impact the connection. Finally, Astin's Theory of Involvement and Input-Environment-Output model (1993) will be reviewed to gain an understanding of how the theory and model frame this study.

Quality of Relationships and Frequency of Interactions

In the research on relationships and interactions there has been a great deal of debate about whether the quantity of interactions have impact on student outcomes or whether students must develop quality relationships in order to benefit from these experiences. Though somewhat discrepant, the literature does point to positive outcomes associated with both quantity of interactions and quality of relationships (Cotten & Wilson, 2006). These positive outcomes align into the following categories; adjustment (Ladd & Kochenderfer, 1996; Fass & Tubman, 2002; Freidlander et al., 2007; Swenson et al., 2008; Braxton et al., 1997), cognitive development (Kuh et al., 2006; Pascarella & Terenzini, 2005; Whitt, et al., 1999; Kim 2002; Li et al., 1999), psychosocial development (Decker et al., 2007; Plecha, 2002; Komarraju et al., 2010), academic achievement (Pascarella & Terenzini, 2005; Anaya & Cole, 2001; Eimers, 2001; Light, 2001; Lundberg and Schreiner, 2004), attitudes and values (Pascarella & Terenzini, 2005), and satisfaction (Rosenthal et al., 2000; Kuh & Hu, 2001; Goodman & Pascarella, 2006), which are explored in detail later in this chapter

Though most researchers agree that both quality of relationships and quantity of interactions have some positive impact on students, the specific findings of their research has varied (Cotten & Wilson, 2006). A few decades ago, Endo and Harpel (1982), Pascarella and Terenzini (1980), and Volkwein, King, and Terenzini (1986) all found that the quality of relationships developed had greater influence on intellectual development and student persistence than did frequency of interactions. Their findings do not suggest that there are no benefits to frequency of interactions but merely suggest that frequency has less impact than quality.

However, newer studies find more clearly the benefits of both frequency of interaction and quality of relationships. Kuh and Hu (2001) found that both frequency and quality of interactions contribute significantly to student outcomes. Additionally, Cotten and Wilson (2006) found that both the frequency and the nature of interactions had significant impact on students. Pascarella and Terenzini (2005) also suggested positive impact from both quality of relationships and quantity of interactions. Developing quality relationships with peers or faculty helps students feel a sense of belonging at an institution because they feel personally connected to individual people (Cotton & Wilson, 2006; Strauss & Volkwein, 2004). At the same time, experiencing high frequency of interactions contributes to the same sense of belonging because students feel more connected to the institution as a whole (Cotton & Wilson, 2006). It is this sense of belonging or “fit” developed through both quality of relationships and quantity of interactions that contributes to positive student outcomes. For example, Thompson (2001) found that as quantity of informal interactions increased, students’ sense of connection with their institution increased and they placed more value on their academics and increased their academic

efforts. Therefore, for the purposes of this study and literature review, both quality of relationships and quantity of interactions will be considered.

Quantity of interactions and quality of relationships can be defined in a number of ways. They are not mutually exclusive but rather impact and influence one another. For example, quantity of interactions can lead to quality of relationships. The definition of quality of relationships is more self explanatory because quality is typically defined by the individual and relates to the closeness and support a student feels with another student or faculty member. However, quantity of interactions is more complicated. Not all interactions have positive impact on student outcomes. For example, a negative interaction with peers or faculty would not have a positive effect on student outcomes. Additionally, meaningful interactions have positive effect while interactions that lack meaning may not. As an example, working on a class project with a peer or having a serious conversation with someone whose racial identity is different from one's own, would be meaningful. Drinking beer with friends or playing soccer with some whose racial identity is different from one's own may not be meaningful (Cotton & Wilson, 2006; Thompson, 2001; Strauss & Volkwein, 2004; Kuh et al., 2006).

Based on the existing literature, this study will focus on meaningful interactions and relationships. Though this is measured in both quality of relationships and frequency of interactions, the focus is really on three different kinds of quality interactions. The first measure, students' self reported perception of quality, is the measure that is traditionally thought of as an assessment of quality of relationships. The second two are measured as frequency, but are actually a form of quality relationships as well: meaningful educational interactions and meaningful cross-cultural interactions. As is explored in further sections of this chapter, these are the types of interactions that have been found to have the most benefit to student outcomes in

the existing literature (Cotton & Wilson, 2006; Thompson, 2001; Strauss & Volkwein, 2004; Kuh et al., 2006; Gurin et al., 2002; Denson & Chang, 2009) Meaningful educational interactions include meaningful interactions with peers such as participation in co-curricular activities together, participating in research projects together, working together to prepare for class, and tutoring other students. It also includes meaningful interactions with faculty such as working with a faculty member on a research project, consulting a faculty member for career advice, and asking course related questions outside of class. Meaningful cross-cultural interactions are those that have the potential to lead to greater understanding of those that are different from one's self (Gurin et al., 2002; Denson & Chang, 2009). This could include having a meaningful or serious conversation with someone who has a different social identity, participating in an intergroup dialog, or participating in an ally group on campus.

Peer Interactions and Relationships

As students transition away from home and into the college environment, they seek the support of their friends as they experience major life changes (Fraley & Davis, 1997). Many student development theorists and researchers have documented the connection between peer relationships and adjustment to and success in college. As early as 1963, Ericson noted that the primary developmental task of the early 20s was to establish close relationships with others. Astin also found that “the student's peer group is the single most potent source of influence on growth and development during the undergraduate years” (1993, p.398).

In *What Matters in College*, Astin (1993) also found that student-student interaction was positively correlated with self-reported growth in leadership abilities, interpersonal skills, analytical and problem solving skills, critical thinking skills, and cultural awareness. It was also positively correlated with academic outcomes such as GPA, graduating with honors, self

reported sense of intellectual self esteem, and involvement in social activism. Student-student interactions were negatively correlated with feelings of depression.

In more recent years, researchers have refined our understanding of the importance of peer interactions and relationships for success in college. The effects of peer interactions and relationships documented in recent research can be categorized into three areas: adjustment, cognitive development and intellectual growth, and attitudes and values.

Adjustment

Entering college can be a stressful experience and a source of strain for many students. Students who transition away from home leave known support systems and enter an environment where they must develop new ones. This often leaves students uncertain of their ability to meet the demands of their new environment (Dwyer & Cummings, 2001). Adjustment to college has been defined as the degree to which students “become interested, engaged, comfortable, and successful” in the college environment (Ladd & Kochenderfer, 1996, p.324). Researchers have documented a substantial connection between peer interactions and relationships and adjustment to college (Fass & Tubman, 2002).

Three primary studies provide empirical research showing that interactions and relationships with peers are positively associated with adjustment. Lapsley and Edgerton (2002) documented that healthy relationships with peers were positively associated with social adjustment. Swenson, Nordstrom, and Hiester (2008) compared students’ relationships with college friends to their level of adjustment to college. They found that quality of relationships was positively associated with increased academic, social, and emotional/personal adjustment. Increased alienation from peers was negatively associated with adjustment to college. Friedlander, Reid, Shupak, and Cribbie (2007) studied students from a mid-sized Canadian

institution and found that increased social support from peers was positively related to social adjustment, personal/emotional adjustment, overall adjustment, academic self esteem, and global self esteem and was negatively related to depression. The primary reason cited in all three of these studies for the connection between peer interactions and relationships and adjustment is that peer interactions and relationships lead to increased social support, which decreases stress and increases students' ability to engage in their new environment. Engagement in the community leads students to adjust to the community.

An additional component of adjustment to college is the development of an attachment to the college or university one attends. Increased institutional attachment has been found to lead to an increase in persistence and graduation. Braxton, Sullivan, and Johnson (1997) suggest that an increase in peer interaction and social integration leads to a greater commitment to one's academic institution. In their study, Swenson et al. (2008) found a clear connection between quality of peer relationships and institutional attachment. Both of these studies suggest that institutional attachment further leads to adjustment to college. The greater affiliation one feels with their institution, the more likely they are to adapt to the norms of that community, and the more likely they are to successfully adjust to the environment (Braxton et al., 1997; Swenson et al. 2008).

Cognitive Development and Intellectual Growth

Students' peer interactions and relationships have been found to have influence on cognitive development and intellectual growth that is equal to or greater than the influence of formal classroom experiences. Kuh (2006) noted, "student interactions with peers can positively influence overall academic development, knowledge acquisition, analytical and problem solving skills, and self esteem" (p.42). The primary reason cited for the connections between peer

interactions and relationships and cognitive development and intellectual growth is that these interactions serve to push students beyond dualistic thinking. Through interactions with peers, students are pushed to see different perspectives and experience different ways of thinking and are required to refine and articulate their own knowledge. This encourages them to stretch beyond the “black and white” frame they typically operate in and encourages them to develop cognitively and intellectually (Aleman, 1994). Peer interactions and relationships also lead to peer-assisted learning, which has been proven to be particularly effective in facilitating cognitive and intellectual growth for college students (Alexandar, Gur, & Patterson, 1974). Peer assisted learning is learning that occurs through interacting and receiving the support of those of the same status as one’s self (Topping & Ehly, 1998).

There are a number of research studies that document the connections between peer interactions and relationships and cognitive development and intellectual growth. Whitt, Edison, Pascarella, Nora, and Terenzini (1999) used the National Study of Student Learning to study the impact of peer interactions outside the classroom on an objective measure of critical thinking. In this study they controlled for precollege critical thinking, academic motivation, student demographic characteristics, enrollment status, number of hours spent studying, employment, coursework taken, and the average academic ability of students at each student’s institution. Even when controlling for all of these confounding influences, Whitt et al. (1999) found that peer interactions had a modest but statistically significant impact on critical thinking skills. In her dissertation, Prendergast (1998) used an expanded version of the peer interaction scale used by Whitt et al., and found that even at the end of the third year of college, peer interactions still had a significant positive effect on critical thinking skills.

A number of other studies using other measures of cognitive development have reported similar findings. Astin (1993) used the analytical section of the Graduate Record Examination and Twale and Sanders (1999) used the critical thinking module of the Collegiate Assessment of Academic Proficiency. Both of these studies found positive correlations between peer interactions and relationships and cognitive development. These researchers used a number of items to measure students' interactions with peers, including time spent socializing with peers, time spent discussing current issues with peers outside the classroom, having serious conversations with peers whose beliefs and values are different from one's own, having class related conversations with peers outside of class, and involvement in college clubs and organizations, among others.

The above studies all used objective measures of cognitive development to determine the relationship between peer interactions and relationships and cognitive development. Other studies have found that peer interactions and relationships also have a modest but statistically significant effect on students' self reported gains in cognitive and intellectual abilities. Kim (2002) found a high level of orientation with peers who were intellectually and socially active was positively related to intellectual self-confidence at the end of the students' fourth year. Li, Long, and Simpson (1999) found that social integration, defined by items on the Senior Survey (ease with which students made friends, spare time spent on campus, and students self-reported satisfaction with their social experience), was related to self reported increases in critical thinking and communication skills.

Attitudes and Values

In addition to having positive impacts both socially and academically, peer interactions and relationships also play a key role in developing positive attitudes and values. There is clear

evidence that students' interactions with their peers have an impact on their sociopolitical orientations, even when controlling for pre-college characteristics including gender, race, ethnicity, socioeconomic status, ability, and incoming attitudes/values as well as institutional and college experience characteristics (Astin, 1993; Gurin, Dey, Hurtado, & Gurin, 2002). Astin (1993) and Gurin et al. (2002) found that students who interacted more frequently with peers (and faculty) were more likely to show an increase in the importance they place on influencing social values, participating in community action programs, influencing the political structure, and voting

Faculty Interactions and Relationships

In his book *What Matters in College*, Astin stated that “next to the peer group, the faculty represents the most significant aspect of the student’s undergraduate development” (1993, p. 410). The importance of student interactions and relationships with faculty has also been well documented over the course of many decades. Astin (1977) noted that student-faculty interaction was one of the most significant factors in student satisfaction. He also found that student-faculty interaction had positive impact on cognitive and affective student development (Astin, 1993). Wilson and Gaff (1975) noted that the faculty members who students labeled as “most outstanding” and as having the “most impact” were also those that interacted with students outside the classroom most often. Additionally Tinto (1993) articulated that student-faculty interactions outside the classroom led to increased intellectual development and ultimately to increased persistence. Pascarella & Terenzini (1977) conducted a quantitative study based on Tinto’s theoretical model of attrition and found that student-faculty interactions and relationships did, in fact, positively contribute to student persistence in college.

One reason given for the positive outcomes derived from student-faculty interactions and relationships is that they lead to increased engagement on the part of the students. Twale and Sanders (1999) credited student-faculty interactions and relationships with encouraging students to involve themselves more in the academic aspects of student life. The more frequently students interact with faculty and the deeper relationships they have with them, the more likely they are to seek academic support and the more motivated they will be to do well.

Additionally, student interactions and relationships with faculty increase the influence faculty have on students' attitudes and values, which results in students being more motivated and engaged academically. Pascarella (1980) noted "we might anticipate that as faculty members occupy an increasing proportion of a particular student's interpersonal environment, primarily through informal non-classroom contact, the greater the likelihood of the student's being significantly influenced by faculty attitudes and intellectual values" (p. 546). It is through these influences that student-faculty interactions and relationships are found to be positively associated with satisfaction, psychosocial development, and academic achievement outcomes.

Satisfaction

Students who interact more frequently with their faculty, tend to view their college experience as more personal and are, therefore, more satisfied. Rosenthal et al. (2000) note that students who have a close relationship with just one faculty member report increased satisfaction with their college experience. Specifically, students who have positive student-faculty interactions and relationships rate their academic programs as more interesting, exciting, and enjoyable (Kuh & Hu, 2001). This is largely because the more time students spend with faculty and the more meaningful relationships they develop; the more students see a faculty member's

passion for their field. This in turn leads to more interest on the part of the student (Pascarella, 1980).

Through student-faculty interactions and relationships, students are able to integrate their curricular and co-curricular lives into a more seamless experience, the synergy of which can be more influential than either individually. This integrated experience seems to “make more sense” to students, which also leads to increased satisfaction (Goodman & Pascarella, 2006).

Psychosocial Development

In addition to increased satisfaction, students also show increased psychosocial development when they experience increased interactions and relationships with faculty. Student-faculty interactions and relationships contribute positively to students’ social-emotional functioning. According to Decker, Dona, & Christenson (2007), student-faculty relationships might be more important in this area than they are in academic achievement.

Students who developed relationships with faculty who gave them academic advice reported higher levels of academic self-confidence (Plecha, 2002). A 2010 study conducted by Komarraju, Musulkin, & Bhattacharya looked at students at a Midwest public university and found that student-faculty interactions and relationships were positively linked to academic self-confidence. Three aspects of student-faculty interactions and relationships: feeling respected, being approachable, and off-campus contact accounted for 18 percent of the variance in academic self-confidence. When students have increased experiences interacting with their faculty, they become more familiar with the campus, the community, and the available resources. They are also more knowledgeable about how to seek help, all of which increases their self confidence. Additionally, student-faculty interactions and relationships accounted for 17% of the variance in students’ intrinsic motivation (Komarraju et al., 2010).

Academic Achievement

Many studies have documented the impact that student-faculty interactions and relationships have on learning outcomes. The most obvious of these impacts is on students' grades. In their 2001 study, Anaya & Cole confirmed that student-faculty interactions outside the classroom had a positive impact on student grades. But student-faculty interactions and relationships also impact students' ability to reason and analyze. Eimers' 2001 study found that the more satisfied students were with their interactions and relationships with faculty, the more progress they showed in scientific reasoning, intellectual development, and problem solving. Light (2001) connected student-faculty interactions with increased critical thinking skills. He noted that individual interactions with faculty teach students "how to think rather than what to think" (p. 117).

A 2004 study by Lundberg and Schreiner found that quality relationships with faculty resulted in increased student learning. Using the College Student Experience Questionnaire, they defined student learning with a 25 item composite variable. They found that student-faculty interactions and relationships explained between 16 and 24 percent of the variance in student learning, depending on students' race/ethnicity. Komarraju et al. (2010) found that the approachability of faculty accounted for three percent of the variance in GPA. They hypothesized that student interactions and relationships are positively correlated with academic achievement because students who interact more with their faculty are more likely to seek assistance both in and out of class and they are more likely to try harder in a professor's class so that they do not disappoint them. Pascarella (1980) indicated that student academic achievement is directly associated with student-faculty interactions because faculty generally value academic achievement. The more time students spend with faculty and the deeper relationships they

develop with faculty, the more likely it is that the academic achievement goals of faculty will influence students, leading to higher academic achievement.

Frequency

Though the benefits of student-faculty interactions and relationships are well documented, to attain these benefits the interactions must occur. Unfortunately, many researchers have also documented the infrequent interactions that students report they have with faculty. Kuh and Hu (2001) found that students are most likely to characterize their interactions with faculty as occasional. Jaasma and Koper (1999) found that 50 percent of students report having never visited a faculty office. In a study conducted by Hagedorn, Maxwell, Rodriguez, Hocesvar, and Fillpot (2000) 80 percent of students indicate they do not interact with faculty outside of class more than once per year. The National Survey of Student Engagement found that student-faculty interaction occurs less often than any of their other five benchmarks for effective educational practice (NSSE, 2006).

Cotten and Wilson (2006) characterized typical student-faculty interaction in saying; “faculty spend most of their time in their offices, or labs. Students spend most of their time in study areas such as the library, and in residence halls. Faculty and students meet a few hours per week in the classroom, but otherwise, tend to maintain separate worlds within the campus community” (p. 506). The infrequent nature of these interactions means that more needs to be understood about how to increase the frequency of these interactions and lends validity to the need for this study.

Diverse Interactions

While interactions and relationships with all peers and faculty are extremely important in terms of academic success and student development, interactions with diverse others add an

additional layer of interest. Numerous researchers have found individual, institutional, and societal benefits to diverse experiences. In fact, Supreme Court Justice Sandra Day O’Conner, in the majority opinion in the 2003 case *Grutter et al. v. Bollinger*, wrote: “numerous studies show that student body diversity promotes learning outcomes, and better prepares students for an increasingly diverse workforce and society, and better prepares them as professionals”. Because of the critical developmental period experienced during the traditional college years, the impacts of diverse experiences are exceptionally prominent during this time (Gurin et al., 2002).

In recent years, a number of research studies have pointed to the importance of interacting with diverse others in achieving learning outcomes and personal development for college students. Denson and Chang (2009) provide a succinct report of the plethora of findings available in current research in their article, *Racial Diversity Matters: The Impact of Diversity-Related Student Engagement and Institutional Context*:

“Interaction diversity has been shown to be positively associated with outcomes such as intergroup attitudes (Lopez, 2004); cultural knowledge and understanding and leadership skills (Antonio, 2001); cognitive and affective development (Astin, 1993a); student learning and personal development (Hu & Kuh, 2003); learning and democracy outcomes (Gurin et al., 2002); civic job-related, and learning outcomes (Hurtado, 2001); critical thinking skills (Nelson Laird, 2005; Pascarella et al., 2001); academic self-confidence and social agency (Nelson Laird, 2005); action-oriented democratic outcomes (Chang et al., 2004; Zuniga et al., 2005); intellectual and social self-confidence and student retention (Chang, 2001; Chang et al., 2004; and student satisfaction with their overall college experience (Chang 2001)” (p.325).

Of these, the work of Astin (1993), Gurin et al. (2002), and Denson and Chang (2009) seem particularly relevant.

In 1993, Astin conducted a study that, among other questions, sought to answer the question “How are students’ academic progress and values affected by direct involvement in ‘diversity’ experiences?” (p. 44). The items that made up the Student Diversity Experience measure included: “took ethnic studies courses, took women’s studies courses, attended

racial/cultural awareness workshops, discussed racial or ethnic issues, and socialized with someone from another racial/ethnic group” (p.45). Looking specifically at the “socialized with someone from another racial/ethnic group” item, Astin found positive effects on cultural awareness, commitment to protecting racial understanding, and commitment to help clean up the environment. Perhaps most significantly, it was also found to have positive effects on students’ academic development and satisfaction in college. Taking diverse experience one step further; “the largest number of positive effects was associated with the frequency with which students discuss racial/ethnic issues during their undergraduate years” (Astin, 1993, p.47). This variable even showed positive effect on “students’ commitment to developing a meaningful philosophy of life” (p.47).

In 2002, Gurin, Dey, Hurtado, and Gurin conducted a study with two primary purposes: to understand how diverse experiences contribute to specific learning outcomes and to understand how diverse experiences effect students’ participation in an increasingly diverse society. In their research, they defined informal interactional diversity with variables such as; attended a cultural awareness workshop, discussed racial issues, and socialized with a person of a different race. Gurin et al., found that informal interactional diversity accounted for higher levels of intellectual engagement, self assessed academic skills, citizenship engagement, and race/cultural engagement among white, African American, Asian American, and Latino respondents. Interestingly, they found that the effect of informal interactional diversity was even larger than that of classroom diversity. Informal interaction with diverse peers was consistently influential on all educational outcomes for all four groups of students and, with one exception; the effect of informal interaction was larger than that of classroom diversity. It is important to

note, however, that this variable is defined by a single item which asked students about their enrollment in ethnic studies courses.

Denson and Chang (2009) conducted a study using CIRP and College Student Survey (CSS) data that was designed to answer two questions:

“(a) Do different forms or expressions of campus racial diversity contribute uniquely to students’ learning and educational experiences when they are simultaneously tested” (b) Does a campus where students take greater advantage of those racial diversity-related opportunities have independent positive effects on students’ learning and educational experiences?” (p. 328).

This study focused on three primary types of diversity: curricular diversity, cross-racial interaction, and structural diversity. Cross-racial interaction was measured by students’ self reported level of engagement in studying, dining, dating, interacting, and socializing with people of different racial-ethnic groups within the college community. Denson and Chang (2009) found that both curricular diversity and cross-racial interaction had significant positive effects on self-efficacy, a measure which included self ratings of drive to achieve, intellectual self-confidence, competitiveness, academic ability, and writing skills. Students who reported greater cross-racial interaction also reported higher levels of general academic skills. The second question studied by Denson and Chang (2009) is particularly interesting. They found that cross-racial interaction was positively associated with “knowledge of and ability to get along with people of different races or cultures” (p. 340). In fact, cross-racial interaction accounted for 5.2% of the variance in racial-cultural engagement. They took this analysis one step further and found that this positive association is stronger when the cross-racial interaction of the general student population of an institution is weaker. “Put another way, the effect of a student’s own level of cross-racial interaction on this outcome is stronger at an institution with lower average levels of [cross-racial integration] among students than at one with higher levels” (p.340).

Place of Residence

In the 1960s and 1970s, much research in higher education focused on the residential experience. This research was so extensive that, in many ways, the benefits of living on campus are considered to be commonly understood. The results of this body of research were very conclusive, finding that living on-campus, as opposed to living at home and commuting or living in a private off-campus residence has a sizable impact on a student's success in college.

In Pascarella and Terenzini's (2005) review of the research on how college impacts students, they noted that there is consistent evidence that students who live on-campus are more likely to persist and graduate than students who commute. Pascarella, Terenzini, and Blimling (1994) cited many authors in their summary that even when controlling for previous academic performance, aptitude, socioeconomic status, and other factors, students who live in residence halls persist and graduate at significantly higher rates than students who do not live on campus. Astin (1993) and Chickering and Reisser (1993) both provide support to this argument in finding that living on-campus is associated with greater persistence and student success. They also found that living on-campus has a greater positive effect on learning outcomes than any other institutional characteristic. Perhaps most convincing are Astin's findings in his 1977 book *Four Critical Years: Effects of College on Beliefs, Attitudes, and Knowledge*. In his research, Astin analyzed CIRP data of students in their first-year and CIRP follow-up data of the same students five years later. He found that compared to students who live off-campus (either with their parents or in a private off-campus room), students that lived on campus were 12% more likely to have finished college (1977).

Living on-campus has also been connected with increases in student development. Pascarella, Terenzini, and Blimling (1994) summarized these findings well:

First, although the evidence is not unequivocal, students living in traditional residence halls tend to make significantly greater positive gains in a number of areas of psychosocial development than their counterparts who reside off campus and commute to college. These greater gains are in autonomy and inner directedness (Kuder, 1970; Ludgren and Schwab, 1979; Sullivan and Sullivan, 1980), intellectual orientation (Chickering and Kuper, 1971; Welty, 1976), and academic and social self-concepts (Baird, 1969; Chickering, 1974; Pascarella, 1984, 1985a). Evidence also exists that compared to their commuter counterparts, students living in residence halls show higher levels of self-esteem over time (Lemoal, 1980; Lundgren and Schwab, 1979; Marron and Kayson, 1984), greater growth in ego development (Goetz, 1983), and greater reductions in authoritarianism (Chickering and Kuper, 1971; Matteson, 1974). (p. 29)

In 2001, Kuh, Gonyea, and Palmer published an article titled “The Disengaged Commuter Student: Fact or Fiction”. In this study, they compared commuter students (defined as those who live within walking or driving distance to campus) with on-campus students (defined as those who live in an on-campus residence hall and those who live in a fraternity or sorority house) across the five NSSE benchmarks – Level of Academic Challenge, Active Collaborative Learning, Student Interactions with Faculty Members, Enriching Educational Experiences, and Supportive Campus Environment. They found that both first-year and senior students who live on campus had higher benchmark scores across the board. They also compared them across three competencies (gains in personal and social competence, gains in practical competence, and gains in general education). Though the effect sizes were small, living on campus was positively associated with all three types of gains in both the first year and senior year.

The 2011 National Survey of Student Engagement Annual Report compared the percent of students answering “very much or very often” or “quite a bit or often” to questions related to educationally purposeful activities and found that students living on campus were more likely to build relationships with their peers, engage in campus events, take part in educationally purposeful activities, and experience greater gains in learning and development (NSSE, 2011b).

The report also indicates that first-year students who live on campus showed higher scores on all five NSSE Benchmarks of Effective Educational Practice than first-year off-campus students, while senior level student showed higher scores on three of the Benchmarks (NSSE, 2011b).

There are many reasons cited for the increased academic success and personal growth among students who live on campus. Pascarella & Terenzini (1994) suggested that “in the case of college residences, the premise is that residential living creates a social-psychological environment for students that is qualitatively different from that experienced by those who live at home or elsewhere off campus and commute to college” (p. 25). In his 1999 review, Blimling found that on-campus students (compared to commuter students) participated in more co-curricular activities, perceived the campus social climate to be more positive, engaged more frequently with peers and faculty, and indicated they were more satisfied with their college experience. Schroeder and Mable (1994) agreed that living in a residence hall increases students’ chances for social, cultural, and extracurricular involvement, which in turn accounts for the increased development of on-campus students.

Certainly, many aspects of involvement contribute to the increased development and success of on-campus students; however, one factor seems to be referenced most frequently. Students who live in residence halls are thought to have an increased opportunity to interact and develop relationships with their peers and their faculty. In his book, *Commuting Versus Resident Students*, Chickering (1974) states that “the most potent learning occurs in situations where persons come to know each other fully” (p. 10). He goes on to note that “residential experiences foster that kind of knowing efficiently and effectively” (Chickering, 1974, p. 10). Pascarella et al. (1993) acknowledged that because residential students never actually leave the campus community, they have increased access to interactions with their peers and with faculty which

fosters cognitive growth. They state that “Residential living may be most influential in fostering cognitive growth in areas that are not closely linked to specific course or curricular experience... General cognitive growth during college is fostered not just by course work and academic involvement, but also by social and intellectual interaction with peers and faculty” (p. 219).

Tinto (1993) suggested that students must separate from the group they come from (e.g., family, high school friends) and transition to acting in new ways with members of the new group (e.g., peers, faculty, and staff in the college community). Those that succeed in college are those that successfully adopt the values and behavioral patterns of the new college environment. By separating students from their home communities, residence halls serve to increase the break from what is known and increase the transition to a new community of college peers, faculty, and staff. By contrast, students who continue to live at home have a much more difficult time making the transition to college because they remain in constant contact with their parents and the same group of friends that have always surrounded them. Because these students do not spend the same intense periods of time in the campus community as residential students do, they do not form the same significant relationships with other students or with faculty and staff (Chickering, 1974).

Place of Residence and Peer Interactions and Relationships

The primary thought behind why living on-campus increases student-peer interactions and relationships is that living in such close proximity with peers provides students easy opportunities to interact with one another. Residential students live immersed in a community of their peers where there is always someone available to interact with them – whether through studying together or socializing together (Kuh et al., 2006).

Chickering's 1974 book *Commuting Versus Resident Students* also found that a review of multiple studies indicates a clear connection between place of residence and student-peer interactions and relationships. He found that in general, students who live at home with their parents have much less extensive peer relationships than students who live on campus. He also found that while students who live both on and off campus report the same number of close friends, students who live on campus are much more likely to report that their close friends also attend the same university. Off-campus students were more likely to report that their close friends went to other schools or did not attend school at all. In looking specifically at a study conducted by the American Council on Education, Chickering further noted that students who live at home studied with other students less frequently than predicted while on-campus students studied with other students more frequently than predicted.

Schroeder and Mable (1994) indicated that residence halls provide an ideal environment for students to collaborate with each other on projects. Residence halls are an ideal location for students to connect with other students taking the same classes and to work together on projects for class. These collaborations are then the perfect opportunity for students to develop more personal relationships with their peers. Schroeder and Mable consequently suggested that students who live on campus are more positive about the social and interpersonal environment on their campus.

The 2011 National Survey of Student Engagement Annual Results compared variable means and frequencies and found that students who live on campus were more likely to develop relationships with other students than students who live off-campus. It also reports that both first-year and senior students who live on campus spent about twice as much time engaged in co-curricular activities than students who live off campus (NSSE, 2011b).

Place of Residence and Faculty Interactions and Relationships

Similar findings exist in research specific to student-faculty interactions and relationships. Similar to the theory behind student-peer interactions, researchers theorize that students that live on campus interact more frequently with their faculty because they live in closer proximity to them. This is a great example of Astin's (1993) idea that spending more time on campus increases involvement and interactions between students and their faculty. However, in addition to the many researchers who theorize about the connections between place of residence and student-faculty interactions and relationships, there are a few empirical studies that document the connection.

In 1974, Chickering analyzed data from a number of different data sets and found significant connection between place of residence and interactions with faculty. Chickering found that in general, students who lived at home with their parents experienced much more limited relationships with faculty than did students who lived on campus. Comparing findings from the Project on Student Development and results from an American Council on Education (ACE) survey, Chickering found specifically that students who live at home have less interaction with faculty than students who live on campus, that on-campus students were more likely to have had conversations with faculty that taught in their major about the professor's own work, to have had social conversations with faculty members, and to have been a guest in a teacher's home. Looking specifically at the ACE studies, Chickering further found that commuter students were less likely to ask a teacher for advice (Chickering, 1974).

Kuh, Gonyea, and Palmer (2001) compared means on the NSSE benchmark Student Interactions with Faculty Members between on-campus, walking commuter, and driving commuter students. They found that for both first-year and senior level students, on campus

students showed the highest mean while driving commuter students showed the lowest. The 2011 National Survey of Student Engagement Annual Results also compared on-campus and off-campus students on each of their five Benchmarks of Effective Educational Practice. It reports that both first-year and senior students who live on-campus score higher on the Student-Faculty Interaction Benchmark than students who live off campus (NSSE, 2011b).

Place of Residence and Interactions with Diverse Others

Chickering (1974) outlined a fundamental change that was occurring in college residential communities at the time – a change that is very much alive and well in our residential communities today. Chickering described the college environment and particularly the residential environment prior to the late 1960s as extremely homogeneous.

The traditional residential college where students came to live for large blocks of time, for four or more years, was a consistent and natural extension of the stable, internally homogeneous, and cohesive community from which they came. In this residential situation, this college community, this community of scholars and students, each student met others who were from similar backgrounds and who were making a similar transition to an adult community almost as predictable and stable as the one from which they came (p. 3)

However, during the late 1960s and early 1970s, the composition of the student body and the residential communities at many colleges and universities began to diversify extensively. The cultural, economic, and ethnic backgrounds of students attending college began to expand, a change that is still taking place today (Chickering, 1974; Pascarella & Terenzini, 2005). Today, college provides an opportunity for a fresh start for many students; an opportunity to question previous assumptions and associations and to develop new associations for themselves, “They offer exposure to a wide variety of life styles, values, concepts, and information through group experiences, independent studies, work, volunteer activities, field experiences, and travel” (Chickering, 1974, p. 9).

Studies generally indicate positive net effects of living on-campus (versus off-campus) on more positive and inclusive racial-ethnic attitudes and openness to diversity because, quite simply, on campus students interact more with diverse others than do students who commute. “That campus residence is relatively powerful is understandable, because of the proximity principle (Newman, 1966): living on campus puts students in close physical proximity so they cannot avoid being confronted on an almost daily basis by others who have views and backgrounds that differ from their own” (Kuh et al., 2006, p.53). Chickering (1974) pointed out that commuter students do not experience the “significant encounters” with diverse peers that residential students experience because they are not engaged in the campus community in the same way. They go to classes and return home to the same homogenous group they came from.

The 2011 National Survey of Student Engagement Annual Report compared the percent of students who answer “very often or often” to two questions about how often they interact with diverse others. The report indicates that on campus students had more frequent interactions with “students of different race or ethnicity” or “students who are different from you in terms of religion, politics, or personal values” than off campus students in both the first-year and senior year (NSSE, 2011b).

Differences in Place of Residence

Not all students who live off-campus or on campus have the same experience, so it is important to understand the differences between different types of living experiences. The greatest difference in interactions with peers, faculty, and diverse others in the campus community is typically found between students who live in on-campus residence halls and those who continue to live in their parents’ homes and commute to school. As Tinto (1993) suggested, students are most successful when they separate from the group they come from (e.g., family,

high school friends) and transition to acting in new ways with members of the new group (e.g., peers, faculty, and staff in the college community). Students who continue to live at home with their parents separate least from the group they come from, while students who live in residence halls with a randomly assigned group of students have the greatest opportunity to transition into the new college community.

Though students who live in off-campus private residences (i.e., not at home with family but in an apartment on their own or with friends) develop more connections than students who commute from home, they do not see the same benefits as students that live in on-campus housing. Students in off-campus private residences do live in closer proximity to campus and live with other members of the campus community. However, they are not typically as close to campus as residential students and they live with a group of students of their own choosing. This leads them to be more connected to the greater campus community than students who commute from home, but still less engaged than residential students. That is, they spend less time interacting with their peers and faculty and are not as engaged in campus activities or co-curricular opportunities (Chickering, 1974). The same is true of their interactions with diverse others. Though students who live in off-campus private residences are no longer in their home community, they have chosen their own roommates and most seem to choose students that are more like them than not. In this way, they do not have the opportunity to interact with diverse others to the same extent that residential students do (Chickering, 1974).

It is also important to consider the experiences of students who live in fraternity and sorority houses. Some existing research includes students living in fraternity or sorority houses in the group of on-campus students, while others include them in the group of off-campus students (NSSE, 2011b; Kuh, Gonyea, & Palmer, 2001). The reality is that they do not fit

entirely into either of these classifications and are most appropriately considered as a completely separate group.

Though the impact of participating in Greek-letter organizations is common in existing research, the effects of living in sorority and fraternity houses on interactions and relationships with peers, faculty, and diverse others is not. To date, the majority of the literature that does exist points to negative student outcomes associated with participation in Greek letter organizations (Heyek, Carini, O'Day, & Kuh, 2002). However, a few researchers have found positive effects of Greek letter organizations as it relates to interactions and relationships with peers and faculty. Heyek et al. (2002) found that students who participated in Greek letter organizations did show increased interactions with faculty when compared to students who were not members of Greek organizations. Senior level students benefited the least from living in a sorority or fraternity house. Heyek et al. hypothesized that the personal characteristics of seniors who chose to live in Greek housing were likely the reason for the positive student outcomes found in the study and not the experience of living in the sorority or fraternity house itself.

Bureau, Ryan, Ahren, Shoup, and Torres (2011) used NSSE data and found that members of Greek letter organizations did participate in enriching educational experiences and student faculty interactions at greater rates than non-members. The benchmark measuring enriching educational experiences did include the variables related to interactions with diverse populations. Finally, the NSSE Annual Results (2011b) compared means for Greek members and non-Greek members and found that students who were members of Greek letter organizations did show greater co-curricular involvement and student-faculty interactions than non-members. However, neither of these studies distinguishes between members of Greek letter organizations based on

place of residence, nor do they compare students who live in fraternity or sorority houses to students who live on campus specifically.

Senior Students

The vast majority of class specific research done in the field of student development in the last ten to fifteen years, has been focused on first-year students. Research from the 1990s provided solid evidence that the majority of students who drop out of college, do so during or immediately following their first year in college. As a result, researchers and practitioners have both focused significantly on first-year students (Pascarella & Terenzini, 2005). The experiences of students in their sophomore, junior, and senior years have been largely overlooked. It is important that we begin to close the gap in literature about upper-class students for two reasons. First, even if persistence is not an issue, the senior year still provides students with valuable opportunities to learn and develop. Their involvement in their campus community still has significant opportunity to impact their level of growth and development. Recent research documented through NSSE (Kuh et al., 2001; NSSE 2011) indicate that campus experiences impact students' learning and development even in the senior year.

The interactions and relationships they develop during their college years are critically important to students' success beyond college. For example, the ability to create positive interactions and relationships with others, to develop personal networks, and to effectively work with others in a team are all critical professional skills that senior level students will need in the workforce when they graduate. The more interactions and greater quality relationships they develop with their peers and faculty during their college experience, the more equipped they will be with these skills when they enter the workforce (Gardner & Van der Veer, 1998). Additionally, when they graduate, college seniors will be charged to make a difference in society

and to contribute productively as a citizen (Gardner & Van der Veer, 1998). Citizenship engagement is one of the primary outcomes found to be associated with the interactions and relationships students have during their college experience – particularly the interactions and relationships they have with diverse others (Gurin et al., 2001). For these reasons, it is critical that we understand which educational practices, such as place of residence, impact interactions and relationships with peers and faculty for senior level students.

Second, there is increasing evidence that, even in the senior year, students' persistence to graduation should still be a concern for researchers and practitioners. In 2010, Boyd, Gast, Hunt, Mitchell, and Wilson, studied data from the University of Maryland's Withdrawal Survey to gain a better understanding of the factors contributing to students' withdrawal. Of the 2,175 respondents, 464 (21%) were seniors. This study shows clearly that relationships with both faculty and peers played a role in the decision to withdraw for many of the senior students. Twelve percent indicated that their perception that faculty did not seem to care about their problems significantly contributed to their decision. Forty-nine percent of senior students who completed the survey cited the fact that they were "unable to become as socially involved as he/she wanted" as a primary reason for their withdrawal. Of these, fifty percent indicated that off campus employment was the primary barrier to their lack of social involvement, 35% cited family obligations, 38% felt isolated from/unconnected with others on campus, and 19% preferred friends/activities off campus.

The study further indicates that it is possible that place of residence may also be a contributing factor. Eight percent of seniors who completed the survey lived on campus, 37% lived at home with family, and 55% lived in other off-campus housing. Though, the study did not indicate if this is in line or out of line with the general senior population at the University of

Maryland, this does represent a lower percent of students who live on campus than the national statistics indicate (NCES, 2004). Because there is evidence that the senior year still matters significantly in terms of both persistence and learning and development, it is important to create empirical research that provides an understanding of the campus experiences, such as place of residence, that positively impact seniors.

Alexander Astin's Theory of Involvement and I-E-O Model

Theories on student development are typically divided into two primary categories; psychosocial theories, which focus on the content of development, and cognitive behavioral theories, which focus on the process of intellectual development. Many of these theories outline the ways in which students change and grow over the course of their college experience (Evans, Forney, & DiBrito, 1998). This allows these theories to be applied in different ways to all students from their first year to their senior year. If this study focused on the ultimate student outcomes associated with place of residence and interactions and relationships, these theories might be relevant to this study. However, this study focuses on the ways in which one college experience, place of residence, influences another college experience, interactions and relationships. Though these college experiences are ultimately important because they impact student development, the focus of this study is on the experiences themselves. Pascarella (1980) supports the focus of this study. He indicated that the assumption that student interactions and relationships have positive educational impact is "so strongly and widely held... that frequent informal contact between faculty and students has often been viewed as a desirable educational end in and of itself" (p. 545). He further indicated that the same is true for contact between students and their peers.

Therefore, a college impact model is more appropriate for this study. College impact models do not attempt to explain the theory behind how students change, but rather explain the effects of environmental factors (university programs and policies) on student development and learning. At this point, the existing college impact models do not distinguish between students in different years of their college experience. Rather, these theories are thought to apply to all students from their first year through graduation (Pascarella & Terenzini, 2005).

For the purposes of this study, Astin's Theory of Involvement and associated Input-Environment-Output model are the best college impact theory and model for understanding the ways in which place of residence effects quality of relationships and frequency of meaningful interactions with peers, faculty, and diverse others. Astin's Theory of Involvement "can be stated simply: *"Students learn by becoming involved"* (1985, p. 133). This theory is based on Astin's 1975 longitudinal study of college dropouts. The Theory of Involvement includes five basic postulates:

1. Involvement refers to the investment of physical and psychological energy in various objects. The objects may be highly generalized (the student experience) or highly specific (preparing for a chemistry examination).
2. Regardless of its object, involvement occurs along a continuum; that is different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times.
3. Involvement has both quantitative and qualitative features. The extent of a student's involvement in academic work, for instance, can be measured quantitatively (how many hours the student spends studying) and qualitatively (whether the student reviews and comprehends reading assignments or simply stares at the test book and daydreams).
4. The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program.

5. The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement. (Astin, 1999, p. 519)

His theory states that "The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement." In my study, place of residence is the educational policy or practice. Astin (1993) defines involvement as investment in an "object" which he operationalizes as a student experience. The student experience in this study is interactions and relationships.

The purpose of Astin's Input-Environment-Output model is to assess the impact of college environmental experiences by controlling for input characteristics and using student outcomes as measures of impact. In his 1993 book, Astin defines both place of residence and interactions and relationships with peers and faculty to be environmental variables. In the basic model input variables influence environmental variables. In this case, there are two environmental variables, place of residence and interactions and relationships. However, Astin further indicates that some environmental variables can be considered causes for other environmental variables. In this case, he says, the latter environmental variables can be considered an outcome measure or intermediate outcomes. In this study, I am focusing on the effect of one environmental variable, place of residence, on another environmental variable (or intermediate outcome), interactions and relationships.

Astin supports the use of this Theory and model in this way. He states specifically, "According to the theory of student involvement, learning and development is enhanced by such things as living on campus and full-time attendance because the student tends to invest more time and more physical and psychological energy in the educational experience" (1993, p. xiii).

Though Astin's Theory of Involvement does not explicitly state which educational experiences or "objects" are most influential in student learning and development, in further writing about his Theory, he makes clear that one of the most important student experiences is interactions with both faculty and peers. He indicates his belief that both the quality and quantity of student interactions with their faculty and their peers contributes most significantly to their level of involvement and thus to their learning and development (Astin, 1993).

Limitations to Astin's Theory of Involvement

Though Astin's Theory of Involvement and I-E-O model (1985, 1993, & 1999) provide the best framework for the questions that are the focus of this study, their use does raise a few questions. First, the Theory, nor subsequent research and writing about the Theory, does not provide distinction between the way it applies to first-year students and the way it applies to upper-class students. Though researchers apply the Theory to both first-year students and upper-class students, there is not a clear understanding of the ways the Theory may apply differently to these groups. This may be a challenge in applying the theory to this study, but also provides the opportunity for this study to contribute an empirical understanding of one way that this Theory and model can be applied specifically to senior students.

Additionally, there are academics in the field who question whether most college impact models, such as Astin's Theory of Involvement and I-E-O model, apply to underrepresented students in the same ways that they apply to students from dominant groups (Tierney, 1992; Tierney, 2000; Braxton, 2000). Most college impact models, including Astin's Theory, suggest that the more students break from their home environment and become immersed in the college environment, the more successful they will be in terms of student development, academic achievement, and persistence to degree. However, a number of researchers have suggested that

for some students, particularly those from underrepresented racial and ethnic identities, remaining close to one's home community and culture may actually contribute positively to their success in college (Tierney, 1992; Tinto, 2006). Because of this significant limitation, it is critical that the impact of place of residence on interactions and relationships be considered in the context of race and ethnicity. Subsequently, it is also critical that the results be interpreted with this perspective in mind.

Gender and Race

Though the primary criticism of Astin's Theory of Involvement (1985, 1993, & 1999) is based on race and ethnicity, there is significant research that suggests that both gender and race influence the ways in which students experience college and the interactions and relationships they have with peers, faculty, and diverse others. Therefore, it is important to understand the existing literature in both of these areas.

Gender

While participation in higher education has historically been weighted in favor of male students, this has changed substantially in recent decades as there has been a significant increase in college degree attainment by female students. According to the NCES data from 2005, between 1980 and 2001 the number of bachelor's degrees earned by women increased 59 percent while the increase for men was only 17 percent. In the year 2000, for every 100 bachelor's degrees earned by men, women earned 138 (as cited in Normyle, 2011).

Mortenson (2006) suggested that the disparity in degree attainment between female and male students indicates a difference in engagement and experiences between the two groups of students. Existing research shows clearly that male students and female students experience

college in very different ways. Though overall there is not clear evidence that female or male students are more involved or engaged, there are differences in the ways they engage.

First, many female students come to college having been more academically engaged in high school. They take harder classes, spend more time on their homework, and are more likely to ask a teacher for advice outside of class (Normyle, 2011). Weaver-Hightower (2010) summarizes this as female students taking a more academic interest in school while male students take a more social interest. He cited that there is a culture of anti-intellectualism among male college students that is not seen for female students. There is relatively little research that explores the differences in the college experience for male students and female students (Pascarella & Terenzini, 2005). However, the research that does exist shows that the differences between male students and female students are much more nuanced than this. A review of NSSE benchmark means by gender from 2010, 2011, and 2012 shows differences in the ways male and female students engage, but does not present overarching findings based on gender (NSSE, 2010e; NSSE 2011c; NSSE, 2012).

Kinzie et al. (2007) conducted a study on the gender related differences in undergraduate student engagement. When looking specifically at the social aspects of college, Kinzie et al. did find that male students were more likely to participate in co-curricular activities and spent more time relaxing and socializing than female students. However, their research did not indicate that female students were less socially engaged, they simply engaged in different activities. Female students were more likely than male students to have attended an art exhibit, gallery, play, dance, or other theater performance, to have participated in a learning community, and to have done community service or participated in a community-based project.

Similarly, Kinzie et al. (2007) also found that male students were not necessarily less academically engaged than female students, but that they engaged differently. While female students were more likely to have emailed an instructor and worked harder than they thought they could to meet an instructor's expectations, male students were more likely to discuss ideas from readings or classes with faculty outside of class.

Similar to the ways in which male and female students engage in different ways, their engagement may also impact them in different ways. For example, Whitt et al. (2003) found that engaging in activities such as co-curricular interactions with peers and feeling that their campus environment encouraged supportive relationships contributed to greater cognitive growth for male students than female students. Kim and Sax (2007) found that assisting faculty in research for course credit had greater impacts on degree aspirations for female students than for male students.

Given the research suggesting that male and female students experience the college environment in different ways and have different types of interactions and relationships, this study will contribute to the understanding of the differences between male students' and female students' interactions and relationships. Because of the gender differences in success in college, a greater understanding of interactions and relationships by gender is critical. Additionally, this study will contribute information to the question of how male and female students experience their place of residence in similar or dissimilar ways which will contribute to a significant gap in the existing literature.

Race

According to the National Center on Education Statistics [NCES] (2004), graduation rates vary substantially by race/ethnic group. In 2004, NCES indicates that the six-year

graduation rate for Asian/Pacific Islander students was 69 percent and for White students it was 62 percent. However, the six-year graduation rate for Hispanic students was only 50 percent and for Black and Native American students it was 39 percent.

Existing literature does suggest that students' college experiences can be different based on their race, which could contribute to these differences in ultimate success. At the very least, Caucasian students and students of color experience different interactions and relationships based on the structural diversity found at most colleges and universities. The majority of college campuses in the United States continue to be made up of predominately white Christian students (Gurin et al., 2002). In 2005-2006, just 23% of students enrolled in college were African American, Latino, or Native American. Members of these racial/ethnic groups made up less than 10% of the tenure eligible faculty (AFT Higher Education, 2010). Along these lines, Antonio (1998) found that 56% of students of color report that "a few" or "none" of their close friends shared their race or ethnicity, while 85% of white students reported having "all" or "mostly" white friends. For Caucasian students, this means that the majority of their interactions and relationships are with peers and faculty who share their racial identity. For students of color, this lack of structural diversity inherently means that most of their interactions and relationships are with peers and faculty who have a different racial or ethnic identity than they do (Lundberg & Schreiner, 2004).

Other researchers (Flowers, 2004; Johnson, 2003) also suggested that because of racial attitudes, racism, and racial stereotyping, students of color may not feel as comfortable in their residential environment as Caucasian students. Johnson (2003) specifically noted that while Caucasian students show increased comfortability developing friendships with students of color, Caucasian do not tend to show the same openness to living with students of color. She suggested

that students of color may not feel as welcome or comfortable in their residential environment and that they may not develop the same support systems and relationships as their Caucasian peers. If this is true, it could be hypothesized that living on campus does not support students of color in their interactions and relationships with peers, faculty, and diverse others in the same way it does Caucasian students. For this reason, race is an important focus of this study.

Though research does not exist that indicates a connection between race and faculty interactions and relationships as mediated by place of residence, many studies have found that Caucasian students report stronger relationships with faculty while students of color report lower quality relationships with faculty. For example, when focusing specifically on quality of relationships, some previous studies (Schwitzer, Griffin, Aneis, & Thompson, 1999; Ancis, Sedlacek, & Mohr, 2000; Lundberg & Schreiner, 2004) found that white students are more satisfied with their relationships with faculty than are students of color. Interestingly, some existing literature suggested that while they are less satisfied with their relationships with faculty, students of color may in fact have more frequent interactions with faculty than Caucasian students. Lundberg & Schreiner (2004) found that Native American and African American students reported more frequent interactions with faculty than did students from other race groups, however, students of color still reported lower quality relationships with faculty than white students.

Given the different ways that Caucasian students and students of color experience interactions and relationships on campus, it is likely that the interactions and relationships contribute differently to student outcomes for Caucasian students and students of color. Lundberg & Schreiner (2004) found that quantity of faculty interactions contributed significantly to student learning for all racial groups. However, faculty interactions accounted for 16% of the

variance in student learning for Caucasian students while it accounted for 24% of the variance in student learning for students of color.

There are also differences in the effect interactions with diverse others have on learning outcomes for Caucasian students and students of color (Antonio, 1998). Because students of color interact with diverse others much more frequently, the diverse interactions that contribute to student learning are those that are more meaningful than their day-to-day interactions. However, for Caucasian students, because they do not encounter as many interactions with diverse others, they are more likely to experience significant learning and development from more casual interactions than students of color.

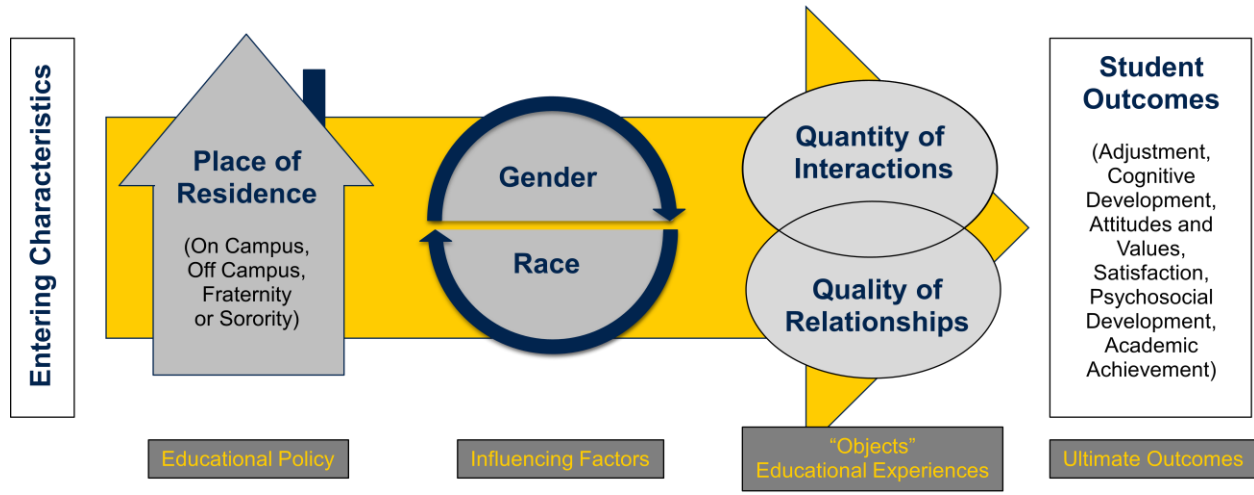
Additionally, as a result of the lack of structural diversity on most college campuses as well as other cultural factors, Tierney (1992 & 2000) suggested that students of color may remain more connected to past communities and family structures than white students. Unlike white students, Tierney indicated that this connection to the home environment may have positive effects on success in college for students of color. This might suggest that living off campus may not have the same negative effect for students of color as it is hypothesized to have for Caucasian students. In fact, there may be benefits of students of color continuing to live in the support network they have at home.

Given the current research indicating that interactions with peers, faculty, and diverse others may differ by race, this will be a critical perspective to explore in this study.

Conceptual Framework

Based on Astin's Theory of Involvement and I-E-O Model and taking into account the criticism of the Theory and Model, Figure 2.1 provides the conceptual framework that will be used for this study.

Figure 2.1
 Conceptual Framework based on Astin's Theory of Involvement and I-E-O Model.



Limitations in Existing Literature

As was noted in Chapter One, there are three primary limitations to the existing literature. The first limitation is the fact that the majority of the existing research related to the impact of place of residence is extremely dated. Though there were considerable studies conducted in the 1950s, 1960s and 1970s, there has been a lack of substantial research conducted on the effects of place of residence in recent decades. At the same time, the landscape of residential communities at many colleges and universities has changed dramatically, leaving very little empirical research on the current impact of place of residence.

The most recent significant study that provides substantial empirical information on place of residences is Astin's 1993 *What Matters in College? Four Critical Years Revisited*, which is now twenty years old. In this study, Astin used his Input-Environment-Output model of college impact, data from the Cooperative Institutional Research Program (CIRP) Survey of entering first-year students in 1985, and the results of a follow up survey in 1989 and 1990. Place of residence is included in the study as an environmental measure so findings include an

understanding of the impact of place of residence on college outcomes. Astin employed multiple regression analysis to determine the effects of the environmental measures on student outcomes. Because this study uses longitudinal, national data and employs regression analysis to estimate the relationship among variables it provides significant information on the effect of place of residence on student outcomes – both learning and development as well as persistence. Though Astin’s study is dated, it provides quality information and serves as a model for other studies.

In 1993, Pascarella, Bohr, Nora, Zusman, Inman, and Desler published the results of a much smaller study. Using the results of a 1991 pre-college survey and the Collegiate Assessment of Academic Proficiency for 210 first year students, they focused on understanding the effects of living on campus on cognitive growth. The study did find that residential students had significantly greater gains in critical thinking in the freshman year than commuter students. However, the sample size of the data set was very small and the focus of the study was limited to cognitive growth, making the results far less generalizable than Astin’s study.

Beyond these two studies, the other significant literature published on place of residence in the 1990s was largely reviews of existing literature. Schroeder and Mable (1994), Blimling (1999), and Terenzini, Pascarella, and Blimling (1999) all provide significant contribution through synthesis of existing literature. However, they do not contribute additional empirical research to the understanding of the impact of place of residence.

Even less empirical research on place of residence was published in the 2000s. Part of the reason for this is that NSSE is one of the only national surveys that provides longitudinal data and includes a question about place of residence. Though the current follow up to the CIRP First-Year Survey, the College Senior Survey, would be ideal for studying the effects of place of residence, it does not include a question related to place of residence. In 2001, Kuh, Gonyea,

and Palmer conducted a study using NSSE that assessed the effects of place of residence on the five NSSE Benchmarks. Though this study provides valuable information, the methods used for the study are simple mean and effect size comparison but no estimation of the relationship between the place of residence and the NSSE Benchmarks was included. Similarly, the 2011 NSSE Annual Results also provides interesting information on the ways that on-campus students compare to off campus students. However, the reported results are simple frequency comparisons. Because mean and frequency comparisons often result in over estimated difference, the methods employed in these studies are less than ideal. An additional critique of these recent studies is that they include both students in on-campus residences halls and students in fraternity or sorority houses in their group of on-campus residents. However, the experiences of these two groups of students are quite dissimilar and should not be grouped together.

Similar to this study (as is discussed in Chapter 3 and Chapter 5), the existing research, including Astin (1993), Pascarella et al. (1993), Kuh et al. (2001), and NSSE (2011) all have selection bias that is inherent in studies that utilize longitudinal data. The use of longitudinal data and the focus on students in the senior year, inherently means that the data set is made up of students who have persisted through their senior year and does not include students who were not successful. Additionally, these research studies, similar to this study, do not provide perspective on why the respondents chose to live where they live. This lack of knowledge of how the students in each place of residence group are predisposed to the outcomes found in each study makes causal estimations difficult.

A second limitation of the existing literature is the focus on living learning communities. One of the significant changes in residential communities in recent decades has been the increase in living learning communities. These are communities designed to increase students

interactions and relationships with their peers and faculty and their overall engagement in their college experience. Because living learning communities have been so effective in increasing student success in college, most of the research related to place of residence conducted in recent decades has focused on the living learning community experience. This research has further confirmed the importance of student interactions and relationships in success in college. However, the focus on living learning communities leads to the second primary limitation in the existing literature. Very little of the current research is focused on the general residential population, and a relatively small percent of students currently participate in living learning communities. This study will contribute to this limitation in the literature by providing an understanding of the effect of place of residence on student interactions and relationships outside of the living learning community experience.

The third limitation to the literature is that most of existing research focuses on students in their first year of college. While some authors speculate that the impact of living on campus might diminish beyond a student's first year, others speculate that the effect of living on campus is cumulative. For example, Chickering stated that "The evidence is clear that the impact and value of those residence hall experiences tapers off rather rapidly after the first or second year" (1974, p. 10). More recently, however, Schroeder and Mable noted that:

Studies of freshman samples tend to produce net effects of living on campus (versus off campus) that are smaller in magnitude than studies of sophomores or mixed class (for example, freshmen, sophomores, juniors) samples. While it is risky to make causal inferences from such observations, the evidence from such an observation, the evidence does suggest that the net effects of residence hall living tend to be cumulative, and thus may increase in magnitude during the student's college career (1994, p. 29).

The 2011 National Survey of Student Engagement Annual Report also suggested clear benefits of living on campus in both the first year and the senior year. However, their results are

based on simple comparison of variable frequency and mean and on Benchmark scores, indicating that more robust research is needed (NSSE, 2011b).

The current limitations in the existing literature has led to administrators in housing and residence life making critical decisions about housing master plans, policies, and structures without true knowledge of the impact they will have on students. It has also led to a lack of informed understanding of how to best support students who live off campus. The goal of this study is to begin to fill this void in the existing literature and contribute empirical research so that decisions about campus housing and about support systems for commuter students can be educated decisions. Chapter Three will outline the research method that I will use in this study.

CHAPTER 3

Methods

Through a review of the literature, it is clear that students' relationships and interactions contribute to their learning in college. Previous research also suggests that there is benefit in understanding the connections between place of residence and relationships and interactions. This chapter will detail the data set and methods used to answer the following research questions:

1. How do student relationships and interactions with their peers, faculty, and diverse others differ between students who live on-campus and students who live off-campus in their senior year?
2. How do the connections between place of residence and student relationships and interactions differ for female versus male students?
3. How do the connections between place of residence and student relationships and interactions differ for Caucasian students and students-of-color?

Because there is research that suggests that both quality of relationships and frequency of meaningful interactions have positive impacts on student outcomes, these questions will be considered with focus on each type of interaction separately.

Data Set

The National Survey of Student Engagement (NSSE) is a national survey designed to assess student engagement in college and is administered through the Indiana University Center

for Postsecondary Research. The survey, which is administered to first-year and senior students at four-year colleges and universities, asks students to respond to questions about the frequency with which they engage in activities and experiences that are believed to be part of effective educational practice. They are also asked to respond to questions about their perceptions of the quality of their relationships with others on campus (Kuh, 2003).

The NSSE is appropriate for this study because questions on the survey ask students to report on their relationships and interactions with others on campus. Questions on the survey also address students' perspectives about and experiences in the college environment, including current place of residence. The NSSE questions allow for the study of the connections between place of residence and relationships and interactions with peers, faculty, and diverse others. Because students respond to the NSSE survey both as first-year students and as seniors, using this longitudinal data allows for focus on the differences in relationships and interactions experienced by seniors who live on campus in their senior year while controlling for entering characteristics, demographic characteristics, and reported relationships and interactions in students' first-year responses.

Survey Administration

The NSSE was first administered in the spring of 1999 and is open to all four-year colleges and universities in the United States. In 2002, 367 colleges and universities participated in NSSE and in 2005, 529 participated (NSSE 2010d). All participating institutions pay a fee to participate. The cost of participating in NSSE varies by the size of the undergraduate enrollment at each institution and the survey administration method chosen by each school. In 2010 costs ranged from \$1500 annually for institutions whose total first-year and senior student population

was under 200 students to over \$8,000 for institutions with 12,000 or more in their total undergraduate population (NSSE, 2010b).

Since 2000, NSSE has been administered through both paper surveys and an online survey. Each school chooses the method, or a combination of the two methods, that they believe will work best for their campus. Institutions provide NSSE with a full population file of all of their first-year and senior students, and NSSE selects random samples that include equal numbers of first-year and senior students. Table 3.1 provides details on sample size by institution size and administration method.

Table 3.1
NSSE Sample Size by Institution Size and Administration Method

Undergraduate Enrollment	Paper Sample Size	Combination Web and Paper Sample Size	Web-Only Sample Size
Less than 4,000	450	1,800	All First-years & Seniors
4,000 to 7,999	600	2,400	All First-years & Seniors
8,000 to 12,000	800	3,200	All First-years & Seniors
More than 12,000	1,000	4,000	All First-years & Seniors

Note. From “Frequently Asked Questions: Sample Size”. Retrieved 4/5, 2010 from <http://nsse.iub.edu/faq/ifaq.cfm#samplesize>.

Institutions can choose to oversample their student population for a cost on a per-student basis (NSSE, 2010c).

Each spring, typically in February and March, students who are surveyed via the paper version of NSSE receive a letter from a senior administrator at the college, a copy of the NSSE survey instrument, and a postage-paid return envelope. During the same timeframe, students who are surveyed via the web version receive an email from a senior administrator at the college with a link to the web version of the NSSE. Typically, non-respondent students will receive about four follow-up reminders from NSSE within a span of approximately two months (NSSE, 2010a). NSSE institutions are encouraged to promote NSSE administration throughout their

campus so that students are aware of the importance of their participation. NSSE also encourages schools to use small incentives such as tokens for goods or services or lottery drawings for larger prizes to prompt students to complete their surveys. NSSE is, however, clear with all institutions that students should never experience coercion or undue influence to encourage them to complete the NSSE (NSSE, 2010d).

Data File

I purchased the data set used in this study directly from the Indiana University Center for Postsecondary Research for a cost of \$750. A NSSE staff member created the data set by taking a simple random sample of all first-year respondents across all 367 participating institutions in 2002 and removing those that did not respond again in their senior year, 2005. The end result is a sample that includes only students that completed the survey both in their first year and in their senior year. In total, there are 2503 respondents in the data set. However, 120 respondents did not respond to the question asked about place of residence. Therefore, only the data from 2383 respondents that answered the question about place of residence were used in this study.

Although the data set has been stripped of all institution and student identifiers, it does provide some general demographic information. In terms of institution type, the data set is skewed in favor of institutions classified as Bachelors institutions and skewed away from institutions classified as Masters institutions while the percent of students from Doctoral institutions is relatively representative of the national population. The 2004 Carnegie Classifications of the institutions these respondents attended are summarized in Table 3.2.

Table 3.2
Carnegie Classification of the Institutions Respondents Attended

Carnegie Classification	Total # of NSSE Respondents	% of NSSE Respondents	% All College Students in 2005
Doctoral Extensive	177	7.4%	11%
Doctoral Intensive	30	1.3%	8%
Masters	632	26.5%	43%
Bachelors (Liberal Arts)	1129	47.4%	16%
Bachelors (General)	303	12.7%	23%
Other	112	4.7%	
Total	2383	100%	100%

Note. From “National Survey of Student Engagement 2005 Annual Report: Comparison of NSSE Institutions to All Four-Year Institutions”. Retrieved 6/15, 2010 from http://nsse.iub.edu/pdf/NSSE2005_annual_report.pdf

Table 3.3 provides a summary of Carnegie Classifications for the institutions the respondents attended by respondents’ place of residence in the senior year. This shows that students who were living on campus were more likely to be at Bachelors (General) institutions and less likely to be at Doctoral institutions than their off-campus peers. Additionally, 86% of students who live in fraternity or sorority houses attended Bachelors (Liberal Arts) institutions.

Table 3.3
Percent of Respondents Attending Institutions in Each Carnegie Classification by Place of Residence

Carnegie Classification	On-Campus	Walking Distance of Campus	Driving Distance of Campus	Fraternity or Sorority House	All Respondents
Doctoral Extensive	4.1%	12.4%	6.8%	6.1%	7.4%
Doctoral Intensive	0.3%	1.0%	3.2%	0.0%	1.3%
Masters	18.0%	28.5%	41.4%	4.1%	26.5%
Bachelors (Liberal Arts)	48.5%	50.0%	34.0%	85.7%	47.4%
Bachelors (General)	18.8%	6.8%	13.1%	2.7%	12.7%
Other	10.3%	1.3%	1.6%	1.4%	4.7%
Total	100%	100%	100%	100%	100%

Of the respondents in the data set, 22.2% were attending public institutions, while 77.8% were attending private institutions; in the national population, 38% attended public institutions

and 62% attended private institutions in 2005 (NSSE, 2005). The data set also provides a collapsed variable for the schools' geographic region (see Table 3.4); the geographic representation of the respondents in this sample is fairly similar to that of the national college student population.

Table 3.4
Regional Locations of the Institutions Respondents Attended.

Region of the Country	Total # of Respondents	% of Respondents	% All College Students in 2005
New England	157	6.6%	9%
Mid East	379	15.9%	19%
Great Lakes	435	18.3%	15%
Plains	302	12.7%	11%
Southeast	608	25.5%	25%
Southwest/Rocky Mountains/ US Service Schools	164	6.9%	10%
Far West	338	14.2%	10%
Total	2383	100%	100%

From "National Survey of Student Engagement 2005 Annual Report: Comparison of NSSE Institutions to All Four-Year Institutions". Retrieved 6/15, 2010 from http://nsse.iub.edu/pdf/NSSE2005_annual_report.pdf

In addition to the general institutional characteristics, it is helpful to understand some general characteristic information about the respondents experiences in college. These general respondent characteristics by place of residence could help inform the findings of this study related to interactions and relationships. In the data set as a whole, 97.6% of the respondents were full-time students at their institution in their senior year. This was similar across all place of residence groups. The average age for a respondent in the senior year was 21.6. The average age for the respondents in each place of residence group was similar, indicating no significant difference by place of residence.

As an indicator of satisfaction with their college experience, the NSSE asks, "*How would you evaluate your entire educational experience at this institution?*" Respondents were asked to

respond on a 4-point scale: 4= Excellent, 3= Good, 2= Fair, 1= Poor. The 2005 mean for this question is 3.42 and the standard deviation is .656, indicating that as a group, the respondents evaluate their experience at their respective institutions as relatively positive. The means by place of residence group (provided in Table 3.5) were very similar, though students who lived in a fraternity or sorority house evaluated their overall experiences slightly higher.

Table 3.5
Mean Response to “How Would You Evaluate Your Entire Educational Experience at this Institution?” by Place of Residence

Senior Year Place of Residence	Mean Satisfaction Response
On Campus	3.39
Walking Distance from Campus	3.45
Driving Distance from Campus	3.38
Sorority or Fraternity House	3.71
Total Respondent Group	3.42

As an indicator of perceived campus support, NSSE asks, “*To what extent does your institution emphasize providing the support you need to help you succeed academically?*”.

Respondents were asked to respond on a 4-point scale: 4= Very Much, 3= Quite a Bit, 2= Some, 1= Very Little. The 2005 mean for this question is 3.13 and the standard deviation is .776, which suggests that in general respondents in this data base feel their institution places emphasis on the support they need to succeed. The means by place of residence group were very similar, though students who live in fraternity or sorority houses perceived somewhat more support.

Means by place of residence group are provided in Table 3.6.

Table 3.6

Mean Response to “To what extent does your institution emphasize providing the support you need to help you succeed academically?” by Place of Residence

Senior Year Place of Residence	Mean Institution Emphasis on Support
On Campus	3.13
Walking Distance from Campus	3.15
Driving Distance from Campus	3.07
Sorority or Fraternity House	3.35
Total Respondent Group	3.13

Challenges with NSSE

Though NSSE is the best national data set available for this study, there are the many common criticisms of the NSSE data set. One of these criticisms centers on the NSSE benchmarks. The researchers at NSSE have identified five Benchmarks of Effective Educational Practice that they use to measure the extent to which students are engaged in educationally purposeful activities. The Benchmarks include Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment (Kuh, 2003). For this study, it might seem logical to utilize the Student-Faculty Interaction benchmark as the variable for interactions with faculty. However, although researchers generally agree that the individual variables in each benchmark are grounded in theory, many question the construct validity of the benchmarks themselves (Campbell & Cabrera, 2011). As is detailed in the variables section of this chapter, to avoid this criticism in this study, I avoided using the NSSE Benchmarks, even the Student-Faculty Interaction Benchmark, and instead created my own factors or used stand alone variables where necessary.

Another common criticism of NSSE is that the majority of the predictive validity evidence is based on links to NSSE measures of self-reported gains in intellectual and personal

development (Pascarella, Seifert, & Blaich, 2010). Researchers assert that it is problematic to use self-reported gains in the same study as a learning outcome of an educationally effective practice (Pascarella, Seifert, & Blaich, 2010). However, a study Pascarella, Seifert, and Blaich (2010) conducted utilized data from the Wabash National Study of Liberal Arts Education to estimate the validity of the NSSE benchmarks in predicting characteristics and skills thought to be outcomes of general liberal arts education. The study found that the institution-level NSSE benchmark scores had significant positive association with the characteristics and traits. Though I am not measuring learning outcomes in this study, the findings of Pascarella, Seifert, and Blaich (2010) do lend credibility to the predictive validity of the NSSE variables.

Additionally, some researchers criticize NSSE because they believe that some of the questions asked in NSSE are not asked in a clear enough manner for the students' answers to be meaningful. For example, Porter (2011) casts doubt on whether students interpret the questions they are being asked and the response options provided in a consistent manner. The NSSE survey frequently uses vague quantifiers such as "often" that could be interpreted in different ways by different respondents. Another example cited by Porter (2011) is the NSSE question: "In your experience at your institution during the current school year, about how often have you done each of the following? ... Discussed grades or assignments with an instructor". The NSSE survey does not define who should be included as an instructor and leaves students to decide if the word instructor refers only to a faculty member or also includes a graduate teaching assistant. NSSE has conducted quantitative and qualitative research that suggests that students generally find the questions to be clear and easy to understand, that the majority of students interpret questions to mean the same thing, and students do respond to the questions in the manner that the

designers intended (NSSE, 2011a). However, considering that the questions of concern are used in the independent variables in this study, this could certainly be a criticism of this research.

One common concern about results from all surveys, not just NSSE, is whether people who do not respond to the survey differ in meaningful ways from those who do respond. In the case of NSSE, this could create concern that non-respondents are less engaged than respondents. In 2001, the Indiana University Center for Survey Research conducted phone interviews with 553 non-respondents representing all 21 institutions that participated in NSSE that year. They asked students questions related to 21 engagement and 3 demographic areas. They found no difference in the engagement level of first-year or senior non-respondents when compared with the respective group of respondents (NSSE, 2002).

Finally, one of the most significant benefits of this data set also presents room for potential criticism. The data set used is a longitudinal data set of respondents who were in their first year of college in 2002 and the same respondents at the end of their senior year in 2005. Though the longitudinal nature of this data is a significant benefit to this study, it means that selection bias is inherent in the data set. This selection bias takes two forms. The first is attrition bias. By its nature, the data set only includes students who have successfully remained at the same institution for the duration of their college degree. It does not include any student who dropped out between the end of their first-year and the end of their senior year or who transferred to another institution. This means that the respondents in this data set have found a way to be successful regardless of their place of residence and may indicate that their ability to succeed makes the students and their experiences more similar than dissimilar.

The second type of selection bias in this data set is the fact that it does not provide a detailed understanding of why students chose to live where they live, which may make causal

estimates less meaningful. For example, it is possible that students live on campus in their senior year because they are more engaged and want more interactions and relationships. Alternately, it is possible that students live on campus in their senior year because they know they need additional support and have less natural tendency toward interactions and relationships. Not knowing why students chose to live where they do will make the causal estimates found in this study more nuanced.

Variables

Key Independent Variable

The NSSE provides one primary variable of comparison that relates to place of residence. In both the 2002 and 2005 NSSE, the survey asks “Which of the following best describes where you are living now while attending college.” There are four response options: “dormitory or other campus housing (not fraternity/sorority house)”, “residence (house, apartment, etc.) within walking distance of the institution”, “residence (house, apartment, etc.) within driving distance of the institution”, and “fraternity or sorority house”. Initially, I recoded the place of residence variable so that the two off campus residence responses combined to denote living off-campus. However, the variable was ultimately used as is. It is likely that there is a difference in the experiences of students who live within walking distance versus driving distance of campus and using the variable as it is allows this difference to be captured. In a 2001 study published by NSSE, the dormitory or other campus housing and the fraternity or sorority house responses were recoded into one variable intended to represent on-campus students. However, for the purpose of this study, it is important to understand the differences in experience between students who live in residence halls and students who live in fraternity or sorority houses. The variable was recoded into 4 dichotomous variables as shown in Table 3.7.

Table 3.7
 Recoded Senior Year Place of Residence Variables

New Variable	Responses Included in Variable	Range	# Yes Responses	% Yes Responses
On-Campus	Dormitory or other campus housing (not fraternity/sorority house)	0=No, 1=Yes	887	37.2%
Walking Distance	Residence (house, apartment, etc.) within walking distance of the institution	0=No, 1=Yes	716	30.0%
Driving Distance	Residence (house, apartment, etc.) within driving distance	0=No, 1=Yes	633	26.6%
Fraternity or Sorority	Fraternity or Sorority House	0=No, 1=Yes	147	6.2%
Total			2383	100%

Dependent Variables

There were many variables in the data set that could relate to relationships and meaningful interactions between students and their peers, faculty, and diverse others. Initially, my goal was to develop one variable that represented each relationship (i.e., one peer relationship variable, one faculty relationship variable, and one diverse others relationship variable). However, by doing so, I would have lost the ability to understand the difference between quality of relationships and frequency of meaningful interactions. Therefore, for both peer relationships and faculty relationships, variables were identified or created to represent quality of relationships and frequency of meaningful interactions separately. For interactions with diverse others, the available variables focused on the frequency of meaningful interactions so this was used as the sole variable

Peer Interaction and Relationship Variables

Initially, I sought to create one peer relationship variable that represented a comprehensive view of the quality of relationships and frequency of meaningful interactions between students and their peers. First, an exploratory factor analysis using Principle

Component Analysis extraction and Varimax rotation was conducted with all variables directly related to student interactions with peers. However, this did not yield any factors with high enough internal reliability. In an attempt to account for untapped aspects of the peer relationship experience, items associated with institutional emphasis on peer relationships and interactions were also included in the exploratory factor analysis.

The exploratory factor analysis was conducted again using all nine variables related directly to students' interactions with their peers. Including all nine variables in the factor analysis netted four distinct factors, none of which were robust enough to truly capture students' relationships and interactions with their peers. A review of the scree plot, however, indicated that there was one primary factor. The exploratory factor analysis was conducted again with extraction limited to one factor. This analysis netted one factor that included seven variables related to students' relationships and interactions with their peers.

However, this factor included variables related to quality of relationships, frequency or quantity of interactions, and institutional emphasis on peer relationships which is not a meaningful measure of any one aspect of peer interactions and relationships. Upon further review of the literature, it was determined that the distinction between these types of variables was significant and should be explored individually. First, the variable measuring quality of relationships with peers was pulled out of the factor and will be used as a stand alone variable.

The question related to quality of relationships with peers in NSSE is, "*Mark the box that best represents the quality of your relationships with other students at your institution*".

Respondents were asked to respond on a 7 point Likert scale with 7= Available, Helpful, Sympathetic and 1= Unavailable, Unhelpful, Unsympathetic. Answers 2-6 are not specifically

defined with qualitative descriptors and are implied to be a continuum between 1 and 7. The frequency of responses is provided in Table 3.8.

Table 3.8
Quality of Relationships with Peers – Frequencies

Number	Definition	# Yes Responses	% Yes Responses
1	Unavailable, Unhelpful, Unsympathetic	11	.1%
2		35	1.1%
3		49	2.6%
4		204	8.2%
5	Available, Helpful, Sympathetic	482	20%
6		833	36.8%
7		769	31.2%
Total		2383	100%

Mean = 5.81, Standard Deviation= 1.169

For the purposes of the regression analysis, the Quality of Relationships with Peers variable was standardized to a mean of 0 and standard deviation of 1.

Once, the variable representing quality of relationships with peers was removed from the factor analysis, the variables representing institutional emphasis on peer relationships and interactions were also removed. A confirmatory factor analysis was run using only variables related to quantity or frequency of meaningful peer interactions. However, the internal reliability was not adequate. Another exploratory factor analysis was conducted using all available variables related to quantity or frequency of meaningful peer interactions available in the dataset, but again no factors were identified with high enough internal reliability. Therefore, I decided to use stand alone variables.

In looking at the available variables related to frequency or quantity of meaningful peer interactions, two primary themes became apparent. The variables were either related to academic interactions with peers or to social/co-curricular interactions with peers. The literature indicates that both types of interactions are educationally meaningful and relevant to student

outcomes (Pascarella & Terenzini, 2005), so a stand alone variable was chosen from each type of interaction.

The most relevant question related to the frequency of academic related peer interactions in NSSE asks students to indicate the frequency with which they “*Worked with classmates outside of class to prepare class assignments*”. Students were asked to respond on a 4 point scale with 4= Very Often, 3= Often, 2= Sometimes, and 1= Never. The frequency of responses is provided in Table 3.9.

Table 3.9
Senior Year Frequency of Academic Related Interactions with Peers – Frequencies

Number	Definition	# Yes Responses	% Yes Responses
1	Never	74	3.1%
2	Sometimes	765	32.1%
3	Often	946	39.7%
4	Very Often	598	25.1%
Total		2383	100%

Mean= 2.87, Standard Deviation= .842

For the purposes of the regression analysis, the Frequency of Academic Related Interactions with Peers variable was standardized to a mean of 0 and standard deviation of 1.

The most relevant question related to the frequency of co-curricular related peer interactions in NSSE asks students “*About how many hours do you spend in a typical 7-day week participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate, or intramural sports, etc.)*”. Students were asked to respond on an eight point scale with 8= More than 30 Hours, 7= 26-30 Hours, 6= 21-25 Hours, 5= 16-20 Hours, 4= 11-15 Hours, 3= 6-10 Hours, 2= 1-5 Hours, and 1= 0 Hours. The frequency of responses is provided in Table 3.10.

Table 3.10
Senior Year Frequency of Co-Curricular Related Interactions with Peers

Number	Definition	# Yes Responses	% Yes Responses
1	0 Hours	484	20.4%
2	1-5 Hours	890	37.4%
3	6-10 Hours	434	18.3%
4	11-15 Hours	231	9.7%
5	16-20 Hours	151	6.4%
6	21-25 Hours	85	3.6%
7	26-30 Hours	39	1.6%
8	More than 30 Hours	63	2.6%
Total		2377	100%

Mean= 2.75, Standard Deviation= 1.651

For the purposes of the regression analysis, the Frequency of Co-Curricular Interactions with Peers variable was standardized to a mean of 0 and standard deviation of 1.

Faculty Interactions and Relationships Variables

Similar to the peer interactions and relationships variables, initially, I sought to create one factor representing both frequency of meaningful interactions and quality of relationships between students and their faculty. An exploratory factor analysis was conducted using Principle Component Analysis extraction and Varimax rotation. This analysis, which included ten variables related directly to student relationships and meaningful interactions with faculty, produced two factors: one containing nine variables and the other containing two. A review of the scree plot indicated that there was one primary factor. The variables were standardized and a confirmatory factor analysis was performed.

Though these variables hung together in a factor, the variables measured both quality of relationships and frequency of meaningful interactions with faculty. As previously indicated, it was determined that the distinction between these types of interactions and relationships was significant, so the variable measuring quality of relationships with faculty was pulled out of the factor and used as a stand alone variable.

The question related to quality of relationships with faculty in NSSE is, “*Mark the box that best represents the quality of your relationships with faculty members at your institution*”.

Respondents were asked to respond on a 7 point Lickert scale with 7= Available, Helpful, Sympathetic and 1= Unavailable, Unhelpful, Unsympathetic. Answers 2-6 are not specifically defined with qualitative descriptors and are implied to be a continuum between 1 and 7. The frequency of responses is provided in Table 3.11.

Table 3.11
Senior Year Quality of Relationships with Faculty – Frequencies

Number	Definition	# Yes Responses	% Yes Responses
1	Unavailable, Unhelpful, Unsympathetic	3	.1%
2		27	1.1%
3		61	2.6%
4		196	8.2%
5		476	20%
6		876	36.8%
7	Available, Helpful, Sympathetic	744	31.2%
Total		2383	100%

Mean= 5.82, Standard Deviation= 1.119

For the purposes of the regression analysis, the Quality of Relationships with Faculty variable was standardized to a mean of 0 and standard deviation of 1.

The remaining variables from the original faculty interaction factor analysis were all related to quantity or frequency of meaningful interactions between students and faculty. Once the qualitative variable was removed, the remaining variables were standardized to a mean of 0 and standard deviation of 1 and a confirmatory factor analysis was conducted. The factor scores were saved as a variable. The factor loadings are provided in Table 3.12.

Table 3.12
Senior Year Frequency of Meaningful Interactions with Faculty – Factor

Item	Factor Loading
Discussed ideas from your readings or classes with faculty members outside of class	.756
Discussed grades or assignments with an instructor	.748
Talked about career plans with a faculty member or advisor	.747
Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	.603
Used e-mail to communicate with an instructor	.603
Asked questions in class or contributed to class discussions	.556
Worked harder than you thought you could to meet an instructor's standards or expectations	.554

44.17% of variance explained, Cronbach's Alpha = .785

Diverse Interactions Variables

There are a number of variables in the dataset related to interactions with diverse others, but only two that directly measure the extent to which students interact in a meaningful way with diverse others. Initially, to obtain a more robust diverse interactions factor, the items associated with institutional emphasis on student relationships and interactions with diverse others were also included in a confirmatory factor analysis. Though the variables did form a factor with a significant internal reliability, it was decided that the factor was not a meaningful measure of any one aspect of interactions with diverse others. Therefore, the institutional emphasis variables were removed. Unlike the variables available for peer interactions and faculty interactions, the data set does not provide separate variables related to quality of relationships and frequency of meaningful interactions with diverse others. Instead, the two available variables ask students about the frequency of their serious interactions. As was detailed in the literature review, the frequency of meaningful interactions with diverse others, which is a meaningful cross-cultural interaction, is related directly to student outcomes, so these variables are appropriate for this study (Denson & Chang, 2009; Gurin et al., 2002).

NSSE asks students to report the frequency with which they “*Had serious conversations with students of a different race or ethnicity than your own*” and “*Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values*”. Students were asked to respond on a four point scale with 4= Very Often, 3= Often, 2= Sometimes, and 1= Never. Both variables were standardized to a mean of 0 and a standard deviation of 1 and a confirmatory factor analysis was conducted. The factor scores were saved as a variable. The factor loadings are provided in Table 3.13.

Table 3.13
Senior Year Meaningful Interactions with Diverse Others – Factor

Item	Factor Loading
Had serious conversations with students of a different race or ethnicity than your own	.893
Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	.893

79.82% of variance explained, Cronbach’s Alpha = .747

Independent Variables

In addition to place of residence, the independent variables in this study include individual demographics and entering characteristics. The independent variables that will be used in this study are gender, race and ethnicity, socioeconomic status, academic achievement, academic commitment, time spent working on and off campus, and peer, faculty, and diverse relationships measured in the first year. Each of these variables is described below.

Gender

There are two institution-reported gender variables in the data set, one from 2002 and another from 2005. There were no missing responses from the 2005 institution-reported gender variable so it was used for this study. The variable was recoded into a dichotomous variable where 0=male and 1=female. Frequencies for the gender variable are provided in Table 3.14.

Table 3.14
Dichotomous Gender Variable – Frequencies

Gender	Total # of Respondents	% of Respondents
Male	738	31.0%
Female	1645	69.0%
Missing/Unknown	0	0%
Total	2383	100%

Race

The data set includes three items indicating the respondent's race; institution-reported race in 2005, institution-reported race in 2002, and student-reported race in 2005. Because there was a substantial amount of missing data in each of these individual race variables, they were combined to form a new race variable. Specifically, if a student had missing data on the 2005 institution-reported race variable, then information from the 2002 institutional variable was used; if the values for both institution-reported race variables were missing, then data from the 2005 self-reported variable was used.

Because most of the students represented in the dataset attend predominantly Caucasian institutions, the interactions and relationships experienced by Caucasian students are likely to be very different than the interactions and relationships experienced by students of color. For the purposes of being able to compare the experiences of Caucasian students to those of students of color, the race variable was recoded into a dichotomous variable where 0=white and 1=student of color. The frequencies for the race variable are provided in Table 3.15.

Table 3.15
Dichotomous Race Variable – Frequencies

Race	Total # of Respondents	% of Respondents
White	1998	83.8%
Students of Color	349	14.8%
Missing/Unknown	36	1.5%
Total	2383	100%

Socioeconomic Status

The only variable in the data set that is related to socioeconomic status is students' self-reported level of education of each of their parents. In 2005, students were asked to report their mother's level of education and their father's level of education separately. Frequencies for these individual variables appear in Table 3.16.

Table 3.16
Socioeconomic Status

	Total # of Respondents	% of Respondents
Mother's Level of Education		
1= Did not finish High School	70	2.9%
2= Graduated from high school	433	18.2%
3= Attended college but did not complete degree	339	14.2%
4= Completed an Associate's Degree	272	11.4%
5= Complete a Bachelor's Degree	728	30.5%
6= Completed a Master's Degree	473	19.8%
7= Completed a Doctoral Degree	60	2.5%
Missing	13	.5%
Father's Level of Education		
1= Did not finish High School	89	3.7%
2= Graduated from high school	448	18.8%
3= Attended college but did not complete degree	308	12.9%
4= Completed an Associate's Degree	166	7%
5= Complete a Bachelor's Degree	689	28.9%
6= Completed a Master's Degree	433	18.2%
7= Completed a Doctoral Degree	237	9.9%
Missing	13	.5%
Total	2383	100%

To create a variable that represents the combined education of both parents, a new parental education variable was calculated by computing the mean of mother's education and father's education. This parental education variable has a mean of 4.2 and a standard deviation of 1.46. For the purposes of the regression analysis, this variable was standardized to a mean of 0 and a standard deviation of 1.

Academic Achievement

Academic achievement is measured in the data set by self-reported grades in the senior year (NSSE, 2005). The question specifically asks respondents: “*What have most of your grades been up to now at this institution?*” The frequencies for academic achievement are as follows in Table 3.17.

Table 3.17
Academic Achievement Variable

Grades (up until now at this institution) Reported in Senior Year	Total # of Respondents	% of Respondents
C- or lower	1	0%
C	24	1%
C+	63	2.6%
B-	142	6%
B	430	18%
B+	596	25%
A-	579	24.3%
A	538	22.6%
Missing	10	.4%
Total	2383	100%

C- or lower= 1, A= 8, Mean= 6.27, Standard Deviation= 1.381

For the purposes of the regression analysis, the Academic Achievement Variable was standardized to a mean of 0 and standard deviation of 1.

Academic Commitment

In this study, the Academic Commitment variable will be used to control for students’ commitment to their academic success. Because the Academic Achievement variable is self-reported and is not cumulative GPA, adding the Academic Commitment variable will help control for students’ level of academic focus. The question in the NSSE survey used for this variable is: “*About how many hours do you spend in a typical 7-day week preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other*

academic activities)”. Students were asked to respond on an eight point scale with 8= More than 30 Hours, 7= 26-30 Hours, 6= 21-25 Hours, 5= 16-20 Hours, 4= 11-15 Hours, 3= 6-10 Hours, 2= 1-5 Hours, and 1= 0 Hours. The frequency of responses is provided in Table 3.18.

Table 3.18
Academic Commitment Variable

Number	Definition	# Yes Responses	% Yes Responses
1	0 Hours	2	.1%
2	1-5 Hours	293	12.3%
3	6-10 Hours	552	23.2%
4	11-15 Hours	482	20.3%
5	16-20 Hours	392	16.5%
6	21-25 Hours	316	13.3%
7	26-30 Hours	178	7.5%
8	More than 30 Hours	162	6.8%
Total		2377	100%

Mean= 4.45 (mean score, not mean hours), Standard Deviation= 1.731

For the purposes of the regression analysis, the Academic Commitment Variable was standardized to a mean of 0 and a standard deviation of 1.

Time Spent Working

Because time spent working on campus has been shown to have positive effects on student relationships and engagement and time spent working off campus has been found to have negative effects on student relationships and engagement (Pascarella & Terenzini, 2005), they will be controlled for in this study. The questions in the survey related to time spent working are: “*About how many hours do you spend in a typical 7-day week working for pay on campus*” and “*About how many hours do you spend in a typical 7-day week working for pay off campus*”. Students were asked to respond on an eight point scale with 8= More than 30 Hours, 7= 26-30 Hours, 6= 21-25 Hours, 5= 16-20 Hours, 4= 11-15 Hours, 3= 6-10 Hours, 2= 1-5 Hours, and 1= 0 Hours. The frequency of responses is provided in Tables 3.19 and 3.20.

Table 3.19
Time Spent Working On Campus Variable

Number	Definition	# Yes Responses	% Yes Responses
1	0 Hours	1171	49.2%
2	1-5 Hours	283	11.9%
3	6-10 Hours	473	19.9%
4	11-15 Hours	243	10.2%
5	16-20 Hours	144	6.1%
6	21-25 Hours	39	1.6%
7	26-30 Hours	14	.6%
8	More than 30 Hours	11	.5%
Total		2378	100%

Mean= 2.22 (mean score, not mean hours), Standard Deviation= 1.475

Table 3.20
Time Spent Working Off Campus Variable

Number	Definition	# Yes Responses	% Yes Responses
1	0 Hours	1447	60.9%
2	1-5 Hours	145	6.1%
3	6-10 Hours	192	8.1%
4	11-15 Hours	171	7.2%
5	16-20 Hours	175	7.4%
6	21-25 Hours	105	4.4%
7	26-30 Hours	57	2.4%
8	More than 30 Hours	83	3.5%
Total		2375	100%

Mean= 2.34(mean score, not mean hours), Standard Deviation= 2.023

For the purposes of the regression analysis, the Time Spent Working On Campus variable and Time Spent Working Off Campus variable were each standardized to a mean of 0 and standard deviation of 1.

First Year Peer, Faculty, and Diverse Others Variables

To truly account for the change in the relationships and interactions over the course of the full college experience, it is important to include measures of students' interactions and relationships with their peers, faculty and diverse others in the first year of college. These pretest variables will allow the analysis to better convey the relationship between place of residence and

changes in students' relationships and interactions. The data set includes responses to the NSSE by the same students when they were first-year students in 2002 and seniors in 2005. The variables used to measure interactions with peers, faculty, and diverse others in the senior year are also available for the respondents as first-year students. Therefore, all of the same descriptive statistics and factor analyses were run for the 2002 first-year responses as were done for the 2005 senior responses.

For the first-year peer interaction variables, descriptive statistics were run on the 2002 versions of each of the 2005 variables. The frequency of responses for Quality of Relationships with Peers in the first year is provided in Table 3.21. The variable was standardized to a mean of 0 and standard deviation of 1 for the regression analysis.

Table 3.21
Quality of Relationships with Peers in the First Year – Frequencies

Number	Definition	# Yes Responses	% Yes Responses
1	Unavailable, Unhelpful, Unsympathetic	9	.4%
2		24	1.0%
3		62	2.6%
4		173	7.3%
5		443	18.6%
6		824	34.6%
7	Available, Helpful, Sympathetic	845	35.5%
Total		2380	100%

Mean= 5.89, Standard Deviation= 1.144

The frequency of responses for Frequency of Academic Related Interactions with Peers in the first year is provided in Table 3.22. The variable was standardized to a mean of 0 and a standard deviation of 1 for the regression analysis.

Table 3.22

Frequency of Academic Related Interactions with Peers in the First Year - Frequencies

Number	Definition	# Yes Responses	% Yes Responses
1	Never	130	5.5%
2	Sometimes	1034	43.4%
3	Often	903	37.9%
4	Very Often	315	13.2%
Total		2382	100%

Mean= 2.59, Standard Deviation= .785

The frequency of responses for Frequency of Co-Curricular Related Interactions with Peers in the first year is provided in Table 3.23. For the purpose of the regression analysis, the variable was standardized to a mean of 0 and standard deviation of 1.

Table 3.23

Frequency of Co-Curricular Related Interactions with Peers in the First Year – Frequencies

Number	Definition	# Yes Responses	% Yes Responses
1	0 Hours	589	24.8%
2	1-5 Hours	915	38.5%
3	6-10 Hours	399	16.8%
4	11-15 Hours	243	10.2%
5	16-20 Hours	119	5.0%
6	21-25 Hours	52	2.2%
7	26-30 Hours	34	1.4%
8	More than 30 Hours	24	1.0%
Total		2375	100%

Mean= 2.50, Standard Deviation= 1.453

The frequency of responses for Quality of Relationships with Faculty in the first year is provided in Table 3.24. To be used in the regression analysis, the variable was standardized to a mean of 0 and a standard deviation of 1.

Table 3.24
Quality of Relationships with Faculty in the First Year – Frequencies

Number	Definition	# Yes Responses	% Yes Responses
1	Unavailable, Unhelpful, Unsympathetic	5	.2%
2		13	.5%
3		69	2.9%
4		219	9.2%
5	Available, Helpful, Sympathetic	588	24.7%
6		910	38.2%
7		578	24.3%
Total		2382	100%

Mean= 5.68, Standard Deviation= 1.080

For the first-year Frequency of Meaningful Interactions with Faculty variable, a confirmatory factor analysis was run using the 2002 versions of the variables in the 2005 factor. The factor scores were saved as a variable. The factor loadings for the first-year Frequency of Meaningful Interactions with Faculty factor are provided in Table 3.25.

Table 3.25
Frequency of Meaningful Interactions with Faculty in the First Year – Factor

Item	Factor Loading
Discussed ideas from your readings or classes with faculty members outside of class	.757
Discussed grades or assignments with an instructor	.739
Talked about career plans with a faculty member or advisor	.687
Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	.630
Used e-mail to communicate with an instructor	.596
Asked questions in class or contributed to class discussions	.553
Worked harder than you thought you could to meet an instructor's standards or expectations	.544

42.04% of variance explained, Cronbach's Alpha = .765

For the first-year Meaningful Diverse Interactions variable, a confirmatory factor analysis was run using the 2002 versions of the variables in the 2005 factor. The factor loadings for the

first-year Frequency of Meaningful Interactions with Diverse Others factor are provided in Table 3.26.

Table 3.26
Meaningful Interactions with Diverse Others in the First Year – Factor

Item	Factor Loading
Had serious conversations with students of a different race or ethnicity than your own	.556
Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	.556

80.99% of variance explained, Cronbach's Alpha = .765, Scale for each variable is 4= Very Often, 3= Often, 2= Sometimes, 1= Never

Analysis

To answer the three research questions, I conducted six ordinary least squares blocked multiple regressions, one predicting each type of relationship and interaction. A Bonferroni Adjustment was used to adjust for the fact that multiple regression testing may over estimate the significance of the predictors. Based on the Bonferroni Adjustment, a p value less than .008 was used to assess significance.

To examine research questions 2 and 3, I created interactions terms related to gender and race respectively. To calculate the interaction terms between gender and place of residence, the female variable was multiplied by each place of residence variable (walking distance, driving distance, and fraternity/sorority house). To calculate the interaction terms between race and place of residence, the students-of-color variable was multiplied by each place of residence variable (walking distance, driving distance, and fraternity/sorority house).

The variables were entered into the regression models as shown in Table 3.27.

Table 3.27
Independent variables used in the regressions models

Block	Independent Variables
Block One (and all blocks)	Students of Color Female Socio Economic Status Academic Achievement Live within Walking Distance Live within Driving Distance Live in Fraternity or Sorority House Respective Pretest (First-Year) Relationship Variable
Unique to Block Two	Interaction between Race and Place of Residence
Unique to Block Three	Interaction between Gender and Place of Residence
Unique to Block Four	Interactions between Race and Place of Residence, and between Gender and Place of Residence

Though I had hoped to be able to conduct a cross-sectional data analysis on each year, 2002 and 2005, independently before analyzing the full data set, I was not able to do this because the percent of students who live within walking distance from campus, within driving distance from campus, and in sorority and fraternity houses in their first year (2002) is too small. In the students' first year (2002), 86.3% lived on campus, 1.9% lived within walking distance of campus, 10.6% lived within driving distance of campus, and 1.3% lived in a sorority or fraternity house. Though the number of respondents who lived within driving distance to campus is large enough, the number of respondents who lived within walking distance to campus and in sorority or fraternity houses is not. The small number of respondents in these categories would have left the analysis insignificant.

CHAPTER 4

Results

In the second chapter of this study, I proposed a conceptual framework showing the relationship between place of residence and students' interactions and relationships with peers, faculty, and diverse others (Figure 2.1). This framework is built on the combined work of the authors highlighted in the literature review in Chapter 2 and informed by Astin's Theory of Involvement (1993). It posits that a student's place of residence impacts the interactions they have and the relationships they develop with their peers, faculty, and diverse others. This study contributes to the existing literature and practice in the field by focusing specifically on the connections between place of residence and these interactions and relationships in the senior year.

This chapter discusses results of the data analyses conducted to answer the three research questions: 1) How do student relationships and interactions with their peers, faculty, and diverse others differ between students who live on-campus and students who live off-campus in their senior year? 2) How do the connections between place of residence and student relationships and interactions differ for female versus male students? 3) How do the connections between place of residence and student relationships and interactions differ for Caucasian students and students of color? For each of the six independent variables (Quality of Relationships with Peers, Frequency of Academic Related Interactions with Peers, Frequency of Co-curricular Related Interactions with Peers, Quality of Relationships with Faculty, Frequency of Meaningful

Interactions with Faculty, and Frequency of Meaningful Interactions with Diverse Others), an ordinary least squares blocked multiple regression was run to answer these questions.

Of the three types of relationships studied in this research, peer, faculty, and diverse others, the literature suggest that place of residence has the most significant effect on interactions and relationships with peers. Therefore, the results for the peer outcome variables will be discussed first, followed by the results for the faculty outcome variables. Interactions with diverse others will be discussed third, as this outcome variable combines meaningful diverse interactions with peers, faculty, and staff into one variable.

Quality of Relationships with Peers

A mean comparison for quality of peer relationships by place of residence, provided in Table 4.1, shows that the mean response for quality of relationships with peers in the senior year is higher for students who live on campus than students who live driving distance from campus. The mean is also higher for students who live in fraternity or sorority houses than for all other students.

Table 4.1
Mean Quality of Relationships with Peers by Place of Residence in Senior Year

Senior Year Place of Residence	First Year Quality of Peer Relationships	Senior Year Quality of Peer Relationships
On Campus	5.85	5.84
Walking Distance from Campus	5.92	5.83
Driving Distance from Campus	5.79	5.63
Sorority or Fraternity House	6.33	6.20

Senior Mean= 5.81, Standard Deviation= 1.169, Scale 7= Available, Helpful, Sympathetic ... 1= Unavailable, Unhelpful, Unsympathetic

Table 4.2 provides a summary of the ordinary least squares blocked multiple regression analysis predicting quality of relationships with peers. The significance of the F value is smaller than .001, so the model in each block is significant. Together, the independent variables account

for 12.2% of the variance in the quality of relationships with peers. Though this is a relatively low percent of predicted variance, it is important to note that R^2 would be expected to be lower in this regression model. The variable used to represent quality of relationships with peers is a single-item variable. Because a single-item dependent variable was used, a lower R^2 was expected. Factor variables produce higher R^2 values because of the collinearity that exists between variables (Pedhazur, 1997; Walker & Maddan, 2009).

In this model, the only demographic or entering characteristic variable that is associated with quality of relationships with peers is the pre-test quality of relationships with peers ($B=.326$, $p<.001$).

In Block One, before any interaction terms are added, the model shows that living within driving distance of campus is negatively associated with quality of relationships with peers when compared with living on-campus ($B=-.161$, $p<.008$). No difference was found for students who live within walking distance of campus or in a sorority or fraternity house.

Block 2 shows no difference in the effect of place of residence by race/ethnicity. In Block 3, the model shows that the effect of living within driving distance of campus on the quality of relationships with peers is more negative for men than for women ($B=.332$, $p<.008$). Block 4 shows no significant differences in the effect of place of residence when gender and race are considered together.

In Block 3, when the interaction term between place of residence and gender is added, the relative size of the B for the main effect “live within driving distance of campus” changes from $B = -.161$ to $B = -.406$. This may seem counter to what was expected because typically, as more variables are added to the model the effect size decreases. However, when interaction terms are added, as I have done in Blocks 2, 3, and 4, they change the meaning of the main

effects. In Block 1 the main effect, “live within driving distance of campus” refers to all students who live within driving distance of campus. However, in Block 3 the main effect “live within driving distance of campus” now refers to the referent group – men who live within driving distance of campus. The interaction term between “live within driving distance of campus” and gender shows the extent to which living within driving distance of campus differs between women and men (Jaccard & Turrisi, 2003; Pedhazur, 1997). Therefore Block 1 shows that there is a negative effect of living within driving distance from campus for the full sample of students in the data set ($B=-.161, p<.008$) while Block 3 shows that the effect of “live within driving distance of campus” is more negative for men than for women ($B=.332, p<.008$).

A graph illustrating the interaction provides mean values for quality of relationships with peers by live on-campus/live within driving distance from campus and gender in Figure 4.1.

Figure 4.1
Graph of Mean Quality Relationships with Peers by Live On-Campus/Live within Driving Distance of Campus and Gender

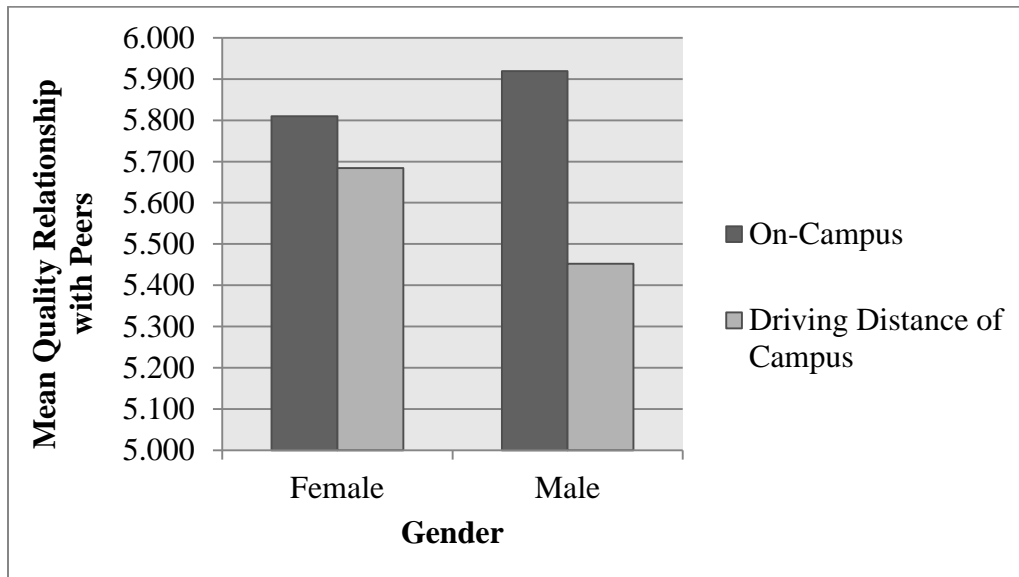


Table 4.2

Summary of the Ordinary Least Squares Blocked Multiple Regression Analysis Predicting Quality of Relationships with Peers in the Senior Year

	Block 1		Block 2		Block 3		Block 4	
	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
Students of Color	-.037 (.057)	-.013	-.069 (.082)	-.024	-.035 (.057)	-.013	-.064 (.082)	-.023
Female	.010 (.043)	.004	.012 (.043)	.006	-.134 (.070)	-.062	-.133 (.070)	-.061
Socioeconomic Status	-.016 (.021)	-.016	-.016 (.021)	-.016	-.014 (.021)	-.014	-.014 (.021)	-.014
Academic Achievement	.035 (.020)	.036	.035 (.020)	.035	.037 (.020)	.037	.036 (.020)	.036
Hours spent preparing for class	.035 (.020)	.035	.035 (.020)	.035	.035 (.020)	.035	.035 (.020)	.035
Hours spent working on campus	-.010 (.021)	-.010	-.010 (.021)	-.010	-.006 (.021)	-.006	-.007 (.021)	-.007
Hours spent working off campus	-.014 (.022)	-.014	-.015 (.022)	-.015	-.012 (.022)	-.012	-.013 (.022)	-.013
Live within walking distance of campus	-.017 (.048)	-.008	-.025 (.052)	-.011	-.147 (.083)	-.067	-.154 (.086)	-.071
Live within driving distance of campus	-.161 (.053)	-.071*	-.164 (.057)	-.072*	-.406 (.100)	-.179**	-.407 (.102)	-.179**
Live in a fraternity or sorority house	.170 (.085)	.041	.130 (.089)	.031	.098 (.127)	.024	.050 (.131)	.012
Quality of relationships with peers in the first year	.326 (.020)	.328**	.325 (.020)	.327**	.325 (.020)	.327**	.324 (.020)	.326**
Interaction: Students of color x Walking distance			.047 (.139)	.009			.048 (.139)	.009
Interaction: Students of color x Driving distance			.009 (.135)	.002			.000 (.135)	.000
Interaction: Students of color x Fraternity/sorority house			.540 (.318)	.035			.531 (.319)	.035
Interaction: Female x Walking distance					.189 (.102)	.075	.190 (.102)	.075
Interaction: Female x Driving distance					.332 (.114)	.134*	.332 (.114)	.134*
Interaction: Female x Fraternity/sorority house					.093 (.171)	.017	.110 (.171)	.020
R ²	.124		.126		.128		.129	
Adjusted R ²	.120		.120		.123		.122	
F	29.806**		23.628**		24.130**		20.041**	

N= 2383, * $p < .008$ ** $p < .001$

Frequency of Academic Related Peer Interactions

A mean comparison for frequency of academic related peer interactions by place of residence, provided in Table 4.3, shows that the mean response for frequency of academic related peer interactions for students who live on campus is slightly lower than students who live within walking or driving distance from campus and moderately lower than students who live in a fraternity or sorority house. This is a change from the first year when students who live on campus had higher frequency of academic related peer interactions than students who lived within walking or driving distance from campus.

Table 4.3
Mean Frequency of Academic Related Peer Interactions by Place of Residence in Senior Year

Senior Year Place of Residence	First Year Frequency Academic Related Peer Interactions	Senior Year Frequency Academic Related Peer Interactions
On Campus	2.65	2.84
Walking Distance from Campus	2.59	2.89
Driving Distance from Campus	2.45	2.86
Sorority or Fraternity House	2.79	2.93

Senior Mean= 2.87, Standard Deviation = .842, Scale: 4= Very Often, 3= Often, 2= Sometimes, 1= Never

Table 4.4 provides a summary of the ordinary least squares blocked multiple regression analysis predicting frequency of academic related peer interactions. The significance of the F value is smaller than .001, so the model in each block is significant. As a group, the independent variables account for 8% of the variance in the frequency of academic related peer interactions. Though this is a low percent of predicted variance, it is important to remember that the variable representing Frequency of Academic Related Peer Interactions is a single item variable and is therefore expected to yield a lower R^2 than a factor would (Pedhazur, 1997; Walker & Maddan, 2009). However, it was important to use the single-item variable to ensure distinct understanding between the types of relationships and interactions with peers.

In this model, time spent preparing for class was positively associated with frequency of academic related peer interactions ($B=.075, p<.001$). Frequency of academic related peer interactions in the first year are positively related to the frequency of academic related peer interactions in the senior year ($B=.261, p<.001$).

Block 1 shows no effect of place of residence on frequency of academic related peer interactions. Block 2 shows that there is no difference in the effect of place of residence across race/ethnicity. Block 3 shows that the effect of living within driving distance of campus on frequency of academic related peer interactions is more positive for women than for men ($B=.366, p<.008$). However, place of residence has no effect for male students. Block 4 shows no difference in effect of place of residence when race and gender are considered together.

In Block 3, when the interaction term between place of residence and gender is added, the relative size of the B for the main effect of “female” shifts from $B = -.105$ to $B = -.248$ and becomes significant. Remembering that the main effect for “female” now refers to the referent group students who live on campus; this significant effect indicates that among students who live on campus, women have lower frequency of academic related peer interactions than men. The effect of the interaction between “live within driving distance of campus” and gender ($B= .366, p<.008$) represents the difference in the effect of living within driving distance of campus between male and female students. This interaction shows that living within driving distance of campus is associated with more positive effects on frequency of academic related peer interactions for women than men. However, the non-significant coefficient for driving distance from campus in Block 3 shows that there is no effect for male students (Pedhazur, 1997; Jaccard & Turrisi, 2003).

A graph illustrating the interaction provides mean values for frequency of academic related peer interactions by live on campus/live within driving distance of campus in Figure 4.2.

Figure 4.2
Graph of Mean Frequency of Academic Related Peer Interactions by Live On-Campus/Live Within Driving Distance of Campus and Gender

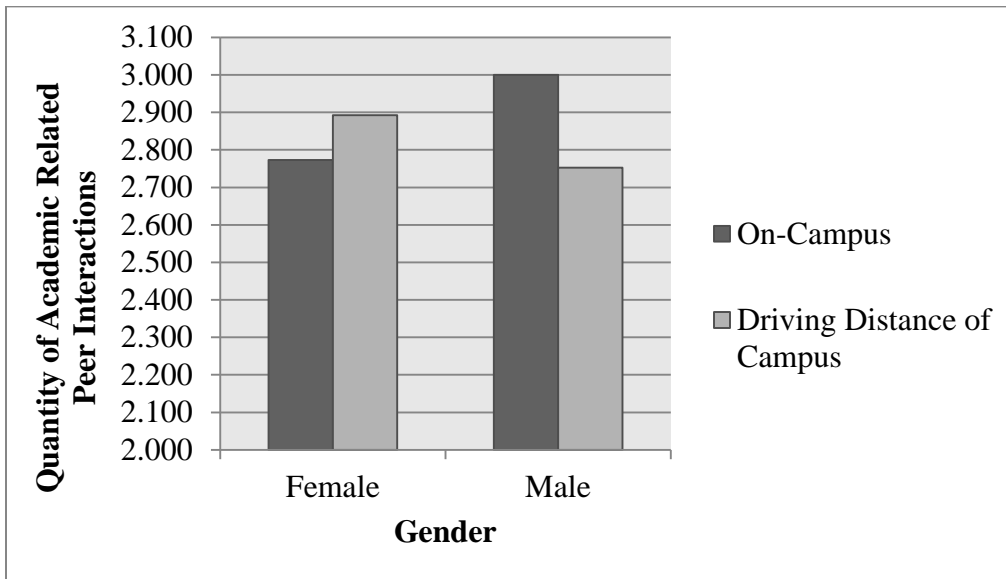


Table 4.4

Summary of the Ordinary Least Squares Blocked Multiple Regression Analysis Predicting Frequency of Academic Related Interactions with Peers in the Senior Year

	Block 1		Block 2		Block 3		Block 4	
	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
Students of Color	.040 (.058)	.014	.014 (.084)	.005	.040 (.058)	.014	.017 (.084)	.006
Female	-.105 (.044)	-.049	-.109 (.044)	-.050	-.248 (.072)	-.114**	-.247 (.072)	-.114**
Socioeconomic Status	-.010 (.021)	-.009	-.009 (.021)	-.009	-.007 (.021)	-.007	-.007 (.021)	-.007
Academic Achievement	-.045 (.020)	-.045	-.044 (.020)	-.044	-.043 (.020)	-.043	-.043 (.020)	-.043
Hours spent preparing for class	.075 (.021)	.075**	.075 (.021)	.074**	.075 (.021)	.075**	.075 (.021)	.075**
Hours spent working on campus	.001 (.021)	.001	.002 (.021)	.002	.005 (.021)	.005	.007 (.021)	.007
Hours spent working off campus	.026 (.022)	.026	.026 (.022)	.026	.028 (.022)	.028	.029 (.022)	.029
Live within walking distance of campus	.098 (.050)	.045	.102 (.054)	.047	-.008 (.085)	-.004	.001 (.088)	.000
Live within driving distance of campus	.109 (.054)	.048	.080 (.059)	.035	-.164 (.103)	-.072	-.188 (.105)	-.083
Live in a fraternity or sorority house	.061 (.087)	.015	.080 (.091)	.019	-.035 (.130)	-.008	-.007 (.134)	-.002
Frequency of Academic Related Interactions with Peers in the first year	.261 (.020)	.261**	.263 (.020)	.262**	.258 (.020)	.258**	.259 (.020)	.259**
Interaction: Students of color x Walking distance			-.056 (.143)	-.010			-.059 (.143)	-.011
Interaction: Students of color x Driving distance			.193 (.138)	.037			.182 (.138)	.035
Interaction: Students of color x Fraternity/sorority house			-.340 (.326)	-.022			-.346 (.326)	-.023
Interaction: Female x Walking distance					.152 (.104)	.060	.147 (.104)	.058
Interaction: Female x Driving distance					.366 (.117)	.147*	.363 (.117)	.146*
Interaction: Female x Fraternity/sorority house					.138 (.175)	.025	.125 (.175)	.022
R ²	.082		.083		.085		.087	
Adjusted R ²	.077		.078		.080		.080	
F	18.629**		14.946**		15.379**		12.908**	

N= 2383, * $p < .008$ ** $p < .001$

Frequency of Co-Curricular Related Peer Interactions

A mean comparison for frequency of co-curricular related peer interactions by place of residence, provided in Table 4.5, shows that the mean response for frequency of co-curricular related peer interactions in the senior year is higher for students who live on campus than for students who live within walking or driving distance of campus. Students who live in a fraternity or sorority house have a higher mean than all other groups of students.

Table 4.5
Mean Frequency of Co-Curricular Related Peer Interactions by Place of Residence in Senior Year

Senior Year Place of Residence	First Year Frequency Co-Curricular Related Peer Interactions	Senior Year Frequency Co-Curricular Related Peer Interactions
On Campus	2.54	2.95
Walking Distance from Campus	2.67	2.80
Driving Distance from Campus	2.10	2.20
Sorority or Fraternity House	3.11	3.67

Senior Mean= 2.75, Standard Deviation =1.651, Scale: 8= More than 30 Hours, 7= 26-30 Hours, 6= 21-25 Hours, 5= 16-20 Hours, 4= 11-15 Hours, 3= 2-10 Hours, 2= 1-5 Hours, 1= 0 Hours

Table 4.6 provides a summary of the ordinary least squares blocked multiple regression analysis predicting frequency of co-curricular related peer interactions. The significance of the F value is smaller than .001, so the model in each block is significant. Together, the independent variables account for 21.5% of the variance in the frequency of co-curricular related peer interactions. It is important to remember that the variables in the data set did not factor into a frequency of meaningful interactions with peers factor. Therefore, a single-item was used as the dependent variable for Frequency of Co-Curricular Related Peer Interactions. As was discussed previously, a regression model with a single-item dependent variable is expected to have a lower R^2 than it would if a factor was available (Pedhazur, 1997; Walker & Maddan, 2009). However,

it was important to use the single-item variable to ensure distinct understanding between the different types of relationships and interactions with peers.

In this model, female students have fewer co-curricular related peer interactions than male students ($B=-.163, p<.001$). Students' socioeconomic status is positively associated with frequency of co-curricular related peer interactions ($B=.055, p<.008$). Academic commitment is positively associated ($B=.050, p<.008$) and time spent working off campus is negatively associated ($B=-.058, p<.008$) with frequency of co-curricular related peer interactions.

Frequency of co-curricular related peer interactions in the first year are positively related to the frequency of co-curricular related peer interactions in the senior year ($B=.365, p<.001$).

Block 1 of the model shows that living within walking distance ($B=-.125, p<.008$) and driving distance ($B=-.249, p<.001$) of campus is negatively associated with co-curricular related peer interactions relative to living on campus. Living in fraternity and sorority houses is positively associated with frequency of co-curricular related peer interactions ($B=.234, p<.008$). In Block 2, when the interaction between place of residence and race is added, the model finds that the effect of living within driving distance of campus on the frequency of co-curricular related peer interactions is less negative for students of color than for white students ($\beta=.336, p<.008$). No race related differences were found for students who live within walking distance of campus or in fraternity or sorority houses. Block 3 shows that there is no significant difference in the effect of place of residence across gender. Block 4 shows no significant difference in the effect of place of residence when race and gender are considered together.

In Block 2, when the interaction term between place of residence and race is added, the relative size of the B for the main effect "lives within driving distance of campus" changes from $B=-.249$ to $B=-.303$. As previously discussed, when the interaction between "lives within

driving distance of campus” and race is added, the main effect of “live within driving distance of campus” now refers to the referent group, white students who live within driving distance of campus (Pedhazur, 1997; Jaccard & Turrisi, 2003). The interaction term between “live within driving distance of campus” and race ($B= .336, p<.008$) shows the extent to which the effect of living within driving distance of campus differs between students of color and white students. This interaction shows that living within driving distance of campus is associated with a less negative effect on frequency of co-curricular peer interactions for students of color than White students.

A graph illustrating the interaction provides mean values for frequency of co-curricular related peer interactions by place of residence and race in Figure 4.3.

Figure 4.3
Graph of Mean Frequency of Co-Curricular Related Peer Interactions by Live On-Campus/Live within Driving Distance of Campus and Race

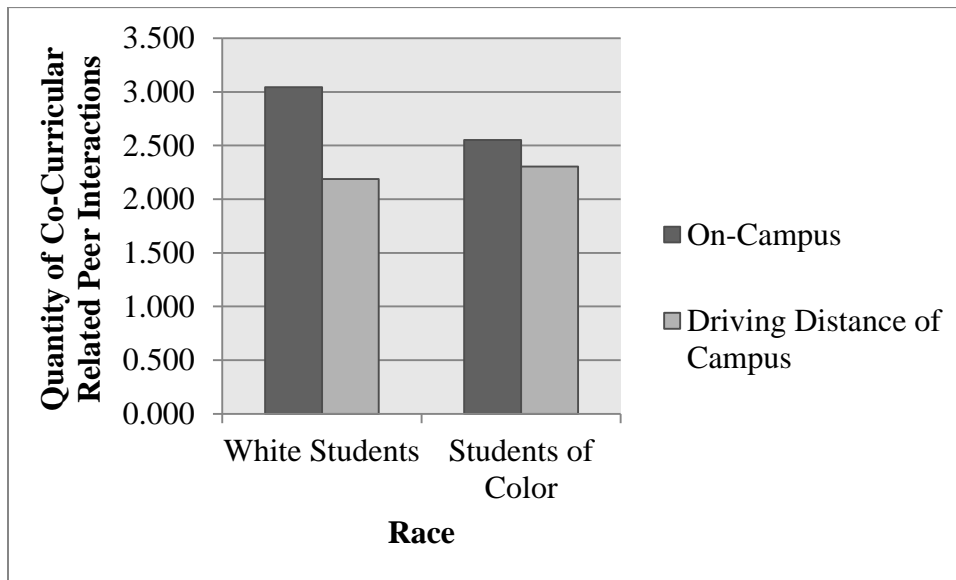


Table 4.6

Summary of the Ordinary Least Squares Blocked Multiple Regression Analysis Predicting Frequency of Co-Curricular Related Interactions with Peers in the Senior Year

	Block 1		Block 2		Block 3		Block 4	
	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
Students of Color	-.079 (.054)	-.028	-.208 (.078)	-.073*	-.080 (.054)	-.028	-.205 (.078)	-.073
Female	-.163 (.041)	-.076**	-.162 (.041)	-.075**	-.233 (.067)	-.108**	-.230 (.066)	-.107**
Socioeconomic Status	.055 (.019)	.055*	.056 (.019)	.056*	.056 (.019)	.056*	.057 (.019)	.057*
Academic Achievement	-.034 (.019)	-.034	-.036 (.019)	-.036	-.034 (.019)	-.034	-.035 (.019)	-.035
Hours spent preparing for class	.050 (.019)	.050*	.049 (.019)	.049	.049 (.019)	.049	.049 (.019)	.049
Hours spent working on campus	.035 (.020)	.035	.036 (.020)	.036	.038 (.020)	.038	.039 (.020)	.039
Hours spent working off campus	-.058 (.020)	-.058*	-.059 (.020)	-.059*	-.056 (.020)	-.057*	-.057 (.020)	-.057*
Live within walking distance of campus	-.125 (.046)	-.058*	-.149 (.049)	-.069*	-.164 (.079)	-.075	-.185 (.081)	-.085
Live within driving distance of campus	-.249 (.050)	-.110**	-.303 (.054)	-.134**	-.418 (.095)	-.185**	-.466 (.096)	-.206**
Live in a fraternity or sorority house	.234 (.080)	.057*	.203 (.084)	.049	.206 (.120)	.050	.177 (.123)	.043
Frequency of Co-Curricular related peer interactions in the first year	.365 (.019)	.365**	.365 (.019)	.364**	.366 (.019)	.365**	.365 (.019)	.365**
Interaction: Students of color x Walking distance			.130 (.132)	.023			.125 (.132)	.023
Interaction: Students of color x Driving distance			.336 (.128)	.065*			.330 (.128)	.064
Interaction: Students of color x Fraternity/sorority house			.228 (.300)	.015			.220 (.301)	.014
Interaction: Female x Walking distance					.054 (.096)	.021	.051 (.096)	.020
Interaction: Female x Driving distance					.226 (.108)	.091	.219 (.108)	.089
Interaction: Female x Fraternity/sorority house					.030 (.162)	.005	.030 (.162)	.005
R ²	.217		.219		.218		.221	
Adjusted R ²	.213		.214		.214		.215	
F	57.944**		46.112**		45.884**		38.250**	

N= 2383, * $p < .008$ ** $p < .001$

Quality of Faculty Relationships

A mean comparison for quality of faculty relationships by place of residence, provided in Table 4.7, shows that the mean response for quality of faculty relationships in the senior year is higher for students who live in fraternity or sorority houses than other students. Students who live within walking distance of campus also have a higher mean than students who live on campus or within driving distance of campus.

Table 4.7
Mean Quality of Faculty Relationships by Place of Residence in Senior Year

Senior Year Place of Residence	First Year Quality of Faculty Relationships	Senior Year Quality of Faculty Relationships
On Campus	5.66	5.77
Walking Distance from Campus	5.76	5.87
Driving Distance from Campus	5.63	5.79
Sorority or Fraternity House	5.84	6.00

Senior Mean= 5.82, Standard Deviation= 1.119, Scale: 7= Available, Helpful, Sympathetic ... 1= Unavailable, Unhelpful, Unsympathetic

Table 4.8 provides a summary of the ordinary least squares blocked multiple regression analysis predicting quality of relationships with faculty. The significance of the F value is smaller than .001, so the model in each block is significant. In total, independent variables account for 17.4% of the variance in the quality of faculty relationships. As was explained in Chapter 3, there is only one variable that measures quality of relationships with faculty in the data set. To ensure that the study focuses on the different types of interactions and relationships separately, this single item variable was used as the dependent variable in this regression. However, single-item variable do net lower R^2 than do factors (Pedhazur, 1997; Walker & Maddan, 2009).

In this model, academic achievement is positively associated with quality of faculty relationships ($B=.204, p<.001$). Additionally, quality relationships with faculty in students' first

year are positively related to the quality of faculty relationships in the senior year ($B=.306$, $p<.001$).

Block 1 shows no effect of place of residence on quality of relationships with faculty. Block 2 shows no significant differences in the effect of place of residence across race/ethnicity are apparent. Block 3 shows that living on campus has a more positive effect on quality of relationships with faculty for female students than male students. It also shows that when compared with living on campus, living in a sorority or fraternity house has a positive effect on quality of relationships with faculty for male students. Block 4 shows that there is no difference in effect of place of residence when gender and race are considered together.

In Block 3, when the interaction term between place of residence and gender is added, the B for the main effects of “female” increases in magnitude ($B = .079$ to $B = .181$) and becomes significant. The same is true for the main effect “live in a fraternity or sorority house” ($B = .178$ to $B = .363$). As a reminder, when the interaction term is added, the main effect now represents the referent group (Pedhazur, 1997; Jaccard & Turrisi, 2003). In this block “female” refers to the referent group, female students who live on campus, and indicates that of students who live on campus, female students have greater quality relationships with faculty than male students. In this block, “live in a sorority or fraternity house” refers to the referent group, male students. This indicates that for male students, living in a fraternity or sorority house has a positive effect on quality of relationships with faculty when compared with student who live on campus. The interaction term between “live in a fraternity or sorority house” and gender represents the difference in the effect of living in a sorority or fraternity between male and female students. This interaction was not statistically significant.

Table 4.8

Summary of the Ordinary Least Squares Blocked Multiple Regression Analysis Predicting Quality of Relationships with Faculty in the Senior Year

	Block 1		Block 2		Block 3		Block 4	
	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
Students of Color	.008 (.054)	.003	-.015 (.079)	-.005	.005 (.054)	.002	-.018 (.079)	-.006
Female	.079 (.042)	.037	.079 (.042)	.037	.181 (.068)	.084*	.181 (.068)	.085*
Socioeconomic Status	.003 (.020)	.003	.003 (.020)	.003	.004 (.020)	.004	.004 (.020)	.004
Academic Achievement	.204 (.019)	.206**	.204 (.019)	.206**	.203 (.019)	.205**	.202 (.019)	.205**
Hours spent preparing for class	.047 (.019)	.048	.047 (.019)	.048	.046 (.019)	.046	.046 (.019)	.046
Hours spent working on campus	.001 (.020)	.001	.001 (.020)	.001	.000 (.020)	.000	.000 (.020)	.000
Hours spent working off campus	-.018 (.021)	-.018	-.018 (.021)	-.018	-.019 (.021)	-.019	-.019 (.021)	-.019
Live within walking distance of campus	.072 (.047)	.034	.069 (.050)	.032	.178 (.080)	.082	.176 (.083)	.081
Live within driving distance of campus	.045 (.051)	.020	.038 (.055)	.017	.127 (.096)	.056	.120 (.098)	.053
Live in a fraternity or sorority house	.178 (.082)	.043	.156 (.086)	.038	.363 (.123)	.089*	.339 (.126)	.083*
Quality of relationships with faculty in the first year	.306 (.019)	.308**	.306 (.019)	.308**	.305 (.019)	.307**	.305 (.019)	.307***
Interaction: Students of color x Walking distance			.013 (.135)	.002			.010 (.135)	.002
Interaction: Students of color x Driving distance			.042 (.130)	.008			.046 (.130)	.009
Interaction: Students of color x Fraternity/sorority house			.278 (.307)	.018			.253 (.308)	.017
Interaction: Female x Walking distance					-.156 (.098)	-.062	-.158 (.098)	-.063
Interaction: Female x Driving distance					-.117 (.110)	-.047	-.118 (.110)	-.048
Interaction: Female x Fraternity/sorority house					-.322 (.165)	-.058	-.314 (.165)	-.056
R ²	.172		.172		.174		.174	
Adjusted R ²	.168		.167		.169		.168	
F	43.560**		34.256**		34.616**		28.523**	

N= 2383, * $p < .008$ ** $p < .001$

Frequency of Meaningful Faculty Interactions

A mean comparison for frequency of meaningful faculty interactions by place of residence, provided in Table 4.9, shows that the mean response for frequency of meaningful faculty interactions in the senior year is higher for students who live in fraternity or sorority houses than other students. Students who live on campus also have a higher mean than those that live within walking distance or driving distance from campus.

Table 4.9
Mean Frequency of Meaningful Faculty Interactions by Place of Residence in Senior Year

Senior Year Place of Residence	First Year Frequency of Meaningful Faculty Interactions	Senior Year Frequency of Meaningful Faculty Interactions
On Campus	.037	.051
Walking Distance from Campus	-.022	-.073
Driving Distance from Campus	-.119	-.061
Sorority or Fraternity House	.395	.312

Senior variance explained= 44.17%, Cronbach's Alpha= .785

Table 4.10 provides a summary of the ordinary least squares blocked multiple regression analysis predicting frequency of meaningful interactions with faculty. The significance of the F value is smaller than .001, so the model in each block is significant. Together, the independent variables account for 30.8% of the variance in the frequency of meaningful faculty interactions. The percent of predicted variance is higher than that of the other regression models in this study. As was explained in Chapter 3, the Frequency of Meaningful Faculty Interactions variable is a factor made up of seven individual variables. This provides a good example of the fact that dependent variables that are factors yield higher R^2 than single item variables (Pedhazur, 1997; Walker & Maddan, 2009).

In this model, academic achievement ($B=.113, p<.001$), academic commitment ($B=.131, p<.001$), and time spent working on campus ($B=.068, p<.001$) are positively associated with

frequency of meaningful faculty interactions. Additionally, frequency of meaningful interactions with faculty in year one are positively related to the frequency of meaningful interactions with faculty in the senior year ($\beta=.476, p<.001$).

Block 1 shows no effect of place of residence on frequency of meaningful interactions with faculty. Blocks 2, 3, and 4 show that no significant difference in the effect of place of residence across race/ethnicity or gender are apparent.

Table 4.10

Summary of the Ordinary Least Squares Blocked Multiple Regression Analysis Predicting Frequency of Meaningful Interactions with Faculty in the Senior Year

	Block 1		Block 2		Block 3		Block 4	
	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
Students of Color	-.046 (.050)	-.016	-.020 (.073)	-.007	-.046 (.051)	-.016	-.020 (.073)	-.007
Female	.053 (.038)	.025	.051 (.039)	.024	.049 (.063)	.023	.048 (.063)	.022
Socioeconomic Status	-.018 (.018)	-.018	-.019 (.018)	-.019	-.018 (.018)	-.018	-.018 (.018)	-.018
Academic Achievement	.113 (.018)	.113**	.113 (.018)	.114**	.112 (.018)	.112**	.113 (.018)	.113**
Hours spent preparing for class	.131 (.018)	.130**	.130 (.018)	.130**	.130 (.018)	.130**	.130 (.018)	.130**
Hours spent working on campus	.068 (.018)	.067**	.069 (.019)	.068**	.068 (.019)	.067**	.069 (.019)	.068**
Hours spent working off campus	.029 (.019)	.029	.028 (.019)	.029	.028 (.019)	.028	.028 (.019)	.028
Live within walking distance of campus	-.087 (.043)	-.040	-.070 (.047)	-.032	-.120 (.074)	-.055	-.100 (.077)	-.046
Live within driving distance of campus	-.014 (.047)	-.006	-.014 (.051)	-.006	-.040 (.089)	-.018	-.041 (.091)	-.018
Live in a fraternity or sorority house	.118 (.076)	.029	.115 (.079)	.028	.255 (.113)	.062	.252 (.117)	.061
Frequency of meaningful interactions with faculty in the first year	.476 (.018)	.475**	.477 (.018)	.476**	.475 (.018)	.474**	.476 (.018)	.475**
Interaction: Students of color x Walking distance			-.136 (.124)	-.025			-.130 (.124)	-.023
Interaction: Students of color x Driving distance			.014 (.121)	.003			.014 (.121)	.003
Interaction: Students of color x Fraternity/sorority house			.087 (.283)	.006			.052 (.283)	.003
Interaction: Female x Walking distance					.051 (.091)	.020	.046 (.091)	.018
Interaction: Female x Driving distance					.034 (.102)	.014	.035 (.102)	.014
Interaction: Female x Fraternity/sorority house					-.262 (.152)	-.047	-.258 (.153)	-.046
R ²	.311		.311		.312		.312	
Adjusted R ²	.307		.307		.308		.307	
F	94.035**		73.962**		74.238**		61.180**	

N= 2383, * $p < .008$ ** $p < .001$

Frequency of Meaningful Interactions with Diverse Others

A mean comparison for frequency of meaningful diverse interactions by place of residence, provided in Table 4.9, shows that the mean response for frequency of meaningful diverse interactions in the senior year is higher for students who live in fraternity or sorority houses than other students. Students who live on campus also have a higher mean than those that live within walking distance or driving distance from campus.

Table 4.11
Mean Frequency of Meaningful Diverse Interactions by Place of Residence in Senior Year

Senior Year Place of Residence	First Year Frequency of Meaningful Diverse Interactions	Senior Year Frequency of Meaningful Diverse Interactions
On Campus	.035	.044
Walking Distance from Campus	.071	.000
Driving Distance from Campus	-.193	-.124
Sorority or Fraternity House	.270	.271

Senior Variance Explained= 79.82, Cronbach's Alpha= .747

Table 4.12 provides a summary of the ordinary least squares blocked multiple regression analysis predicting frequency of meaningful interactions with diverse others. The significance of the F value is smaller than .001, so the model in each block is significant. Combined, the independent variables together account for 21.7% of the variance in the frequency of meaningful interactions with diverse others. Other than frequency of meaningful faculty interactions, the percent of predicted variance for frequency of meaningful interactions with diverse others is higher than that of the other regression models in this study. As was explained in Chapter 3, the Frequency of Meaningful Interactions with Diverse Others variable is a factor made up of two individual variables. This provides another good example of the fact that dependent variables that are factors yield higher R^2 than single item variables (Pedhazur, 1997; Walker & Maddan, 2009).

In this model, students of color report greater frequency of meaningful interactions with diverse others than white students ($B=.117, p<.001$). Academic commitment is positively associated with frequency of meaningful diverse interactions ($B=.057, p<.008$). Quantity of interaction with diverse others in the first year is positively related to the frequency of meaningful interactions with diverse others in the senior year ($B=.413, p<.001$).

Block 1 shows no effect of place of residence on frequency of meaningful interactions with diverse others. Block 2 shows no difference in the effect of place of residence based on race. In Block 3, the model shows that when compared to students who live on campus, there is a positive effect of living in a fraternity or sorority house for male students ($B=.348, p<.008$). Block 4 shows no significant differences in the effect of place of residence when gender and race are considered together.

In Block 3, when the interaction term between place of residence and gender is added, the size of the B for the main effect “live in a sorority or fraternity house” increases from $B= .162$ to $B= .348$ and at the same time it becomes statistically significant. Once the interaction term is added, the main effect “live in a fraternity or sorority house” now represents the referent group, male students who live in a fraternity or sorority house (Jaccard & Turrisi, 2003; Pedhazur, 1997). This significant main effect indicates that when compared with students who live on campus, living in a fraternity or sorority house has a positive effect for male students. The interaction term between “live in a fraternity or sorority house” and gender represents the difference in the effect of living in a sorority or fraternity between male and female students. The interaction term between place of residence and gender was not statistically significant.

Table 4.12

Summary of the Ordinary Least Squares Blocked Multiple Regression Analysis Predicting Frequency of Meaningful Interactions with Diverse Others in the Senior Year

	Block 1		Block 2		Block 3		Block 4	
	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
Students of Color	.329 (.054)	.117**	.406 (.078)	.144**	.327 (.054)	.116**	.404 (.078)	.144**
Female	.001 (.041)	.000	-.002 (.041)	-.000	.069 (.066)	.032	.067 (.066)	.031
Socioeconomic Status	.021 (.019)	.021	.020 (.019)	.020	.021 (.019)	.022	.021 (.019)	.021
Academic Achievement	.011 (.019)	.011	.012 (.019)	.012	.009 (.019)	.009	.010 (.019)	.010
Hours spent preparing for class	.057 (.019)	.057*	.057 (.019)	.057*	.056 (.019)	.056*	.056 (.019)	.056*
Hours spent working on campus	.027 (.020)	.026	.027 (.020)	.027	.025 (.020)	.025	.026 (.020)	.025
Hours spent working off campus	.051 (.020)	.051	.051 (.020)	.051	.050 (.020)	.050	.050 (.020)	.051
Live within walking distance of campus	-.055 (.046)	-.025	-.030 (.049)	-.014	-.004 (.079)	-.002	.024 (.081)	.011
Live within driving distance of campus	-.095 (.050)	-.042	-.076 (.054)	-.034	-.037 (.095)	-.017	-.020 (.096)	-.009
Live in a fraternity or sorority house	.162 (.080)	.040	.184 (.083)	.045	.348 (.120)	.085*	.373 (.123)	.091*
Quality of interactions with diverse others in the first year	.413 (.019)	.415**	.413 (.019)	.415**	.412 (.019)	.414**	.413 (.019)	.415**
Interaction: Students of color x Walking distance			-.174 (.132)	-.032			-.173 (.132)	-.031
Interaction: Students of color x Driving distance			-.111 (.128)	-.021			-.109 (.128)	-.021
Interaction: Students of color x Fraternity/sorority house			-.182 (.300)	-.012			-.216 (.301)	-.014
Interaction: Female x Walking distance					-.075 (.096)	-.030	-.079 (.096)	-.031
Interaction: Female x Driving distance					-.082 (.108)	-.033	-.079 (.108)	-.032
Interaction: Female x Fraternity/sorority house					-.331 (.161)	-.060	-.334 (.161)	-.060
R ²	.214		.215		.216		.217	
Adjusted R ²	.211		.210		.211		.211	
F	57.214**		45.083**		45.287**		37.406**	

N= 2383, * $p < .008$ ** $p < .001$

Each individual dependent variable and multiple regression analysis provides specific information about the effect of place of residence on relationships and interactions with peers, faculty, and diverse others. To understand the results as they are outlined in this chapter, it is helpful to understand the role they play in answering the three primary research questions. First, the results do suggest some differences in the relationships and interactions with peers, faculty, and diverse others based on place of residence. Specifically, living within driving distance of campus is negatively associated with quality relationships with peers and frequency of co-curricular related interactions with peers. Living within walking distance of campus is negatively associated with frequency of co-curricular related interactions with peers. Living in a fraternity or sorority houses is positively associated with frequency of co-curricular related interactions with peers.

As outlined in Chapter 2, I did expect to find some differences in the effects of place of residence on relationships with peers, faculty, and diverse others based on both gender and race. The results of this study do show that there are two primary differences in the effect of place of residence on peer interactions and relationships based on gender. The effect of living driving distance from campus on quality of relationships with peers is more negative for male students than for female students. The effect of living within driving distance of campus on frequency of academic related peer interactions is more positive for female students than male students. Finally, the results show only one difference in the effects of place of residence and relationships and interactions with peers, faculty, and diverse others based on race. Living driving distance from campus has less negative impact on frequency of co-curricular interactions for students of color than for white students.

In Chapter 5, I will explore hypothesized explanations for these findings and will discuss the implications in detail.

CHAPTER 5

Discussion

Each fall, a new group of first-year college students “go off” or “go away” to college. The implied experience in these common phrases is that of living away from home. In the United States, living at school has been thought of as a central part of the college experience since the founding of the first university in the 1600s (Rudolph, 1990). However, according to the US Department of Education National Center for Education Statistics 2003-2004 National Postsecondary Student Aid Study, only 25.6% of all undergraduate students at four year institutions live on campus. This is 51% of first year students, 38.9% of second year students, 25.6% of third year students, 18.25% of fourth year students, and 11.9% of fifth year students (U.S. Department of Education, 2004).

As I explored in the introduction to this study, the trend toward students living off-campus developed initially because colleges lacked the resources to build residence halls for their growing number of students. However, it has also served the need of the changing population of college students, who come from much more diverse socioeconomic backgrounds than students from past generations and who are looking for ways to keep the cost of their educations low (Kim & Rury, 2011; Chickering, 1974, Schroeder and Mable, 1994). The average cost of room and board at a college or university in 2010 was over \$8,000 per student (National Center for Education Statistics, 2010). This is money that can largely be saved if a student lives at home. In many ways, this trend has been a benefit as it has helped open access to

a college education to a wider diversity of students (Schroeder and Mable, 1994). At the same time, however, little is known about the impact the decrease in the percent of students living on campus has on the student experience and ultimately on student success.

As was detailed in Chapter 2, one key experience identified by a number of researchers to be positively associated with student outcomes is students' interactions and relationships with their peers, faculty, and diverse others. Interactions and relationships with faculty and peers have been linked to improved adjustment, psychosocial development, cognitive development, achievement and persistence in college, and development of positive attitudes and values (Kuh et al., 2006; Pascarella & Terenzini, 2005). Students' interactions with diverse others have been connected to more positive intergroup attitudes, higher moral reasoning, increased cognitive development, higher academic self confidence, and better critical thinking skills (Denson & Chang, 2009). There is evidence that living on campus can contribute to greater interactions and relationships with peers and faculty (Chickering, 1974; Chickering & Reiser, 1993; Astin, 1977; and Pascarella & Terenzini, 2005) and with diverse others (Derryberry & Thoma, 2000).

Because much of the research is older and focused on first-year students, this study was developed to gain a current understanding of the effect that place of residence has on students' interactions and relationships with peers, faculty, and diverse others in their senior year. As colleges and universities continue to develop and revise their strategic plans and housing master plans, they need current, relevant information on the benefits and/or drawbacks to students living on campus at all stages of their college experience. This information is critical for practitioners as they make decisions about the resources they dedicate to campus housing and about campus housing requirements and policies. It is also essential for administrators to have this

understanding as they develop resources and support systems for students who do not live on campus, either because of lack of opportunity to live on campus or because of personal choice.

As was outlined in Chapter 2, Astin's Theory of Involvement and Input-Environment-Output model (1993) provides the framework for this research. This Theory and Model were chosen because they serve as a framework to assess the impact of college environmental experiences by controlling for input characteristics and using student outcomes as measures of impact. In this study, the environmental experience being studied is place of residence and the student outcome is interactions and relationships with peers, faculty, and diverse others. Astin supports the use of the Theory of Involvement in this way. He states "according to the theory of student involvement, learning and development is enhanced by such things as living on campus and full-time attendance because the student tends to invest more time and more physical and psychological energy in the educational experience" (1993, p. xiii).

In this study, instead of separating quality and quantity of relationships and interactions, I focused on three different aspects of quality interactions: quality of relationships, frequency of meaningful educational experiences, and frequency of meaningful cross-cultural experiences. Though frequency of interactions is often considered quantity and it is measured quantitatively, by focusing on meaningful experiences, they are also a measure of quality.

The specific contribution of this study is three-fold. First, it focuses on a specific set of student experiences, interactions and relationships that are known to contribute to positive student outcomes for both first-year students as well as senior students. By providing current empirical research on these experiences, the information gained through this study will help administrators and practitioners better understand the ways in which living on campus contributes to these educationally and cross-culturally meaningful experiences. This

understanding will contribute to administrators' ability to develop on-campus experiences that maximize opportunities for interactions and relationships with peers, faculty, and diverse others. It will also contribute to administrators' ability to supplement the experiences of off-campus students in ways that compensate for experiences they may miss by not living on-campus.

Second, the study focuses specifically on students in the senior year, not on first-year students like most studies. Because the study also controls for interactions and relationships at the end of the first-year, the study provides legitimate perspective on the experiences of students beyond their first year of college. Therefore this research strives to contribute to the empirical research administrators use in developing programs to support upper-class students, who are currently overlooked in both research and administrative practice. And third, the study utilizes six different dependent variables related to interactions and relationships, distinguishing between peer, faculty, and diverse others and between frequency of meaningful interactions and quality of relationships. By focusing on the connections between place of residence and six different types of interactions and relationships, this study contributes information that will assist administrators in developing programs for both on-campus and off-campus students that target the specific interactions or relationships that they are most likely to need support with based on their place of residence.

Taking into account the existing theoretical and empirical literature on the connections between place of residence and interactions and relationships, along with the results of this study, I assert that the relationship between the two is complex and nuanced. Based on the findings of this study, it is not appropriate to make a blanket statement about the benefits of living on campus in reference to all interactions and relationships. In each aspect of interactions and relationships studied in this research, a different relationship with place of residence was found.

However, some positive connections were found between place of residence and interactions and relationships, suggesting some benefit to living on campus in the senior year. The study did not find a number of notable findings that contribute to our understanding of the three research questions.

Explanation of Findings

Researchers continue to cite past research that finds significant connections between living on campus and experiencing greater interactions and relationships with their peers, faculty, and diverse others (Pascarella & Terenzini, 2005; Kuh et al., 2006). Their synthesis of the existing findings and Astin's Theory of Involvement (1993) provide the basis for the exploration of the first question in this study: How do student relationships and interactions with their peers, faculty, and diverse others differ between students who live on-campus and students who live off-campus in their senior year?

The primary finding of this study is that students who live on campus in their senior year do experience some more positive interactions and relationships with their peers than students who live off campus. This was true for two of the three variables related to peer interactions and relationships. The results for faculty interactions and relationships and for interactions with diverse others show no positive or negative effects of place of residence.

It is most important to discuss the unique findings for each type of interaction or relationship. The next three sections will discuss the findings related to the first research question for each type of interactions and relationships: peers, faculty, and diverse others.

Peer Interactions and Relationships Findings

This study finds that there is some positive association between living on campus and students' interactions and relationships with peers in the senior year. Living in a fraternity or sorority house also has some positive effects on meaningful interactions with peers but not on

quality of relationships with peers. Because the findings differ by specific place of residence, the remainder of this section of this chapter will discuss the results by each place of residence.

Live Off Campus (Within Walking or Driving Distance)

Living driving distance from campus seems to have the most negative impact on peer interactions and relationships as it is negatively associated with both quality of peer relationships and frequency of co-curricular peer interactions. For quality of relationships with peers, the size of this negative effect is relatively small, 16% of a standard deviation. However, for frequency of co-curricular related peer interactions, the size of the negative effect of living driving distance from campus is a quarter of a standard deviation. This would indicate that living driving distance from campus has a small effect on quality of relationships while it has a modest effect on frequency of co-curricular peer interactions.

Living within walking distance of campus was negatively associated with frequency of co-curricular related peer interactions. However, the size of this negative effect was relatively small, 13% of a standard deviation.

The small to moderate negative effects of living off-campus on quality of peer relationships and frequency of co-curricular related peer interactions are both congruent with the literature. The fact that living within driving distance of campus has more negative effect than living within walking distance was also expected. Students who live within driving distance are more likely to be living at home with parents away from the campus community than students who live walking distance from campus. Students who live within walking distance of campus are more likely to be living in the off-campus university community and to be living with peers from the university. Based on this, other researchers have also found a more negative effect of living within driving distance of campus because these students are more removed from the

university community, which is in line with the results of this study (Kuh et al., 2006; Chickering, 1974). The fact that this study controls for the quality of relationships and frequency of co-curricular peer interactions in the students' first year confirms that the negative effect of living off campus persists beyond the first year.

I did expect to find that living walking distance from campus would also have small negative effects on the quality of student relationships with their peers. However, there is a logical explanation for the finding that there is no effect. Students who live within walking distance of campus are more likely than students who live within driving distance to be living with their peers, thus continuing the development of the quality of their peer relationships in a similar way as on-campus students. However, living within walking distance of campus does remove them from the immediate campus community, which leads to less time spent on campus and therefore lowers their co-curricular involvement.

To consider this hypothesis, I compared the mean scores for hours spent working on and off campus by place of residence. Doing so adds another layer of understanding of campus engagement in general. The regression analysis for co-curricular related peer interactions shows that the more students work off campus, the less frequent co-curricular interactions they have. The means are provided in Table 5.1 and do show that students who live within driving distance of campus are most likely to work off campus and least likely to work on campus, while students who live on campus are most likely to work on campus and least likely to work off campus. Students who live within walking distance of campus are in the middle for both indicators.

Table 5.1
 Mean Hours Spent Working On and Off Campus by Place of Residence

Place of Residence	Hours Spent	
	Working Off Campus	Working On Campus
On Campus	1.87	2.51
Walking Distance	2.17	2.22
Driving Distance	3.42	1.81
Fraternity or Sorority House	1.46	2.16

Off Campus Mean= 2.34, Standard Deviation= 2.023; On Campus Mean= 2.22, Standard Deviation= 1.475; Scale: eight point scale with 8= More than 30 Hours, 7= 26-30 Hours, 6= 21-25 Hours, 5= 16-20 Hours, 4= 11-15 Hours, 3= 6-10 Hours, 2= 1-5 Hours, and 1= 0 Hours.

The significant number of hours students who live driving distance from campus spend working off campus likely serves to draw them away from the campus community (Pascarella & Terenzini, 2005). It makes sense then that they would have less time to spend interacting with their peers co-curricularly and would have lower quality relationships with their peers. For students who live within walking distance of campus, their level of off-campus work indicates that they have fewer distractions from engaging in the campus community than students who live within driving distance, but more than students who live on campus. This lends credibility to the finding in this research that when considering co-curricular related interactions with peers, living within walking distance is more positive than living within driving distance but not as positive as living on campus.

However, the level of work off campus would lead me to hypothesize that students who live within walking distance of campus would also indicate that their quality of relationships with peers are between those of students who live within driving distance and students who live on campus (Kuh et al., 2006; Chickering, 1974). However, this study finds no difference in quality of peer relationships between students who live within walking distance of campus and those who live on campus. This lends credibility to my belief that this is because they are living in the off campus community where they are still living with peer students and are therefore

continuing to develop quality relationships even while they have fewer co-curricular related peer interactions.

Live in a Fraternity or Sorority House

Living in a fraternity or sorority house had no effect on quality of relationships with peers, indicating that students who live on campus and students who live in a fraternity or sorority are similar in their quality of peer relationships. Based on the literature cited in Chapter 2, it was difficult to predict the connection between living in a sorority or fraternity house and quality of relationships with peers. While some studies have found positive effects of fraternity and sorority houses, others have found negative effects (Heyek et al., 2002; Bureau et al., 2011). While there was no association found between living in a sorority or fraternity house and quality of peer relationships, students who live in a fraternity or sorority house were found to have more frequent co-curricular interactions with their peers. The size of this positive effect is more than a quarter of a standard deviation, which is meaningful.

Fraternity and sorority houses are communities based on co-curricular engagement with peers. Similar to living in a residence hall, in fraternity and sorority houses there are planned activities and structures that encourage students to interact with one another and participate in co-curricular activities. However, unlike residence halls, fraternity and sororities often have requirements for co-curricular participation for their members, which may lead to more frequent co-curricular interactions with other students (Bureau et al., 2011). It is important to note though, that these interactions would typically be with other members of fraternities and sororities and may not provide the breadth of interactions as on-campus living.

However, an aspect of the survey question used as the variable for co-curricular related peer interactions, may also be contributing to this finding. The question asks: “*About how many*

hours do you spend in a typical 7-day week participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate, or intramural sports, etc.)”. The question provides time spent participating in a fraternity or sorority as a specific example of co-curricular involvement. Though time spent participating in a residence hall is co-curricular involvement, it is not explicitly stated as an example in the question. Additionally, students often consider the time they spend engaging in their residence hall to be time spent in their home community but not necessarily time spent in a co-curricular activity. It is probable that some students who live on campus did not include time spent participating in residence hall programs or activities in their calculation of the time spent in co-curricular activities. However, students who live in fraternities or sororities would include their time participating in fraternity or sorority programs and activities as part of their co-curricular activities because the survey question explicitly prompts them to do so – and because students generally perceive this participation in their fraternity or sorority to be part of their co-curricular experience. Due to this limitation in NSSE, it is important that this finding not be over emphasized.

Academic Related Peer Interactions

A key difference between the findings of this study and the existing literature is the fact that this study finds no difference in academic related peer interactions based on place of residence. Kuh et al. (2006), Chickering (1974), Astin (1999), and Schroeder and Mable (1994) all find that living on campus provides students with the most optimal environment to engage with peers around academic projects and collaborative studying. Therefore, I expected to find that students who live on campus in their senior year would have more academic related interactions with their peers than off campus students.

The question used for this variable asks students to indicate the frequency with which they “*Worked with classmates outside of class to prepare class assignments*”. As students continue in their college experience, their course work typically becomes more collaborative in nature. Faculty members assign more group projects to senior students and have greater expectations of collaboration among senior students than first year students (Gardner & Van der Veer, 1998). It is possible that this increase for all students negates the effects of place of residence. A review of this variable shows that the mean academic related peer interactions for all students increased from 2.59 in the first year to 2.87 in the senior year and that the means for students in each place of residence similarly increased. This suggests that as students move from their first-year to their senior year, their out of class work on class assignments increases regardless of place of residence. However, if a factor related to academic related peer interactions was available, or if a different related variable had been used, the results may be much different. It is important to note this limitation of the study and to consider it when discussing this finding.

Another potential explanation for this finding is the selection bias that is inherent in a longitudinal data set. As is detailed in Chapter 3, by conducting a study focused on senior students, and using data from students who responded to the NSSE at the same institution in their first-year and their senior year, this data set contains only respondents who have been successful in persisting to their senior year at the same institution. This means that regardless of place of residence, these students have likely participated in the academic related peer interactions necessary to be successful. Therefore, place of residence may not make as significant a difference for these students as it would for students who were less successful.

Finally, an important critique of NSSE, which is detailed in Chapter 3, is that some researchers believe that the questions are not asked in a clear enough way to elicit consistent responses from students (Porter, 2011). The response options for this question are: Never, Sometimes, Often, or Very Often. It is likely that students have different perceptions of what these qualitative indicators mean and possible that they do not respond consistently to this question. Though NSSE has conducted research and found that students do respond in a consistent manner to these questions, I do not think that this can be ruled out as an explanation entirely (NSSE, 2011a).

Regardless, the finding that place of residence does not have an effect on academic related peer interactions in the senior year is an important finding. As will be discussed in the Implications section of this chapter, this finding suggests that on campus residence halls are missing an opportunity to connect senior level students with one another in ways that relate to their academics.

Faculty Interactions and Relationships Findings

In response to the first research question, this study found that place of residence has no significant effect on quality of faculty relationships or frequency of meaningful faculty interactions as they were defined in this study. Existing theory and research suggest that students who live on campus develop higher quality relationships and frequency of meaningful interactions with faculty than do students who live off campus (Chickering, 1974 and Kuh, Gonyea, & Palmer, 2001). Faculty offices are in closer proximity to students who live on-campus, thus making it easier for on-campus students to interact with faculty outside of class (Chickering, 1974). In the Kuh, Gonyea, and Palmer (2001) study, even students in their senior year were found to have greater quality relationships and interactions with faculty when they

lived on campus. Given this existing research, I expected that living off campus, particularly within driving distance or walking distance of campus, would have been negatively associated with both quality of relationships and frequency of meaningful interactions with faculty.

One primary difference between this study and the Kuh, Gonyea, and Palmer (2001) study is the methods used in the studies. Kuh, Gonyea, and Palmer compared means and frequencies for NSSE benchmarks, but did not employ any estimation of the relationship between place of residence and relationships and interactions with faculty. A comparison of the means in this study, found in Table 4.7 and Table 4.9, does show that students who live on campus or in fraternity or sorority houses have higher frequency of meaningful interactions with faculty, similar to what Kuh, Gonyea, and Palmer found. However, utilizing multiple regression analysis, this study finds that the difference in relationships and interactions with faculty is actually related to level of academic achievement, level of academic commitment, and time spent working on campus, but not to place of residence itself. As will be discussed in the Implications section of this chapter, this is a critical finding of this study, as it provides a clear example of the challenges with the methods used in existing studies.

The finding that place of residence is not related to interactions or relationships with faculty is also important. There are a number of explanations for why living on campus does not lead to higher quality relationships or more meaningful interactions with faculty. First, similar to academic related peer interactions, it is important to consider the role selection bias may play in this study. As is discussed in detail in Chapter 3, this study uses data from students who responded to the NSSE at the same institution in their first year and their senior year. This means that this data set contains only respondents who have been successful in persisting to their senior year at the same institution. It is likely that regardless of place of residence, these students

have developed the relationships and had the meaningful interactions with faculty that are necessary to be successful. Therefore, place of residence may not make as significant a difference for these students as it would for students who were less successful.

It is also possible that the skew of this data set toward students at Bachelors level liberal arts institution leads to the lack of findings regarding the impact of place of residence on faculty interactions and relationships. As is detailed in Table 3.2, 47.4% of the respondents in this study attended Bachelor's level liberal arts institutions. However, nationally, only 16% of students attended this same type of institution. Liberal arts institutions are known for their smaller class sizes and more personal connection between students and faculty. It is likely that living on campus contributes less to interactions and relationships with faculty at a liberal arts institution than at Doctoral or Masters level institutions. If this data set was more representative of the types of institutions students attend nationally, the finding related to interactions and relationships with faculty might have been significantly different.

However, this is still an important finding of this study as it suggests that at least in some ways, the ability for on campus residence halls to connect student to their faculty is not being utilized successfully.

Interactions with Diverse Others

The results of this study show no difference in the frequency of interactions with diverse others between students who live on campus and those who live off-campus, including in fraternity or sorority houses. There was a gender specific benefit for male students living in fraternity or sorority houses which will be discussed with research question two later in this chapter.

This finding is the opposite of what was expected from a review of the literature. It was expected that because of the increased structural diversity provided by living in on-campus residence halls, students who live on campus would have more frequently had serious conversations with diverse others. One explanation could be that because colleges and universities are still predominantly made up of white Christian students (Gurin et al., 2002), even living on campus does not create an environment of substantial structural or interactional diversity. Additionally, as students become juniors and seniors they are often given more opportunity to select the other students they live with even when they live on campus. This means that residence halls where juniors and seniors live may not provide the additional structural diversity that is seen in first-year residence halls. Thus, interactional diversity may not be any greater for senior level students who live on campus than for students who live off campus. Alternately, it is possible that students who choose to live on campus in their senior year do so because they are drawn to more diverse communities. This could indicate that they took more advantage of these diverse communities in their first-year as well which means that characteristics other than place of residence are the primary contributing factors related to interactions with diverse others. This study does find that academic commitment and frequency of meaningful diverse interactions in the first year are both positively related to frequency of meaningful diverse interactions in the senior year.

Gender

This study also netted significant findings related to the second research question: How do the connections between place of residence and student relationships and interactions differ for female versus male students?

Existing literature suggests that, place of residence aside, students experience interactions and relationships differently based on gender. This study only finds one significant effect of gender before place of residence is taken into account. Male students have greater frequency of co-curricular interactions with peers than female students. However, the difference between male and female students is less than a quarter of a standard deviation, which is meaningful but small. This is in-line with the existing literature that suggests that male students are more engaged in co-curricular activities than female students (Kinzie et al., 2007). The finding that there is no gender effect for the other dependent variables prior to taking into account place of residence does support the idea that female and male students differ in their types of relationships and interactions but not necessarily in the quantity or quality of overall interactions (Kinzie et al., 2007).

This study does find two gender differences in the effects of place of residence on student interactions and relationships. First, living driving distance from campus has less of a negative effect on quality of peer relationships for female students than male students. The difference is meaningful as the effect of living within driving distance of campus is more than a third of a standard deviation less negative for female students than for male students. This could indicate that there is a mitigating effect of living on campus for male students. Living on campus may help male students develop more meaningful and productive relationships with their peers. As was noted earlier, male students tend to take a more social interest in college and interact more in co-curricular activities than female students (Weaver-Hightower, 2010; Kinzie et al., 2007). Living on campus may encourage male students to develop higher quality relationships with their peers than it does for female students. Alternately, this finding could suggest that there is

something about female students that enables them to compensate for the negative effects of living within driving distance from campus.

Second, place of residence has no effect on academic-related peer interactions for the sample as a whole, but living driving distance from campus is more than a third of a standard deviation more positive for female students than male students. This is a meaningful effect which provides additional evidence that female students are better able to live within driving distance from campus while still developing meaningful interactions and relationships with peers than their male peers.

Race

Finally, this study contributes findings to the answer to the third research question: How do the connections between place of residence and student relationships and interactions differ for Caucasian students and students-of-color?

First, similar to the findings on gender, it is important to note that even before place of residence is taken into account, this study finds some differences in interactions and relationships between Caucasian students and students of color. Counter to what was expected; race was not found to be significantly predictive of interactions or relationships with peers or faculty. Though the existing literature is somewhat inconsistent in its findings, many studies have found that students of color report lower quality relationships, especially with faculty, than do white students. For example, some previous studies (Schwitzer et al., 1999; Ancis et al., 2000, Lundberg & Schreiner, 2004) found that white students are more satisfied with their relationships with faculty than are students of color, which is different than the findings of this study. However, it is important to remember that only 14.8% of the respondents in this study identified

as students of color. Therefore, it is possible that the number of respondents of color was not great enough to make meaningful comparisons in this study.

Interestingly, much of the existing literature suggests that while they are less satisfied with their relationships with faculty, student of color may in fact, have more frequent interactions with faculty. As an example, Lundberg & Schreiner (2004) found that Native American and African American students reported more frequent interactions with faculty than did students from other race groups, however, students of color still reported lower quality of relationships with faculty. In this respect, the findings of this study are also somewhat inconsistent with the existing literature, as this study finds no difference between students of color and Caucasian students as it relates to frequency of meaningful interactions with faculty.

Race was the only characteristic or demographic variable that was significantly related to meaningful interactions with diverse others, other than the first-year (i.e., pretest) variable for meaningful interactions with diverse others. Students of color were more than a third of a standard deviation more likely to have meaningful interactions with diverse others than were Caucasian students, which is a significant difference. This is consistent with reviews of the literature on structural and interactional diversity. Gurin et al. (2002) found that increased structural diversity led to increases in interactional diversity, which in turn led to positive outcomes for students. Unfortunately, structural diversity is something that most institutions are still striving to attain, as the majority of college campuses in the United States continue to be made of up predominately white Christian students (Gurin et al., 2002). For students of color at most colleges and universities in this country, the lack of structural diversity inherently means that most of their peers are Caucasian, and therefore, different from them. It is inevitable that a student of color who attends an institution that is 80% Caucasian, for example, would be more

likely to interact with students from races other than their own, than would be the Caucasian students on the same campus. Along these lines, Antonio (1998) found that 56% of students of color report that “a few” or “none” of their close friends shared their race or ethnicity, while 85% of Caucasian students reported having “all” or “mostly” white friends.

The connection between place of residence and interactions with diverse others does not differ for Caucasian students and students of color. The only area of this study in which the findings differ by race is in frequency of co-curricular peer interactions. Living driving distance from campus was more than a third of a standard deviation less negative for students of color than for Caucasian students. This is a meaningful difference. Tierney (1992 & 2000) suggests that students of color may remain more connected to past communities and family structures than Caucasian students and that these connections may be less negative for students of color than for Caucasian students. It could be expected that because of this, students of color who live within driving distance of campus, would be more connected to their home environment and less likely to interact in co-curricular settings with their peers. However, it is possible that because of the benefits students of color receive from their home environments, those that live within driving distance of campus are able to compensate for the distance they live from campus and find additional co-curricular interactions.

It is also important to note that the effect of the interaction between place of residence and race was not found in quality of relationships. Living driving distance from campus had the same negative impact on quality of relationships with peers for students of color as it did for Caucasian students.

Limitations of the Study

Though there are a number of strengths to this study, there are limitations as well. In this section I will discuss five limitations to this study: place of residence variable, lack of institutional context information, inherent selection bias in the longitudinal data, single question independent variables, and a skew toward students who live on campus.

Unlike most national data sets, NSSE does provide a place of residence variable, which allows this study to be possible. This variable allowed me to distinguish between students who live on campus, students who live within driving distance of campus, students who live within walking distance of campus, and students who live in sorority or fraternity houses. However, in this break down, it does not allow for the distinction between students who live off-campus with their peers in the campus environment and students who live at home with their parents. A lot of the existing research compares students who live in on-campus residence halls with students who live at home with their parents. The juxtaposition between these two extremes often highlights the challenges students face when they do not truly immerse themselves in the campus community. In the data set used in this study, a student who lives driving distance from campus could live in popular off-campus student housing with his or her peers or he/she could live at home with their parents.

A second limitation is the lack of institutional context information provided in the data set. NSSE promises the institutions that participate in its survey administration that they will never be identifiable, in any way, when data sets are provided to researchers outside their own institution. As a result, the data set for this study is completely stripped of any information that could potentially identify the institutions the students attended. The only institutional information provided in the data set are a general range of the size of the institution, the Carnegie

Classification of the institution, and the region of the country the institution is located in. This presents a few limitations to this study. First, there is no way to identify which students in the data set attended the same or similar institutions.

Additionally, this lack of information prevents any knowledge of the qualitative aspects of either on-campus or off-campus housing at the institutions these students attend. Both on-campus and off-campus residences vary greatly from campus to campus. For example, on some campuses, on-campus housing is very traditional, offering students community style environments with lounge spaces on floors that encourage students to spend time together, dining halls that facilitate interaction, and programming that promotes academic and educational interaction and invites faculty into the community. However, increasingly colleges and universities are beginning to offer students, particularly upper-class students, the opportunity to live in apartment complexes that do not provide the same community culture. It is possible that on campus communities that provide experiences more similar to off campus apartments may net different results than traditional residence halls.

Similarly, off-campus housing ranges from low quality independently owned houses in the vicinity of campus that provide basic shelter but no student support or culture of community to housing that is owned and operated by companies experienced in providing off-campus residences for students. These residences often offer very similar support and community benefits of on-campus housing and the experiences of students who live there may more closely align with those of on campus students. The urban or rural nature of the university environment and the quality of public transportation available to off-campus students can also have significant impact on the quality of the off-campus experience. Ideally, this study would be able to

distinguish between the types of on-campus and off-campus experiences offered at the institutions these students attend.

A final piece of institutional context information that would have enhanced this study is the percent of students who live on campus at the institutions the respondents attended. Because the data set lacks institutional information, there is no way to know which respondents attend institutions that do not offer housing at all, or do not offer housing to upper-class students and which attend institutions that require students to live on campus for all four years. Understanding the choices, or lack thereof, that these students had in their housing situations would add credibility to this study.

A third limitation of this study is the selection bias that was discussed in Chapter 3. The longitudinal data set inherently leads to attrition bias because all of the respondents in this study have successfully persisted to their senior year. This means that regardless of place of residence, these students have been engaged and had the interactions and relationships necessary for them to succeed. Additionally, there is bias in this study because the data set does not provide information on why students chose to live where they live. The lack of this information makes causal estimates more difficult because there is no way to know how students who choose to live in each location are predisposed to interactions and relationships.

A fourth limitation to this study is the fact that the outcome variables for quality of peer and faculty relationships and frequency of academic and co-curricular related peer interactions are all single item variables. The data set only provided one variable each related to quality of relationships with peers and faculty. There are multiple variables related to frequency of academic and co-curricular interactions with peers. Though I attempted to develop factors for these, the available variables did not hang together as a factor and it was determined that using

single item variables was the best course of action. As was explored in the Results Chapter, single item outcome variables lead to lower R^2 than factors would (Pedhazur, 1997; Walker & Maddan, 2009). Though this is less than ideal, these single item variables are the best measures of these interactions and relationships available. Using these single item variables enabled me to study the distinction between quality of relationships and frequency of meaningful interactions. Though these are both essentially measures of quality, they are different and students experience them in different ways. Meaningful interactions, both educational and cross-cultural, are measured in terms of frequency. However, because the variables used in this study measure the frequency of meaningful interactions, not simply the frequency of all interactions, these variables are also measures of quality. However, they are distinct from students self assessed quality of relationships, so studying them separately is a significant contribution of this study.

Finally, a challenge to this study is that the data set is skewed toward students who live on campus in the senior year. Though NSSE has indicated that the sample used in this study is a simple random sample of students who responded to the survey as first-year students in 2002 and responded again as senior students in 2005, the data set is heavily weighted toward students who live on campus. 37.2% of the students in this data set live on campus in their senior year, which is a much higher than the 18.25% of senior students who actually live on campus nationally (U.S. Department of Education, 2004). In some ways this is helpful, as it ensures that there is a critical mass of students who live on campus in the senior year to make certain that the study produces robust results. However, the sample characteristics indicate that the results may not be as nationally representative as I had hoped.

Implications of the Study

It is important to understand the implications this study has on theory and research as well as practice. In this section I will discuss the implications of this research study in both of these areas. I will also identify areas for additional research.

Theory

This study is grounded in Astin's Theory of Involvement and I-E-O model (1993). Astin's Theory of Involvement posits that students learn by becoming involved. The fifth basic postulate of Astin's Theory is "The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement" (1999, p. 519). This study focused on understanding the extent to which a policy or practice (living on campus) increases student involvement (interactions and relationships with faculty, peers, and diverse others). The implication of this study on theory is that it provides empirical research that connects this theory to practice. By contributing information that aids in understanding the nuanced ways in which place of residence is related to student interactions and relationships, this study provides additional support to the ways in which Astin's Theory and Model can be applied in the daily work of practitioners in the field.

Additionally, the third postulate of Astin's Theory is "Involvement has both quantitative and qualitative features" (1999, p. 519). This study contributes to the understanding of Astin's Theory by looking distinctly at different types of meaningful interactions and relationships. In this study, quantity of interactions is defined through a lens of quality as frequency of meaningful interactions. This ensures that the interactions being studied are relevant to the outcomes discussed in the Literature Review. Focusing distinctly on both frequency of meaningful interactions and quality of relationships enhances the depth of understanding of the

ways Astin's Theory can be applied to practice and confirms the importance of focusing on different types of relationships and interactions.

Finally, the second postulate of Astin's Theory indicates that "different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times" (1999, p. 519). While most research on place of residence is focused on first-year students, this research contributes to an understanding of Astin's Theory by focusing specifically on senior level students. It acknowledges that the involvement of senior level students could be different from that of first-year students but that the impact of place of residence may change as students grow. One implication of this study is an understanding that even beyond the first year of a student's experience, a policy or practice (living on campus) can still have impact on involvement (interacting with and relating to peers, faculty, and diverse others). Though the nuances of the ways that we can apply Astin's Theory to seniors may be different than the way it is applied to first year students, it is meaningful none-the-less.

Areas for Further Research

This study only begins to scratch the surface of research needed in this field. One implication of this study is that it highlights the need to know much more about place of residence and suggests reason to conduct additional research. If place of residence has some connection to interactions and relationships with peers, faculty, and diverse others, it is highly likely that there are many other aspects of policy and practice as it relates to place of residence that have significant impact on students' interactions and relationships. Further studies are needed to understand these connections.

Perhaps the most significant contribution of this study to the area of research is that it highlights the methods needed in future work to truly understand this topic. The first area where methods need to be improved is survey design. Researchers, particularly those running national studies, should consider adding a variable related to place of residence to their surveys. Currently, NSSE is one of the only national longitudinal surveys that provides a variable related to place of residence, and thus it is one of the only national data sets that can be used in developing an understanding of place of residence – particularly beyond the first year. If the CIRP College Senior Survey, which also aims to collect information on student experiences to inform our understanding of the impact of the college experience, included a variable related to place of residence, this would tremendously expand the research that can be done on place of residence. Additionally, researchers should consider the way that the place of residence question is asked in their surveys. The distinction between living at home with parents and living in an on campus residence hall is the most important attribute for a place of residence variable. NSSE and many other surveys ask questions that distinguish between the locations where students reside but do not distinguish between those who live in the campus community and those who live at home. Ideally, a place of residence question would allow distinction between how far a student lives from campus as well as whether they live at home with parents or with peers from their campus community. As is provided in NSSE, the distinction between living on campus in a residence hall and living in a fraternity or sorority house is also important.

In addition to adding a place of residence variable to more surveys, more research needs to be conducted using some of the topic-based surveys that do ask questions about place of residence. For example, the Multi-Institutional Study of Leadership and the National Collegiate Health Assessment both include variables related to place of residence. These studies can be

very valuable in enhancing the current understanding of the effects of place of residence, as they provide a unique perspective on individual student outcomes. Researchers using these data sets should consider interest in the effects of place of residence when designing their studies.

As I highlighted earlier in this chapter and in the Literature Review, the most recent work available on the effects of place of residence are simple studies that have been produced by NSSE (Kuh, Gonyea, & Palmer, 2001; NSSE, 2011). These studies employ basic mean and frequency comparison to consider the results of different variables or NSSE Benchmarks across place of residence. Though this is better than the alternative of having no available information on the topic, mean comparisons often overestimate the differences between groups because they do not take into account other influencing variables. One example from this study is found in the analysis of the dependent variable frequency of meaningful interactions with faculty. Like Kuh, Gonyea, and Palmer (2001), if the means for frequency of meaningful faculty interactions are compared by place of residence in this study, students who live on campus and in fraternity and sorority houses have higher means in their senior year than students who live within walking distance or driving distance from campus. However, using regression analysis to estimate the relationship between place of residence and frequency of meaningful faculty interactions shows no effect of place of residence. This study shows that when including variables for academic achievement, academic commitment, and time spent working on campus, there is no actual effect of place of residence. It is critical that more researchers take on place of residence and conduct studies with more complete data analysis to gain better understanding of the true effect of place of residence.

Finally, there are two important groups of students who are not included in this study, transfer students and nontraditional students. Because of the nature of the NSSE survey and the

desire to have both pretest (year one) and post-test (senior year) data, transfer students could not be included in this data set. It is highly likely that place of residence affects students who transfer in different ways than it affects students who start and graduate at the same institution. Therefore, additional research should be conducted to understand the effects of place of residence for transfer students. Nontraditional students, specifically those of nontraditional age are less likely to live on campus than traditional students. However, this study does not distinguish between the traditional students and nontraditional students in the data set. It can be assumed, however, that the vast majority of respondents in this data set are traditional student because the mean age of the respondents is 21.6 which is the traditional age for a senior student. Additional research to understand the effect of place of residence for nontraditional students is also needed.

Practice

There are three primary categories of implications for practice as a result of this study: campus planning, support for on-campus students, and support for off-campus students.

Campus Planning

As was explored in the introduction to this study, the field of residence life has been operating without substantial current research on the effect of place of residence on student outcomes for the better part of four decades. This study contributes to efforts to fill that void by offering a very practical perspective on one perceived benefit to living on campus. Additionally, there is virtually no research available on the potential benefits of living on campus in the senior year. This study also serves to contribute to the gaps in the research in this way.

Most universities have made decisions about their on-campus housing programs in the last few decades without a true understanding of the benefits students experience while living on

campus (Chickering, 1974). Many have made the decision to not require on-campus living at all or have chosen not to accommodate students beyond the first or first and second year. This study suggests that there may be some benefits to students living on campus in their senior year, particularly as it relates to quality of relationships with peers and frequency of co-curricular related interactions with peers. This effect is most significant when comparing on campus students to students who live within driving distance of campus and is significant but less meaningful for students who live within walking distance of campus.

When making plans for their campuses, university housing administrators and planning administrators need to take into account that by pushing students off campus after their first year or worse, by not requiring students to live on campus at all, they may be negatively impacting students' quality of peer relationships and frequency of co-curricular related peer interactions. This suggests that there may be reason to provide students with ample opportunities to live on campus.

Additionally, understanding that not all students can financially afford to live on campus, universities need to consider financial strategies to assist students who would benefit from living on campus but cannot afford to do so. For example, many students who cannot afford to live on campus are the students who live within driving distance from campus, particularly at home with family. Universities should consider housing grants or scholarships for students with the greatest financial need to allow them the opportunity to live in the campus community.

Support for On-Campus Students

The results of this study suggest that there are a number of areas in which on campus residence halls may be less successful in increasing students interactions and relationships with their peers, faculty, and diverse others. However, because of the nature of these environments,

they do have the opportunity to have impact in these areas – particularly the opportunity to increase students interactions and relationships with faculty and diverse others. Focusing on interactions and relationships with faculty, colleges and universities should increase their focus on offering living learning programs that include students living and taking academic course work together. These programs have the ability to structure out of the classroom experiences between students and their faculty and have been shown to be successful in improving students’ relationships with their faculty. Where living learning programs are not an option, colleges and universities should consider faculty in residence or faculty fellows programs to encourage interaction between students and faculty.

Additionally, with focus specifically on upper-class students, residential programs should increase the connections between students’ residential experiences and the academic experiences available in their majors. Residential communities focused on specific majors can give upper-class students the opportunity to engage with students and faculty in their major or to experience internships or capstone projects that encourage them to connect with faculty. These opportunities encourage upper-class students to engage academically with their peers but also to connect their co-curricular experiences with their academic experiences through their residential communities.

Finally, where residential communities have increased structural diversity, they should be encouraging interactional diversity. This study suggests that interactional diversity may not be effectively occurring. Colleges and universities should work to enhance the structural diversity of their upper-class communities to ensure that students have ample opportunities to interact with students who are different from them. They should also consider bringing programs such as Intergroup Dialogue into the residential communities for upper-class students. This would

facilitate student engagement with diverse others and around topics of diversity in a way that is developmentally appropriate for juniors and seniors.

Support for Off-Campus Students

When requiring students to live on-campus or encouraging students to live on campus beyond the first-year is not an option, either due to student financial constraints or due to campus resource constraints, this study indicates that colleges and universities should consider finding alternate ways to connect students with their peers. When living on campus is not an option, there are a number of programs that colleges and universities may want to consider for their off-campus students. Based on the findings of this study, I propose three primary options.

First, off-campus student life offices should be considered as a way to facilitate some of the connections that on-campus and sorority/fraternity students experience through their place of residence. On-campus students benefit from the work of robust departments of residence life while sorority and fraternity students have strong support networks both on campus and through their chapters. To attempt to provide off-campus students with similar resources and support networks on campus, colleges and universities should consider implementing off-campus student life offices. Staff in these offices can offer similar programming, education, and academic support to off-campus students as residence life offices offer to on-campus students.

A second way to support off campus students is the development of learning community programs designed for commuter students. Like the more popular living learning programs, commuter learning communities facilitate persistence through college by enhancing the opportunities commuter or off-campus students have to interact with one another and with their faculty. Learning communities typically require students to take a class or set of classes together each semester and encourage out of class engagement with both peers and faculty through

community specific co-curricular programs. By asking the faculty who teach in the learning communities to tie group projects and co-curricular experiences to the course requirements, colleges and universities can significantly increase the interactions and relationships of commuter students.

A third option for engaging commuter or off campus students would be to build spaces they can call their own on campus. Between classes or student organization programs, students who live on-campus have a clear place to go to hang out and be with their peers. Off-campus or commuter students do not. This often leads to off-campus students leaving campus before they are ready to and limits their ability to engage in the community. By having an off-campus student lounge area that provides a home away from home, off-campus students have a place to build community with one another. Offering them lockers to keep their belongings in and places to buy or heat up food allows them to stay on campus when they may otherwise consider going home.

Conclusion

This study poses the primary question: How do student relationships and interactions with their peers, faculty, and diverse others differ between students who live on-campus and students who live off-campus in their senior year? The study seeks to answer this question with an understanding that there is difference between peer, faculty, and diverse other interactions, with acknowledgment that there are differences between frequency of meaningful interactions and quality of relationships but that ultimately both are important, with consideration of the idea that the experiences of students in their senior year can be just as important as experiences of first-year students, and with insight that the experiences may be different based on gender or race.

The findings of this study suggest that there is likely a connection between place of residence and interactions and relationships with peers, but that these connections are not as clear for interactions and relationships with faculty or diverse others. The findings highlight the importance of looking holistically at the question and at the experiences of different students. Understanding the impact of place of residence requires one to see the impact through many lenses to truly form a full picture.

Although research and the conversation about the importance of place of residence have been few and far between in the last few decades, the findings of this study suggest that there is still a conversation to be had and research to be done on this topic. This study suggests that the decades that have passed without significant focus on place of residence have likely hurt the field and led to decisions being made without a complete understanding of impact. One significant challenge is the decrease in the percent of college students who currently benefit from living on-campus. It would not be practical to fix this challenge by reversing that decision entirely. Certainly, universities should look at their housing master plans and consider the possibilities of increasing their on-campus offerings. However, residence halls are expensive for universities to build so adding additional on-campus housing options is not possible for all campuses. Additionally, the cost of living on-campus can be a financial barrier to attending college for many low income students, which also means it is not in every student's best interest to live on campus. This suggests that the importance of identifying resources and programs to support students in other ways is also critical.

APPENDICES

The College Student Report 2002

1 In your experience at your institution during the current school year, about how often have you done each of the following? Mark your answers in the boxes. Examples: or

	Very often ▼	Often ▼	Some- times ▼	Never ▼		Very often ▼	Often ▼	Some- times ▼	Never ▼
a. Asked questions in class or contributed to class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	r. Worked harder than you thought you could to meet an instructor's standards or expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Made a class presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Prepared two or more drafts of a paper or assignment before turning it in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	t. Discussed ideas from your readings or classes with others outside of class (students, family members, coworkers, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Worked on a paper or project that required integrating ideas or information from various sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	u. Had serious conversations with students of a different race or ethnicity than your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Came to class without completing readings or assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
g. Worked with other students on projects during class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
h. Worked with classmates outside of class to prepare class assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
i. Put together ideas or concepts from different courses when completing assignments or during class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
j. Tutored or taught other students (paid or voluntary)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
k. Participated in a community-based project as part of a regular course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
l. Used an electronic medium (list-serv, chat group, Internet, etc.) to discuss or complete an assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
m. Used e-mail to communicate with an instructor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
n. Discussed grades or assignments with an instructor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
o. Talked about career plans with a faculty member or advisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
p. Discussed ideas from your readings or classes with faculty members outside of class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
q. Received prompt feedback from faculty on your academic performance (written or oral)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

2 During the current school year, to what extent has your coursework emphasized the following mental activities?

	Very much ▼	Quite a bit ▼	Some ▼	Very little ▼
a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Making judgments about the value of information, arguments, or methods such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Applying theories or concepts to practical problems or in new situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3 During the current school year, about how much reading and writing have you done?

- a. Number of assigned textbooks, books, or book-length packs of course readings
- b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment
- c. Number of written papers or reports of **20 pages or more**
- d. Number of written papers or reports **between 5 and 19 pages**
- e. Number of written papers or reports of **fewer than 5 pages**

	None	Between 1 and 4	Between 5 and 10	Between 11 and 20	More than 20
a.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4 Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work.

Very much
▼

7

6

5

4

3

2

1

▲
Very little

5 Overall, how would you evaluate the quality of academic advising you have received at your institution?

- Excellent
- Good
- Fair
- Poor

6 Which of the following have you done or do you plan to do before you graduate from your institution?

	Yes	No	Undecided
a. Practicum, internship, field experience, co-op experience, or clinical assignment	▼ <input type="checkbox"/>	▼ <input type="checkbox"/>	▼ <input type="checkbox"/>
b. Community service or volunteer work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Work on a research project with a faculty member outside of course or program requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Foreign language coursework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Study abroad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Independent study or self-designed major	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Culminating senior experience (comprehensive exam, capstone course, thesis, project, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 About how many hours do you spend in a typical 7-day week doing each of the following?

# of hours per week	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	More than 30
a. Preparing for class (studying, reading, writing, rehearsing, and other activities related to your academic program)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Working for pay on campus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Working for pay off campus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Participating in co-curricular activities (organizations, campus publications, student government, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Relaxing and socializing (watching TV, partying, exercising, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Providing care for dependents living with you (parents, children, spouse, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Commuting to class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8 To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

	Very much ▼	Quite a bit ▼	Some ▼	Very little ▼
a. Acquiring a broad general education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Acquiring job or work-related knowledge and skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Writing clearly and effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Speaking clearly and effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Thinking critically and analytically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Analyzing quantitative problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Using computing and information technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Working effectively with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Voting in local, state, or national elections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Learning effectively on your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Understanding yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Understanding people of other racial and ethnic backgrounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Solving complex real-world problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Developing a personal code of values and ethics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Contributing to the welfare of your community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9 To what extent does your institution emphasize each of the following?

	Very much ▼	Quite a bit ▼	Some ▼	Very little ▼
a. Spending significant amounts of time studying and on academic work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Providing the support you need to help you succeed academically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Helping you cope with your non-academic responsibilities (work, family, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Providing the support you need to thrive socially	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10 Mark the box that best represents the quality of your relationships with people at your institution.

Relationships with:		
a.	b.	c.
Other Students	Faculty Members	Administrative Personnel and Offices
Friendly, Supportive, Sense of Belonging	Available, Helpful, Sympathetic	Helpful, Considerate, Flexible
▼	▼	▼
7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
▲	▲	▲
Unfriendly, Unsupportive, Sense of Alienation	Unavailable, Unhelpful, Unsympathetic	Unhelpful, Inconsiderate, Rigid

11 How would you evaluate your entire educational experience at this institution?

- Excellent
- Good
- Fair
- Poor

12 If you could start over again, would you go to the same institution you are now attending?

- Definitely yes
- Probably yes
- Probably no
- Definitely no

13 Write in your year of birth: 1 9

14 Your sex
Male Female

15 Are you an international student or foreign national?
Yes No

16 Are you of Hispanic, Latino, or Spanish origin?
Yes No

17 What is your racial or ethnic identification? (Mark all that apply.)

- American Indian or other Native American
Asian American or Pacific Islander
Black or African American
White
Other: Specify

18 What is your current classification in college?

- Freshman/first-year Senior
Sophomore Unclassified
Junior

19 Did you begin college at your current institution or elsewhere?

- Started here Started elsewhere

20 Since high school, which of the following types of schools have you attended other than the one you are attending now? (Mark all that apply.)

- Vocational-technical school
Community or junior college
4-year college other than this one
None
Other: Specify

21 Thinking about this current academic term, how would you characterize your enrollment?

- Full-time Less than full-time

22 Are you a member of a social fraternity or sorority?

- Yes No

23 What have most of your grades been up to now at this institution?

- A B-, C+
A-, B+ C, C-, or lower
B

24 Which of the following best describes where you are living now while attending college?

- Dormitory or other campus housing (not fraternity/sorority house)
Residence (house, apartment, etc.) within walking distance of the institution
Residence (house, apartment, etc.) within driving distance
Fraternity or sorority house

25 Did either of your parents graduate from college?

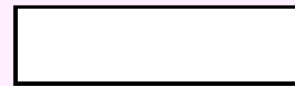
- No Yes, both parents
Yes, father only Don't know
Yes, mother only

26 Which of these fields best describes your major(s) or your expected major(s)? Mark only one major in each column.

- Primary Major Second Major (not minor, concentration, etc.) (if applicable)
Agriculture
Biological/life sciences (biology, biochemistry, botany, zoology, etc.)
Business (accounting, business admin., marketing, management, etc.)
Communications (speech, journalism, television/radio, etc.)
Computer and information sciences
Education
Engineering
Ethnic, cultural studies, and area studies
Foreign languages and literature (French, Spanish, etc.)
Health-related fields (nursing, physical therapy, health technology, etc.)
Humanities (English, literature, philosophy, religion, etc.)
Liberal/general studies
Mathematics
Multi/interdisciplinary studies (international relations, ecology, environmental studies, etc.)
Parks, recreation, leisure studies, sports management
Physical sciences (physics, chemistry, astronomy, earth sciences, etc.)
Public administration (city management, law enforcement, etc.)
Social sciences (anthropology, economics, history, political science, psychology, sociology, etc.)
Visual and performing arts (art, music, theater, etc.)
Undecided
Other: Specify

THANKS FOR SHARING YOUR VIEWS!

After completing The Report, please put it in the enclosed postage-paid envelope and deposit it in any U.S. Postal Service mailbox. This project is supported by a grant from The Pew Charitable Trusts. Questions or comments? Contact the National Survey of Student Engagement, Indiana University, Ashton Aley Hall, 1913 East Seventh Street, Bloomington IN 47405 or nsse@indiana.edu or www.iub.edu/~nsse. Copyright 2001 Indiana University.





National Survey of Student Engagement 2005

The College Student Report

1 In your experience at your institution during the current school year, about how often have you done each of the following? Mark your answers in the boxes. Examples: or

	Very often ▼	Often ▼	Some- times ▼	Never ▼
a. Asked questions in class or contributed to class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Made a class presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Prepared two or more drafts of a paper or assignment before turning it in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Worked on a paper or project that required integrating ideas or information from various sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Come to class without completing readings or assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Worked with other students on projects during class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Worked with classmates outside of class to prepare class assignments	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Put together ideas or concepts from different courses when completing assignments or during class discussions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Tutored or taught other students (paid or voluntary)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Participated in a community-based project (e.g., service learning) as part of a regular course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Used e-mail to communicate with an instructor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Discussed grades or assignments with an instructor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Talked about career plans with a faculty member or advisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Discussed ideas from your readings or classes with faculty members outside of class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Received prompt feedback from faculty on your academic performance (written or oral)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Very often ▼	Often ▼	Some- times ▼	Never ▼
r. Worked harder than you thought you could to meet an instructor's standards or expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
u. Had serious conversations with students of a different race or ethnicity than your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 During the current school year, how much has your coursework emphasized the following mental activities?

	Very much ▼	Quite a bit ▼	Some ▼	Very little ▼
a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Applying theories or concepts to practical problems or in new situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3 During the current school year, about how much reading and writing have you done?

	None	Between 1 and 4	Between 5 and 10	Between 11 and 20	More than 20
a. Number of assigned textbooks, books, or book-length packs of course readings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Number of written papers or reports of 20 pages or more	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Number of written papers or reports between 5 and 19 pages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Number of written papers or reports of fewer than 5 pages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4 In a typical week, how many homework problem sets do you complete?

	None	1-2	3-4	5-6	More than 6
a. Number of problem sets that take you more than an hour to complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Number of problem sets that take you less than an hour to complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5 Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work.

	Very little	1	2	3	4	5	6	7	Very much
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6 During the current school year, about how often have you done each of the following?

	Very often	Often	Sometimes	Never
a. Attended an art exhibit, gallery, play, dance, or other theater performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Exercised or participated in physical fitness activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Participated in activities to enhance your spirituality (worship, meditation, prayer, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Examined the strengths and weaknesses of your own views on a topic or issue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Learned something that changed the way you understand an issue or concept	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Which of the following have you done or do you plan to do before you graduate from your institution?

	Done	Plan to do	Do not plan to do	Have not decided
a. Practicum, internship, field experience, co-op experience, or clinical assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Community service or volunteer work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Work on a research project with a faculty member outside of course or program requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Foreign language coursework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Study abroad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Independent study or self-designed major	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Culminating senior experience (capstone course, thesis, project, comprehensive exam, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8 Mark the box that best represents the quality of your relationships with people at your institution.

Relationships with:

a. Other Students	b. Faculty Members	c. Administrative Personnel and Offices
Friendly, Supportive, Sense of Belonging	Available, Helpful, Sympathetic	Helpful, Considerate, Flexible
7 <input type="checkbox"/>	7 <input type="checkbox"/>	7 <input type="checkbox"/>
6 <input type="checkbox"/>	6 <input type="checkbox"/>	6 <input type="checkbox"/>
5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>
2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>
1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
Unfriendly, Unsupportive, Sense of Alienation	Unavailable, Unhelpful, Unsympathetic	Unhelpful, Inconsiderate, Rigid

9 About how many hours do you spend in a typical 7-day week doing each of the following?

of hours per week

	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Working for pay on campus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Working for pay off campus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Participating in co-curricular activities (organizations, campus publications, student government, social fraternity or sorority, intercollegiate or intramural sports, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Relaxing and socializing (watching TV, partying, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Providing care for dependents living with you (parents, children, spouse, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Commuting to class (driving, walking, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10 To what extent does your institution emphasize each of the following?

	Very much	Quite a bit	Some	Very little
a. Spending significant amounts of time studying and on academic work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Providing the support you need to help you succeed academically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Helping you cope with your non-academic responsibilities (work, family, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Providing the support you need to thrive socially	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Using computers in academic work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11 To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

	Very much	Quite a bit	Some	Very little
a. Acquiring a broad general education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Acquiring job or work-related knowledge and skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Writing clearly and effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Speaking clearly and effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Thinking critically and analytically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Analyzing quantitative problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Using computing and information technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Working effectively with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Voting in local, state, or national elections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Learning effectively on your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Understanding yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Understanding people of other racial and ethnic backgrounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Solving complex real-world problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Developing a personal code of values and ethics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Contributing to the welfare of your community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Developing a deepened sense of spirituality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12 Overall, how would you evaluate the quality of academic advising you have received at your institution?

Excellent
 Good
 Fair
 Poor

13 How would you evaluate your entire educational experience at this institution?

Excellent
 Good
 Fair
 Poor

14 If you could start over again, would you go to the same institution you are now attending?

Definitely yes
 Probably yes
 Probably no
 Definitely no

15 Write in your year of birth:

16 Your sex
 Male Female

17 Are you an international student or foreign national?
 Yes No

18 What is your racial or ethnic identification? (Mark only one.)
 American Indian or other Native American
 Asian American or Pacific Islander
 Black or African American
 White (non-Hispanic)
 Mexican or Mexican American
 Puerto Rican
 Other Hispanic or Latino
 Multiracial
 Other
 I prefer not to respond

19 What is your current classification in college?
 Freshman/first-year Senior
 Sophomore Unclassified
 Junior

20 Did you begin college at your current institution or elsewhere?
 Started here Started elsewhere

21 Since graduating from high school, which of the following types of schools have you attended other than the one you are attending now? (Mark all that apply.)
 Vocational or technical school
 Community or junior college
 4-year college other than this one
 None
 Other, specify:

22 Thinking about this current academic term, how would you characterize your enrollment?
 Full-time Less than full-time

23 Are you a member of a social fraternity or sorority?
 Yes No

24 Are you a student-athlete on a team sponsored by your institution's athletics department?
 Yes No (go to question 25)

↓
On what team(s) are you an athlete (e.g., football, swimming)? Please answer below:

25 What have most of your grades been up to now at this institution?
 A B+ C+
 A- B C
 B- C- or lower

26 Which of the following best describes where you are living now while attending college?
 Dormitory or other campus housing (not fraternity/sorority house)
 Residence (house, apartment, etc.) within walking distance of the institution
 Residence (house, apartment, etc.) within driving distance
 Fraternity or sorority house

27 What is the highest level of education that your parent(s) completed? (Mark one box per column.)

Father Mother

<input type="checkbox"/>	<input type="checkbox"/>	Did not finish high school
<input type="checkbox"/>	<input type="checkbox"/>	Graduated from high school
<input type="checkbox"/>	<input type="checkbox"/>	Attended college but did not complete degree
<input type="checkbox"/>	<input type="checkbox"/>	Completed an associate's degree (A.A., A.S., etc.)
<input type="checkbox"/>	<input type="checkbox"/>	Completed a bachelor's degree (B.A., B.S., etc.)
<input type="checkbox"/>	<input type="checkbox"/>	Completed a master's degree (M.A., M.S., etc.)
<input type="checkbox"/>	<input type="checkbox"/>	Completed a doctoral degree (Ph.D., J.D., M.D., etc.)

28 Please print your primary major or your expected primary major.

29 If applicable, please print your second major or your expected second major (not minor, concentration, etc.).

THANKS FOR SHARING YOUR VIEWS!

After completing the survey, please put it in the enclosed postage-paid envelope and deposit it in any U.S. Postal Service mailbox. Questions or comments? Contact the National Survey of Student Engagement, Indiana University, 1900 East Tenth Street, Eigenmann Hall Suite 419, Bloomington IN 47406-7512 or nsse@indiana.edu or www.iub.edu/nsse. Copyright © 2004 Indiana University.

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